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GLOBEFISH HIGHLIGHTS

A QUARTERLY UPDATE ON WORLD SEAFOOD MARKETS

January 2019 ISSUE, with Jan - Sep 2018 Statistics

Advance Reading Copy
for Partners and Associate Members

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.

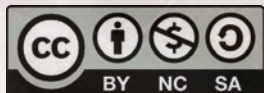
The GLOBEFISH Highlights is based on information available in the databank, supplemented by market information from industry correspondents and from six regional services which form the FISH INFOnetwork: INFOFISH (Asia and the Pacific), INFOPECSA (Latin America and the Caribbean), INFOPECHE (Africa),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

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GLOBEFISH HIGHLIGHTS

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GLOBEFISH HIGHLIGHTS

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ACRONYMS AND ABBREVIATIONS

GLOBEFISH HIGHLIGHTS

AIPCE-CEP	European Union Fish Processors and Traders Association
ASEAN	Association of Southeast Asian Nations
ATQ	European Union Commission Autonomous Tariff Quotas
CSIC	Spanish Superior Council of Scientific Research
DAFF	South African Department of Agriculture, Forestry and Fisheries
FAD	Fish Aggregating Devices
FAO	Food and Agriculture Organization of the United Nations
GAA	Global Aquaculture Alliance
IATTC	Inter American Tropical Tuna Commission
ICES	International Council for the Exploration of the Sea
IUU	Illegal, unreported and unregulated fishing product
MSC	Marine Stewardship Council
NFI	National Fisheries Institute
NMFS	US National Marine Fisheries Services
NOAA	National Oceanic and Atmospheric Administration
NPFMC	North Pacific Fisheries Management Council
NSC	Norwegian Seafood Council
PCA	Russian Pollock Catchers Association
SalmonChile	Chilean Salmon Industry Association
SDGs	UN Sustainable Development Goals
SIMP	US Seafood Import Monitoring Program
SNP	Peru National Fisheries Society
SSPO	Scottish Salmon Producers Organization
TAC	Total Allowable Catch
TED	Turtle Excluding Device
VASEP	Viet Nam Association of Seafood Exporters and Producers
WTO	World Trade Organization
WWF	World Wide Fund for Nature



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GLOBAL FISH ECONOMY

GLOBEFISH HIGHLIGHTS

Slowing growth in international seafood trade as uncertainty dominates



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Global fish production is estimated to have increased by 2.1 percent to a total of 178.8 million tonnes in 2018. The aquaculture sector continues to power global seafood production growth, with expected production increases for most of the major aquacultured species amounting to an overall increase of 4 percent in 2018. Capture fisheries production increased only marginally year-on-year, with good anchoveta catches offset by extremely tight supply of cephalopods and lower catches of mackerel and multiple groundfish species. Another year of moderate but positive economic growth continues to drive increases in fish consumption worldwide, with an average of 20.7 kg of fish estimated to have been consumed per person in 2018.

Last year was marked by rising trade tensions between China and the United States of America and multiple other sources of economic uncertainty, including the “Brexit” negotiations between the EU28 and the United Kingdom, which could have significant implications for the seafood industry. Nevertheless, global seafood trade is estimated to have expanded some 7 percent in USD terms in 2018, helped firstly by a weaker US dollar but also by high fish prices worldwide. In volume terms, however, total export growth in 2018 was almost flat, contrasting noticeably with the World

Trade Organization’s (WTO) estimated increase in world merchandise trade of 3.9 percent and also with the rate of overall production growth. This suggests that an increasing proportion of production, particularly from aquaculture in developing countries, is consumed domestically. This trend reflects strengthening demand from growing middle-class, urbanized demographics in producing countries for farmed species that traditionally would have been destined for export markets in developed economies.

The FAO Fish Price Index hit record levels in March 2018, driven by widening supply-demand gaps for a number of key species, including cephalopods, bivalves, pangasius, salmon and various wild groundfish species. Catches of octopus and squid have been poor globally, while lower production of Pacific and Atlantic cod is the major factor behind a decline in wild whitefish supply. Inevitably, higher prices result when strengthening demand pulls against stable or decreasing supply. Prices for aquacultured species have been more stable but increases are nevertheless being observed wherever regulatory, technological and physical constraints slow the rate of production expansion to the point where it is outpaced by broad-based demand growth.

World Fish market at a glance

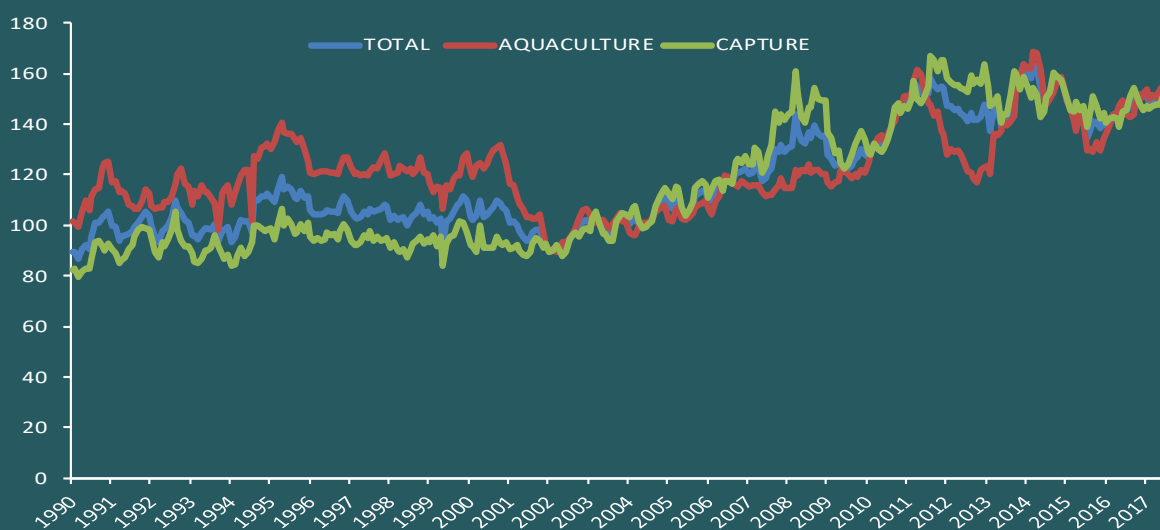
2016 2017 2018 Change: 2018
 over 2017

estimate *estimate*
 million tonnes %

WORLD BALANCE				
Production	170.9	175.1	178.8	2.1
Capture fisheries	90.9	91.5	91.8	0.3
Aquaculture	80.0	83.6	87.0	4.0
Trade value (exports billionUSD)	142.5	155.0	165.9	7.0
Trade volume (exports live weight)	59.5	60.5	60.8	0.5
Total utilization	170.9	175.1	178.8	2.1
Food	151.2	154.4	157.9	2.2
Feed	14.6	15.6	15.8	1.3
Other uses	5.1	5.1	5.1	0.0
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption				
Food fish (kg/year)	20.3	20.4	20.7	1.1
From capture fisheries (kg/year)	9.5	9.4	9.3	-1.0
From aquaculture (kg/year)	10.7	11.1	11.4	2.9

Totals may not match due to rounding.

FAO Fish Price Index (100=2002-2004)



Source: Norwegian Seafood Council

The United States of America is the only major market expected to see a decline in total imports in value terms in 2018, a consequence of a weaker dollar and the “trade war” with China which saw the introduction of a new tariff regime and impacted trade particularly in the second half of the year. In the EU28, import growth actually accelerated in 2018, partly due to currency shifts but also as a result of solid underlying demand in the major EU28 economies. Japan saw seafood imports growth slow as economic indicators weakened, leaving China (including Hong Kong SAR and Taiwan Province of China) as the clear leader of Asian market growth in 2018. China also saw export revenues rise again in 2018, helped by strong regional demand, while Norway continues to enjoy good sales in its core EU28 markets. In general, most cephalopod, whitefish and salmon producers have achieved good results in 2018 due to high price levels, while Viet Nam and Indonesia also benefitted from rising shrimp harvests.

In the EU28, with Brexit theoretically imminent, there is seemingly still quite a wide range of possible outcomes. One of these is a ‘no-deal’ scenario that could inflict significant damage on many UK export industries, including the Scottish salmon aquaculture sector, while UK seafood suppliers such as Norway could be subject to tariffs of up to 20 percent as well as additional paperwork at the border. The no-deal outcome would also entail changes to rules governing UK fisheries access rights, as the United Kingdom would no longer be subject to the dictates of the EU28’s Common Fisheries Policy and could potentially restrict the rights of EU28 nation fleets to fish in UK waters.

Elsewhere, the delay of a proposed tariff hike on Chinese imports into the United States of America until March 2019 should give a temporary boost to this important seafood trade route in the first quarter of 2019 although at the same time some importers that have overbought may now be in a vulnerable position. The combination of these uncertainties with widespread interest rate hikes and slowing international trade growth will likely put a dampener on demand in 2019. There appears to be limited scope for supply increases for many important species and this can be expected to keep seafood price relatively high. This tight supply-demand balance is increasingly a major driving force behind various technological developments in aquaculture, ranging from more effective disease management systems and feed solutions to entirely new farming methods.



SHRIMP

GLOBEFISH HIGHLIGHTS

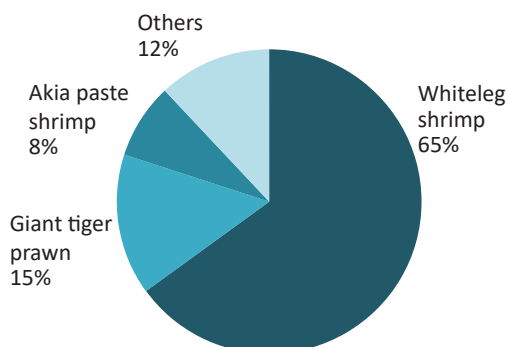
Asian shrimp production fell short of earlier forecast

Despite lower overall production in Asia, export prices remained soft because of high inventories in the single largest market, the United States of America. Asian and Latin American exporters increased direct sales to China, following the country's clampdown on illegal border trade with Viet Nam and implementation of lower tariff since December 2017.

Supply

The 2018 main farming season in Asia ended in October. Preliminary industry estimates indicate lower production in China, India, Thailand and Bangladesh compared with 2017, affected by decreasing market prices and occasional occurrence of shrimp diseases. Shrimp production increased in Indonesia and Viet Nam.

Shrimp production by species, both wild and farmed (2016)



Source: FAO

The sharp price drop in April 2018 and the lower export prices to the United States of America throughout 2018 factored in India's lower annual production, which might have declined by 15–20 percent compared with 2017 (700 000 tonnes). To combat dipping market prices and disease occurrence in farms, Indian farmers produced less large sized shrimp and more medium and smaller sizes during the main season.

Reports on Viet Nam suggest a total production of about 500 000 tonnes, credited to the efficient farming system. Many farmers moved back to black tiger farming in 2018, due to price advantage compared with whiteleg shrimp (*Penaeus vannamei*). Viet Nam also imported 270 000 tonnes of frozen shrimp in 2018 for re-processing and re-exports.

Farmed shrimp production in Thailand remained substandard, possibly at 300 000 tonnes, which reflected on decreased exports in 2018.

In Latin America, the preliminary data for Ecuador indicate farmed shrimp harvests of more than 500 000 tonnes (+17 percent) in 2018. Production increased also in Mexico.

Commercial landings of sea-caught shrimp in the Gulf of Mexico in the United States of America totalled 39 100 tonnes in the first nine months of 2018, which was only 1 percent lower than that of 2017, but 16 percent below the last 16 years average.

Trade

There were marginal to negative growths recorded in the conventional developed markets, despite the lower shrimp prices. However, China's strong presence in the shrimp import trade continued throughout the third quarter of 2018 with a significant rise in direct imports.

Exports

During the third quarter of 2018, India maintained its number one position in the global export trade. The ranking changed with Ecuador moving up to the second position, overtaking Viet Nam. China was Ecuador's third largest shrimp market after Viet Nam and the EU28. The two-digit export growths in India, Ecuador and Indonesia could be attributed to the significant increases in direct exports to China.

Meanwhile, Viet Nam's official exports to China

increased by 119 percent, while unofficial trade continued to decline following stringent border control by China. Vietnamese exports and re-exports to the EU28, Republic of Korea, Canada and Australia also increased during the review period.

Exports from China also increased by 56 percent (86 100 tonnes), with more processed shrimp sales during the review period. The main markets were the United States of America and Japan.

World top Export and Imports of shrimp (January–September)

Exporters	Exports		percent change 2018/2017
	2017	2018	
	(1 000 tonnes)		
India	421.0	469.7	+11.6
Ecuador	323.7	373.7	+15.5
Viet Nam (e)	180.3	201.4	+11.7
China	146.1	151.9	+4.0
Indonesia	130.0	146.8	+13.0
Argentina	133.7	124.5	-7.0
Thailand	153.5	122.9	-20.0
Importers	Imports		percent change 2018/2017
	2017	2018	
	(1 000 tonnes)		
EU28	556.9	582.5	+4.6
USA	471.7	491.6	+4.2
Viet Nam (e)	148.5	268.5	+81.0
China	*191.5	113.6 (186**)	+93.0 (-6.5**)
Japan	163.6	152.6	-6.7
Republic of Korea	51.9	55.50	+7.0
Canada	37.7	38.5	+2.0

Source: National data. Note:(*) including unreported border trade; (**) official imports (e) estimate

Imports

The strong presence of China in the international shrimp market continued during the first nine months of 2018, through direct imports and decreasing illegal border trade.

On the contrary, year-on-year imports in the large developed markets of the United States of America and the EU28 were marginally higher and they were negative in Japan. Vietnamese total shrimp imports for reprocessing and exports remained high and, for the first time, supplies declined from Ecuador (-7 percent to 119 200 tonnes) and Argentina (-34 percent to 3 000 tonnes) and slowed down from India (+3.7 percent to 118 000 tonnes).

United States of America

The domestic consumer market for shrimp remained good in the United States of America in 2018, with decent sales during the summer months. However import demand slowed down during the third quarter

of 2018 amidst lower market prices, following high local inventories and subdued consumer demand in September and October.

US imports of shrimp in the first three quarters of 2018 reached nearly 500 000 tonnes, of which 380 000 tonnes consisted in raw frozen shrimp (shell-on and peeled) and 110 000 tonnes were processed shrimp including breaded products.

Import interests were very low in November and December of 2018, due to high domestic stocks enough to cater year-end demand (Thanksgiving, Christmas and New Year). Hence “there is no rush to import”, clarified some marketers in the United States of America.

According to INFOFISH Trade News, farmed vannamee prices at US wholesale trade were at a three-year low at the end of 2018.

Japan

The fifth largest import market for shrimp remained unresponsive to the general decline in shrimp prices in 2018. Demand for raw frozen shrimp, particularly shell-on products, continued to decrease. In the present market, only value-added shrimp are movable items, in retail and in the catering trade.

During the review period, there was a 10 percent year-on-year drop in imports of raw frozen shrimp, down to 98 000 tonnes, while processed shrimp imports increased by 1.1 percent to 44 700 tonnes. The leading suppliers were Viet Nam and Thailand, mostly supplying semi-processed and processed shrimp to Japan.

European Union (Member Organization)

Positive consumer demand led to a 4.7 percent rise (25 600 tonnes) in total EU28 imports during the first nine months of 2018. This could be attributed to an even higher percentage increase in extra-EU28 imports (+6.3 percent to 428 100 tonnes) supplied mainly by Ecuador, Viet Nam, India, Argentina and Greenland. Nearly 20 percent or 81 000 tonnes of extra-EU28 imports consisted of processed shrimp, for which Viet Nam was a major supplier (22 500 tonnes).

Shrimp import trends in the top 5 markets in EU28 (January–September)

Markets			percent change 2018/2017
	2017	2018	
	(1 000 tonnes)		
Spain	111.9	113.2	+1.2
France	81.3	80.9	-0.5
Denmark	59.1	64.7	+9.4
Netherlands	48.6	63.2	+30.0
United Kingdom	56.1	55.4	-1.1
EU28 Total (includes Other)	556.9	582.5	+4.7

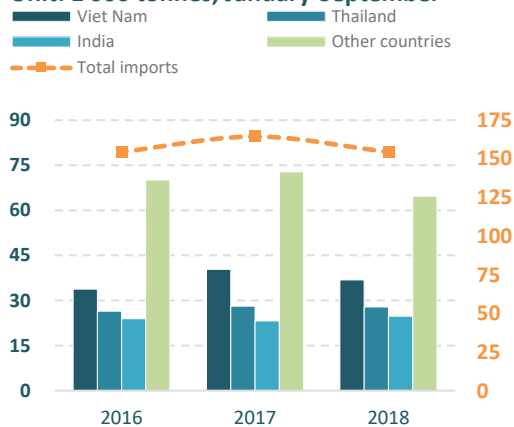
Source: Eurostat

USA | Imports | Shrimp
Top three origins
Unit: 1 000 tonnes, January-September



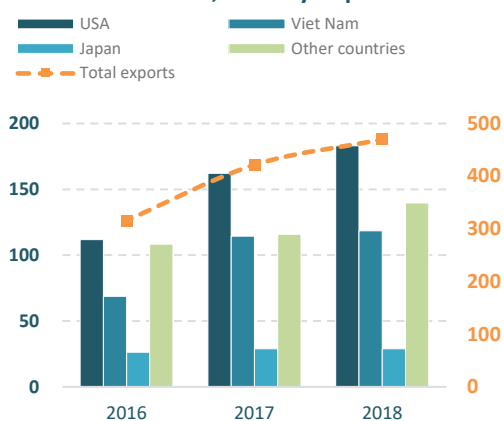
Source: US-NMFS

Japan | Imports | Shrimp
Top three origins
Unit: 1 000 tonnes, January-September



Source: Japanese Ministry of Finance

India | Exports | Shrimp
Top three destinations
Unit: 1 000 tonnes, January-September



Source: Ministry of Commerce, India

Asia/Pacific and other markets

Asian shrimp markets remained active throughout 2018, with China at the top of the pyramid. Imports for local consumption increased in the Republic of Korea (+7 percent to 55 525 tonnes), Hong Kong SAR (+1 percent to 35 000 tonnes), Taiwan Province of China (+12 percent to 32 100 tonnes) and Malaysia (+23 percent to 20 000 tonnes). High imports in Viet Nam persisted for reprocessing and re-exports.

In 2018, shrimp production in China fell below the 2017 level, domestic demand remained high with increased sales prospects during the Lunar New Year in February 2019. Supplies through unreported border trade have dropped due to strict border control by the Chinese authority.

During the international seafood expo held in Qingdao in November 2018, there were brisk business negotiations between Chinese importers and foreign suppliers. Imports were likely to be higher during December 2018 and January 2019 for the Lunar New Year high demand period.

With declining prospects for domestic production and intensified border control with Viet Nam, imports increased by 116 percent during the first nine months of 2018 compared with the same period in 2017. There was a more than 100 percent rise in imports from Ecuador, Argentina, India, Canada and Thailand during this period.

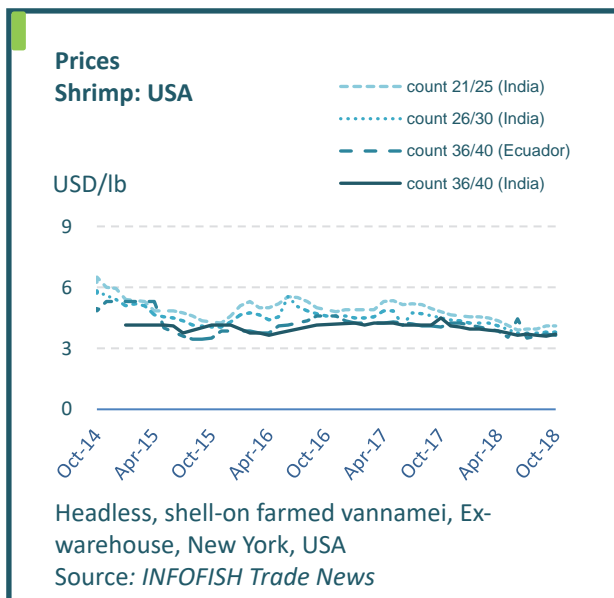
The domestic market in India absorbed more farmed shrimp in 2018, as and when international sales slowed down. Reportedly, farmers in Andhra, where 65 percent of vannamei shrimp are produced, sold 20–25 percent of their produces (sizes: 100 pieces per kg) in the domestic market, with a retail price of USD 3.00–4.00 per kg.

Price

Prices of farmed vannamei shrimp remained soft in the international trade until August 2018 and firmed in September 2018 by 3–4 percent for the US market. The US market was unresponsive to this offer. In the 2018 price drop, black tiger shrimp was less affected than vannamei shrimp due to short supply.

For wild caught shrimp, the ex-vessel prices of Northern and Western Gulf of Mexico in the United States of America for Un/15 counts headless shrimp increased to USD 9.42 per lb and USD 9.38 per lb, respectively in September 2018, compared to USD 7.78 per lb and USD 8.70 per lb a year ago.

As of December 2018, Argentine red shrimp prices were stable due to tight supply during the year-end. However, some small price declines for large sizes occurred in January 2019 due to higher catches in the on-land processing industry.



and vessels are required to possess Turtle Excluding Devices (TED) in a move towards turtle conservation and prevention of imports of illegal, unreported and unregulated (IUU) fishing products.

In Japan, the Spring festival in April/May will be the main high consumption season for shrimp, when demand will move to value-added products.

Outlook

In Asia, supplies of farmed shrimp will be seasonally low until February 2019. The new 2019 season's harvest in the southern producing region (Andhra) will start in March, and in April for the Eastern states. Some farmers in Nellor (Andhra) and Odisha are likely to shift to black tiger shrimp and to freshwater prawn farming in the upcoming aquaculture season.

In view of the Lunar New Year, on 5–6 February 2019, shrimp consumption in East Asian markets (China, Hong Kong SAR, Taiwan Province of China, Malaysia, Singapore and Viet Nam) was high. Prices are already moving up for all types of shrimp, particularly large sizes. After the Lunar New Year celebration, the high import trend in these countries is likely to cool down.

Farmers in Ecuador and other countries in Latin America will enter the low aquaculture season in late February.

In the international shrimp trade, positive movement in the US market is still absent. In view of the partial government shutdown, the normal good consumption during Lent remains questionable. The domestic cold storage situation will possibly be clear by early March, when both suppliers and buyers will have the opportunity to discuss the market situation at the International Seafood show in Boston, Massachusetts.

In Europe, domestic and import demand will be slow until the end of the winter season. The shrimp market is also very sensitive to economic developments. The widespread uncertainty in Europe may impact shrimp demand in 2019.

Starting on 1 January 2019, wild caught shrimp exports from India will also be subject to the US Seafood Import Monitoring Program (SIMP) that requires traceability on imported seafood from point of capture to the point of first sale. All fishing nets

TUNA

GLOBEFISH HIGHLIGHTS

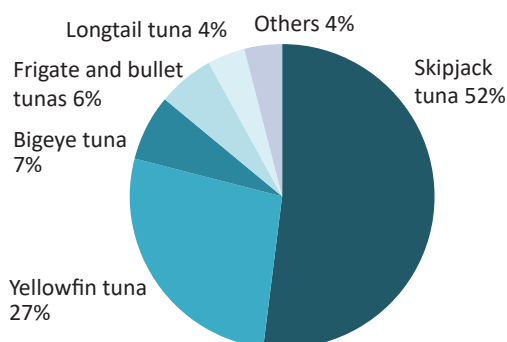
Positive market trends for canned and non-canned tuna

Supported by steady raw material availability and lower prices, global sales of processed/canned tuna improved during the first nine months of 2018. Import demand for the higher-value non-canned tuna also remained strong.

Raw Material Supply

Tuna catches in the Western and Central Pacific increased since October 2018, particularly for skipjack, when normal fishing resumed after the three month FAD closure. Subsequently, skipjack

Tuna production by species, both wild and farmed (2016)



Source: FAO

prices weakened from USD 1 650 per tonne in October to USD 1 400 per tonne in December.

In the Eastern Pacific, the second Inter American Tropical Tuna Commission (IATTC) veda remained in force from 9 November 2018 to 19 January 2019, when 59 percent of the fishing fleet stayed at the port. Frozen inventories at Manta improved prior to this veda as landings from incoming vessels increased before the tie up and prices dropped for skipjack and yellowfin.

Overall catches in the Indian Ocean were low to moderate during October–December 2018. Landings in the Seychelles declined in December once the yellowfin quota was exhausted. Raw material inventories at local canneries were good and so were transshipments of frozen tuna to Thailand and Ecuador. In the Seychelles, skipjack prices also fell following the prices in Thailand, but yellowfin prices remained firm with slight rises.

After the positive trends in October and November 2018, tuna catches in the Atlantic Ocean declined in December but raw material inventories at local canneries remained healthy.

During the first three quarters of 2018, larger volumes of raw materials were imported in Thailand, Spain and Ecuador, as skipjack prices remained low and consumer demand for end-products increased in many markets. During this period, there was a rise of almost 100 000 tonnes in Thai frozen tuna imports (+20 percent to 602 000 tonnes) compared with the same period in 2017. Ecuador imports also rose to 37 300 tonnes (+40 percent). Spanish imports of frozen skipjack, yellowfin and albacore were slightly lower at 123 100 tonnes (-5.3 percent), compensated by a 5 percent rise in pre-cooked loins imports to 74 600 tonnes, during the review period.

Fresh and frozen tuna market (non-canned products)

Supported by good summer demand, imports of frozen tuna loins/fillets and steaks increased in the western markets. Imports for higher-value whole bluefin tuna (dressed and frozen) also increased in the United States of America and Spain during the summer of 2018. Japan continued to import more frozen loins and less whole fish for sashimi usages.

On the supply side, the leading exporters of frozen tuna loins were Indonesia, the Republic of Korea, China, Mexico, the Philippines and Thailand.

Supplies increased from all these countries during the first nine months of 2018. Some of these are reprocessed to higher value canned/pouched products. Notably India, a new comer in this trade, exported 614 tonnes of frozen tuna loins during this period, against 180 tonnes a year ago.

United States of America

Despite the firm price trend of non-canned tuna in 2018, consumer demand remained good in the US market, with peak consumption of tuna steaks in July and August. The cumulative imports of non-canned tuna during the review period increased by 6 percent to 48 000 tonnes, compared with the same period in 2017. About 58 percent of these imports were frozen fillets (27 500 tonnes), some 10 percent higher year-on-year. Whole air-flown tuna had a 30 percent share at 17 700 tonnes.

Japan

The downward demand trend in Japan's sashimi market continues. Imports of air-flown whole tuna during the first three quarters of 2018 were the lowest in recent history at 10 300 tonnes. Consumer demand for high quality sashimi tuna is changing to locally harvested bluefin tuna, both farmed and wild caught.

The negative demand trend also persisted for whole/dressed frozen tuna, replaced by deep frozen fillet (-60 degree Celsius), which have longer shelf life. Frozen fillet imports during the review period increased by 7.3 percent to 39 000 tonnes.

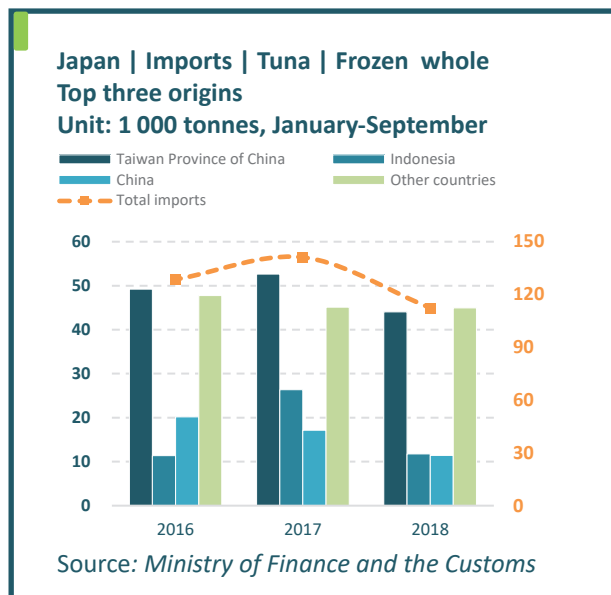
Summer demand for sashimi tuna in Japan was poor, but the market started to improve in October 2018. Consumer demand was brisk from mid-December to New Year, particularly for the higher value bluefin.

Others

Non-canned tuna demand in the summer was good in Europe. EU28 imports of frozen tuna loins increased by 6 percent to 19 200 tonnes during the first nine months of 2018, compared with the same period in 2017. The top markets were Spain (+2 percent to 8 200 tonnes), France (+3.2 percent to 6 400 tonnes), the Netherlands (+22 percent to 2 100 tonnes) and Germany (+94 percent to 2 000 tonnes). Imports were also higher in the United Kingdom and Portugal.

During the review period, Spain also imported 18 000 tonnes of bigeye (+45 percent) and 129 tonnes of frozen bluefin tuna (+209 percent), for non-canned tuna usages.

In the emerging market of the Russian Federation, frozen loin imports increased by 103 percent to 2 700 tonnes during the first three quarters of 2018.



RECENT NEWS

On 6 October of 2018, the 83-year-old Tsukiji wholesale market in Tokyo closed down after a two-year delay. The new Toyosu wholesale market in Tokyo opened on 11 October, accommodating 533 medium-size wholesalers inside the wholesale fish market, 69 fish shops and 70 sushi shops.

Following the Tsukiji market's tradition, the Toyosu wholesale market conducted the first auction of 2019 on 5 January, when the prized local Bluefin, caught off Aomori prefecture, weighed 278 kg and was bought at USD 3 million by a well-known Japanese sushi chain operator. This was the highest price recorded in the last six years.

Canned tuna trade

Stable supply and lower price of skipjack tuna moved the global canned tuna market to a recovery track starting in the second quarter of 2018. This trend persisted through the rest of the review period, with improved demand in the large conventional western markets, the Middle East and the East Asian markets.

Thai exports to the United States of America and Egypt, its top two markets, increased by over 10 and 100 percent, respectively, during the first three quarters of 2018. Thailand also exported more to

other top destinations, namely Australia, Japan, Canada and Saudi Arabia.

Ecuador increased slightly its exports despite lower sales to its top market, the EU28 (-7 percent to 106 100 tonnes), as exports to Argentina and Chile increased. The decline in exports to the EU28 was due to a raw material shortage between July and September 2018.

Spain managed to uphold minimum export growth but with falling supplies to its top markets, namely Italy with 23 600 tonnes (-3.7 percent), France with 17 800 tonnes (-6.5 percent) and Portugal with 9 300 tonnes (-1 percent). Spanish exports increased to the Netherlands to 8 400 tonnes (+49 percent) and to Germany to 6 700 tonnes (+45 percent). Nearly 89 percent of Spanish exports (74 300 tonnes) went to EU28 markets during the review period.

Indonesia's export growth could be attributed to increased sales of cooked frozen loins to Thailand and the EU28, as well as increased exports of canned tuna to Middle East markets.

North and South America

Processed tuna imports increased significantly in the United States of America, but declined marginally in Canada (-1.0 percent) during the first three quarters of 2018. According to the US National Marine Fisheries Services (NMFS), the US market imported 158 200 tonnes of processed/canned tuna during the review period, some 15 percent more than in the same period of 2017. Most of these imports (121 800 tonnes) were canned and pouched tuna meant for direct consumption.

Demand for higher value processed tuna is on the rise in the US market, following the launch of new product lines in March 2018. Imports increased by 23 percent to 53 600 tonnes during the review period. Imports of conventional light-meat (skipjack/yellowfin) in brine also increased during the review period.

In Latin America, imports declined in Argentina, Chile, Mexico and Peru, suggesting sufficient local stocks. Imports increased by 34 percent in Columbia (25 300 tonnes) compared with the same period in 2017.

Top exporters of canned and preserved tuna to EU28 (January-September)

	2016	2017	2018
	(1 000 tonnes)		
Ecuador	88.6	114.1	106.1
Spain	68.4	79.8	85.9
Philippines	28.0	39.3	43.1
Other countries	322.9	324.9	323.9
Total	507.9	558.0	559.0

Source: Eurostat

World top 6 exporters and importers of canned or processed tuna

	January-September		percent change 2018/2017
	2017	2018	
Exporters	(1 000 tonnes)		
Thailand	362.5	372.6	+2.9
Ecuador	167.9	169.5	+1.0
Spain	81.6	83.2	+2.0
Philippines (e)	59.8	61.6	+3.0
Indonesia	55.3	59.5	+7.6
Mauritius	43.2	41.5	-3.8
Importers	(1 000 tonnes)		
EU28	540.9	555.4	+2.7
United States of America	137.7	158.2	+15.0
Japan	47.2	48.9	+3.8
Australia	34.7	34.7	=
Egypt	22.8	32.6	+43.1
Saudi Arabia	26.6	30.0	+15

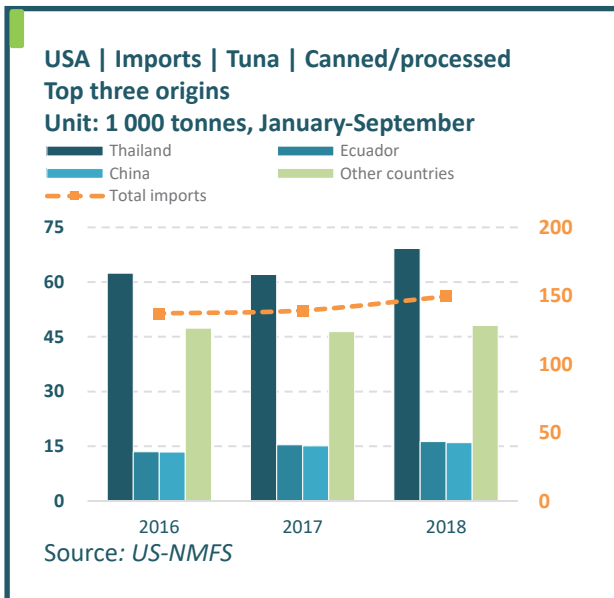
Source: National statistics. Note: (e) estimate

European Union (Member Organization)

The negative import trend of canned/processed tuna in the EU28 market during the first six months of 2018 was reversed in the third quarter with increased intra-EU28 trade, due to better demand for higher quality and higher value products. Extra-EU28 imports declined and were largely consisting of conventional canned products.

Cumulative imports during the first three quarters of 2018 increased by 2.7 percent to 555 400 tonnes, including cooked frozen loins (120 000 tonnes). Imports from external sources fell by 1.5 percent to 394 300 tonnes, compared with the same period in 2017.

The top five import markets in the EU28 were Italy with 102 600 tonnes (+8 percent), Spain with 102 900 tonnes (+2 percent), France with 75 500 tonnes (-4 percent), Germany with 73 300 tonnes (+16 percent) and the United Kingdom with 71 900 tonnes (-5.0 percent).

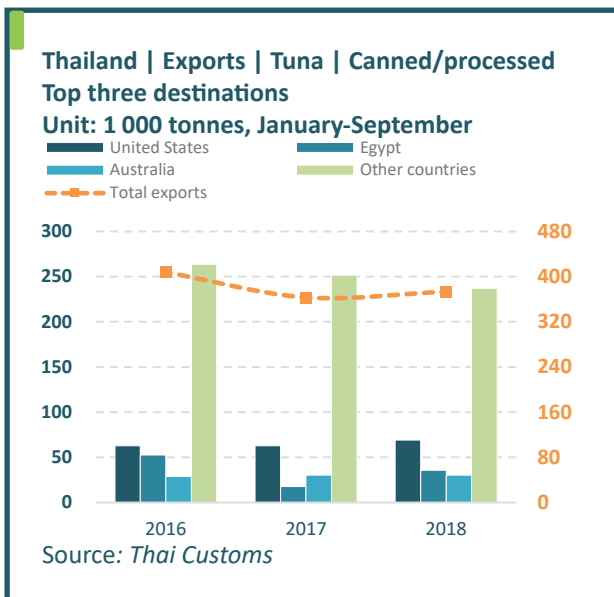


Others in Europe

The Swiss market remained relatively stable with marginal rise in imports (7 450 tonnes, +2 percent). Imports declined in Norway (-7.7 percent to 1 500 tonnes). Imports in the Russian Federation remained unchanged at 3 000 tonnes.

Asia/Pacific & other Markets

The market recovery in East Asia was moderate for canned tuna during the first three quarters of 2018. During this period, Japanese imports increased by 4 percent to 49 000 tonnes. Imports were higher in Malaysia (+47 percent to 2 500 tonnes), Singapore (+10 percent to 1 700 tonnes), Hong Kong SAR (+17 percent to 2 200 tonnes), and the Republic of Korea (+23 percent to 870 tonnes), compared with the same period in 2017.

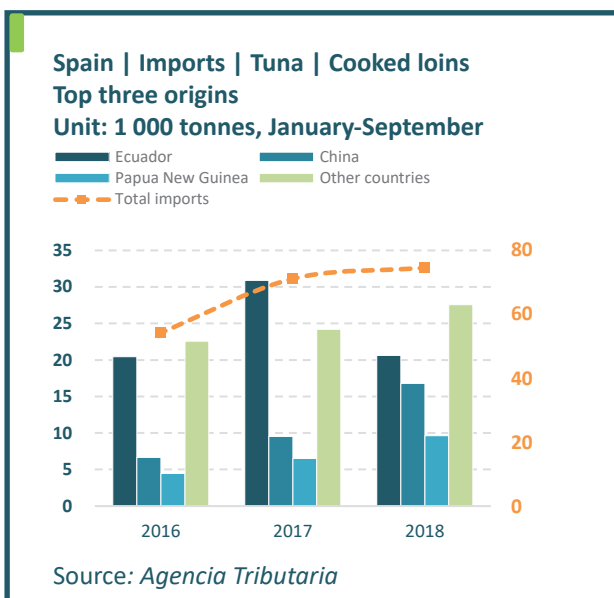


In the Pacific, the largest market Australia was stagnant at 34 700 tonnes despite lower market prices, caused by economic down turn, declining disposable income of consumers and currency weakening.

Most of the large and medium markets in the Middle East responded positively to lower import prices and bought more during the third quarter of 2018. Cumulative imports during the review period increased in Egypt (+43 percent to 32 700 tonnes) and in Saudi Arabia (+13 percent to 30 000 tonnes). Exports trends from Thailand, Indonesia and the Philippines also indicated higher sales to Jordan, Yemen, Syria, Oman and other minor markets in the Middle East.

Price

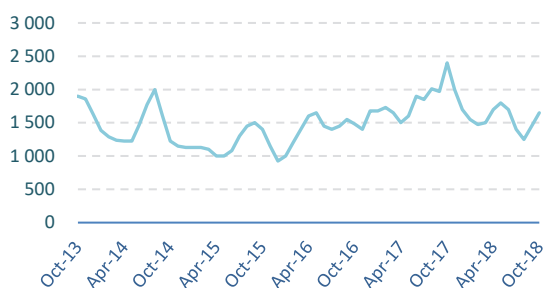
Skipjack prices started to decline in most catch areas since July 2018. The average import price of frozen skipjack (CFR Bangkok) during the third quarter of the year was nearly 30 percent lower than during the corresponding period in 2017, while the 2018 annual average was 16 percent below 2017. The falling price trend in Thailand also pushed down prices in the Indian Ocean and other fishing regions.



For non-canned tuna, prices of fresh and frozen loins remained firm throughout 2018. During the year-end high consumption period, wholesale price of fresh yellowfin loins to retailers reached USD 15.00 per lb and above in the West Coast of the United States of America.

Prices Skipjack: Thailand

USD/tonne



1.8Kg lb/pc & up, CFR Bangkok, origin: *Western Pacific*
Source: *INFOFISH Trade News*

Outlook

The falling price trend for frozen skipjack persist in 2019, even though catches in the Western Pacific have been low due to unfavourable weather conditions. High stock of raw material in Thailand keeps putting pressure on prices of recent catches. In the Eastern Pacific, canneries were closed during Christmas and New Year, while the second IATTC veda closure was on until 19 January 2019.

In the Atlantic Ocean, the two-month FAD closure is in force from 1 January to 28 February 2019. Although general availability of raw material remains moderate at the beginning of 2019, prices are unlikely to rise until demand improves from Thai canners. Catches in the Eastern Pacific are expected to improve from late January in favour of canneries in Ecuador.

In the canned tuna trade, the impacts of lower raw material prices on end products have been visible since the third quarter of 2018. Annual imports in 2018 are likely to be higher in many markets compared with 2017.

During January and February 2019, exports of canned tuna to the US market are likely to be brisk to fill up the lower duty quota (6.5 percent). Importers in the EU28 are likely to do the same, particularly for loins, in order to take advantage of the lower tariff under the quotas. In other markets, imports are likely to be less aggressive during the first quarter of the year.

For non-canned tuna, the sashimi market in Japan will traditionally be slow until the Spring festival in April. In the US market, sales opportunity for fresh and frozen tuna during the upcoming Lent remains uncertain due to the current Government shutdown.



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GROUND FISH

GLOBEFISH HIGHLIGHTS

Bleak outlook for Pacific cod and Alaska pollock

Forecasts show that catches of Pacific cod will be reduced significantly over the next four years. Alaska pollock catches are expected to stagnate or fall. The trade war between the United States of America and China is slowing trade, particularly for Alaska pollock. The outlook is one of consolidation rather than expansion.

Supplies

Over a year ago, it was predicted that coldwater fish would move north as a result of ocean warming due to climate change. The National Oceanic and Atmospheric Administration (NOAA) presented the first evidence of this, after registering a 21 percent drop in the Pacific cod biomass in the southeastern Bering Sea and a 95 percent increase in the northern Bering Sea. Data released for the eastern Bering Sea by the North Pacific Fisheries Management Council (NPFMC) indicate, through a bottom trawl survey, a 33 percent reduction in the Alaska pollock biomass, while acoustic surveys showed an even larger reduction. As a consequence of these surveys, industry observers expected reductions in the Total Allowable Catch (TAC) for Alaska pollock for 2019. However, in December the NPFMC increased the TAC for Alaska pollock by 33 000 tonnes to 1 378 411 tonnes. For Pacific cod, the TAC was reduced by 20 000 tonnes to 181 000 tonnes.

The outlook for US Pacific cod fisheries is bleak. A forecast published by NOAA in December, predicted reduced catches in 2020, 2021 and 2022, with 2022 expected to be the low point. After that, biomass and catches should increase. The predicted catch in the eastern Bering Sea is set at 131 000 tonnes in 2020, dropping to 91 100 tonnes in 2021, and bottoming out at 74 500 tonnes in 2022.

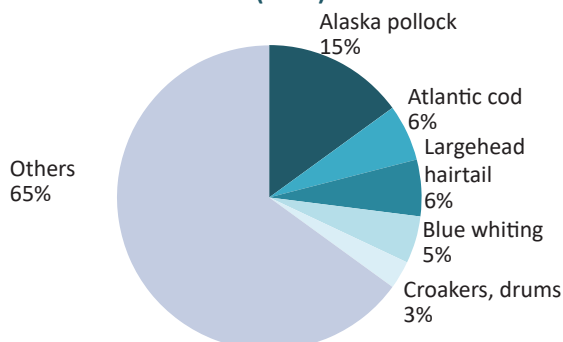
The Russian Federation government has announced a slight increase in the TAC for Alaska pollock, from 1.781 million tonnes in 2018 to 1.786 million tonnes in 2019 (+0.3 percent).

Producers in the Russian Federation are switching to value-added products in the whitefish sector. According to the head of the Russian Pollock Catchers Association (PCA), Russian Federation output of Alaska pollock fillets, blocks and mince will rise to 224 000 tonnes by 2025, compared to 79 000 tonnes in 2018. Production of H&G Alaska pollock will decline from 610 000 tonnes in 2018 to 388 000 tonnes in 2025, and whole round will decrease from 270 000 tonnes in 2018 to 150 000 tonnes in 2025.

In order to fulfil this ambition, the Russian Federation needs to harvest more Marine Stewardship Council (MSC) certified fish. In 2018, MSC certified Alaska pollock from Russian fisheries amounted to 761 000 tonnes, less than half of the TAC. This volume was from the Sea of Okhotsk fishery, which is MSC certified. Plans to certify other Alaska pollock fisheries are being made.

Russian Federation pollock producers plan to increase substantially their share of the European

Groundfish production by selected species, both wild and farmed (2016)



Source: FAO

market and push Chinese producers out of the market within some years. In order to achieve this, six new factories will be built to produce high quality Alaska pollock products to compete with Chinese products on quality as well as price. Chinese producers were recently negatively affected by new EU28 requirements on polyphosphates that will reduce EU28 imports of Chinese Alaska pollock fillets, which often contain this additive.

Demand for Cape hake is strong, according to processors in South Africa and Namibia. Fishing has been good in 2018, and prices are stable at a high level after having increased from 2015 to 2017. However, the industry is facing some challenges. Processing is done on land in both South Africa and Namibia, which is more expensive than processing on board. Rises in fuel prices have affected productivity, though they have recently come down slightly. Demand is expected to remain high in the main markets, which are the EU28 and South Africa.

Surimi

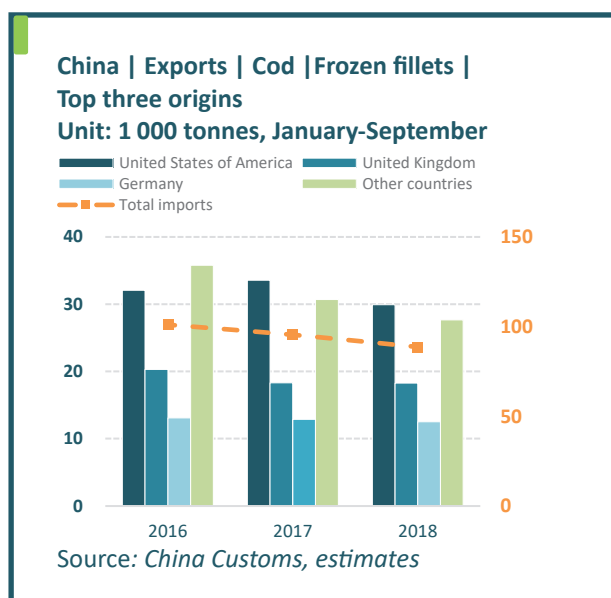
Production of tropical surimi is declining. It is estimated that production dropped from 485 000 tonnes in 2017 to 470 000 tonnes in 2018. Total global production of surimi (both tropical and coldwater) could drop to about 800 000 tonnes in 2018, from 820 000 tonnes in 2017 and 850 000 tonnes in 2016.

The higher US tariffs on Chinese surimi (initially 10 percent but possibly up to 25 percent later), leave Chinese surimi producers in a difficult position. Prices for raw materials have climbed, both for imported Alaska pollock and for domestic supplies, and with the 25 percent tariff on exports to the United States of America, Chinese producers may not be able to serve that market. However, in Asia there are no tariffs and therefore China could move the focus more to Asian markets instead.

Trade

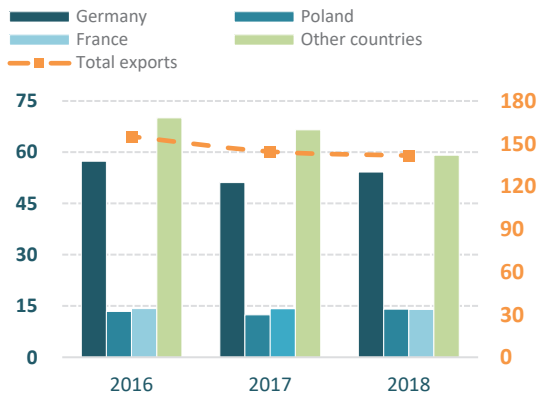
The EU28 demand for raw material for fish processing is growing, but EU28 fisheries are not able to meet this demand, and have not been able to for years. The deficit is in fact increasing. Consequently, a larger amount has to be imported. To address this, the European Union Commission increased the autonomous tariff quotas (ATQ), a duty free import quota for raw material going to further processing within the EU28, for 2019 and 2020. This means that EU28 fish processors can continue to import raw material for further processing from non-EU28 countries at reduced rates or duty free over the next two years. The ATQs for these two years were increased from 300 000 tonnes to 320 000 tonnes of Alaska pollock.

US President Trump's "America First" campaign is also affecting the groundfish industry. In December, Republican Senator Dan Sullivan, from the important



China | Exports | Alaska pollock | Frozen fillets
Top three destinations

Unit: 1 000 tonnes, January-September



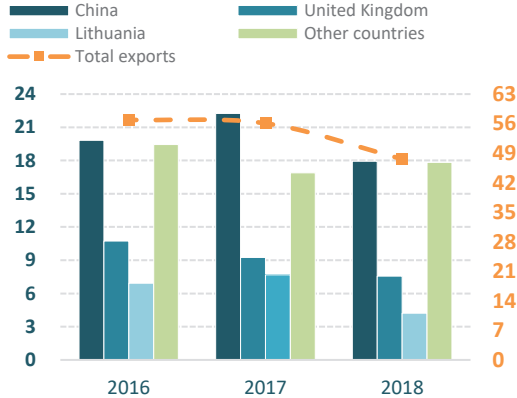
Source: China Customs, estimates

fisheries state of Alaska, proposed to impose a “buy American” clause in the 2018 Farm Bill, to force producers of school meals to buy American food. While the US Department of Agriculture already has rules that require the National School Lunch Program to serve US-sourced products, the Alaska pollock industry claims that many participants in this programme buy less expensive and inferior quality twice-frozen fillets from the Russian Federation. In the new Farm Bill, several loopholes that allowed this are being closed. The National School Lunch Program is big, some 30 million children are served lunch daily under this programme.

In response to higher US tariffs on a number of products, China imposed retaliatory tariffs on Alaska pollock products, and this has offset heavy losses for some Alaska producers. In an attempt to ease the situation, the US Government decided to purchase USD 30 million worth of Alaska pollock, which will be distributed to various nutrition assistance programmes.

Norway | Exports | Cod | Frozen whole
Top three destinations

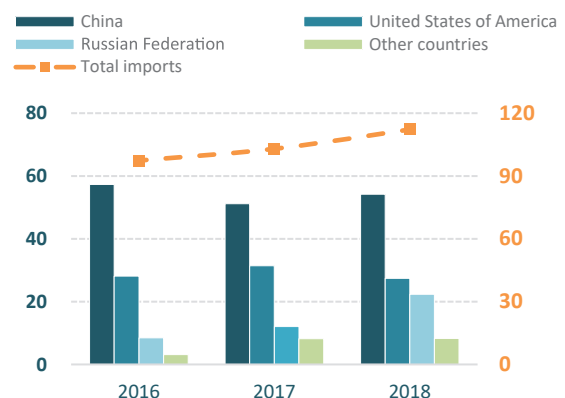
Unit: 1 000 tonnes, January-September



Source: Norway Bureau of Statistics

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

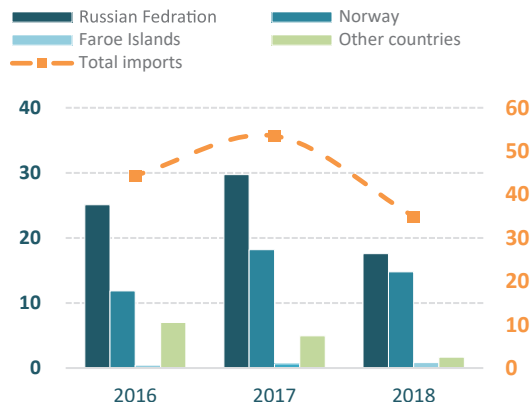
Unit: 1 000 tonnes, January-September



Source: Germany Statistical Office - Destatis

Netherlands | Imports | Cod | Frozen whole
Top three origins

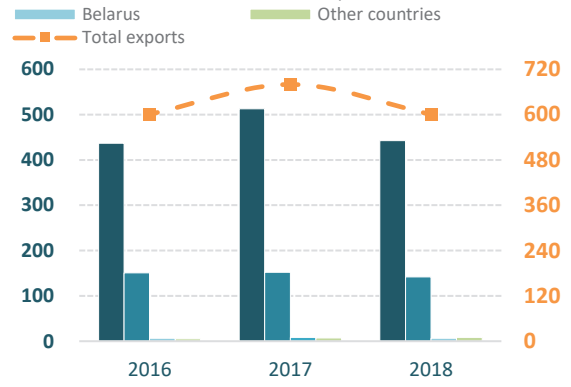
Unit: 1 000 tonnes, January-September



Source: Eurostat

Russian Federation | Exports | Alaska pollock
Frozen whole | Top three destinations

Unit: 1 000 tonnes, January-September



Source: Federal Customs Service of Russia

The trade war between the United States of America and China was put on hold in early December as China and the United States of America agreed to not impose further tariffs for a period of 90 days. While cod and Alaska pollock fillets are removed from the list of products that would be subject to the extra 10 percent tariff, haddock is still on the list. This has made Chinese buyers stop buying haddock for processing and export to the United States of America.

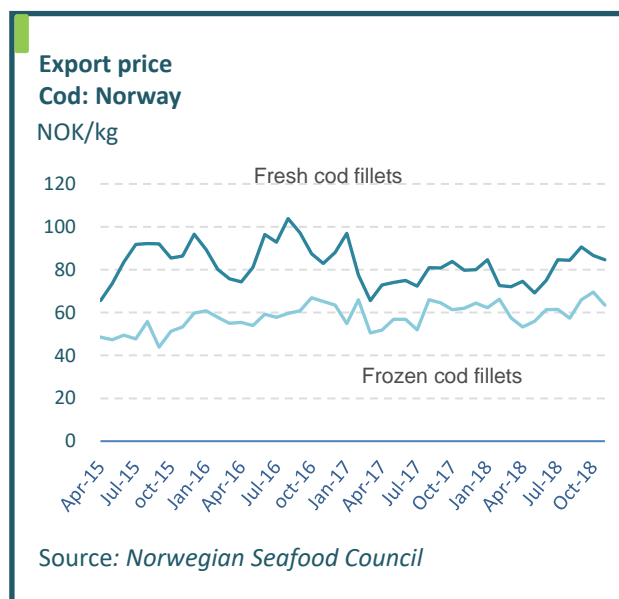
During the first nine months of 2018, there was a drop in Chinese imports of frozen cod. The imported volume declined by 20 percent to 105 000 tonnes. The main loser among the suppliers were the United States of America, which experienced a drop of over 33 percent, from 42 000 tonnes during the nine-month period in 2017, to 28 000 tonnes during the same period in 2018.

Chinese imports of frozen Alaska pollock also weakened in the first three quarters of 2018. Imports declined from 542 000 tonnes in 2017 to 471 000 tonnes in 2018. This was almost exactly the same as in 2016. As much as 94 percent of imported frozen Alaska pollock in 2018 came from the Russian Federation.

German imports of frozen Alaska pollock fillets increased slightly in 2018 to 112 000 tonnes, with a slight increase in shipments from the largest supplier, China, from 51 000 tonnes in 2017 to 54 000 tonnes in 2018.

Prices

The uncertainty about whether haddock will be subject to the extra 10 percent tariffs imposed by the United States of America has slowed down sales of haddock to China by Norwegian and Russian Federation producers. Prices have dropped by USD 50–100 per tonne, to about USD 3 300–3 400 per tonne. Meanwhile, prices for H&G cod are stable at a high level, around USD 4 400–4 500 per tonne.



There is some concern that these high cod prices may affect the market negatively. With the reduced TAC for cod in the Barents Sea, down by 6.5 percent to 725 000 tonnes for 2019, prices could come under pressure, but observers believe that cod prices have reached a ceiling. Alaska pollock prices are expected to go up due to tighter supplies.

Outlook

There is a lot of uncertainty in the market due to the trade war between China and the United States of America. While it is on hold at the moment, it is by no means over. It is a short pause to catch the parties' breath. Global trade faces a number of uncertainties because of this development, and the effects are beginning to be noticeable in terms of changing trade patterns and attempts to open new markets.

In addition, the outlook for some groundfish species is a little bleaker now than it was a short while ago. Pacific cod will see significant catch reductions, and the TAC for Atlantic cod in the Barents Sea has been reduced. In addition, the outlook for Alaska pollock is not promising, in spite of the 33 000 tonne increase in the Bering Sea. So in the medium term, the stage is set for price increases or product substitutions, since for example cod prices are already high. 2019 may be a tough year for the groundfish sector.

One of the drivers for the success of farmed salmon has been the predictability in supplies. A similar predictability could be achieved for cod if a combination of supplies from wild catch, "semi-farmed" and farmed cod could be organized. Wild-caught cod can be kept alive in pens for about three months, and thus released on the market when supplies of wild cod are low.

It is unlikely that Alaska pollock surimi will be able to meet demand, given the pessimistic outlook for the Alaska pollock fishery in the next couple of years. Consequently, prices are expected to go up. The increase in the TAC for the eastern Bering Sea by 33 000 tonnes was unexpected, and it is believed that it will be lowered in the next 3–4 years.

CEPHALOPODS

GLOBEFISH HIGHLIGHTS

Octopus prices hit the ceiling of consumer resistance

Very tight supplies in 2018 forced prices up to the point where buyers started seeking substitutes. When the ceiling was reached, prices started to drop again. Supply is still very tight though, and the same is true for squid. This situation is expected to continue throughout 2019.

Octopus

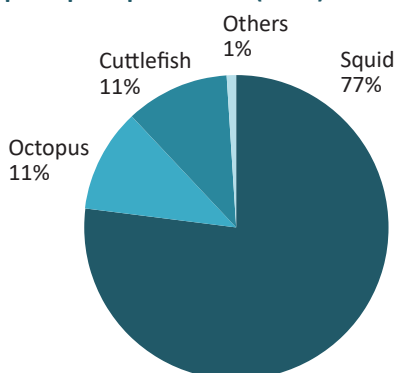
During the first half of 2018, octopus prices hit record levels. Demand was good, supplies were tight, and prices went up. They went so high that buyer resistance set in, and during the last few months of 2018, prices began to fall as restaurants moved to cheaper products. Observers in the market agree that a ceiling was reached.

ADVANCES IN OCTOPUS BREEDING IN CAPTIVITY

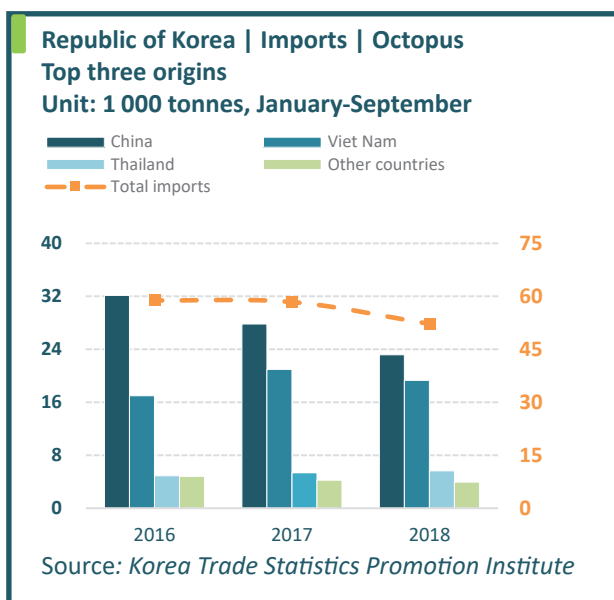
For a long time, there has been discussion about octopus aquaculture production as a supplement to wild catch, but progress has been slow because there are a lot of aspects that are still unknown. The life cycle of octopus is complex and much is unknown, especially about its planktonic stage. The life cycle starts with a stage during which larvae are dispersed in plankton. This stage lasts for about two months, and is followed by a stage of bottom settlement when they develop into adults (benthic stage). The life cycle is completed in less than two years.

The Spanish Superior Council of Scientific Research (CSIC) and Armadora Pereira are reporting progress in their research on breeding octopus paralarvae (*Octopus vulgaris*) in captivity. They have demonstrated that it is possible to feed octopus larvae without crustacean larvae by administering enrichment to brine shrimp. Other Spanish researchers are also reporting progress. After a 20-year research and development programme, the Institute of Oceanography has made a breakthrough that involves new cultivation and feeding techniques. It has been reported that Grupo Nueva Pescanova will be given priority rights to license the institute's patent.

Cephalopods production (2016)



Source: FAO



Trade

The tight supply was reflected in reduced world trade in octopus during the first nine months of 2018. Japanese imports of octopus fell by 24 percent to 29 600 tonnes during this period. The largest cuts were in shipments from Mauritania and Morocco. Imports into the Republic of Korea were also down by 11 percent, to 52 100 tonnes. The main supplier to the Republic of Korea was China, but Chinese shipments declined from 27 800 tonnes in the first nine months of 2017 to 23 200 tonnes in the same period in 2018 (-16.7 percent).

Squid

The poor catches of Argentine shortfin squid (*Illex argentinus*) and Japanese flying squid (*Todarodes pacificus*) in 2018 are forcing producers to search for substitutes. Chinese vessels have been catching large amounts of jumbo flying squid (*Dosidicus gigas*), and are trying to offer this as a substitute to *Illex* and *Todarodes* products. However, European

consumers do not like the taste and the texture of this species. In Southeast Asia, on the contrary, this species is well accepted. In Japan, *Todarodes* is being replaced by jumbo flying squid in some sushi products.

Surimi-like products are starting to appear on the squid market. A Spanish producer recently presented “pre-formed” squid rings as a substitute to scarce and high-priced real squid rings. The raw materials used usually include a paste of *Illex* squid, jumbo flying squid, pollock, water and starch. The rings are formed through extrusion.

This product development seems to be due to the past three bad squid fishing years (2016–2018), which have put pressure on prices. This product is being tested in Spain and other European countries. Sales of battered and breaded “pre-formed” squid rings are rising.

While overall landings were down, catches within Argentine waters were good. Argentine vessels landed 107 800 tonnes of Argentine shortfin squid in 2018. A lot of Chinese vessels operated there in 2018, but with very poor results. Outside Argentine waters, there was very little squid.

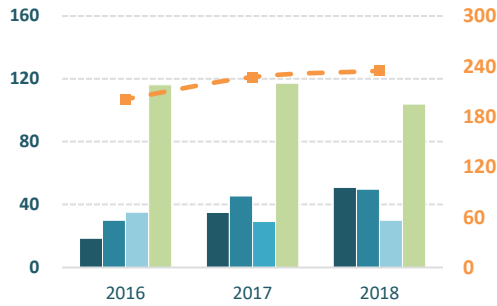
Catches of giant squid (*Dosidicus gigas*) in Peruvian waters were down by 30 percent during the first nine months of 2018, mainly due to the many Chinese vessels fishing in Peruvian territorial waters, since Chinese catch is not registered in Peru. Since all Peruvian squid boats are artisanal, they are out-competed by the Chinese industrial fleet, and landings in Peru consequently went down. According to one estimate, Chinese vessels caught about 230 000 tonnes of giant squid in the southwest Pacific during the first ten months of 2018. The squid is also quite small and authorities are worried about the sustainability of this fishery. Meanwhile, prices for raw fillet of giant squid have risen from USD 2.80 per kg in 2017 to USD 3.20 per kg in 2018.

Squid landings in Japan were down by 20 percent during the first nine months of 2018. The previous year had already been a disappointing year, with total yearly landings amounting to just 53 000 tonnes, a dismal harvest compared to the 200 000 tonnes landed in 2011. There are several reasons for these poor landings. First, hundreds of vessels from the Democratic People’s Republic of Korea are fishing at the edge of the Japanese economic exclusive zone (EEZ), putting pressure on the resource. Second, water temperatures in the squid breeding grounds were lower in 2018 and juvenile survival rates were down. Finally, higher water temperatures in the area north of Hokkaido kept the squid longer in that area.

While supplies of giant squid are good because of Chinese catches, supplies of Argentine shortfin squid (*Illex argentinus*) are tight, and prices are up. Coldstorage holdings of *Illex* and Japanese flying squid are very tight at the moment, and consequently prices are very high.

Spain | Imports | Squid and cuttlefish
Top three origins
Unit: 1 000 tonnes, January-September

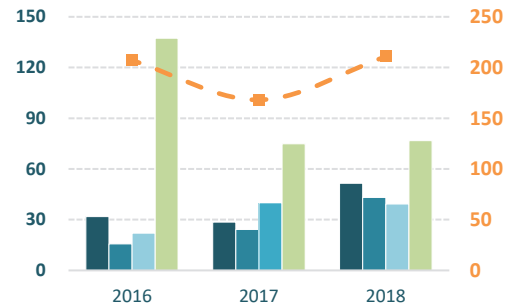
Legend: Falkland Islands (Malvinas), Peru, China, Other countries, Total imports



Source: *Agencia Tributaria*

China | Imports | Squid and cuttlefish
Top three origins
Unit: 1 000 tonnes, January-September

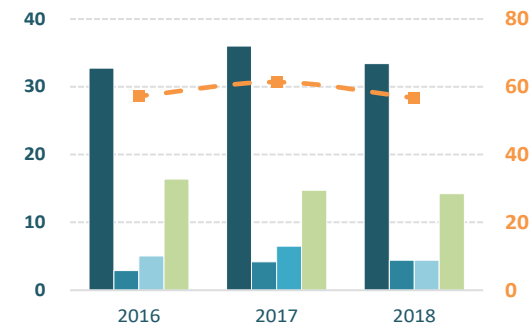
Legend: Indonesia, Argentina, Peru, Other countries, Total imports



Source: *China Customs*

USA | Imports | Squid and cuttlefish
Top three origins
Unit: 1 000 tonnes, January-September

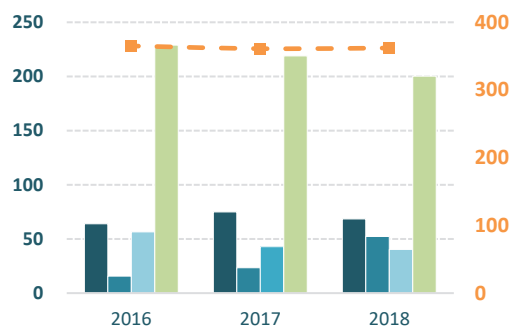
Legend: China, India, Taiwan Province of China, Other countries, Total imports



Source: *US-NMFS*

China | Exports | Squid and cuttlefish
Top three destinations
Unit: 1 000 tonnes, January-September

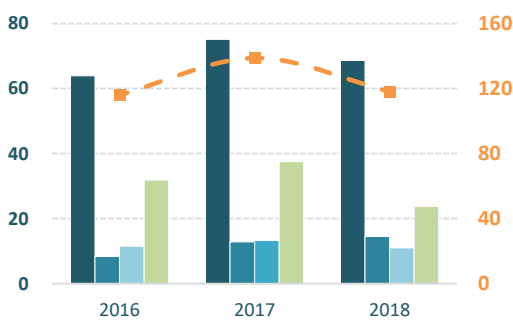
Legend: Japan, Republic of Korea, Thailand, Other countries, Total exports



Source: *China Customs*

Japan | Imports | Squid and cuttlefish
Top three origins
Unit: 1 000 tonnes, January-September

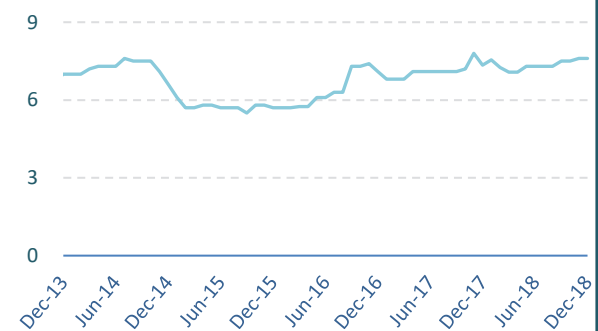
Legend: China, Peru, Chile, Other countries, Total imports



Source: *Japan Customs*

Prices
Squid: Italy

EUR/kg



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

RECENT NEWS

To ameliorate the situation for the Japanese flying squid, the East China Sea and Yellow Sea Fisheries Improvement project intends to improve the management of Chinese trawl, purse seine and gillnet vessels that catch the migratory Japanese flying squid off China's coast. Among the problems being looked into is the fact that China does not have a specific harvesting strategy for this species. Catch traceability has also been a problem. The project will run for five years to establish science-based stock assessment and by-catch monitoring protocols, harvest rules and traceability systems to verify and track harvest locations.

Trade

Squid imports into Japan decreased by 15 percent to 118 000 tonnes during the first nine months of 2018. China reduced shipments and so did other suppliers. However, total Chinese exports of squid and cuttlefish during the review period actually increased slightly compared to the same period in 2017, from 360 400 tonnes in 2017 to 361 500 tonnes in 2018. The largest market was Japan, which represented 19 percent of total Chinese squid exports. Global squid exports to China increased during this period, from 168 000 tonnes in 2017 to 211 000 tonnes in 2018. The main supplier to China was Indonesia.

Spain also registered increased imports of squid and cuttlefish during the review period. A total of 235 000 tonnes were imported in the first nine months of 2018, compared to 227 300 tonnes in the same period in 2017.

Squid imports into the United States of America were stable during the review period. A total of 57 000 tonnes were imported during the first three quarters of 2018, compared to 61 000 tonnes during the same period in 2017.

Outlook

The shortage of octopus, squid and cuttlefish will continue during 2019. The octopus fishery is under pressure, and it is not expected that landings will improve much in the near future. Prices were at such a high level that consumer resistance set in during the second half of 2018, and this is likely to continue for some time, as supplies will still be very

tight. However, it is expected that sellers will have to reduce their prices in order to move product.

It is early to predict how the new octopus season in Morocco will be, and how it will affect prices. The season was expected to start in mid-December and buyers are expecting prices to fall further as supplies pick up again.

The Moroccan industry is anticipating good catches in the new season, as there is reportedly a lot of octopus in the sea. The first landings are not reaching European markets until early January because of transport times and therefore sales have to rely on existing stocks.

In the squid trade the situation is the same, with very tight supplies and a longer-term uncertainty about the sustainability of several stocks. As supplies are getting scarcer, prices will go up, and the image that squid has in some markets as an inexpensive seafood item may change. As it looks currently, the supply is not likely to improve in the short to medium term, and squid prices will remain high in 2019.

Argentina's shortfin squid (*Illex argentinus*) season starts in January, and the industry is hoping for a season similar to 2018. Producers in Argentina are hoping for larger sizes, since in 2018 the average sizes were just 200–300 g, while in previous years they were 300–500 g.

The season usually lasts from January to August, but in 2018 the season was closed in May. In December, a large number of Chinese squid jiggers were either waiting just outside the Argentine EEZ at 42–45 degrees south, or on their way to the area. According to some reports, 60–70 vessels were already in place, while more were on their way from Peruvian waters. Argentine fishers and authorities alike are frustrated by the number of Chinese vessels fishing on this resource.

It is high time to introduce better international regulations and better management of these resources in order to protect and revive the resource. One solution might be to make the squid resource the responsibility of the Regional Fisheries Management Organizations.

TILAPIA

GLOBEFISH HIGHLIGHTS

Lower tilapia sales to the United States of America expected for 2019

The already declining popularity of tilapia in the United States of America is set to take another hit if the current 10 percent tariff on Chinese-origin fish is raised to 25 percent as previously announced. In expectation of this tariff escalation, trade was strong in the closing months of 2018. Latin America, Southeast Asia and Africa continue to increase in relative importance as both consumers and producers of farmed tilapia.

Production

Global production of tilapia is expected to continue to have risen by around 3–4 percent in 2018, reaching 6.3 million tonnes, even though the overall growth is slowing. The total output share of biggest player, China, is projected to drop as smaller producing countries such as Egypt, Indonesia and Brazil increase their production relatively faster.

Asia

According to the most recent Global Aquaculture Alliance (GAA) survey data, Chinese tilapia harvests are expected to have reached 1.75 million tonnes in 2018. Reports at the end of the year indicate that a number of farms in key producing regions experienced mass mortalities as a result of a period of abnormally cold weather, but the full extent of the losses are not yet known.

Elsewhere in Asia, combined production in Indonesia, Viet Nam and the Philippines is expected to have

totalled around 1.33 million tonnes in 2018. These countries have had varying success in their search for new markets to offset the drop in exports to the United States of America, but the urgency of this search may be reduced by the obvious opportunity presented by the new tariff regime and its potential to inhibit China's dominance of the US market.

Latin America

Latin American tilapia production is expected to keep growing incrementally through to 2020, according to the GAA estimates. Production estimates for 2018 amount to 390 000 tonnes in Brazil, 75 000 tonnes in Mexico and 72 000 tonnes in Colombia.

Motivated by the declining demand in the United States of America, Latin American tilapia companies have started to increase their focus on domestic markets to supplement their export business. Consumer acceptance of tilapia continues to grow in South America, helped by strategies intended to boost consumption, such as the recent campaign launched by the Mexican seafood industry and Guatemala's first celebration of National Tilapia Day in November 2018.

Exports

China's supply to the US market remains the most significant flow in international tilapia trade by some distance, but US per capita consumption of tilapia is falling as it struggles to compete with alternative seafood options. Markets in Africa such as Côte d'Ivoire and Burkina Faso are now absorbing some of the Chinese volume previously destined for the United States of America while growing production in countries such as Brazil, Mexico, Indonesia and the Philippines is increasingly directed to domestic and regional markets.

Latin American tilapia farmers are seeing a decline in exports to a US market that has stopped buying tilapia fillets. In the first nine months of 2018, Honduras, Ecuador and Costa Rica observed drops in both value and volume terms compared with the same period in 2017, while Brazil and Mexico exported higher volumes for lower value. Meanwhile, Colombian tilapia exports to the United States of America increased by 10.5 percent in volume terms and 11.6 percent in terms of value. Colombia has also started to export fresh high-quality tilapia to Iceland in November as part of commercial strategy coordinated at the national level.

Chinese exports of frozen tilapia (January-September)

	2016	2017	2018
(1 000 tonnes)			
Frozen fillets			
United States of America	89.7	79.9	75.5
Mexico	38.2	37.8	51.6
Iran (Islamic Republic of)	10.3	9.3	5.7
Other countries	20.9	29.6	29.0
Total	101.1	101.9	98.4
Frozen whole			
Côte d'Ivoire	30.7	27.0	31.2
United States of America	17.2	14.1	15.7
Mexico	9.0	8.9	7.6
Other countries	19.3	24.4	23.3
Total	76.2	74.5	77.9

Source: TDM

Imports

United States of America

According to NOAA, US tilapia imports in the first three quarters of 2018 fell by 2.4 and 1.84 percent in terms of value and volume, respectively, compared with the same period of 2017. Tilapia imports from China account for 62 percent of US tilapia imports, and the announcement of tilapia's inclusion in the new tariff regime caused a flurry of activity in the last quarter of 2018, pushing prices temporarily upwards. However, the increase of the import duty on tilapia to 25 percent, originally expected to take effect in January 2019, has now been pushed back to March and the resulting price decline may have negative consequences for wholesalers who are now sitting on large inventories.

A report from the National Fisheries Institute (NFI) released at the end of 2018 shows the clearly declining popularity of tilapia in the United States of America compared with other seafood options such as salmon. In the 2017 (the last available year), tilapia and salmon consumption was estimated at 1.08 kg and 2.41 kg per capita annually, figures which represent an 8.5 decline in the case of tilapia and a 10.6 increase in the case of salmon.

European Union (Member Organization)

EU28 imports of tilapia fell by 16 percent in euro terms during the review period, pointing to continued challenges for tilapia marketers targeting this market. According to the European Union Fish Processors and Traders Association (AIPCE-CEP), the EU28 consumes only about 1 percent of global tilapia supply, most of which is in the form of frozen fillets coming from China. The unit value of Chinese-origin tilapia into the EU28 remained approximately

stable year-on-year, at an average of around EUR 2.25 per kg over the first three quarters of 2018.

US imports of frozen tilapia fillets (January-September)

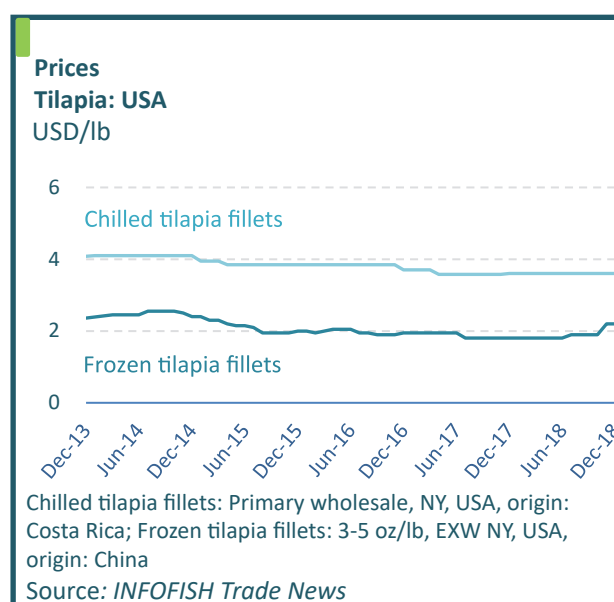
	2016	2017	2018
(1 000 tonnes)			
China	89.7	79.9	75.5
Indonesia	5.7	4.9	4.7
Mexico	1.5	0.4	1.1
Other countries	3.2	2.8	2.2
Total	100.1	88.0	83.5

Source: US Census Bureau

Prices

Average unit value of frozen Chinese tilapia into the United States of America was USD 1.71 per kg (CIF) in the first nine months of 2018, which is a small increase from USD 1.67 per kg in the same period in 2017 but marks a substantial decline from a peak of USD 2.22 per kg in 2014. The downward trend reflects the erosion of demand in the important US market, while the relative stability of the past couple of years is primarily a consequence of China's efforts to identify alternative markets. In contrast to China's diversification of its export markets, exporters in Latin America are still very dependent on the US market, and the price decline over the last few years means that a significant proportion of exported tilapia from these regions is being sold at a loss.

The rush by US importers to beat the anticipated tariff increase has also caused some disruption for the Chinese industry, with wholesale prices reportedly spiking in November on the back of US-lead demand.



OTHER NEWS

The African tilapia sector is grappling with fish health issues. In Ghana, around 100 tonnes of fish were lost at farms around Lake Volta in October, likely caused by a bacterial infection, while an additional 40 tonnes of mortalities were recorded in December. In Kenya, authorities are taking steps to mitigate the impact of suspected tilapia lake virus cases in Lake Victoria.

Outlook

The outcome of the trade negotiations between the United States of America and China during the first few months of 2019 will be a crucial focus for the global tilapia market as any decision to delay, reduce or remove the 25 percent tariff on imports of Chinese tilapia will have significant implications for the wider market. If the tariff does indeed come into force in March 2019, the decline in China's share of the US market can be expected to accelerate. At the same time, exporters in Latin America and in the rest of Asia will have to do some manoeuvring in order to take advantage of this opportunity, given that they generally try to avoid competing directly in the segment that Chinese tilapia occupies. Meanwhile, the importance of tilapia as a food fish can be expected to continue to increase in developing regions in Latin America, Africa and East and Southeast Asia.

Tilapia harvested from a freshwater pond in Kabacan, Philippines are cooked for lunch.



PANGASIIUS

GLOBEFISH HIGHLIGHTS

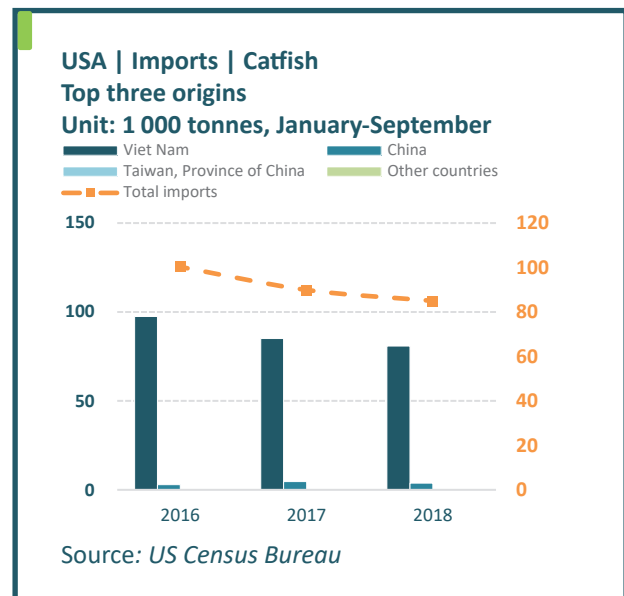
Trade war between China and the United States of America creates opportunity for Vietnamese growth

The value of Viet Nam's pangasius exports is expected to have reached USD 2.2 billion in 2018, with Chinese demand as the primary driver of revenue gains and high prices. The completion of a free trade agreement with the EU28 and a continuation of the trade war between the United States of America and China may revitalize sales in these other key markets in the coming years.

Production

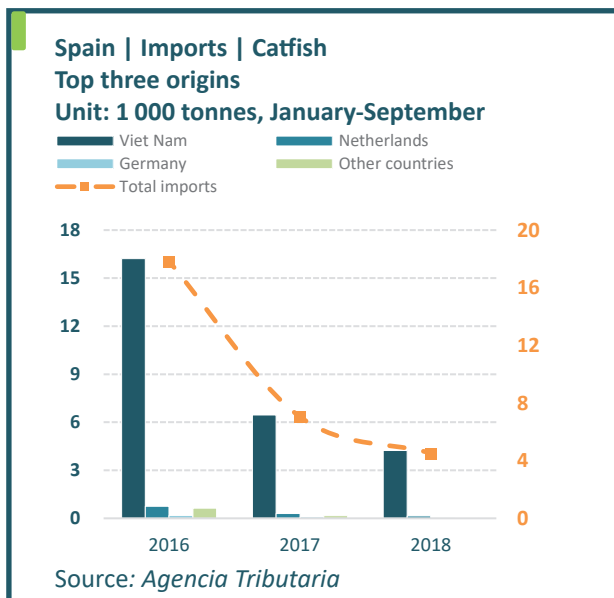
Total global production of farmed pangasius in 2018 is estimated to have reached some 2.8 million tonnes, an increase of some 6 percent compared with the previous year. Vietnamese production, concentrated in the Mekong Delta, accounts for around 45 percent of this total and 2018 harvests there are reported to be just below 1.3 million tonnes. Challenges with fingerling availability in Viet Nam earlier in 2018 caused some supply tightening, contributing to a sharp upward price trend. Industry expansion continues in Viet Nam, with farms getting larger and more high-tech. The latest major project, which is reportedly Viet Nam's largest ever, is a 200 000 tonne annual capacity site that will occupy 600 hectares in An Giang Province, expected to start operating in the fourth quarter of 2019.

Viet Nam's share of total global production is declining slowly though, primarily due to relatively faster growth in Indonesia, India and Bangladesh. Each of these countries now represents 15–20 percent of global production. Meanwhile, in China, what is still a small pangasius farming sector is expanding rapidly as the powerful Chinese aquaculture industry has begun to respond to strengthening domestic demand for the species, most of which is currently supplied by Viet Nam. Industry reports now suggest there are 20 factories processing farmed pangasius produced in South China. The estimated production capacity of the Chinese sector is only around 30 000 tonnes at present, meaning it will be some time before it represents a real competitor to Viet Nam in terms of volume.



Markets

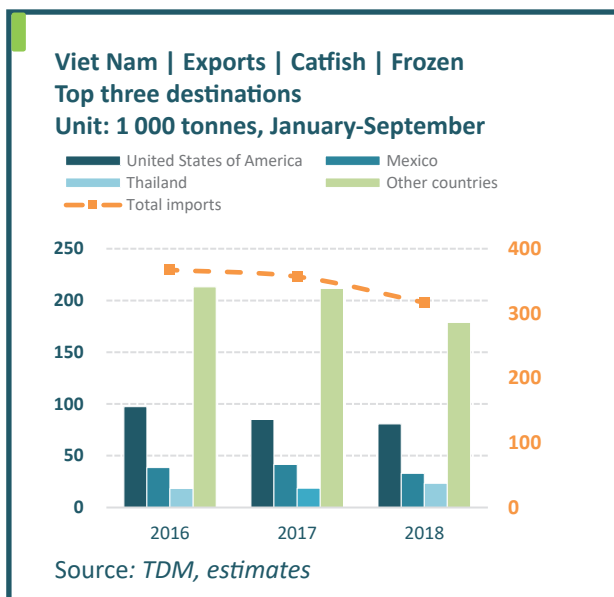
China's importance as a market for pangasius continues to expand, and it is becoming an increasing focus of Vietnamese marketers. Despite the good reputation of Vietnamese product in China, however, there is an awareness that China's own aquaculture sector has the potential to supply a significant proportion of the market. In response, the Vietnam Association of Seafood Exporters and Producers (VASEP) is exploring the possibility of establishing a market development fund which would facilitate brand building and sales networking abroad, an approach similar to that followed by the Norwegian seafood industry. The industry in Indonesia is pursuing a similar strategy to target markets in the Middle East, promoting a national brand at the Seafex trade show in Dubai in late 2018. Indonesia has been emphasising its less intensive farming methods to carve out a market segment for



Demand for Vietnamese pangasius in the Association of Southeast Asian Nations (ASEAN) region continues to grow, and exports to ASEAN markets reached USD 146 million in the first nine months of 2018, up 44 percent from the same period in the previous year. Thailand, the Philippines and Singapore all saw double digit growth for this period.

VASEP reported particularly good performance in the third quarter of 2018, driven by a jump in sales to the US market, likely driven by a need to secure whitefish volumes before the anticipated hike in China-origin import tariffs in early 2019. During the review period, Vietnamese exports to the US market increased 43 percent to USD 369 million.

After a number of years of negative growth, Viet Nam’s pangasius exports to the EU28 grew by 14 percent in the first nine months of 2018, to reach USD 176 million. The United Kingdom was the only major EU28 market registering a decrease, a reversal of the prior long-term trend that saw positive growth due to mainly successful retail campaigns, while the overall share of the EU28 declined.



Prices

Strong growth in China and the rest of Asia, an improvement in demand from the United States of America and the EU28, and a fingerling shortage in Viet Nam all combined pushed up pangasius fillet prices to USD 3.30 per kg (FOB Ho Chi Ming). This marks a significant improvement from the USD 2–2.5 per kg recorded for the majority of 2016 and 2017.

Outlook

Viet Nam’s position in both the United States of America and the EU28 markets will likely be strengthened. The first is the trade war between China and the United States of America. The US administration announcement about import tariffs on a range of China-origin products including tilapia, will potentially provide a shortage in the whitefish segment that pangasius can fill. This shortage will likely be exasperated by expected tightening in global wild groundfish supply in 2019. At the same time, Viet Nam finalized the details of a free trade agreement with the EU28 in 2018, and its potential approval in 2019 will see the current 5.5 percent import duty currently levied on the majority of pangasius products removed after a period of 3 years. Combined with an expected slowdown in Vietnamese production growth, the improved demand outlook on international markets should keep prices relatively high in 2019. While expansion will be faster in other producing countries, including in China, much of this output is consumed domestically and Viet Nam remains by far the most important supplier of the international market.

itself in a global market whose supply is dominated by Viet Nam. A significant proportion of Indonesian production is still absorbed by its domestic market, and the same is true for Bangladeshi and Indian output.

Trade

According to VASEP’s own figures, Viet Nam exported pangasius worth USD 1.59 billion in the first nine months of 2018. This is an increase of 23 percent compared with the same period in 2017, primarily a consequence of higher price levels during the year.

China and Hong Kong SAR secured their combined status as Viet Nam’s most important export market in 2018, with VASEP figures indicating that USD 377 million worth of pangasius were exported in the first three quarters of the year to these two markets. This represents approximately 24 percent of Viet Nam’s export revenue over this period.

BASS & BREAM

GLOBEFISH HIGHLIGHTS

Bass and bream prices hit multi-year lows as oversupply continues

The boom and bust cycle that is familiar to the Mediterranean bass and bream aquaculture sector is now firmly in the bust phase due primarily to rapid output growth led by the Turkish industry. Economic weakening and general uncertainty in important markets is adding to the challenges presented by steep price declines.

The consequences of over-optimistic juvenile stocking levels at Greek and Turkish farms over the past couple of years are now being felt on the European market for bass and bream. According to figures from Kontali, estimated total production for bass and bream in 2018 was 172 500 tonnes (+6 percent) and 200 500

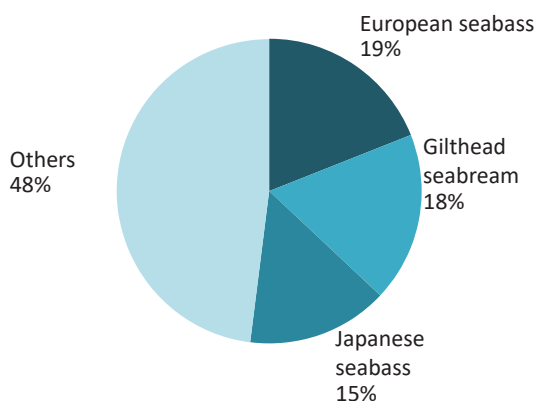
tonnes (+7 percent), respectively. Solid demand in important EU28 markets and promising growth in newer markets further afield represented an apparent opportunity for expansion. However, total output has simply increased too rapidly for what is still a relatively undeveloped market, when considered in terms of geographic range and product diversity. The result has been a pronounced downward price trend that showed no signs of slowing in the second half of 2018. In Italy, the largest single market for both species, September 2018 prices for 300–450 g Greek-origin fish stood at EUR 4.20 and 4.30 per kg for bream and bass, respectively. By December, prices had fallen further to EUR 3.80 per kg for bream and EUR 3.90 per kg for bass. These price levels have not been seen for six years in the case of bream and even longer for bass. For an industry in which EUR 5 per kg is often cited as an approximate breakeven price at the farm level, the longer the current situation persists the more damage will be inflicted on producer margins.

Only relatively small increases in Greek production of bass and bream were forecasted for 2018 and the latest export volume statistics suggest that this projection was accurate. However, after years of Turkish expansion of exports of seabass and seabream to the EU28, Greek exporters now compete directly with their Turkish counterparts in all major markets and have had to drop their prices in response to increased supply of cheaper fish from Turkey. This is particularly true for bass, which have been relatively more plentiful in 2018, but the downtrend in Greek bream export prices was also accelerating later in the year as post-summer demand weakened.

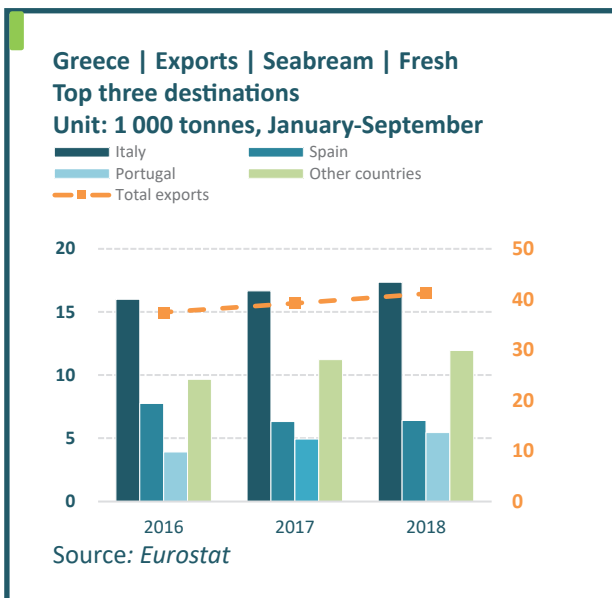
Greek exports of bass were down by 7 percent in value during the first 9 months of 2018. Italy remains by far the most important market for the Greek industry, absorbing 50 percent of Greece's bass output and around 40 percent of its bream production. The progress of the Greek sector in terms of developing alternative markets remains limited, held back in part by their pricing disadvantage. However, an emphasis on more coordinated marketing efforts and the consolidation of two of Greece's largest aquaculture companies into a single entity both represent positive steps taken by the industry in 2018.

In Turkey, 2018 was a year of record production levels, with further export market development and turbulent financial conditions. The economic factors behind the weakening lira, which has favoured exporters in their ongoing push to expand their share in the EU28 markets, are those that have also restricted access to credit for aquaculture companies and depressed domestic market demand. From the Turkish exporters perspective, the diminishing value of the national currency has provided a buffer against

Seabass and seabream production (2016)



Source: FAO



falling prices in the wider market, but the high rate of domestic inflation and associated issues brings other challenges with it. Italy and the Netherlands were the only two major export markets that did not see large increases in imports of fresh whole Turkish bass (and bream to a lesser extent) in the first 9 months of the year. However, exports of fresh fillets to the Netherlands were up. Greece stands out as the EU28 market with the most significant increase in imports of Turkish product over the same period, evidence that even Greek traders can no longer resist Turkish prices. Considering that Turkish FOB export prices for both species were around 20–25 percent lower than Greek equivalents in euro terms during 2018, it is easy to appreciate the appeal of Turkish-origin fish for EU28 buyers, despite any logistical advantages that Greek-sourced supply may offer. For growth markets in the Middle East, such as Lebanon, and in the Russian Federation, the combined advantage of more competitive pricing and established trade connections is such that Greece has not managed to gain any significant share of these markets.

Markets

Italy

According to the market research firm Kontali, Italian production of bass and bream is forecast to have expanded by around 10 percent in 2018, to around 11 000 tonnes of each species. While this is a significant increase in percentage terms, Italian production is still relatively low compared with Greek and Turkish production. Italy exports some volume marketed as high-end product to other EU28 markets such as France and Portugal, but the domestic market absorbs the majority of production. Although demand in Italy has been firm, economic forecasts are cautious and short-term price recovery here and elsewhere in the EU28 will depend on supply tightening rather than demand shifts.

Spain

With domestic production flat at around 20 000 tonnes of each species, Spain has been turning increasingly to Turkish-origin imports to meet consumer demand for bass and bream. Turkey's share of Spanish imports of bass (volume) was 45 percent in the first three quarters of 2018, compared with 22 percent in 2017 and 17 percent in 2016. The latest available reports from wholesale markets in Barcelona show bass prices down by 27 percent year-on-year and bream prices down by 20 percent as of November.

France

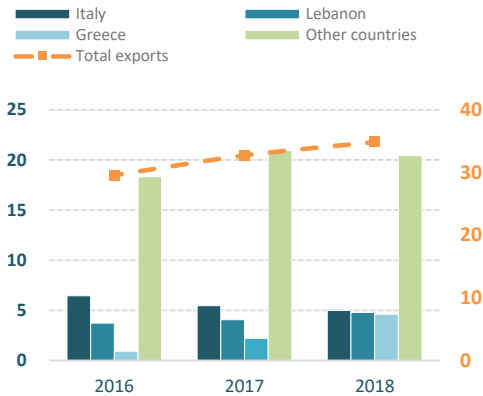
Market conditions in France are similar to those in Italy and Spain, with prices down across the board, even at retail level. Bass imports were up 8 percent in the first nine months of 2018, compared with the same period in 2017, while imports of bream were approximately flat. Greece remains France's top supplier, providing about 50 percent of its total imports of both species.

Other markets

Bass imports in the United Kingdom, mostly from Turkey, were up by about 13 percent in the first nine months of 2018, compared with the same period in 2017, while bream imports fell by 15 percent in the same period. In Germany, imports of both species fell over the same timeframe. Markets in the Middle East, such as Lebanon, United Arab Emirates and Kuwait, continue to increase their imports of Turkish bass and bream, encouraged by the low price level.

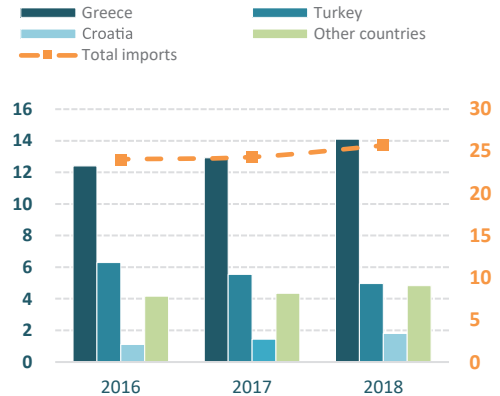
According to the data from the Federal Customs Service of the Russian Federation, Russian imports of fresh bass and bream in the first three quarters of 2018 amounted to 5 100 tonnes, about 7 percent more compared with the same period in 2017. Seabream imports decreased slightly to 2 578 tonnes

Turkey | Exports | Seabream | Fresh
Top three destinations
Unit: 1 000 tonnes, January-September



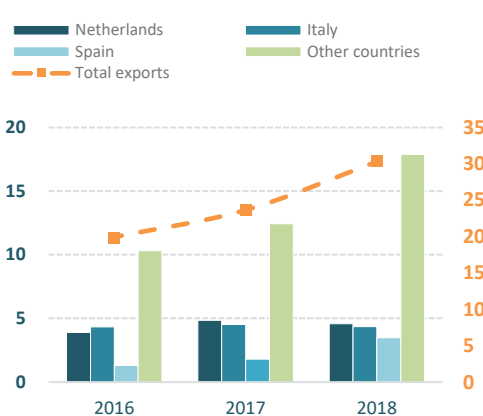
Source: State Institute of Statistics

Italy | Imports | Seabream | Fresh
Top three origins
Unit: 1 000 tonnes, January-September



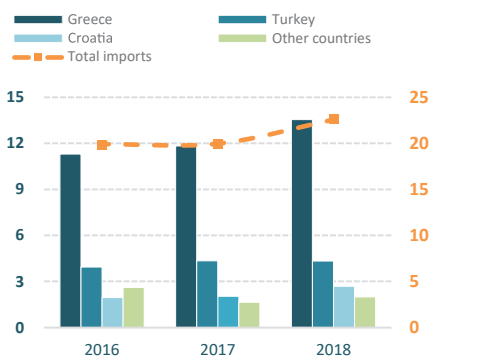
Source: ISTAT - National Institute of Statistics

Turkey | Exports | Seabass | Fresh
Top three destinations
Unit: 1 000 tonnes, January-September



Source: Turkey Statistical Institute

Italy | Imports | Seabass | Fresh
Top three origins
Unit: 1 000 tonnes, January-September



- National Institute of Statistics

Source: ISTAT - National Institute of Statistics

in 2018 from 2 613 tonnes in 2017. Seabass imports increased to 2 500 tonnes from 2 100 tonnes in 2018 and 2017 respectively. Turkey is by far the leading supplier of seabass and seabream to the Russian Federation, providing 99.8 percent of seabass and seabream volume on that market. The major proportion of Turkish supply is typically shipped to Moscow and St. Petersburg, but Turkish companies have also started to send trucks with frozen seabass and seabream products to Kaliningrad.

Outlook

Prospects for a demand-led price recovery for seabream and sea bass are very limited, given the curbing economic growth in the Eurozone, the numerous uncertainties related to Brexit and the deteriorating conditions in the Turkish economy. Emerging markets in alternative regions have shown promise, but the industry is still overwhelmingly dependent on the large EU28 markets. The current lull can be expected to continue until aggregate supply tightens significantly. Estimates of juvenile stocking for 2018 are not yet available and thus reliable forecasts for supply over the next two years are difficult to make. However, the consolidation of the Greek industry and the more restrictive business environment in Turkey are two factors that could contribute to more cautious and coordinated production planning, in addition to the strong disincentive of unprofitable price levels.

On the market side, demand for fillets and other processed products, as well as the launch of the new Aquaculture Stewardship Council standard for bass and bream, provide opportunities for value addition and product diversification. At the same time, expectations for reduced wild groundfish supply may see consumers purchasing more bass and bream to meet their demand for whitefish.

SALMON

GLOBEFISH HIGHLIGHTS

Chile leads growth as Norway and Scotland grapple with fish health issues

The Chilean farmed salmon sector led global supply growth in 2018, surpassing levels achieved prior to the mass algal bloom mortalities experienced in 2016 while maintaining its profitability. A relatively lower rate of production growth in Europe, particularly in Scotland, helped to support continued high global prices in the first nine months of 2018.

Production

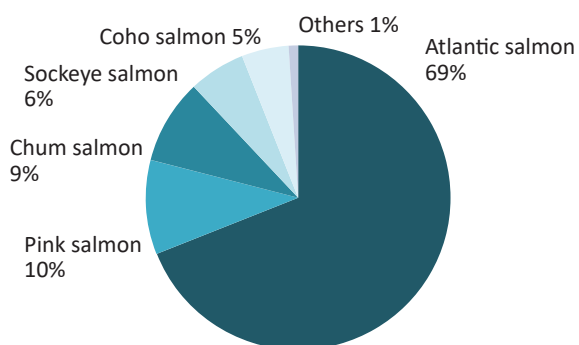
Atlantic salmon

Total global production of farmed Atlantic salmon is estimated to have reached 2.5 million tonnes in 2018, a 5–6 percent increase of 130 000 tonnes over 2017. Norwegian production grew by some 5 percent, while Scottish harvests were sharply reduced, -20 percent, as a result of severe biological challenges at farm level. Chile saw an increase of 14 percent in 2018, continuing a steady recovery since the algal bloom of 2016.

For the last two years, Norwegian production has been growing at a relatively slow rate, due to regulatory constraints and sea lice difficulties. Towards the second half of 2018, high seawater temperatures saw 8 percent of all Norwegian farms report sea lice levels above the regulatory limit, and this pushed down harvest weights toward the end of the year. A recent report from the research institute Nofima showed a 5 percent increase in average costs at Norwegian farms, driven specifically by operating costs including those related to smolt raising and disease management.

In Scotland, a variety of disease and environmental factors such as plankton blooms saw total farmed Atlantic salmon production in 2018 reduced to 150 800 tonnes. This is the lowest since 2009, with some farms experiencing mortality rates of more than 50 percent. A government report released in November recognized the economic value of the Scottish salmon farming industry but also emphasised the need to introduce more effective

Salmon production by species, both wild and farmed (2016)

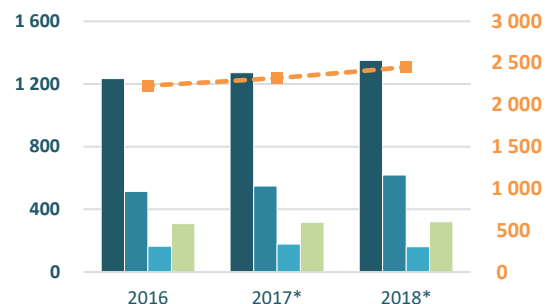


Source: FAO

Top three global producers of farmed Atlantic salmon

Unit: 1 000 tonnes

Legend: Norway (dark blue), United Kingdom (light blue), Chile (medium blue), Other countries (green), Total production quantity (orange dashed line with squares)



Source: FAO (2016), *estimate

regulatory standards to address fish health issues and to better manage the sector's environmental impact.

The Chilean salmon farming sector achieved very positive results in 2018. Costs have fallen and biological conditions at farms have reportedly improved, reflected in higher harvested weights that have surpassed even those seen in Norway. Consolidation of the sector continues, with two USD 800+ million acquisitions in 2018. Chile's new and still evolving regulatory framework, which comprises a variety of measures including output caps and incentives for lower antibiotic use, has brought some successes but is also facing some criticism. A number of Chilean aquaculture companies have started legal proceedings against the government, claiming that their businesses have been unfairly penalized by the new regulations.

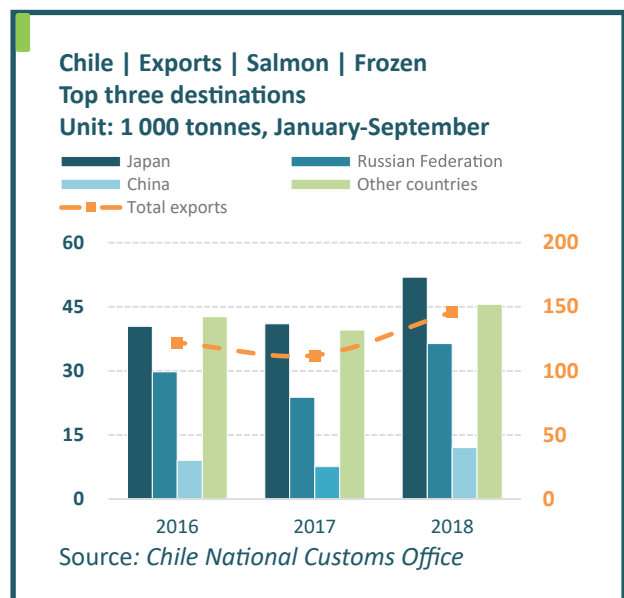
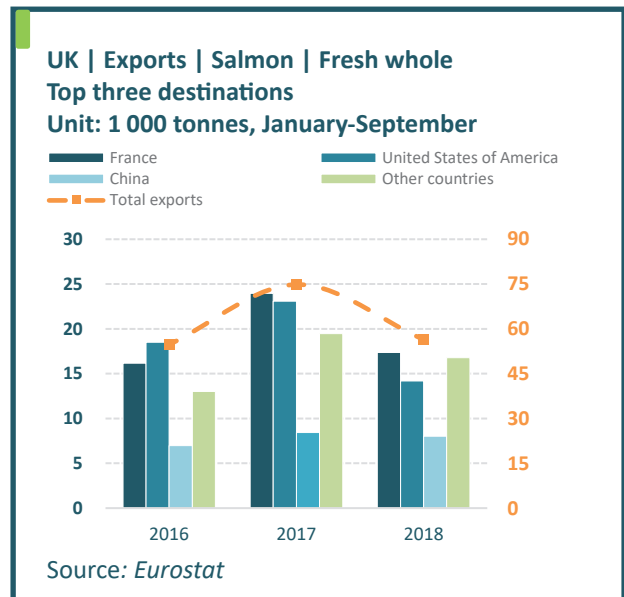
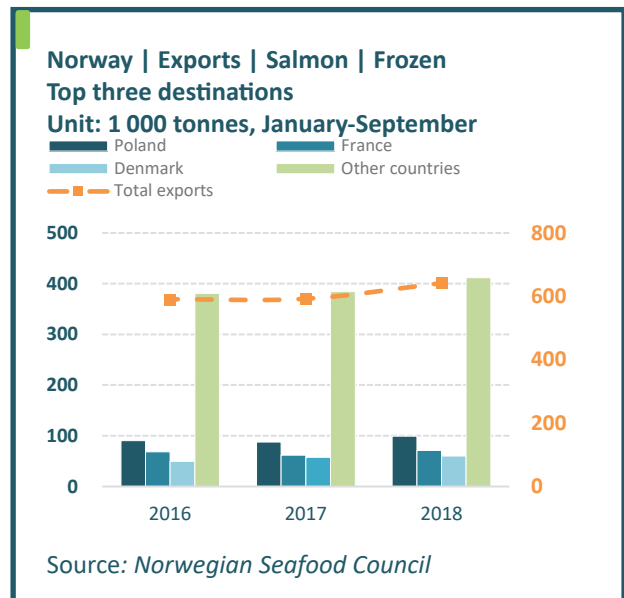
While demand for farmed salmon in old and new markets shows no signs of abating, the traditional methods and regions of salmon farming are limited in their potential rate of future growth due to geographic, technological and regulatory constraints. This is driving efforts to develop new approaches to farming, mainly focused on closed containment technologies, sited both on land and at sea. At the same time, new aquaculture operations are being set up in a variety of geographically dispersed countries, including Iceland, the Russian Federation and China.

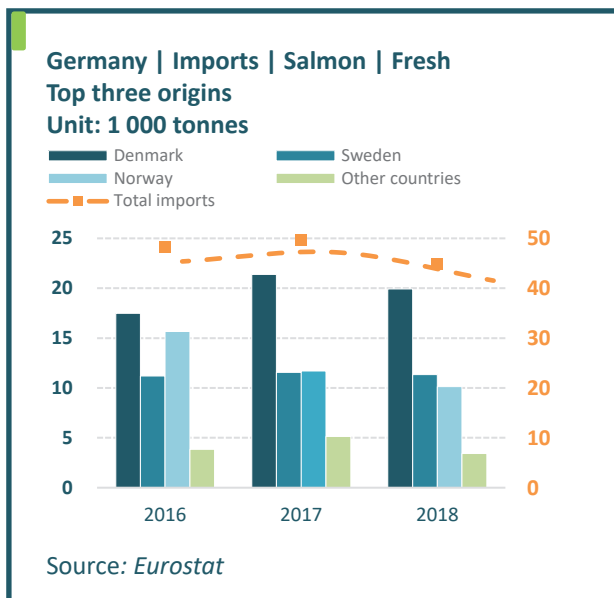
Other farmed salmonid

Full year figures for Chilean farmed coho salmon harvests are not yet available, but estimates for the first half of 2018 put total production about 25 percent higher than during the same period in 2017. In Norway, production of farmed trout for 2018 is expected to be some 15 percent higher than the previous year, while standing biomasses as of December 2018 were 16 percent higher than December 2017. This reflects the strong recovery in output that the sector has achieved after 18 months of extremely tight supply that sent prices soaring.

Wild salmon

Global wild salmon catches in 2018 increased by around 10 percent, primarily as a result of record pink salmon catches off the Kamchatka Peninsula in the Russian Far East which exceeded 500 000 tonnes. Sockeye and chum catches in the Russian Federation reached 44 000 tonnes and 82 000 tonnes, respectively. In Alaska, wild salmon catches were well below forecast, with estimated pink, sockeye and chum catches of 74 000, 123 000, 65 000 tonnes, respectively.





Markets

Demand for salmon continues to grow strongly in markets across the world despite the elevated prices, clearly demonstrating its unique, near universal appeal as a seafood option. Highly technologically developed aquaculture and production that is balanced between both hemispheres ensures full-year availability. The size, known health benefits and versatility of the fish itself cements its competitive advantage versus alternative species, including other commodity aquaculture products such as tilapia and pangasius. According to a recent study by Rabobank, growth in demand for salmon has significantly outpaced demand for terrestrial meats such as poultry, pork or beef, with an average yearly increase of 4.5 percent from 2007 to 2017.

While the United States of America, Japan and core EU28 markets continue to represent some of the most important markets for salmon producers, the majority of demand growth is coming from emerging economies and also from more peripheral developed markets. In the EU28 for example, France and Germany have seen little increase in salmon consumption in recent years, while consumption in countries such as Italy has risen sharply over the same timeframe. Even in relatively saturated markets like France, the largest EU28 market, demand was still strong enough to absorb consistent volumes even as prices rose.

In Asia, the enormous potential of China as a seafood consumer market means it is increasingly a priority target for salmon exporters and marketers all over the world. The tastes and preferences of Chinese consumers in terms of product forms, packaging and branding are becoming more important areas of focus for the salmon industry, although recent funding cuts to the Norwegian Seafood Council (NSC) may negatively impact these efforts in the medium term. Other markets in East and Southeast Asia are also growing fast, but they will continue to trail far behind China in terms of total market size.

Trade

According to the Norwegian Seafood Council (NSC), Norway exported 759 000 tonnes of salmon worth NOK 49.4 billion (USD 6.15 billion) in the first nine months of 2018. This was a 4 percent increase in value compared with the same period in 2017, despite a small decrease in average price. The EU28 market, led by France and Poland, is once again increasing its share of Norwegian supply after previously losing some ground to demand from the United States of America and Asia. This is partially the result of a Norwegian krone that is at decade lows against the euro. It is also because of the success that competing suppliers such as Chile, the United Kingdom and Canada have achieved in the United States of America and in Asian markets including China, thus somewhat replacing the Norwegian product there.

Norway's exports of farmed trout increased by some 22 percent in the first three quarters of 2018, according to the NSC, up to a cumulative total of 31 500 tonnes worth NOK 2.1 billion. Following the introduction of the Russian Federation import ban, the Norwegian trout sector has made great inroads in developing a range of geographically diverse markets and its top three export destinations are now Belarus, the United States of America and Japan.

In Chile, good harvests and high prices in 2018 are expected to have translated into record sales. The Chilean Salmon Industry Association (SalmonChile) estimated more than 850 000 tonnes of salmonids were shipped, worth USD 5 billion, figures that represent a historic peak. In the first nine months of the year, according to IndexSalmon, cumulative Atlantic salmon, coho and rainbow trout exports amounted to 439 100 tonnes, up 22.7 percent compared to the same period of 2017. In value terms, exports grew 9 percent to USD 3 661 million, while average prices fell by 11.2 percent to USD 8.34 per kg.

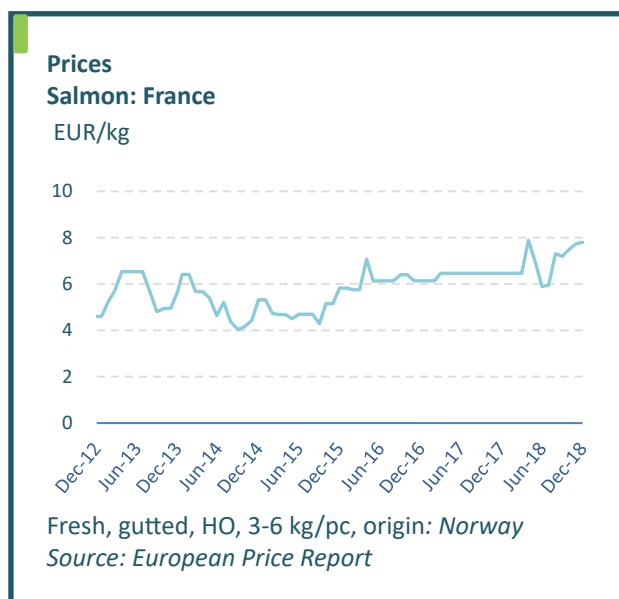
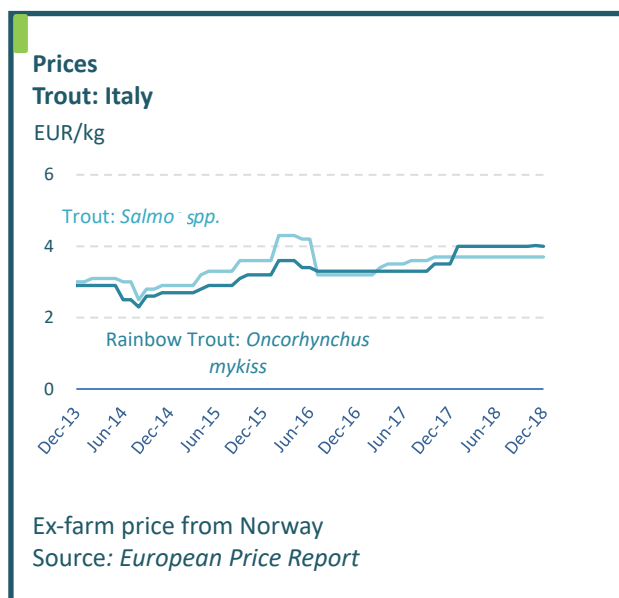
This export performance is due to successful positioning of Chilean salmon in the US and Asian markets, the result of the combined efforts of the industry as a whole. The United States of America remains Chile's most important market with 29 percent of the volume share and 37 percent in value. According to the National Oceanic and Atmospheric Administration (NOAA), 299 000 tonnes of salmonids were imported by the United States of America in the first nine months of 2018, worth USD 3 billion, and Chilean-origin salmon accounted for some 45 percent of the total value of US salmon imports.

The United States of America is followed by Japan with 18 percent and 16.8 percent (primarily coho salmon) of Chilean export volume and value respectively, and Brazil with 14.5 percent and 11.8 percent. Chile is also expanding its market share in both China and the Russian Federation, both of which are markets following strong upward growth trajectories in recent years.

In the United Kingdom, although the continued weakness of British pound is theoretically positive for exporters, the sharp drop in production created a decline in exports in both volume (-18 percent) and value (-14 percent) terms. US-directed exports, in particular, were down by 32 percent in value terms as relatively more product was directed to the French market. The Scottish industry is still waiting for ongoing Brexit negotiations to be resolved. The Scottish Salmon Producers Organization (SSPO) has added its voice to those rejecting the option of a “no deal” Brexit, suggesting that this outcome would result in GBP 2 billion in lost annual sales.

Prices

Export prices for Norwegian farmed Atlantic salmon reached a peak of NOK 80 per kg on week 19 of 2018, reaching near-record levels. This was a temporary spike and prices moderated quickly as increased harvest volumes brought some relief throughout the summer. The average price for fresh



whole Atlantic salmon exported from Norway over the first nine months of the year was NOK 61.82 (USD 7.69) per kg, a similar level to both 2016 and 2017. For fresh fillets exported from Chile to the US market, the second quarter spike saw prices reach USD 13.93 per kg, but by mid-summer they had fallen back to around USD 11.24 per kg. These levels are now generally accepted by the sector as the new price plateau, and Nordea bank analysts recently suggested that further upward movement could only be prevented with annual supply growth of some 6–7 percent.

Outlook

The Chilean sector is expected to significantly moderate its rate of expansion in 2019, with a projected growth rate of 3 percent. Although Norwegian output is expected to increase by some 6 percent this year, the net result is an estimated 4 percent increase in total global production of farmed Atlantic salmon to around 2.6 million tonnes. Given the current trajectory of demand growth, this is likely to be insufficient to prevent further price increases and a range of NOK 62–64 (USD 7.44–7.68) per kg is expected for the 2019 average price for fresh whole Atlantic salmon.

Diseases and environmental events such as algal blooms remain ever-present threats, particularly in times of increasing climatic volatility, and the resulting supply shocks could send prices to extreme heights.

On the market side, numerous economic uncertainties may potentially impact salmon consumption in 2019, but the impressive rate of demand growth globally represents something of a buffer that should prevent prices from dropping too far, particularly when compared with the current limits on supply expansion.

SMALL PELAGICS

GLOBEFISH HIGHLIGHTS

Reduced mackerel landings, but herring and anchovy look stronger

Mackerel landings weakened in 2018. The outlook for 2019 is for further reductions and consequently prices will come up. Herring and anchovy catches are expected to be good in 2019.

Mackerel

Norway's autumn mackerel season started slowly in early October. In September, bad weather caused much of the fleet to stay in port, and landings were few and far between. The main problem was unfavourable weather conditions, which persisted

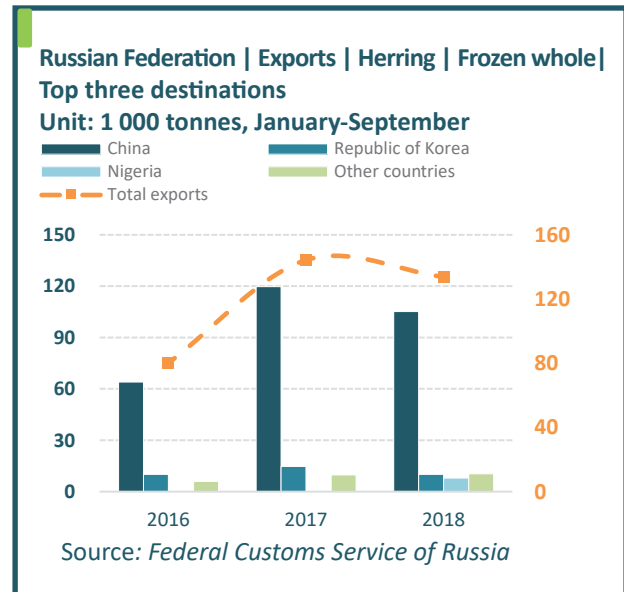
for weeks. As of mid-October, Norwegian mackerel landings amounted to only 74 000 tonnes, compared to 180 000 tonnes at the same time in 2017. This caused prices at the first-hand level to shoot up by over 35 percent.

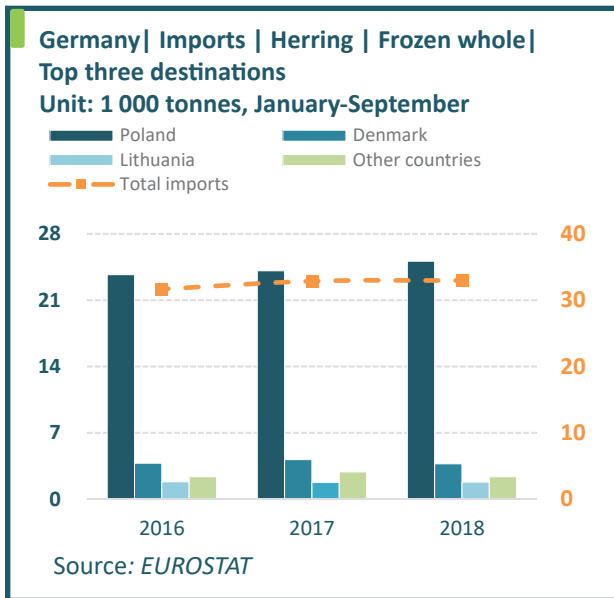
Spain has received an additional 3 000 tonne quota for horse mackerel, through negotiations with Portugal. The agreement took effect in October and concerns the Cantabrian and northwest coastal fleet and the Gulf of Cadiz.

Herring

According to the Norwegian pelagic sales organization, Norges Sildesalgslag, 2018 was a good year for Norwegian fishers catching pelagic fish for the fishmeal industry. The organization had a record turnover of NOK 7.9 billion (USD 930 million), an increase of about NOK 800 million or 11.3 percent. This substantial increase was due to boosted sales to the fishmeal and fish oil sector. The total volume handled by Norges Sildesalgslag amounted to 1.6 million tonnes, almost 70 percent of all fish landed in Norway during 2018. As much as 740 000 tonnes of that went for reduction purposes. This was an increase of 140 000 tonnes compared to 2017. Prices for raw material to fishmeal and fish oil industry went up by about 50 percent.

Norway's herring quota for 2018 was fully caught by 5 December. In fact, the landed catch amounted to 326 900 tonnes, 7.4 percent more than the quota set at 304 500 tonnes.





Norway's exports of round frozen herring increased slightly to 86 900 tonnes during the first nine months of 2018. Total herring exports (including all product forms) increased from 176 900 tonnes in the first nine months of 2017 to 198 500 tonnes during the same period in 2018 (+12.2. percent). Preliminary figures for the full year indicate that a total of 229 000 tonnes of herring was exported in 2018, but prices fell during the year. The main markets for Norwegian round frozen herring were Egypt, Lithuania and Ukraine.

German imports of prepared or preserved herring products were practically the same in the first nine months of 2018 as in the same period in 2017. A total of 33 000 tonnes was imported in 2018, and the main markets were Poland, Denmark and Lithuania.

Anchovy/Sardines

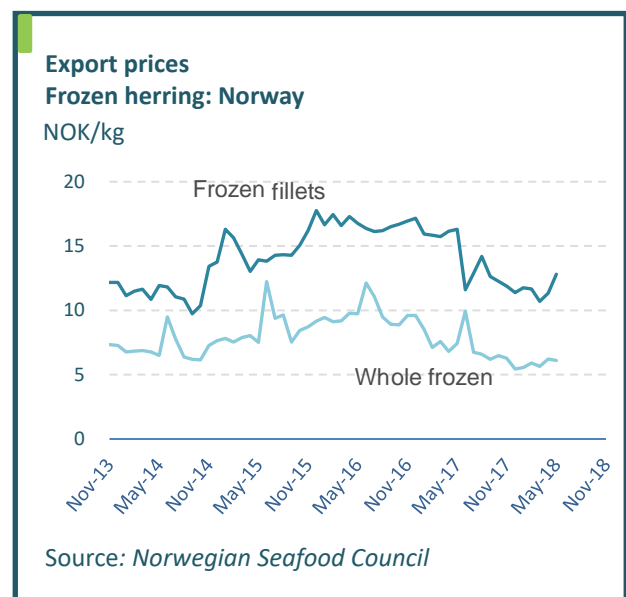
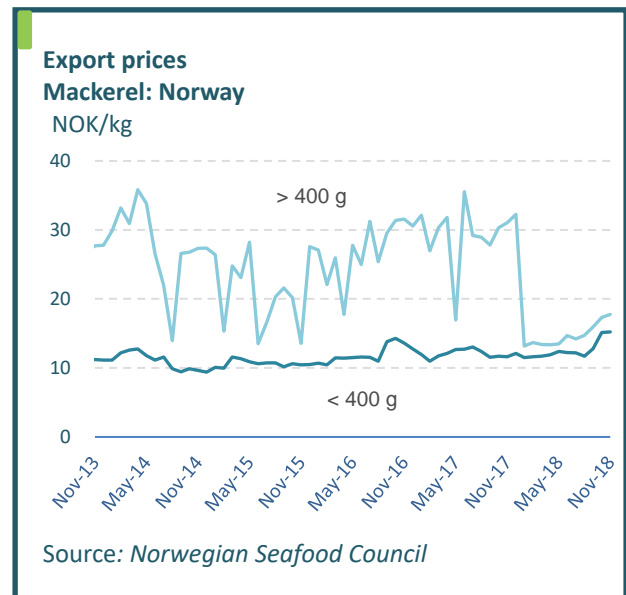
The second season of the Peruvian anchovy fishery started strong on 15 November. During the first week of fishing after the season opened, 18 percent of the 2.1 million tonne quota was caught (381 400 tonnes). Previously, a temporary quota of 400 000 tonnes was set, but this was increased on 15 November. The quota was based on information provided by the Ministry of Production that indicated a biomass of 7.2 million tonnes in the central-northern stock. The National Fisheries Society (SNP) estimated that a total of 6 million tonnes of anchovies was landed in 2018. This is the highest level in six years.

Trade

China's imports of round frozen mackerel increased from 134 800 tonnes during the first nine months of 2017 to 168 100 tonnes during the same period in 2018 (+24.7 percent). The main suppliers were the Philippines, Indonesia and Thailand.

Norway's mackerel exports (including all product forms) during this period fell by 44 percent, from 134 900 tonnes to 93 400 tonnes. Exports of round frozen mackerel went down by 31 percent to 88 500 tonnes. The main importers were Japan (11 300 tonnes), China (10 600 tonnes) and Turkey (9 800 tonnes).

Russian Federation exports of round frozen herring fell by 7.3 percent to 133 900 tonnes (first nine months of 2018 compared to the same period of 2017). China was the largest market for herring from the Russian Federation, accounting for 105 200 tonnes or about 79 percent of total Russian Federation exports. The Republic of Korea was the second most important market, accounting for about 7.5 percent.



CUTS ON FUNDS FOR NORWEGIAN SEAFOOD COUNCIL

After having operated the NSC on a pretty generous budget level for almost 30 years, the Norwegian government has decided to cut back on the levy that finances NSC. It was decided to lower the levy from 0.75 percent on the export value to 0.6 percent in 2016, and further to 0.3 percent in 2017 and 2018. Pelagic sales organization Sildesalgslaget is lobbying for a return to 0.6 percent, but the Government will not consider this until later in 2019, and such a change would not be implemented until 2020–2022.

The cutback means that funds for marketing of pelagics will be cut from NOK 30 million to NOK 10 million (approximately USD 1.2 million). Sildesalgslaget has therefore decided to make NOK 9 million of its own money available for pelagic marketing. Sildesalgslaget will control this money, but the organization emphasizes that it will work in close cooperation with NSC. While NSC is financed by an export levy on all seafood products exported, Sildesalgslaget is owned by the fishers and financed through its sales, which include all first-hand sales of pelagic fish in Norway.

Outlook

In late November 2018, the EU28, Norway and the Faroe Islands agreed on a TAC for the northeast Atlantic mackerel at 653 438 tonnes for 2019. This represents a 20 percent cut compared to 2018. International Council for the Exploration of the Sea (ICES) had recommended a much more drastic cut to just 318 403 tonnes in the TAC for 2019. In 2017, ICES advised a TAC of 857 185 tonnes.

Representatives of fishers organizations were disappointed by the cut, but also relieved that the original ICES cut advice was not taken. Fishers claim that the resource is in much better shape than ICES believes. Part of the agreement between the three parties also included that ICES should re-evaluate the mackerel advice in early 2019.

Just before Christmas, the three parties also signed an agreement about reciprocal access for 2019. The agreement does not involve joint management, but it does give provisions for transfer of fishing opportunities and access to each other's waters. The parties will grant reciprocal access to fish 24 690 tonnes of mackerel in 2019 (down from

30 877 tonnes in 2018). For blue whiting the reciprocal access was set at 22 500 tonnes and for Atlanto-Scandinavian herring at 4 000 tonnes.

According to Nordea Bank, further reductions in quotas must be expected in coming years. This will undoubtedly lead to increasing prices and the bank now expects these price increases to come earlier than previously anticipated. One likely consequence of this may be that more mackerel will be diverted to the best-paying markets, leaving less for the poorer markets. In addition to tighter supplies, other driving forces behind the price increases include the trend for an increase in filleting, more precise sorting of mackerel over 600 g, increased demand in Asia and more product development.

Mackerel landings in 2019 are set to come down as the TAC in the North Atlantic and the North Sea has been reduced. Prices have been rising and will continue to rise during the next twelve months.

For herring, supplies will increase significantly in 2019. As a result, prices will continue to fall. The outlook for anchovy catches off South America is good, and the El Niño effect is expected to be moderate. Consequently, supplies are expected to be good, and more anchovies will be going for reduction (fishmeal and fish oil). Prices will probably go down.

Based on recent surveys, the Norwegian Institute of Marine Research stated that the 2016 class of Norwegian spring-spawning herring was the strongest year-class since 2004. ICES seems to agree, for they advised a quota of 588 562 tonnes for 2019. Following this announcement, the coastal states agreed on a quota in line with the ICES advice. The 2019 quota represents an increase of 53 percent compared to the 2018 quota. Norway gets the lion's share, that is 429 650 tonnes or 73 percent. Of the total quota, Norway may catch up to 34 484 tonnes in the EU28 zone north of 62 degrees North. Similarly, the EU28 has the right to catch an equal amount in Norwegian waters.

While the MSC announced that certification for the Norwegian spring-spawning herring fishery would be extended, it also stated that certain improvements would have to be implemented fast. Management of the resource needs to be improved and a new condition of developing a precautionary harvest control was introduced.

The Alaska Department of Fish and Game increased the TAC for the Togiak herring sac roe fishery slightly to 24 430 tonnes in 2019, up from 24 042 tonnes in 2018. The TAC is divided between purse seiners and gillnetters. Purse seiners get 80 percent of the TAC, leaving 20 percent for the gillnetters.

The first anchovy season of 2019 in Peru's southern region was set to begin on 8 January with a maximum TAC of 540 000 tonnes. The first season will last until June 30 or until the quota is filled.

Peru's Ministry of Production does not expect El Niño to have any serious impact on the 2019 anchovy season. Apparently, the intensity of the El Niño will be mild to moderate in 2019. In the period from 2014 to 2016 the anchovy sector was hit hard by the El Niño effect. Peruvian anchovy landings dropped from 4.8 million tonnes in 2013 to just 2.3 million tonnes in 2014.



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FISHMEAL & FISH OIL

GLOBEFISH HIGHLIGHTS

Peruvian anchovy TAC highest since 2011

Peru approved a TAC for 2018 above 5 million tonnes, the highest since 2011. Landings of raw material have been quite positive, leading to a production of fishmeal of approximately 1.4 million tonnes. Fishmeal prices have been stable recently, but the price is expected to be slightly lower soon.

Production

In November 2018, the Peruvian government set the TAC for the second anchovy fishing season in the north and central region at 2.1 million tonnes. This season would end when the total quota is reached or upon the recommendation from the Marine Institute of Peru. A combined quota for the two seasons of 2018 reached 5.42 million tonnes, the highest since 2011, which confirms the normalization of climate conditions and favourable biomass of anchovy on that coast.

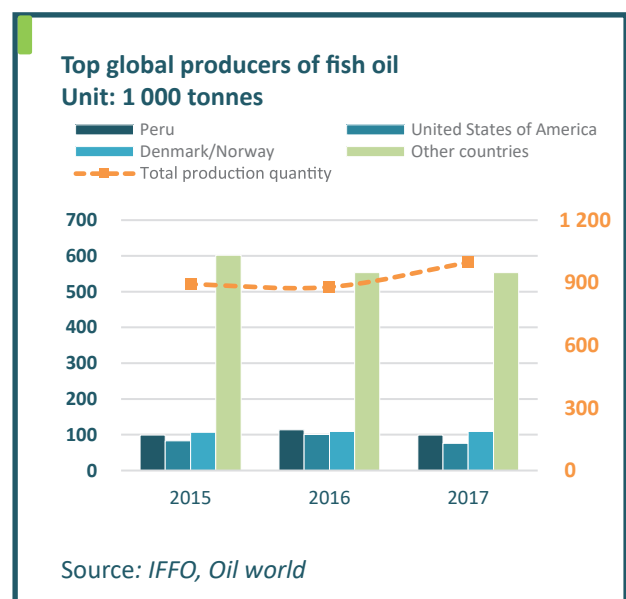
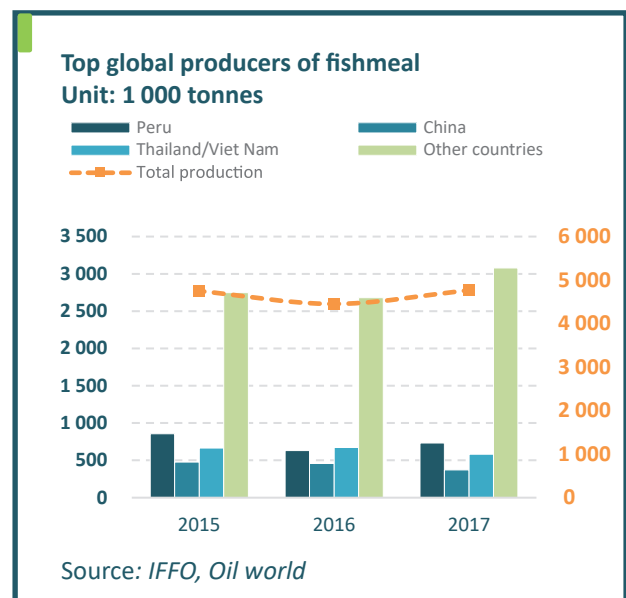
The quota was almost fully fulfilled and therefore there is a good supply of fishmeal and fish oil products on the global market. An estimated 1.4 million tonnes of fishmeal has been produced in Peru in 2018, up by more than 90 percent comparing with 2017. Peru also more than doubled its output of fish oil to 227 000 tonnes in 2018, from approximately 102 000 tonnes in 2017.

The TAC allocated in the past eight years, only in the central-north region in Peru.

Reduction fisheries in Chile and Iceland also reported growth in 2018. Landings of raw material in Chile increased by around 10 percent compared with 2017. These together with salmon trimmings were used to produce a total of 378 000 tonnes of fishmeal, representing a 21 percent increase year-

on-year. Fishing quotas for small pelagics in Iceland have been achieved successfully, with landings of Icelandic herring reported at half of the set quota.

The total yield of fish oil from Denmark and Norway increased by 18 percent to 75 000 tonnes in 2018, from 64 000 tonnes in 2017.

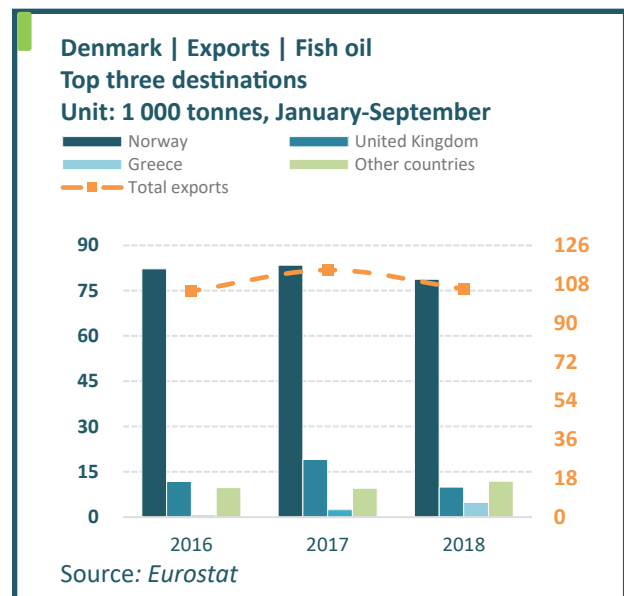
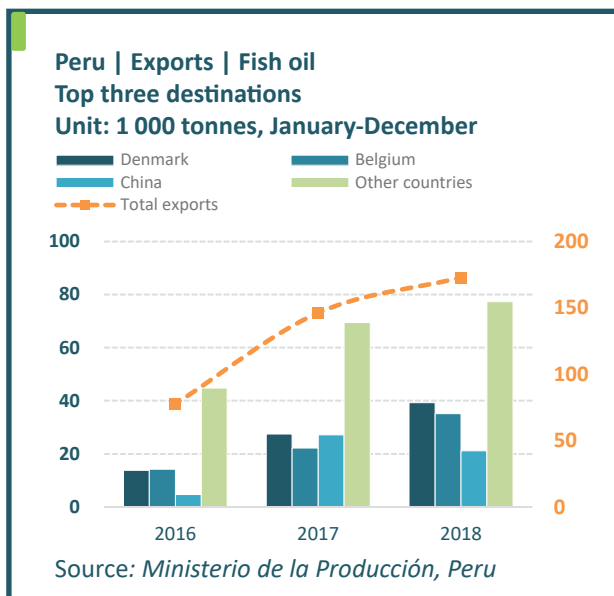
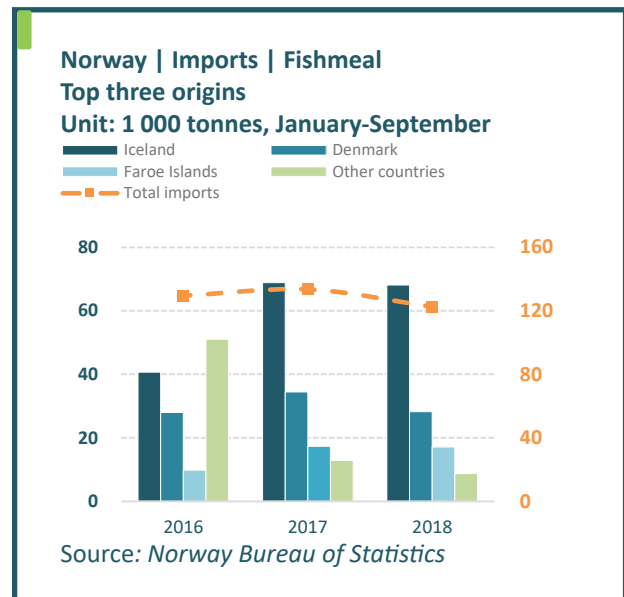


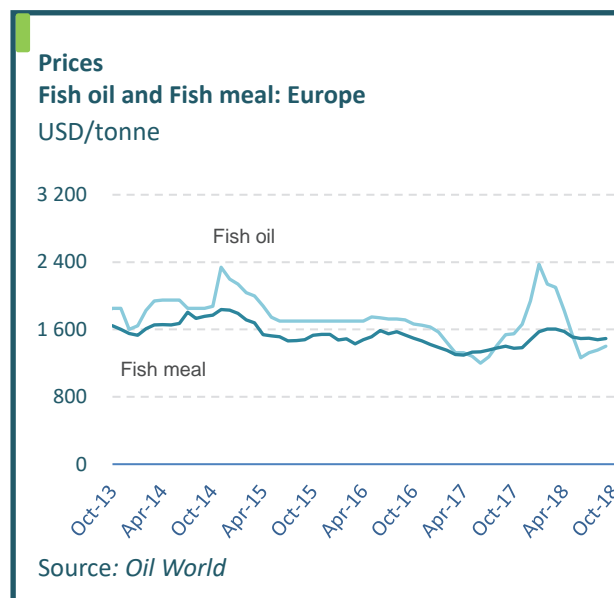
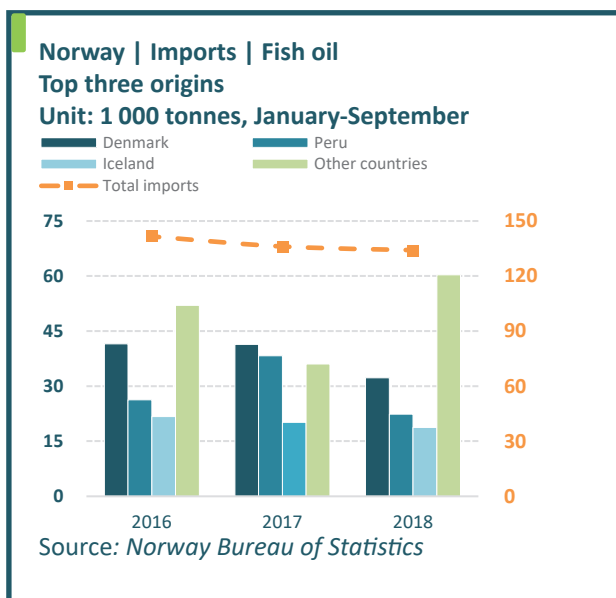
Export

In 2018, Peru confirmed its leading role with more than 950 000 tonnes of fishmeal exports during the first three quarters of the year. That amount was similar to the exports of 2017, but more than 70 percent higher than during the same period in 2016.

Over 80 percent of the Peruvian exports were destined for China. Japan and Viet Nam absorbed 4 and 3 percent, respectively. According to the newly released statistics from FAO in 2018, Asian countries contributed to more than 90 percent of the global aquaculture production. This statement is further substantiated by the trade flow of fishmeal that was the main component of the feed.

Chile and Denmark, as always, were the second and third largest exporters of fishmeal during the first nine months of 2018. Chile exported mainly to the Asian market, whereas Danish produce was mainly consumed by its neighbouring countries.





Peruvian exports of fish oil reached 173 000 tonnes in the first three quarters of 2018, some 18 percent more than in the same period of 2017. Denmark, as the second largest exporter, shipped over 70 percent of its fish oil products to Norway, for the salmon farming industry there.

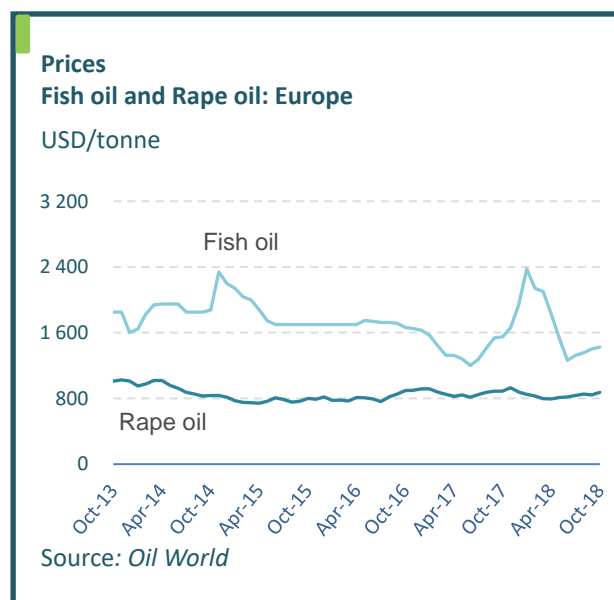
Markets

Chinese imports totalled more than 1 million tonnes during the first three quarters of 2018, approximately 72 percent of which were supplied by Peru. Shipments from China's neighbouring countries have increased, in particular Viet Nam and Thailand. Their proportion during the review period was approximately 20 percent in 2018, in contrast to less than 1 percent a decade ago.

The biggest importer of fish oil products, Norway, imported roughly the same amount as in 2017 during the first nine months, around 134 000 tonnes, supplied mostly by Denmark, Peru and Iceland.

Price

Since late November 2017, fishmeal price has increased as a result of market fear triggered by a suspended second fishing season in Peru. After the commencement of the first fishing season of 2018, price began to normalize, with a soft downward trend, due to several factors. First, fishmeal stocks held in China have reached a high point which in turn prevented Chinese buyers from purchasing more in case demand lowers. Second, African swine fever occurrences in China could be impacting fishmeal imports, as it is widely used in piglet farming.



Outlook

The lack of El Niño and good biomass of Peruvian anchoveta improved global fishmeal supply during 2018. The positive production situation is believed to continue in 2019. The stocks in Chinese ports are high, which could have a downward pressure on fishmeal price, but to what extent is yet unclear. In the short term, the price of fishmeal and fish oil may gradually decline or stabilize at current levels, but in the long term, price correction will take place based on the supply and demand balance.

LOBSTER

GLOBEFISH HIGHLIGHTS

United States of America losing market share to Canada and Australia

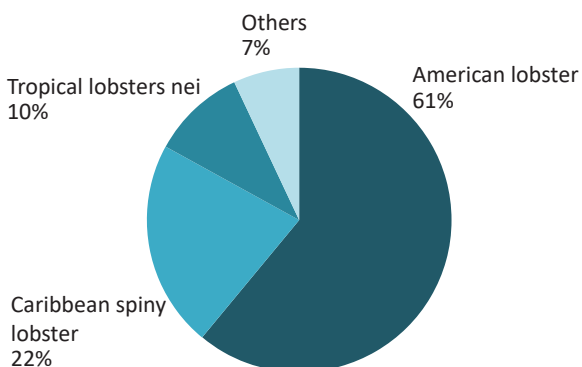
Improved market access to China and the EU28 for Canada, and increasing interest in Australian rock lobster in China, means tougher competition for US exporters. In addition, landings of North American lobster have been low during the start of the 2018/2019 season.

Water temperatures on the Canadian east coast in Nova Scotia were lower than normal at the beginning of the season, which started on the last Monday of November. The lobsters are hiding under rocks and staying away from the traps. This resulted in 25–50 percent lower catches during the first few weeks of the season. Consequently, supplies have been very tight and prices soared. According to observers, it may get worse as the cold winter sets in and water temperatures sink further.

The lobster industry in Western Australia is in uproar over a move by the Western Australia Government, which in early December announced that the Government would nationalize part of the Western Australian rock lobster fishery by taking a 1 385 tonne quota for itself. At the same time, it was announced that the total quota for this fishery would be progressively increased from 6 300 tonnes to 8 000 tonnes. The quota to be held by the government amounts to about 17 percent of the total fishery.

In South Africa, there is also fighting over rock lobster, but for a different reason. World Wide Fund for Nature (WWF) went to court to save the rock lobster resource for the future as the organization felt the TAC of 1 924 tonnes set by the Department of Agriculture, Forestry and Fisheries (DAFF) was too high. The court decided in favour of WWF and agreed that the TAC should be lowered to just 790 tonnes. DAFF is now considering an appeal to the court ruling.

Lobster production (2016)



Source: FAO

World imports/exports of lobster (January-September)

	2016	2017	2018
(1 000 tonnes)			
Imports			
United States of America	43.2	42.0	43.5
Canada	19.7	14.8	18.7
China	15.2	17.9	16.5
Other countries	41.8	56.8	40.3
Total	119.9	131.4	119.1
Exports			
Canada	60.7	62.4	65.3
United States of America	36.5	30.3	35.0
Australia	6.8	6.8	7.1
Other countries	30.9	29.7	25.3
Total	135.0	129.2	132.6

Source: TDM, estimates

US imports/exports of lobster (January-September)

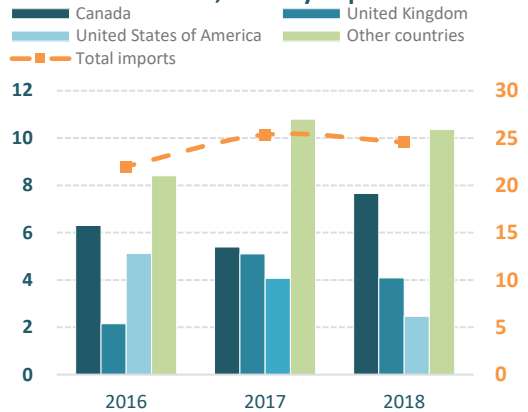
	2016	2017	2018
(1 000 tonnes)			
Imports			
Canada	37.6	36.6	38.7
Honduras	0.9	0.8	1.0
Brazil	0.6	0.7	0.8
Other countries	4.1	3.8	3.1
Total	43.2	42.0	43.5
Exports			
Canada	19.4	14.6	18.4
China	4.0	4.7	6.8
Hong Kong SAR	1.5	1.2	1.0
Other countries	11.5	9.4	7.6
Total	36.5	30.3	35.0

Source: US Census Bureau

EU28 | Imports | Lobster

Top three origins

Unit: 1 000 tonnes, January-September



Source: Eurostat

International trade

World imports of lobster during the first nine months of 2018 declined by 9.4 percent to 119 100 tonnes. The biggest importer was the United States of America, which at 43 500 tonnes accounted for 36.5 percent of the total imports.

Canada is benefitting from the trade war between the United States of America and China. Since US lobsters were made subject to a 25 percent import tariff on 6 July 2018, Canada's lobster exports to China have increased noticeably. During the review period, Canada was the largest exporter, accounting for 65 300 tonnes or 49.2 percent of the total compared to 62 400 tonnes during the same period in 2017 (+4.6 percent). US exports of lobsters increased by 15.5 percent to 35 000 tonnes.

During the first nine months of 2018, China's lobster imports (all types) increased by 51 percent, to 12 100 tonnes. Both Canada and the United States of America saw healthy increases in their exports to China, both by 43 percent compared to the same period in 2017. But Canada ships almost twice as much as the United States of America.

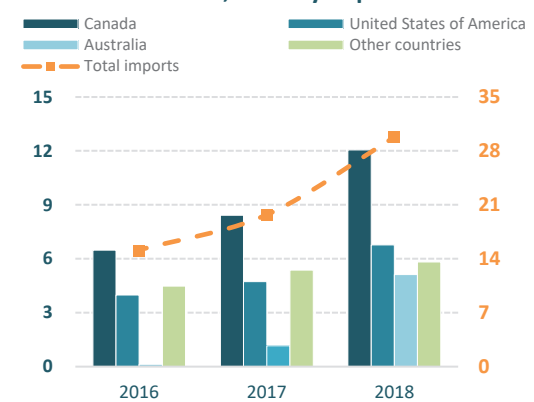
Australian rock lobster exporters were eagerly anticipating zero import tariffs in China starting on 1 January 2019, as part of the two countries' free trade agreement, which went into force in December 2015.

EU28 tariffs on Canadian lobsters have also been lowered. As part of the Comprehensive Economic and Trade Agreement, which came into force in December 2018, the 8 percent tariff on Canadian lobsters was discontinued, giving Canada an advantage over US lobsters also in Europe.

China | Imports | Lobster

Top three origins

Unit: 1 000 tonnes, January-September

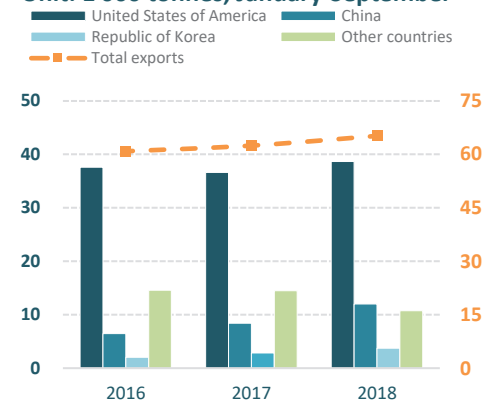


Source: China Customs, estimates

Canada | Exports | Lobster

Top three destinations

Unit: 1 000 tonnes, January-September

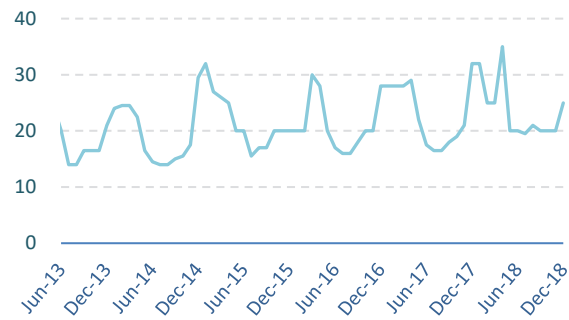


Source: Canada Statistics

Prices

European lobster: Europe

EUR/kg



Live, origin: Ireland; 400-600, 600-800 g/pc
Source: European Price Report

Prices

Demand for rock lobsters in China is high and rising, and so are prices. In restaurants in Guangzhou and Shanghai, prices have reached USD 230 per kg (or USD 11.50 per 50 g). New Zealand also exports rock lobsters to China, and export prices from New Zealand to China in 2018 were at about USD 85 per kg, but higher prices have also been reported.

The tight supply of lobsters in Canada during the start of the season pushed prices up substantially. Fishers reported first-hand prices as high as CAD 8.00 (USD 5.99) per lb in mid-December, while just a week earlier the price was CAD 6.50–7.50 per lb.

Outlook

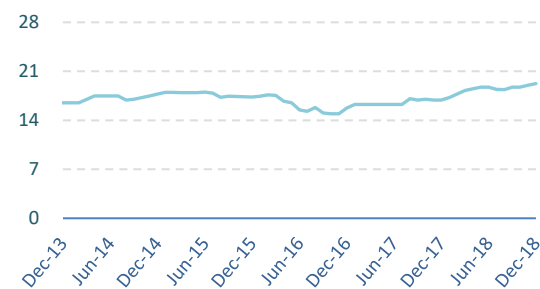
Supplies of North American lobster may be very tight in the next few months due to colder than normal sea temperatures on the Canadian east coast. Landings at the beginning of the season were down, and may continue to be low during the first months of the year. Prices for North American lobsters will therefore be high at the beginning of the year, especially in preparation of Chinese New Year. Valentine's Day (14 February) is another big day for lobster sales.

China will continue to demand more lobsters, both North American and rock lobsters. This significant growth in demand is pushing prices up on all fronts.

Prices

Lobster tails: United States of America

USD/lb

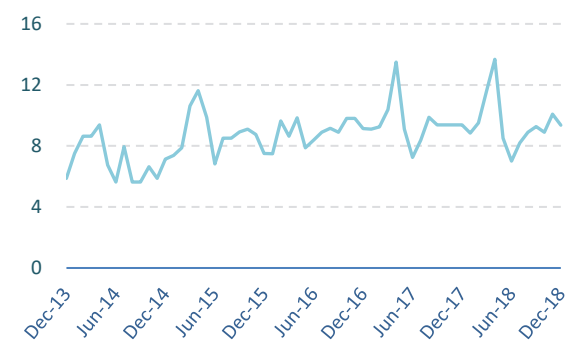


EXW prices of frozen lobster tails
Source: INFOFISH Trade News

Wholesale prices

American lobster: United States of America

USD/lb



1-1.5 lb live, NY wholesale price
Source: INFOFISH Trade News

BIVALVES

GLOBEFISH HIGHLIGHTS

New product development for bivalves

Demand for bivalves is currently strong, and prices are increasing for all products. Product diversification is taking place, to find consumers among the younger generations. These efforts are being successful and these new products are likely to dominate the markets in coming years. There is no major impediment to increased bivalve production in all main producing countries, as fish farms further away from the coast can operate. Investments and changes in legislation are taking place in the United States of America at the moment, and other countries are likely to follow suit, given the interesting prices of bivalves worldwide.

Mussels

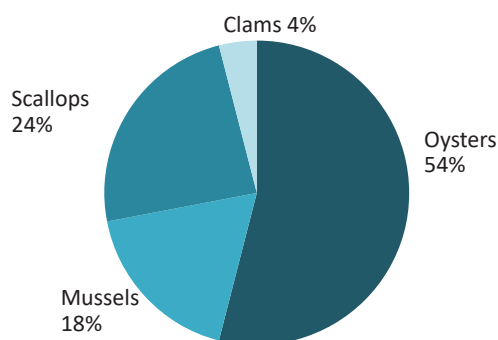
The EU28 and France in particular are major world importers of mussels. Mussels represent nearly one-third of all aquaculture products sold in the European Union (Member Organization). European production has fallen slightly, while consumption has increased, hence the rise in imports from outside the EU28. Virtually all mussels used in prepared fresh tapas, tinned, and frozen products are imported.

World imports/exports of mussels (January-September)

	2016	2017	2018
(1 000 tonnes)			
Imports			
France	47.3	49.2	48.1
Netherlands	32.5	26.2	31.5
Italy	29.4	34.1	28.2
Other countries	127.6	139.8	121.9
Total	236.9	249.3	229.6
Exports			
Chile	55.7	66.3	67.2
Spain	29.6	35.9	44.0
Netherlands	47.2	49.0	41.9
Other countries	121.6	125.3	111.9
Total	254.1	276.5	265.0

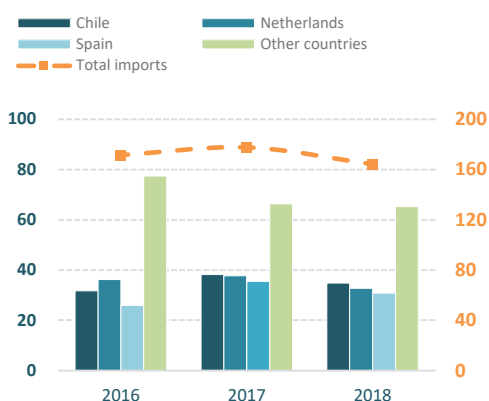
Source: TDM, estimates

Bivalve production by selected species, both wild and farmed (2016)



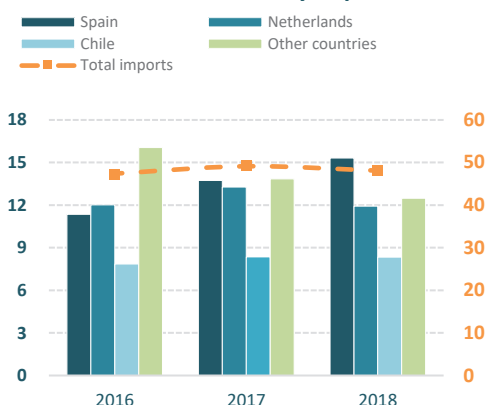
Source: FAO

EU28 | Imports | Mussels
Top three origins
Unit: 1 000 tonnes, January-September



Source: Eurostat

France | Imports | Mussels
Top three origins
Unit: 1 000 tonnes, January-September



Source: Eurostat

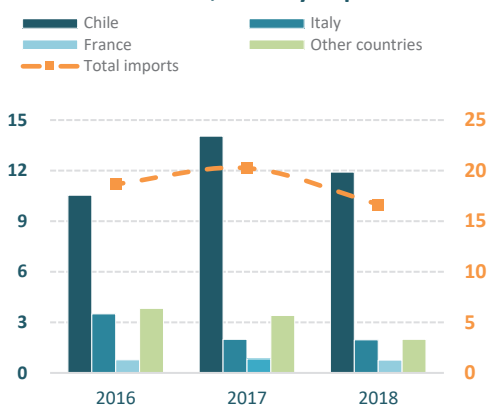
French imports in the first nine months of 2018 was stable at 48 000 tonnes, in line with the corresponding volume in 2017. France imports live mussels from other European countries, particularly the Netherlands, Italy and Spain. Smaller imports are taken from countries including the United Kingdom, Ireland and Denmark. Imports of frozen mussels in various formats originate in Chile and New Zealand.

Scallops

China is by far the main scallop producer worldwide, with 1.9 million tonnes production per year, which represents over 90 percent of the world scallop production. Most of this production is consumed domestically and therefore trade is limited. In early 2018, some scallop farms experienced problems with high mortalities. This mortality was due to a combination of factors, namely, an increase in water temperature (both surface and bottom water temperatures were higher than normal), a decrease in rainfall (67 percent of the longterm average) and a major reduction in plankton abundance (less than 50 percent of the longterm average).

The US New England scallop production reached 27 000 tonnes in 2018, 13 percent higher than in 2017, and one of the highest results in recent years. Several areas off the coast of New England are no-take zones and the fishing days are restricted, both measures seem to have paid off in terms of sustainability of the resource.

Spain | Imports | Mussels
Top three origins
Unit: 1 000 tonnes, January-September



Source: Agencia Tributaria

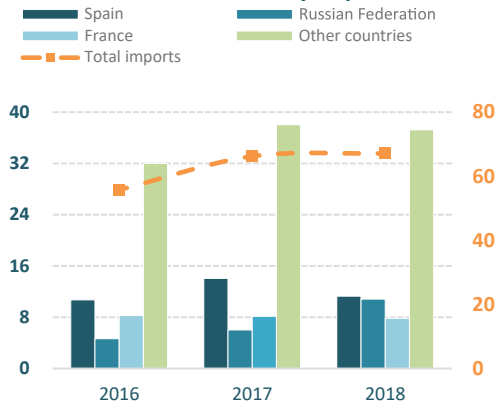
World imports/exports of scallops
(January-September)

	2016	2017	2018
(1 000 tonnes)			

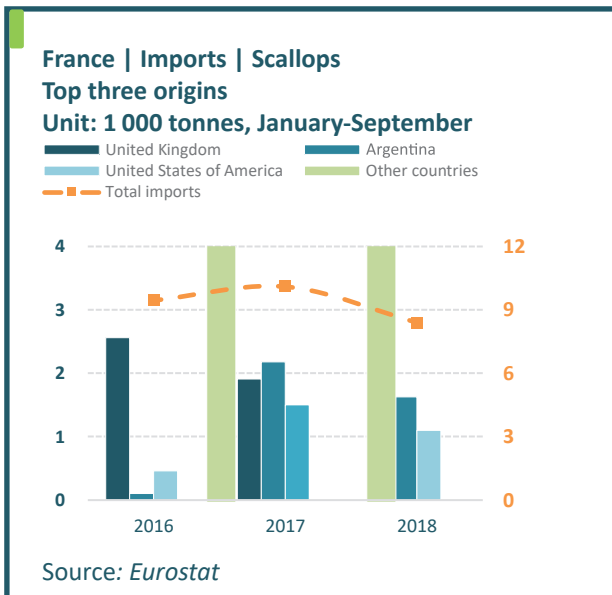
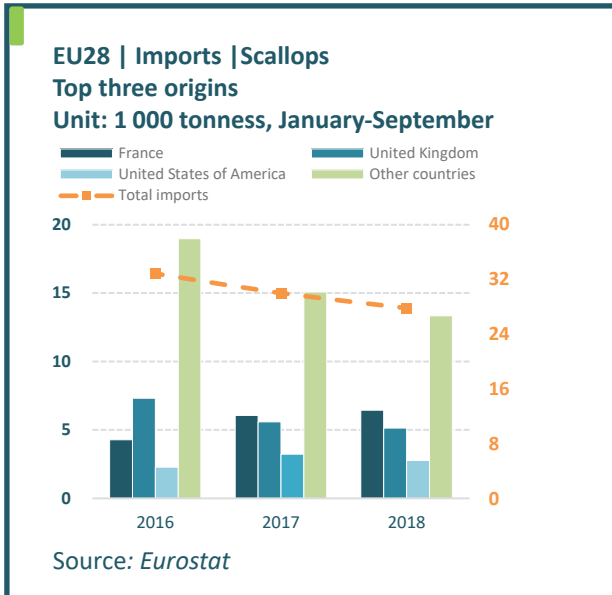
Imports			
China	37.4	29.4	33.4
United States of America	18.7	14.6	14.8
France	9.4	10.1	8.4
Other countries	57.4	50.2	47.8
Total	123.0	104.3	104.5
Exports			
China	25.3	22.9	24.1
United States of America	7.9	7.3	6.2
Russian Federation	2.0	4.4	5.7
Other countries	45.1	39.5	36.1
Total	80.3	74.0	72.0

Source: Trade Data Monitor, estimates

Chile | Exports | Mussels
Top three destinations
Unit: 1 000 tonnes, January-September



Source: Chile National Customs Office



Clams

Clam trade was stable in the first nine months of 2018, with China as main supplier, and Japan and the Republic of Korea as main importing countries. Prices of live clams in the EU28 continue to be high, often exceeding EUR 15.00 per kg, which makes clams one of the highest priced seafood products, considering the low yield in edible weight of the product.

Oysters

Oysters have a great market potential, being one of the highest regarded seafood items in terms of consumer appreciation. France is among the main exporters of this product. Demand for oysters was high during the 2018 festive season. Prices were firmer in December of 2018 than during December of 2017, due to high mortalities in France during the 2018 summer and strong international demand for the product.

World imports/exports of clams, cockles, arkshells

(January-September)

	2016	2017	2018
(1 000 tonnes)			
Imports			
Japan	57.3	58.6	51.3
Republic of Korea	43.3	43.9	37.1
Spain	25.0	28.2	27.5
Other countries	64.5	75.3	77.0
Total	190.1	205.9	192.8
Exports			
China	107.6	116.5	112.0
Republic of Korea	13.3	13.7	13.4
Canada	8.2	9.9	9.4
Other countries	58.8	53.2	58.4
Total	187.9	193.3	193.2

Source: Trade Data Monitor, estimates

World imports/exports of oysters

(January-September)

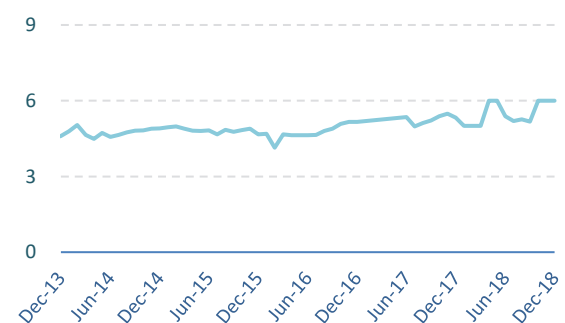
	2016	2017	2018
(1 000 tonnes)			
Imports			
United States of America	8.7	9.0	9.5
Japan	4.3	4.8	5.2
China, Hong Kong SAR	4.7	5.2	4.9
Other countries	29.5	30.1	25.8
Total	47.2	49.2	45.4
Exports			
Republic of Korea	6.4	7.8	8.8
France	7.1	8.6	8.2
China	7.2	6.8	7.0
Other countries	21.4	29.2	29.5
Total	42.2	52.4	53.6

Source: Trade Data Monitor, estimates

Prices

Mussels: France

EUR/kg



Monthly average consumer prices in metropolitan France
Source: European Price Report

Outlook

Mussel aquaculture is expanding worldwide, and growth is likely in the near future. Demand for mussels for human consumption is strong and new consumers are entering this market. Mussels have uses other than for human consumption, including mussel powder employed in the pharmaceutical industry for its anti-inflammatory properties. Mussels and other bivalves produced in the aquaculture industry are perceived as an environmentally friendly product as it does not need feed and they clean the water instead of creating problems with sewage or waste water as other aquaculture industries do. Overall, the future is bright for mussel producers and the press is full of new investment in this segment of the aquaculture sector.

Mussel products are very innovative, and consumers in the EU28 are moving from traditional live products to more value-added products such as canned mussels, along with a wide variety of soups, terrines, patés, and other products. This segment can be supplied by imports from outside the EU28, a market segment set to strongly increase in coming years.

Scallop production in New England in 2019 is expected to remain at the high levels reached in 2018, with quotas of about 27 000 tonnes allocated to fishers. Chinese scallop production will be impacted in the coming two years by the dying of young scallops experienced in early 2018.

Oysters and clam prices are likely to be lower in the first quarter of 2019, as these months are not the main consuming period. In the long run, demand will increase, and some price hikes are expected for clams in the summer months.



CRAB

GLOBEFISH HIGHLIGHTS

Tighter supplies of red king crab

The TACs for red king crab have been reduced both in Alaska and in Norway. Supplies may therefore be tighter in 2019, as will snow crab supplies. There is also uncertainty about supplies of Dungeness crab. Prices may rise.

Supplies

The Alaska Department of Fish and Game set the TAC for the various king crab species for the 2018/19 season in October. The season for opilio crab opened on 15 October and the TAC was set at 12 620 tonnes, 47 percent more than in the previous season. For Bristol Bay red king crab, the TAC was lowered by 36 percent from 2 990 tonnes in the 2017/18 season to 1 904 tonnes in the 2018/19 season. The peak year for the king crab fishery in the Bering Sea and Aleutian Islands was 2012, when 46 720 tonnes of crab was landed.

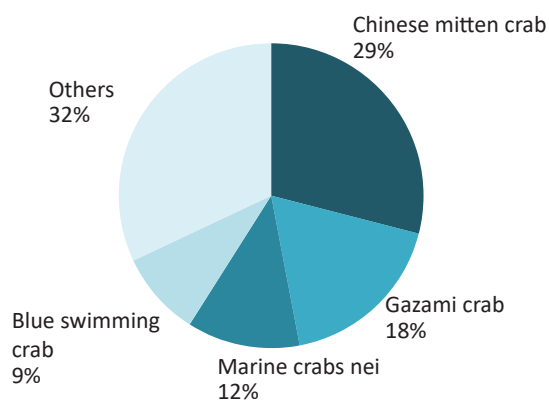
Norway has been fishing king crab (*Paralithodes camtschaticus*) for many years now, and it appears

that too much is being caught. Apparently, there has also been substantial illegal fishing. In 2017, the quota was set at 1 750 tonnes, and Norway exported 1 900 tonnes during that year. The Norwegian Ministry of Trade Industry and Fisheries announced a 20 percent cut in the king crab quota for 2019 to 1 400 tonnes of male crab and 100 tonnes of female crabs. Also, the minimum shell size has been increased to 130 millimetres.

The state for snow crab supplies is also bleaker. It is expected a 35–45 percent cut in the TAC for the largest Newfoundland fishing zone, 3L. In 2018, the overall TAC was reduced by 17 percent year-on-year, to 29 000 tonnes, with the 3L area at 18 800 tonnes. A 35 percent drop in 3L for 2019 would give a level of 12 200 tonnes and a 45 percent cut giving 10 400 tonnes. Even with a 47 percent increase in the TAC for the Alaskan snow crab fishery, global output in 2019 will likely be down to the lowest level since 2011.

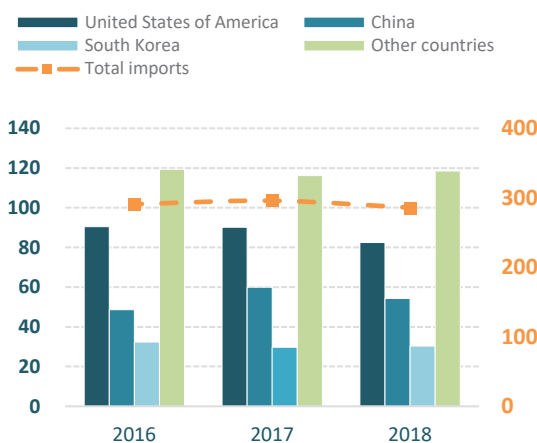
The commercial Dungeness crab fishery in Washington, Oregon and northern California was delayed until late December/early January. The reason given by the Washington Department of Fish and Wildlife was that the meat yield was too low, and in northern California the fishery was delayed until 15 January due to high levels of domoic acid. According to regulations, meat yield has to be at least 23 percent for crab caught north of Cascade Head in Oregon, and more than 25 percent for crab caught south of this point.

Crab production (2016)



Source: FAO

Top three importers of crab



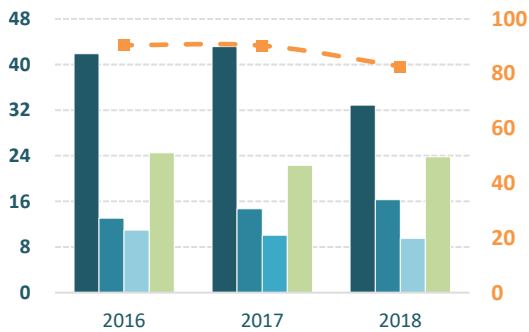
Source: TDM, estimates

USA | Imports | Crab

Top three origins

Unit: 1 000 tonnes, January-September

Canada, Russian Federation, Indonesia, Other countries, Total imports



Source: US Census Bureau

International trade

Global imports of all types of crabs declined slightly to 285 600 tonnes in the first nine months of 2018, from a total of 296 100 tonnes during the same period in 2017 (-3.5 percent). The largest importer was the United States of America, with 82 600 tonnes or 29 percent of the total. China was the second largest importer and accounted for 19 percent, followed by the Republic of Korea with 10.6 percent.

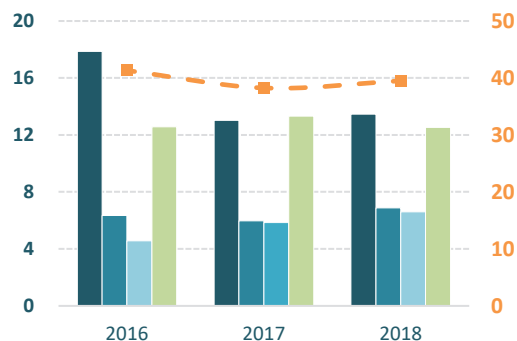
Most of the US imports came from Canada, which exported 32 900 tonnes of crab to the United States of America (40 percent of the total). The Russian Federation exported 16 300 tonnes of crab to the United States of America during the review period.

Indonesia is the main supplier of blue swimming crab to the US market, but landings in Indonesia have been flat. In 2017, the United States of America imported a total of 26 300 tonnes. Indonesia shipped 46 percent of this volume, while China supplied 14 percent and the Philippines 12 percent. During the first nine months of 2018, the United States of America imported 20 200 tonnes of blue and red swimming crab, around 6.8 percent more than during the same period in 2017. Indonesia's share of this volume declined slightly from 50.1 percent in 2017 to 44.1 percent in 2018.

China | Exports | Crab Top three destinations

Unit: 1 000 tonnes, January-September

Republic of Korea, United States of America, Hong Kong SAR, Other countries, Total exports



Source: China Customs, estimates

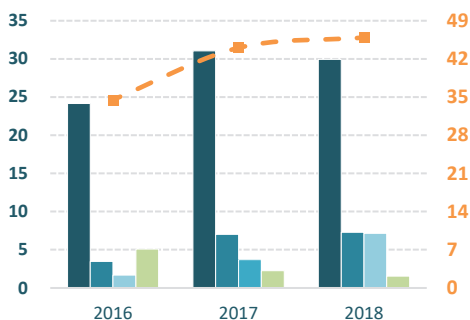
Prices

Before Christmas, US importers of crab reported declining prices for pasteurized jumbo lump blue swimming crab (*Portunus pelagicus*). Normally, demand from the foodservice sector increases as the Christmas holiday approaches, while retail sales tend to decline a bit. Wholesalers reported in mid-December that the price was in the range of USD 25–26 per lb, which was roughly USD 1.00 below the price in November, and as much as USD 5.00 below the price in May. However, prices are expected to climb again during the first quarter of 2019.

Russian Federation | Exports | Crab Top three destinations

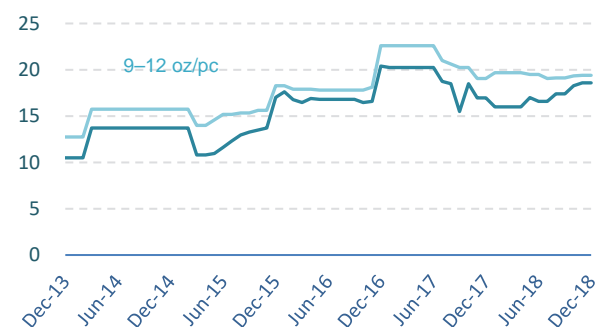
Unit: 1 000 tonnes, January-September

Republic of Korea, Netherlands, China, Other countries, Total exports



Source: Federal Customs Service of Russia

Prices Crab: USA, Japan USD/lb



Source: Claw and sections, red, EXW New York INFOFISH Trade News

Outlook

In 2019, supplies of red king crab (*Paralithodes camtschaticus*) may be a little tighter than in 2018. The Alaska TAC in the Bering Sea and the Norwegian TAC in the Barents Sea have been cut. Supplies of opilio crab in 2019 are expected to increase. Thus, it is an uncertain outlook for prices, but price rises for red king crab should be anticipated.

For Dungeness crab the outlook is uncertain. The 2018/2019 season got off to a late start, and the fishery could easily be closed again if meat yields decline again. Falling supplies would lead to rising prices.

Supplies of blue and red swimming crab are expected to stay at about the same levels as in 2018. Indonesia will continue to be the main supplier to the US market. Prices are expected to recover during the first quarter of 2019.



SPECIAL FEATURE

GLOBEFISH HIGHLIGHTS

Chinese production and export of large yellow croaker

Large yellow croaker (*Larimichthys croceus*)¹ is a species of marine fish in the croaker family (*Sciaenidae*) native to the northwestern Pacific, generally in temperate waters such as the Taiwan Strait. Once an abundant resource off China, the Republic of Korea and Japan, its population collapsed in the 1970s due to overfishing. In 2016, global production of large yellow croaker reached 269 300 tonnes, accounted mostly by China (99 percent) and the Republic of Korea (1 percent), according to FAO Statistics. Specifically, capture production reached 103 800 tonnes and aquaculture production amounted to 165 500 tonnes. This species has been successfully farmed in China, contributing with more than half of the global output.

¹ Not to be confused with small yellow croaker (*Larimichthys polyactis*), also being called the red lip croaker, little yellow croaker or yellow corvina, is a species generally in temperate waters such as the East China Sea and the Yellow Sea.



Province produced 150 542 tonnes, Guangdong 12 500 tonnes and Zhejiang Province 14 600 tonnes.

Farming costs include venue rental, feed, water, electricity, insurance, and labour. Feed cost is the most significant, reaching about 70 percent of total costs in the case of this carnivorous species. Field surveys reported that the price of live feed fish and compound feed are approximately USD 0.45 per kg and USD 1.60 per kg, respectively.

During the fishing ban period, established to protect ocean resources in China, farmers had to rely on compound feed and its price increased. Reducing the usage of live fish for feeding has become popular and in some areas the state even subsidizes farmers who opt for compound feed.

Production in China

Large yellow croaker farming, mainly cage culture, in China is concentrated in the eastern coastal areas of Fujian, Guangdong, Zhejiang and Shandong Provinces. Fujian is the core breeding and farming area, producing more than 85 percent of the fry production. A total of 177 600 tonnes of large yellow croaker were produced in China in 2017; the Fujian

Markets

Large yellow croaker is mainly exported in frozen form, but fresh and chilled croaker are also observed with slight proportion.

As the largest producer of large yellow croaker products globally, China has an obvious export

Table 1. Top importer of large yellow croaker from China by volume (tonnes)

Countries/areas	2013	2014	2015	2016	2017	2018
Hong Kong SAR	8 273	9 380	13 266	13 948	17 397	21 253
Republic of Korea	18 402	17 463	13 815	14 172	5 670	6 502
Taiwan Province of China	7 705	6 630	5 084	4 606	4 255	6 317
Others	4 409	4 276	4 631	6 562	4 210	5 111
Total	38 789	37 751	36 797	39 287	31 531	39 183

Source: Trade Data Monitor

Table 2. Top importer of large yellow croaker from China by value (Million USD)

Countries/areas	2013	2014	2015	2016	2017	2018
Hong Kong SAR	75.4	78.1	97.4	98.2	126.8	147.5
Republic of Korea	102.5	115.2	90.3	79.5	37.1	54.6
Taiwan Province of China	40.9	31.7	25.5	24.6	19.4	44.2
Others	32.1	30.3	32.0	48.7	31.1	41.2
Total	250.9	255.2	245.1	250.9	214.4	287.5

Source: Trade Data Monitor

advantage on the international market. The main importers are Hong Kong SAR, Republic of Korea and Taiwan Province of China. The export of large yellow croaker from China has grown some 105 percent in value over the past decade, but has decreased in volume.

China exported 39 200 tonnes of large yellow croaker in 2018, (frozen 33 100 tonnes, fresh and chilled 6 000 tonnes), primarily to Hong Kong SAR, the Republic of Korea and Taiwan Province of China.

China began to export large yellow croaker products to Taiwan Province of China in 1999. After 2000, exports gradually moved to the Republic of Korea and Southeast Asian countries. In 2018, the export value reached a record high over the past decade, though the highest volume was registered in 2010. Starting in 2009, China increased its export tax rebate for primary processed aquatic products from 5 to 13 percent and for products that are further processed from 13 to 15 percent. This enabled a considerable export increase of large yellow croaker in 2010.

After 2010, the export volume has been on a downward trend, due to an unfavourable exchange rate, sluggish economic development globally, slowdown in trade liberalization, along with domestic environmental problems. Nevertheless, the export value has levelled off thanks to the relatively good price.

China has been developing new cold chain technology and in 2017, China exported 2.5 tonnes of live fish to the Republic of Korea.

Figure 1. China's export of large yellow croaker

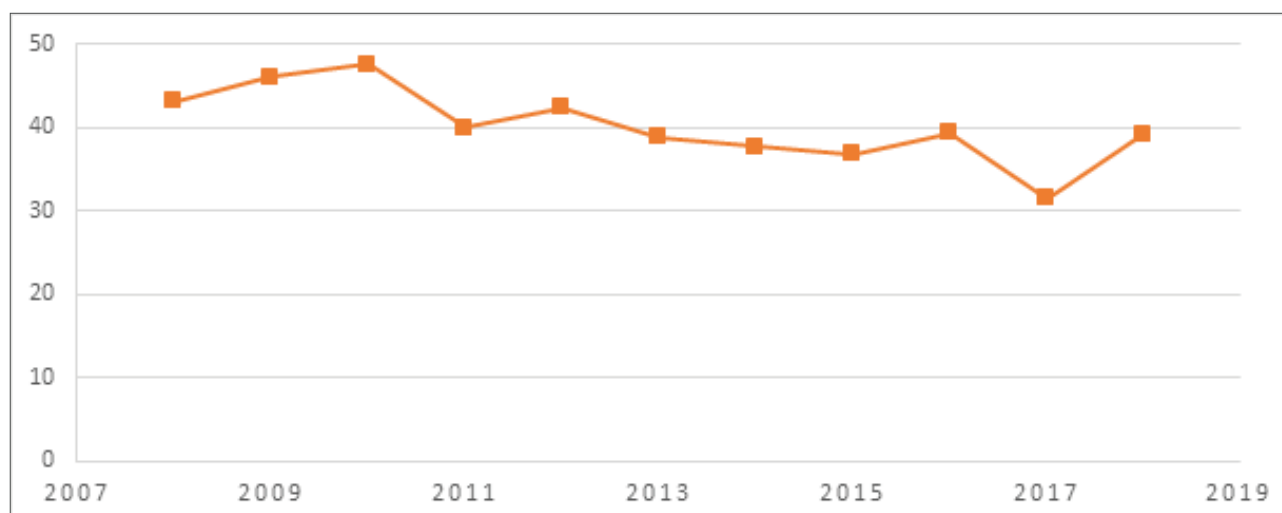
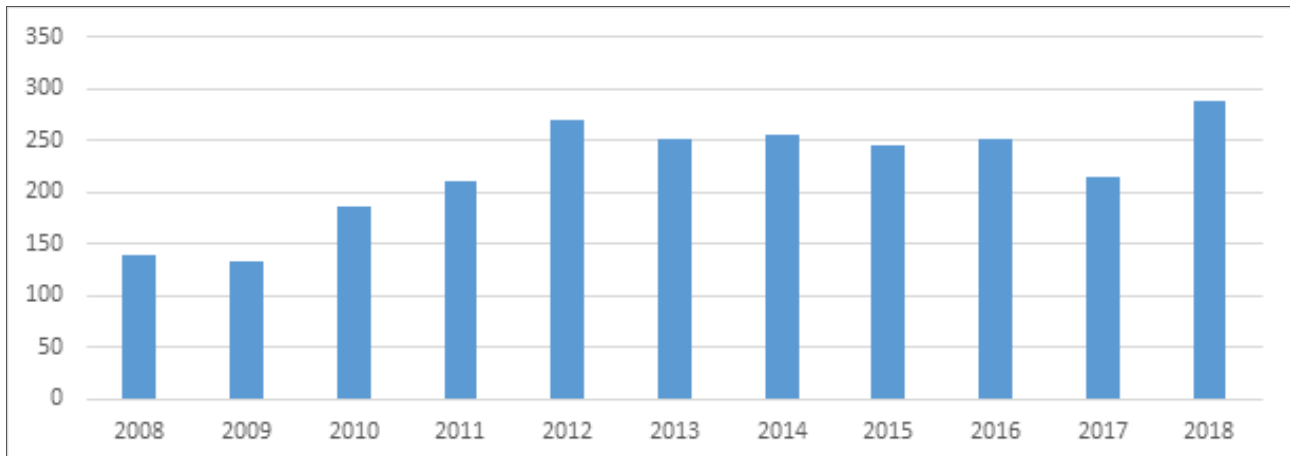


Figure 2. China's export of large yellow croaker from 2008 to 2018 by volume (tonnes)



Conclusion

Although exports of large yellow croaker brought profits to enterprises and farmers in China, in recent years, high feeding cost and excessive market concentration hindered the further development of this industry. Feeding cost increased as a result of domestic inflation and fishing ban. In addition, costs of labour, drugs and land rent also have been hiking.

In September 2017, the export tax rebate rate was reduced from 13 to 11 percent so traders need to pay more taxes, which aggravated the export performance of the large yellow croaker industry.

Excessive concentration in the Asian market, which accounts for about 88 percent of total exports, is evident. Future development of the industry should entail diversifying of markets.

FOOD SAFETY ISSUES

GLOBEFISH HIGHLIGHTS

Detentions and rejections of Salmon in Canada, European Union (Member Organization), Japan and United States of America



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The main importing countries of salmon are the European Union (Member Organization) and the United States of America. The major producing and exporting countries are Norway, Chile and the Russian Federation. This analysis describes the border rejections of salmon in Canada, the European Union (Member Organization), Japan and the United States of America. Rejections are categorized by chemical, microbiological and other risk categories. In addition, general causes such as packaging issues, allergens, improper health certificate, poor temperature control and labelling issues will be described.

Canada

Salmon detentions and rejections in Canada amounted to 33 cases in 2017, representing three percent of the total seafood rejections at the border.

The main causes of border rejections of salmon were due to labelling issues with 22 cases, accounting for 67 percent of salmon rejections in 2017. It was followed by sensory evaluation (six cases), lack of net weight determination (three cases) and last, by can coding (one case) and container integrity (one case).

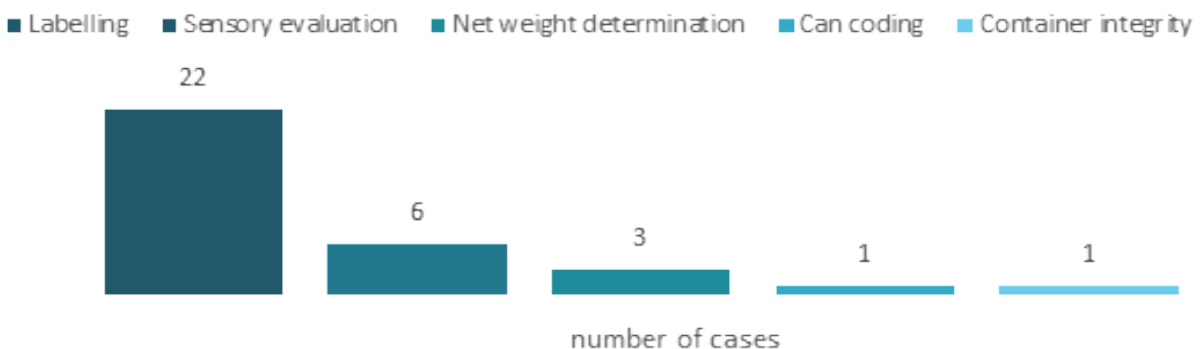
Salmon rejected at the Canadian borders in 2017 by causes (number of cases)

Others

33

Source: Canadian Food Inspection Agency

Salmon rejected at the Canadian borders in 2017 by category

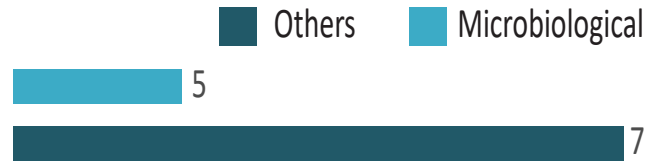


European Union (Member Organization)

Salmon detentions and rejections in the EU28 totalled 12 cases in 2017, representing three percent of the total seafood rejections at the border.

The main reasons for salmon detentions were “others causes” category (seven cases) and microbiological issues (five cases). Among other causes, the main problems were related to poor temperature control (four cases), labelling issues, packaging problems and products unfit for human consumption, with one case each one. The main microbiological problem was the presence of *Listeria monocytogenes* (five cases), only recorded in smoked salmon.

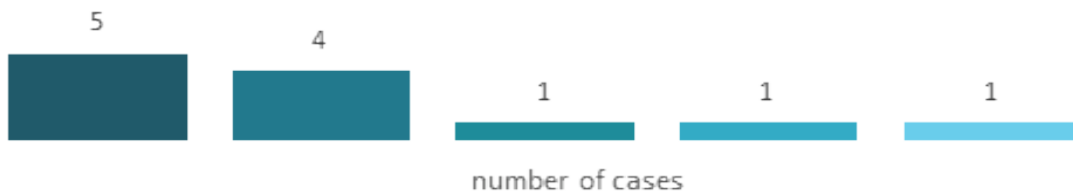
Salmon molluscs rejected at EU28 borders in 2017 by causes (number of cases)



Source: Rapid Alert System for Food and Feed

Salmon rejected at the EU28 borders in 2017 by category

■ *Listeria monocytogenes* ■ Poor temperature control ■ Labelling ■ Packaging ■ Unfit for human consumption



Japan

Salmon detentions and rejections in Japan amounted to nine cases in 2017, representing six percent of the total seafood rejections at the border.

The only reason for rejection was microbiological causes, with seven cases for the presence of coliform and two cases for the presence of live bacteria.

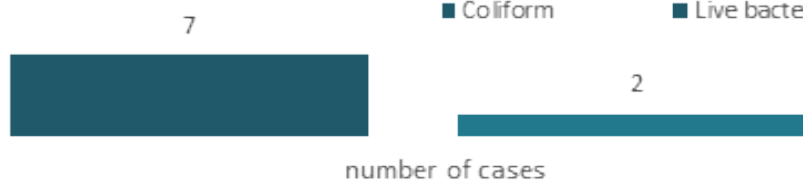
Salmon molluscs rejected at Japanese borders in 2017 by causes (number of cases)



Source: MHLW

Salmon rejected at the Japanese borders in 2017 by category

■ Coliform ■ Live bacteria

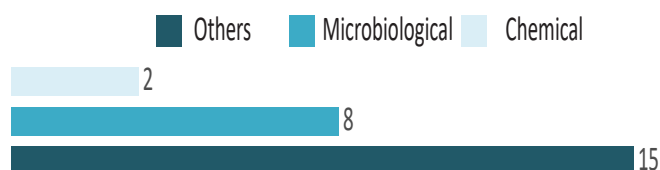


United States of America

Salmon detentions and rejections in US borders amounted to 25 cases in 2017, representing two percent of the total seafood rejections at the border.

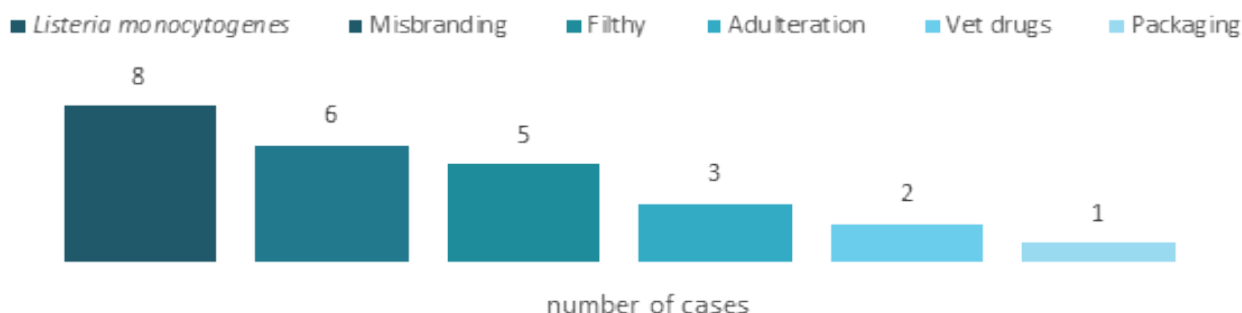
The main cause of rejections was due to other causes with 15 cases, followed by microbiological causes (eight cases) and by chemical causes (two cases). Among "other causes", the main issue was misbranding (six cases), followed by "filthy" (five cases), adulteration (three cases) and packaging issues (one case). The only microbiological rejections were due to *Listeria monocytogenes* (eight cases). On the chemical side, the only problem was the presence of residues of veterinary drugs.

Salmon rejected at US borders in 2017 by causes (number of cases)



Source: Food and Drug Administration

Salmon rejected at US borders in 2017 by category



References:

- For further information you can visit the following website: www.fao.org/in-action/globefish/fishery-information/border-rejections/en/
- Canadian Food Inspection Agency (CFIA)
- Rapid Alert System for Food and Feed (RASFF)
- Ministry of Health, Labour and Welfare
- US Food and Drug Administration (FDA)

EVENTS

GLOBEFISH HIGHLIGHTS

2019 Seafood Expo North America

One of the world's largest seafood fairs, the Seafood Expo North America, will open in Boston on 17 March 2019. Once again, FAO GLOBEFISH will participate in the three-day annual event featuring more than 1340 exhibiting companies from over 50 countries.



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Seafood Expo North America, the largest seafood event of its kind on the continent, will take place from 17 to 19 March in Boston, Massachusetts, United States of America. The three-day annual event will bring together thousands of buyers and sellers from around the world to do business, exchange ideas, and engage in productive conversations about emerging challenges in today's seafood environment. The North American Expo offers the opportunity to raise awareness about the work FAO does in the fisheries and aquaculture trade sector.

In addition to the exhibition, several side events will take place focusing on different aspects of the seafood industry. The Fisheries and Aquaculture Department of FAO will contribute to the discussions with its expertise in the field of fisheries sustainability in the session Social sustainability in fisheries value chains, taking place on Monday, 18 March 2019. Industry experts from across the supply chain will come together to discuss the role of international instruments and the importance of multi-stakeholder collaboration in safeguarding human rights throughout seafood value chains.

FAO will also join the session **Building equity into sustainable seafood sourcing**, being held on the last day of the event, aiming to raise awareness about fisheries contribution to the UN Sustainable Development Goals (SDGs). Joe Zelasney, Fishery Industry Officer (FAO), will present the opportunities that the SDGs provide for responsible businesses to engage with the world's small-scale fisheries, and

how businesses can demonstrate their commitment and contribution to the SDGs.

Similar to past years, FAO GLOBEFISH will participate in the Seafood Expo with a dedicated booth, intending to meet other representatives of the seafood industry and share ideas on how fisheries can contribute to sustainable development around the globe.

Seafood Expo North America is an event that GLOBEFISH looks forward to attending. We are especially excited to meet and talk with attendees. Please come and visit us at booth #190!

More information on the Seafood Expo can be found at: <https://www.seafoodexpo.com/north-america/>


EVENTS

GLOBEFISH HIGHLIGHTS

The **Asia-Pacific Aquaculture Expo & China International Seafood Fair 2019** will take place from 17 to 18 May 2019 in Zhuhai City, Guangdong Province, China. APA Expo has established its position as the sole aquaculture-themed expo in the Asia-Pacific region.

FAO GLOBEFISH will be present at the APA EXPO 2019. Come visit us at our booth!

More information on the **Asia-Pacific Aquaculture Expo & China International Seafood Fair** can be found at: www.apaexpo.com.cn



China International Seafood Fair

Asia-Pacific Aquaculture Expo
Global Aquaculture Summit

May 17th–19th, 2019

Zhuhai International Convention & Exhibition Center
Guangdong, China

- The **best showcase** for aquatic products
- **1.4 billion Consumers**
- **1000+** Buyers on site
- **10+** National Pavilions
- CAPPMA—Guiding you through the whole industry chain

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Organizers

China Aquatic Products Processing and Marketing Alliance (CAPPMA)

China Great Wall International Exhibition Co. Ltd. (GIE)

FISH AND FISHERY PRODUCTS STATISTICS ¹

	Capture fisheries production		Aquaculture fisheries production		Exports			Imports		
	2015	2016	2015	2016	2016	2017	2018	2016	2017	2018
	Million tonnes (live weight equivalent)				USD billion					
	2015	2016	2015	2016	2016	2017	2018	2016	2017	2018
					estimated estimated					
	Million tonnes (live weight equivalent)				USD billion					
ASIA²	50.7	50.2	67.9	71.5	54.5	58.4	61.2	43.8	48.3	56.3
China	18.7	18.5	47.4	49.5	22.6	23.4	25.0	14.0	15.9	20.2
of which China, Hong Kong SAR & Taiwan Province of China	0.1	0.1	0.0	0.0	0.8	1.0	1.0	3.8	3.6	3.9
India	4.8	5.1	5.3	5.7	5.5	7.2	7.0	0.1	0.1	0.2
Indonesia	6.7	6.5	4.3	5.0	3.9	4.2	4.6	0.4	0.4	0.4
Japan	3.5	3.2	0.7	0.7	2.0	2.0	2.4	13.9	15.0	15.3
Korea, Rep. of	1.6	1.4	0.5	0.5	1.7	1.7	1.7	4.6	5.1	6.0
Philippines	2.2	2.0	0.8	0.8	0.7	1.1	0.9	0.4	0.6	0.6
Thailand	1.5	1.5	0.9	1.0	5.9	5.9	6.0	3.1	3.6	3.9
Viet Nam	2.8	2.8	3.4	3.6	7.3	7.5	7.7	1.3	1.4	1.4
AFRICA	8.8	9.3	1.8	2.0	6.4	6.8	9.1	4.9	5.1	5.7
Egypt	0.3	0.3	1.2	1.4	0.0	0.0	0.0	0.7	0.6	0.9
Morocco	1.4	1.4	0.0	0.0	2.1	2.2	2.3	0.2	0.2	0.2
Namibia	0.5	0.5	0.0	0.0	0.6	0.7	0.7	0.1	0.0	0.1
Nigeria	0.7	0.7	0.3	0.3	0.1	0.0	0.1	0.7	0.8	0.8
Senegal	0.4	0.5	0.0	0.0	0.4	0.4	0.5	0.0	0.0	0.1
South Africa	0.6	0.6	0.0	0.0	0.6	0.6	0.7	0.4	0.4	0.5
CENTRAL AMERICA	2.1	2.1	0.4	0.4	2.5	2.9	3.2	1.7	1.9	1.9
Mexico	1.5	1.5	0.2	0.2	1.0	1.3	1.6	0.8	0.9	0.9
Panama	0.1	0.1	0.0	0.0	0.2	0.2	0.2	0.1	0.1	0.1
SOUTH AMERICA	9.3	8.1	2.3	2.3	13.9	16.4	18.2	2.6	2.9	3.1
Argentina	0.8	0.8	0.0	0.0	1.7	2.0	2.1	0.2	0.2	0.2
Brazil	0.7	0.7	0.6	0.6	0.2	0.3	0.3	1.2	1.4	1.4
Chile	1.8	1.5	1.0	1.0	5.1	6.0	6.8	0.3	0.4	0.4
Ecuador	0.6	0.7	0.4	0.5	3.9	4.6	5.0	0.1	0.1	0.1
Peru	4.8	3.8	0.1	0.1	2.2	2.8	3.2	0.2	0.3	0.3
NORTH AMERICA	6.2	6.1	0.6	0.6	11.3	12.3	12.2	23.4	25.7	25.6
Canada	0.9	0.9	0.2	0.2	5.0	5.4	5.4	2.8	2.9	3.0
United States of America	5.0	4.9	0.4	0.4	5.8	6.4	6.1	20.5	22.7	22.6
EUROPE	14.1	13.7	2.9	2.9	50.8	54.9	58.8	56.9	61.0	66.5
European Union ²	5.3	5.2	1.3	1.3	32.8	35.4	38.1	52.0	55.7	60.6
of which Extra-EU	"	"	"	"	5.5	6.1	6.5	27.2	28.6	31.2
Iceland	1.3	1.1	0.0	0.0	2.0	2.0	2.3	0.1	0.1	0.1
Norway	2.3	2.0	1.4	1.3	10.8	11.3	12.1	1.2	1.2	1.3
Russian Federation	4.5	4.8	0.2	0.2	3.9	4.5	4.4	1.7	2.0	2.2
OCEANIA	1.4	1.4	0.2	0.2	3.1	3.3	3.3	1.8	2.0	2.0
Australia	0.2	0.2	0.1	0.1	1.0	1.1	1.1	1.5	1.6	1.6
New Zealand	0.4	0.4	0.1	0.1	1.2	1.2	1.2	0.2	0.2	0.2
WORLD ³	92.7	90.9	76.1	80.0	142.5	155.0	165.9	135.0	146.8	161.0
World excluding Intra-EU	"	"	"	"	115.3	125.7	134.2	110.2	119.7	131.7
Developing countries	68.3	67.4	71.6	75.5	76.0	83.3	90.1	38.7	42.6	51.0
Developed countries	24.4	23.6	4.5	4.5	66.5	71.7	75.8	96.4	104.2	110.0
LIFDCs	12.7	13.4	8.2	8.8	9.0	11.1	13.0	2.7	2.8	3.1
LDCS	8.7	9.2	3.5	3.7	3.1	3.6	5.6	1.1	1.2	1.3
NFIDCS	17.8	17.4	5.1	5.6	9.9	10.1	11.2	4.1	4.0	4.2

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

² EU-28 including intra-trade. Cyprus is included in Asia as well as in the European Union.

³ For capture fisheries production, the aggregate also includes 39 006 tonnes in 2015 and 5 229 tonnes in 2016 of not identified countries; data not included in any other aggregates. totals may not match due to rounding

photo ©FAO/Giulio Napolitano

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