



Food and Agriculture
Organization of the
United Nations

Food Outlook

BIANNUAL REPORT ON GLOBAL FOOD MARKETS



July 2018

ACKNOWLEDGEMENTS

The Food Outlook report is a product of the FAO Trade and Markets Division. This report is prepared under the overall guidance of Boubaker Ben-Belhassen, Director, and Abdolreza Abbassian, Senior Economist. It is written by a team of economists, whose names and email contacts appear under their respective market summary contributions. The report benefited from research support by many staff, namely, David Bedford, Julie Claro, Stanislaw Czaplicki Cabezas, Erica Doro, Alice Fortuna, Lavinia Lucarelli, Emanuele Marocco, Marco Milo, Di Yang and the fisheries statistical team.

Special thanks go to David Bedford, Lavinia Lucarelli and Stanislaw Czaplicki Cabezas for preparing the charts and statistical tables and to Valentina Banti for her administrative support. Additionally, the team is grateful to Ettore Vecchione for the desktop publishing and to Claire Pedrick for her valuable editorial assistance.

The designations employed and the presentation of material in this information product do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations (FAO) concerning the legal or development status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or products of manufacturers, whether or not these have been patented, does not imply that these have been endorsed or recommended by FAO in preference to others of a similar nature that are not mentioned.

The designations employed and the presentation of material in the map(s) do not imply the expression of any opinion whatsoever on the part of FAO concerning the legal or constitutional status of any country, territory or sea area, or concerning the delimitation of frontiers.

The views expressed in this information product are those of the author(s) and do not necessarily reflect the views or policies of FAO.

ISBN 978-92-5-130768-7
© FAO, 2018

FAO encourages the use, reproduction and dissemination of material in this information product. Except where otherwise indicated, material may be copied, downloaded and printed for private study, research and teaching purposes, or for use in non-commercial products or services, provided that appropriate acknowledgement of FAO as the source and copyright holder is given and that FAO's endorsement of users' views, products or services is not implied in any way.

All requests for translation and adaptation rights, and for resale and other commercial use rights should be made via www.fao.org/contact-us/licence-request or addressed to copyright@fao.org.

FAO information products are available on the FAO website (www.fao.org/publications) and can be purchased through publications-sales@fao.org.

Photo credits:

©FAO/Pius Ekpei
©Depositphotos.com

HIGHLIGHTS

Amid increased uncertainties from recent rising trade disputes, agricultural markets have so far remained relatively stable thanks to generally good supply conditions across most commodities. Nonetheless, in the context of heightened food import bills, food markets remain vulnerable, with weather shocks and external developments always difficult to predict.

WHEAT

Wheat markets are heading for a modest tightening in the 2018/19 marketing season, as production is forecast to fall below last year's record level. With world consumption expected to expand beyond production, wheat inventories are predicted to decline.

COARSE GRAINS

Coarse grains production is set to decline sharply this year, while utilization continues to increase. As a result, markets are likely to tighten considerably in 2018/19, leading to end-season stocks falling for the first time in five years.

RICE

A record crop is tentatively forecast to sustain another increase in global rice utilization and inventories in 2018/19. Strong Asian demand underpinned international prices in the first half of 2018, fueling expectations that world rice trade in 2018 will remain at its second highest level on record.

OILCROPS

FAO's latest forecasts for the 2017/18 season point towards a tightening in the global supply and demand balance for meals/cakes, while that of oils/fats should remain at comfortable levels. Tentative crop forecasts for 2018/19 suggest a match between output and demand in both markets.

SUGAR

World sugar production is forecast to hit a record in 2017/18 and to exceed global consumption by a large margin. As a result, world sugar inventories could increase significantly. Given the ample availabilities held in traditional sugar importing countries, world trade is projected to contract in 2018/19.

MEAT

World meat output in 2018 is forecast to exhibit its fastest growth since 2013, supported by expansions in all meat sub-sectors and assisted by abundant feed supplies. Production recovery in China coupled with more restricted access to some major destination markets could result in a trade slowdown this year.

DAIRY

World milk output in 2018 is forecast to increase, with expected higher yields and stable-to-rising dairy herd numbers, supported by favourable weather and improved producer margins. Global trade in milk products is foreseen to rise this year, underpinned by increased volumes of all main dairy commodities.

FISHERIES

Following an exceptional year for the global seafood sector in 2017, prices and export revenues for key species continue to be supported in 2018 by strong demand for fisheries products in multiple world regions, with producers struggling to keep pace.

MINOR TROPICAL FRUITS

Mainstreaming a niche market

Minor tropical fruits are gaining importance in world markets. Most of the trade takes place within Asia, especially in those countries experiencing rapid income growth, where demand for premium fruits is strongest. But new markets are emerging, in recognition of these commodities' contribution as a supply of valuable micronutrients.

A PERSPECTIVE ON FOOD IMPORT BILLS:

Are countries paying more for less food?

With food imports playing an increasing role in meeting food security, the special feature explores the evolution of food import bills since 2000, including their composition and their importance in the macroeconomic context. Focus is on global developments, as well as the contrast between bills of the richest countries and those of the most vulnerable.

CONTENTS

MARKET SUMMARIES

1-09

MARKET ASSESSMENTS

10-66

Wheat	11
Coarse grains	18
Rice	26
Oilcrops, oils and meals	32
Sugar	40
Meat and meat products	48
Milk and milk products	54
Fish and fishery products	60

SPECIAL FEATURES

68-87

Minor tropical fruits: Mainstreaming a niche market	69
A perspective on food import bills: Are countries paying more for less food?	78

MAJOR POLICY DEVELOPMENTS

88-111

Grains	89
Rice	96
Oilcrops	101
Meat	108
Dairy	110

STATISTICAL TABLES

112-148

MARKET INDICATORS

150-161

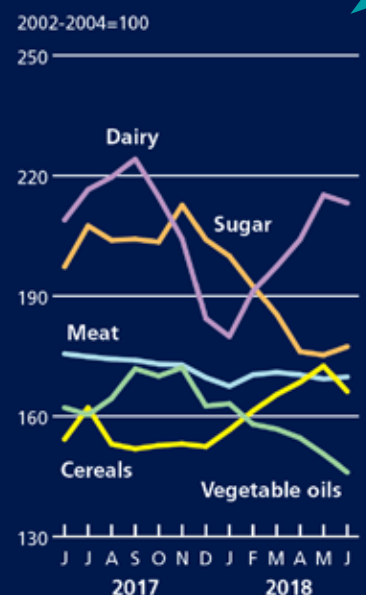
Futures markets	151
Ocean freight rates	155
Food import bills	157
The FAO price indices	159



GLOBAL PROSPECTS FOR MINOR TROPICAL FRUITS

FAO Food Commodity Price Indices
(June 2017 - June 2018)

p 159



MARKET SUMMARIES

CEREALS

Latest indications continue to point to a reduction in cereal output in 2018 and negative prospects for the cereal supply outlook for the forthcoming 2018/19 marketing season. Based on the condition of crops already in the ground and assuming normal weather for the remainder of the 2018 cropping seasons, FAO's forecast for world cereal output this year is pegged at 2 586 million tonnes (including rice in milled terms), 64.5 million tonnes (2.4 percent) less than the record output in 2017. The year-on-year decrease mostly reflects anticipated reduced maize output. A predicted decline in the 2018 wheat production also weighs on global prospects, while rice output is seen expanding to fresh peaks in 2018. The latest forecast for cereals is down nearly 24 million tonnes from June, mainly on lower than previously anticipated projections for wheat production in the EU as well as wheat, maize and barley production in the Russian Federation and Ukraine.

World cereal utilization is forecast at 2 641 million tonnes, 26.5 million tonnes (1.0 percent) higher than in 2017/18, but below the June forecast following downward adjustments to overall consumption of wheat and barley. Total utilization of all major cereals is likely to continue growing in 2018/19, keeping pace with rising food demand, while overall feed and industrial uses are also likely to expand further.

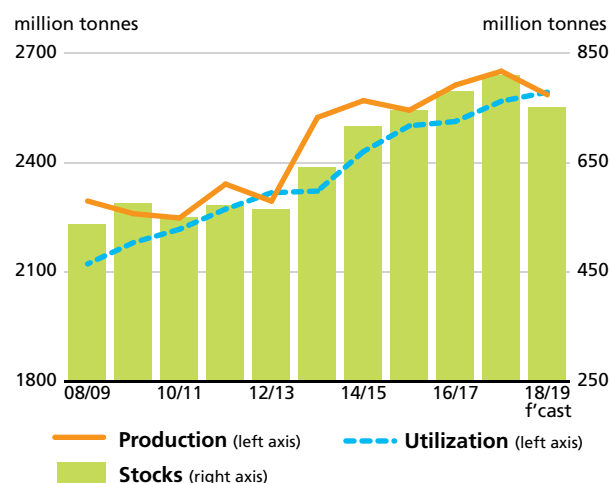
If current production forecasts materialize, cereal output would not be sufficient to meet the expected total utilization requirements in 2018/19 and, as a result, global cereal stocks accumulated over the past five seasons would have to be drawn down to 749 million tonnes, over 7 percent down from their opening levels. At the current levels of utilization and stock forecasts, the stocks-to-use ratio would drop from 30.6 percent in 2017/18 to 27.7 percent in 2018/19, its first decline in four years, while still well above the record low of 20.4 percent registered in 2007/08. Among the major cereals, the drawdown in maize inventories is expected to be the largest. Wheat and barley stocks are also forecast to decline, while rice ending stocks could increase for the third consecutive season.

World trade in cereals is expected to remain generally robust in 2018/19. Wheat trade is seen exceeding the previous season's level, but to still remain short of the peak registered in 2016/17. Global trade in coarse grains is forecast to hover around record levels, supported by strong import demand for maize, barley and sorghum. International trade in rice in both 2018 and 2019 is also predicted to remain close to the 2017 all-time record.

Contact:

Abdolreza.Abbassian@fao.org

CEREAL PRODUCTION, UTILIZATION AND STOCKS



WORLD CEREAL MARKET AT A GLANCE ¹

	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	Change: 2018/19 over 2017/18
	<i>million tonnes</i>			<i>%</i>
WORLD BALANCE				
Production	2 612.7	2 650.8	2 586.2	-2.4
Trade²	405.3	410.9	412.1	0.3
Total utilization	2 571.3	2 614.9	2 641.4	1.0
Food	1 103.6	1 118.0	1 130.9	1.1
Feed	918.3	931.5	942.3	1.2
Other uses	549.4	565.3	568.3	0.5
Ending stocks³	779.0	807.9	748.9	-7.3
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	147.8	148.1	148.2	0.1
LIFDC ⁴ (kg/yr)	146.6	146.7	146.0	-0.5
World stocks-to-use ratio (%)	29.8	30.6	27.7	
Major exporters stocks-to-disappearance ratio (%)	17.3	17.7	15.3	
FAO CEREAL PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	147	152	165	10.9

¹ Rice in milled equivalent.

² Trade refers to exports based on a July/June marketing season for wheat and coarse grains and on a January/December marketing season for rice.

³ May not equal the difference between supply and utilization due to differences in individual country marketing years.

⁴ Low-Income Food-Deficit countries.

WHEAT

Based on early indications, world wheat markets are expected to be adequately supplied in 2018/19, in spite of an anticipated modest contraction in global production. At 736.1 million tonnes, world wheat production in 2018 would be 2.7 percent smaller than in 2017. Most of the decline is expected to result from weather-depressed yields, especially among the leading CIS producers, more than offsetting moderate production gains in North America and South America. Given expectations of a steadily growing food consumption and increasing feed and industrial uses global wheat utilization is projected to reach 741 million tonnes, an all-time high.

Rising consumption in the face of falling production should result in a drawdown of world wheat inventories. At the current forecast level of 264 million tonnes, world wheat stocks by the end of seasons in 2019 would be down 3.3 percent from their record opening levels, with most of the year-on-year reduction concentrated among major exporters, in particular the Russian Federation, the EU and the US. Therefore, while the world wheat stocks-to-use ratio in 2018/19 is expected to drop slightly, the ratio of major wheat exporters' closing stocks to their total disappearance (defined as domestic utilization plus exports), which is a better measure of availabilities in global markets, is forecast to fall from 20.8 percent in 2017/18 to 16.8 percent in 2018/19, its lowest level in five years.

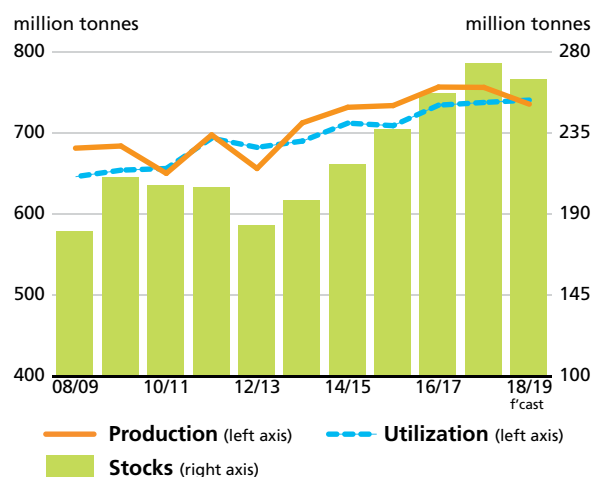
At the forecast level of 175 million tonnes, world wheat trade in 2018/19 would exceed the 2017/18 trade volume by 1.5 million tonnes, but remain short of the 2016/17 record level. The anticipated modest rise from the previous season would largely reflect increased wheat imports by several countries in Asia and Latin America and the Caribbean. The Russian Federation is expected to maintain its position as the world's largest wheat exporter for the second consecutive season, despite a probable sharp drop in its exports. Smaller sales are also forecast for other major CIS exporters, as well as for Argentina and Australia. By contrast, Canada, the EU and the US are set to increase their shipments and capture a bigger market share than in the previous season.

Despite large global supplies and strong export competition, international wheat prices have remained firm and generally above last year's levels. While concerns about the crop continued to influence price movements, weaker prices in recent weeks across most commodity markets have also exerted downward pressure on wheat price quotations.

Contact:

Abdolreza.Abbasian@fao.org
Jonathan.Pound@fao.org (Production)

WHEAT PRODUCTION, UTILIZATION AND STOCKS



WORLD WHEAT MARKET AT A GLANCE

	2016/17	2017/18 estim.	2018/19 f'cast	Change: 2018/19 over 2017/18
	million tonnes			%
WORLD BALANCE				
Production	757.2	756.8	736.1	-2.7
Trade¹	176.4	173.5	175.0	0.9
Total utilization	734.8	738.2	741.1	0.4
Food	498.1	503.5	508.9	1.1
Feed	143.1	142.8	143.6	0.6
Other uses	93.7	91.9	88.5	-3.6
Ending stocks²	256.3	273.4	264.2	-3.3
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	66.7	66.7	66.7	0.0
LIFDC (kg/yr)	53.1	52.9	52.6	-0.6
World stocks-to-use ratio (%)	34.7	36.9	34.9	
Major exporters stocks-to-disappearance ratio ³ (%)	19.8	20.8	16.8	
FAO WHEAT PRICE INDEX⁴ (2002-2004=100)				
	2016	2017	2018 Jan-Jun	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	125	133	144	12.4

¹ Trade refers to exports based on a common July/June marketing season.

² May not equal the difference between supply (defined as production plus carryover stocks) due to differences in individual country marketing years.

³ Major exporters include Argentina, Australia, Canada, EU, Kazakhstan, Russian Fed., Ukraine and the United States.

⁴ Derived from the International Grains Council (IGC) wheat index.

COARSE GRAINS

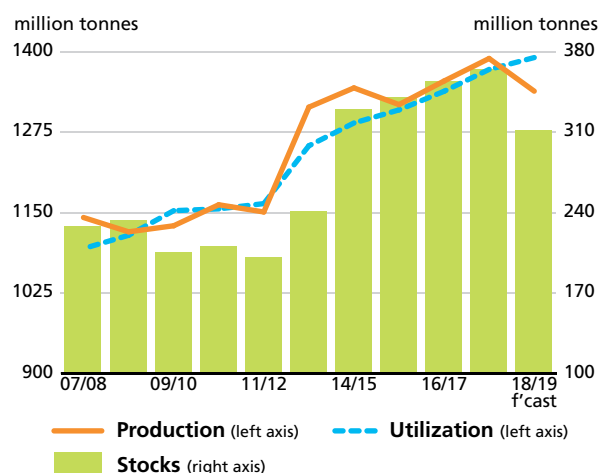
World production of coarse grains in 2018 is forecast to drop from last year's record level by 3.7 percent, with a reduction of 4.2 percent in maize production accounting for most of the decrease. Maize harvests are expected to contract considerably in the United States and China, the world's first and second largest maize producing countries, as well as in Argentina, Brazil, the EU and South Africa. Global production of barley may also register a decline, in the order of 2.4 percent, mostly driven by weather reduced outputs in the Russian Federation and Ukraine.

Global total utilization of coarse grains is set to expand by 1.3 percent in 2018/19 to an all-time high, reflecting continued growth in feed and industrial uses. Total feed use of coarse grains is set to increase by 1.4 percent, boosted by strong demand for maize in animal rations, particularly in China and Latin America. Total industrial use of coarse grains is projected to rise even faster, by 3 percent, underpinned by greater use of maize to produce fuel ethanol and starch in China and the United States.

Based on the current forecasts for world production and utilization in 2018/19, total inventories of coarse grains are projected to decline for the first time in five years, down 14.4 percent from their estimated opening levels. Among the major coarse grains, stocks of maize are predicted to record the biggest decline, falling by nearly 50 million tonnes (16 percent), mostly in China but also in the leading exporting countries, notably Argentina, Brazil and the United States. Consequently, both the world stocks-to-use ratio of coarse grains and the ratio of the major exporters' stocks-to-disappearance (defined as domestic consumption plus exports) are projected to fall, pointing to a tightening of coarse grain markets in 2018/19.

While the overall prospect of market tightness has been supportive to international prices, the imposition of potentially restrictive trade measures has had dampening effects on world prices of major coarse grains. Nonetheless, world trade in coarse grains in 2018/19 (July/June) is forecast to remain close to the 2017/18 record level, largely supported by expectations of continued robust import demand for maize and barley, especially in Asia.

COARSE GRAIN PRODUCTION, UTILIZATION AND STOCKS



WORLD COARSE GRAIN MARKET AT A GLANCE

	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	Change: 2018/19 over 2017/18
	million tonnes			%
WORLD BALANCE				
Production	1 354.4	1 389.4	1 338.7	-3.7
Trade¹	180.8	189.7	189.6	0.0
Total utilization	1 338.4	1 372.4	1 390.8	1.3
Food	205.2	208.6	210.1	0.7
Feed	757.5	771.3	782.3	1.4
Other uses	375.8	392.5	398.4	1.5
Ending stocks²	353.6	363.5	311.0	-14.4
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	27.5	27.6	27.5	-0.4
LIFDC (kg/yr)	38.3	38.4	37.9	-1.3
World stocks-to-use ratio (%)	25.8	26.1	21.7	
Major exporters stocks-to-disappearance ratio ³ (%)	13.5	14.7	11.3	
FAO COARSE GRAIN PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	151	146	160	6.0

¹ Trade refers to exports based on a common July/June marketing season.

² May not equal the difference between supply (defined as production plus carryover stocks) due to differences in individual country marketing years.

³ Major exporters include Argentina, Australia, Brazil, Canada, EU, Russian Fed., Ukraine and the United States.

Contact:

Abdolreza.Abbassian@fao.org
Jonathan.Pound@fao.org (Production)

RICE

Assuming average growing conditions during the critical northern hemisphere summer months, world rice production is forecast to grow by 1.4 percent in 2018 to an all-time record of 511.4 million tonnes. The expansion is expected to be area-driven and concentrated in Asia, where more stable weather and attractive producer returns could lift output to new highs. Production is also forecast to recover in Africa and the United States, while unseasonable growing conditions or tight producer margins are likely to depress output elsewhere in the world.

International trade in rice is predicted to fall only marginally (0.8 percent) below the 2017 record to 47.8 million tonnes, as expected import cuts by countries in Africa and Latin America and the Caribbean are largely compensated by greater deliveries to all other regions. In particular, Asian import demand looks set to remain strong in 2018, amid efforts by countries such as Indonesia and the Philippines to shore up reserves and contain increases in local prices. On the export side, India, Thailand and the United States may see their 2018 shipments fall, while Brazil, Pakistan and Viet Nam could export more.

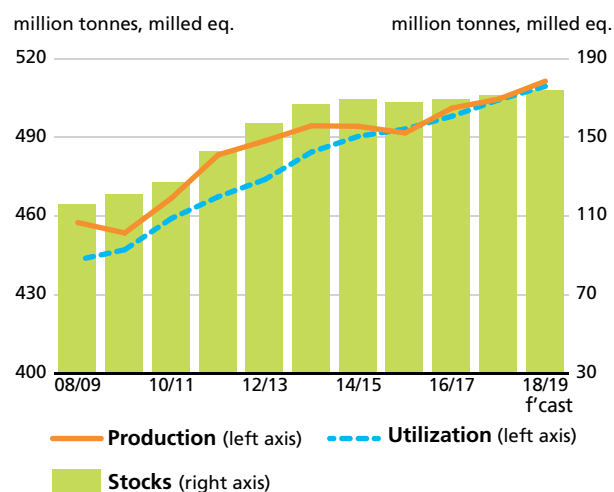
Sustained by growing food use, world rice utilization is expected to expand by 1.0 percent in 2018/19 to 509.5 million tonnes. This level would fall short of the production volume forecast for 2018, entailing a probable 1.5 percent increase in global rice carryovers in 2018/19 to 173.7 million tonnes. China would again contribute much to this stocks buildup, although reserves are also seen rising in India, Indonesia, the Philippines and the United States.

Strong Asian demand for Indica rice, combined with tighter Japonica and fragrant supplies, have prolonged the upward trend of international rice prices that started in late 2016. As a result, the FAO All Rice Price Index stood at 232 points in June 2018, its highest level since November 2014, and 6 percent above its value at the close of 2017.

Contact:

Shirley.Mustafa@fao.org

RICE PRODUCTION, UTILIZATION AND STOCKS



WORLD RICE MARKET AT A GLANCE

	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	Change: 2018/19 over 2017/16
	<i>million tonnes, milled equivalent</i>			<i>%</i>
WORLD BALANCE				
Production	501.2	504.6	511.4	1.4
Trade¹	48.1	47.8	47.5	-0.5
Total utilization	498.1	504.3	509.5	1.0
Food	400.4	405.9	411.8	1.5
Ending stocks²	169.0	171.1	173.7	1.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	53.6	53.8	54.0	0.4
LIFDC (kg/yr)	55.2	55.3	55.5	0.4
<i>World stocks-to-use ratio (%)</i>	33.5	33.6	33.6	
<i>Major exporters stocks-to-disappearance ratio³ (%)</i>	18.7	17.5	17.8	
FAO RICE PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	194	206	228	15.2

¹ Calendar year exports (second year shown).

² May not equal the difference between supply (defined as production plus carryover stocks) due to differences in individual country marketing years.

³ Major exporters include India, Pakistan, Thailand, the United States and Viet Nam.

OILCROPS

Based on FAO's latest forecasts, the 2017/18 supply and demand balance is set to tighten compared with 2016/17 for meals/cakes, while remaining at comfortable levels for oils/fats.

Oilseed production in 2017/18 is poised to trail behind last season's record, mainly reflecting reduced yield levels in a number of countries following adverse weather conditions. Lower soybean production is expected to be only partly offset by gains in other oilcrops. Most importantly, extreme weather conditions impaired Argentina's soybean crop. The setback in Argentina, one of the world's key suppliers of oil and meal, prompted shifts in global crushing and trade patterns. With, global consumption of meals set to expand and surpass production, global meal inventories are anticipated to be drawn down, but still remain close to historically high levels. Reflecting these developments, international oilseed and oilmeal prices have been under upward pressure during the first half of the season.

Regarding oils/fats, global production is seen expanding further, underpinned by higher output of palm and rapeseed oils. Consumption is anticipated to continue to expand, with higher uptake by the biodiesel industry contributing to growth. With world production set to exceed demand, a further accumulation in global inventories is foreseen. Responding to the prospect of excess supplies and ample stock levels, prices of oils/fats have been on the decline since December 2017.

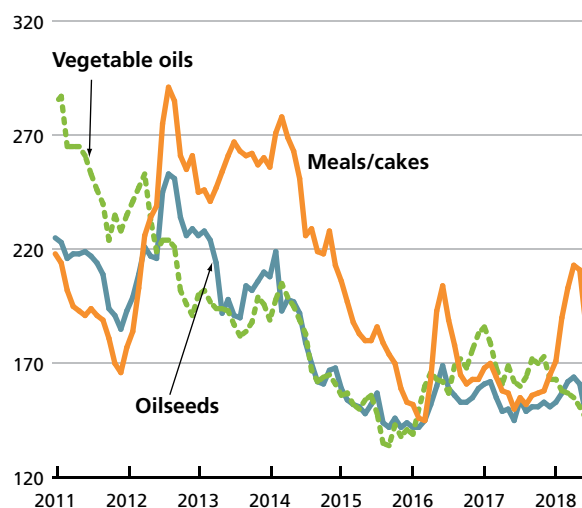
Preliminary, highly tentative forecasts for 2018/19 point towards a further increase in global oilcrop production, which could give rise to record outputs of both oils and meals. Assuming a continuation of current consumption trends, the anticipated supply levels would be adequate to satisfy projected demand.

In the past few weeks, the evolving trade dispute between the United States and China introduced considerable uncertainty into the market. While it remains to be seen how trade measures implemented by the two countries will affect markets for oilseeds and oilseed products, China's pending introduction of retaliatory tariffs on soybean imports from the US triggered a plunge in world soybean and soymeal prices, with strong spillover effects across the oilcrops complex.

Contact:

Peter.Thoenes@fao.org

FAO MONTHLY INTERNATIONAL PRICE INDICES FOR OILSEEDS, VEGETABLE OILS AND MEALS/CAKES (2002-2004=100)



WORLD OILCROP AND PRODUCT MARKET AT A GLANCE

	2015/16	2016/17	2017/18 f'cast	Change: 2017/18 over 2016/17
	<i>million tonnes</i>			<i>%</i>
TOTAL OILCROPS				
Production	538.0	586.8	584.3	-0.4
OILS AND FATS				
Production	207.3	226.0	231.5	2.4
Supply	246.2	260.4	267.7	2.8
Utilization	213.3	222.7	228.8	2.7
Trade	115.4	123.9	124.9	0.8
Global stocks-to-use ratio (%)	16.2	16.2	16.6	
Major exporters stocks-to-disappearance ratio (%)	10.0	10.7	11.3	
MEALS AND CAKES				
Production	138.5	152.3	150.6	-1.1
Supply	164.6	177.3	179.2	1.0
Utilization	138.9	145.3	151.2	4.0
Trade	90.4	96.2	98.4	2.2
Global stocks-to-use ratio (%)	18.0	19.0	17.0	
Major exporters stocks-to-disappearance ratio (%)	11.1	12.0	10.8	
FAO PRICE INDICES (2002-2004=100)	2016	2017	2018 Jan-Jun	Change: Jan-Jun 2018 over Jan-Jun 2017 %
Oilseeds	154	152	158	2.6
Meals/cakes	169	159	196	21.5
Vegetable oils	164	169	155	-9.3

NOTE: Refer to footnote 1 on page 32 and to table 2 on page 35 for explanations regarding definitions and coverage.

SUGAR

FAO forecasts world sugar production to hit a record high in 2017/18 (October/September) and surpass consumption, with the anticipated surplus likely to be the largest in history. Decreases in sugar output in Brazil and Australia are predicted to be offset by expansions in India, the EU, Thailand, and China.

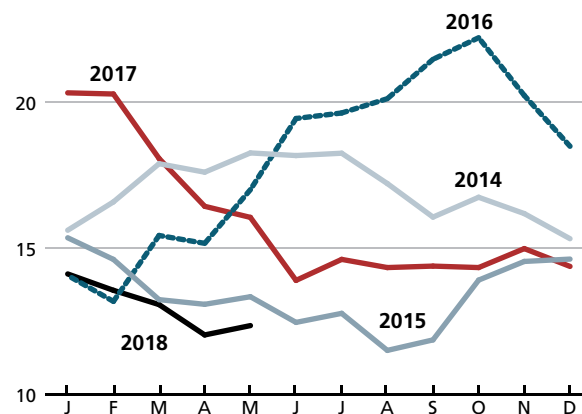
World sugar consumption is set to grow in line with its long-term trend, reflecting increases in several developing countries sustained by lower domestic sugar prices, ample domestic availabilities and improved economic performance. Sugar consumption growth will be particularly marked in Africa, Asia and South America.

Sufficient domestic supplies in traditional importing countries are expected to lead to a contraction in global import demand relative to the last marketing season. The implementation of import restriction measures in some main markets is also anticipated to constrain the volume of trade. Exports are anticipated to fall in Brazil, the world's largest sugar producer and exporter, but to rise in Thailand, the second largest sugar exporter, prompted by abundant sugar stocks. One noteworthy development in the international sugar market is the return of the EU to the ranks of the top four largest sugar exporters, following the removal of the longstanding EU sugar quota regime.

International sugar prices have followed a declining trend since the beginning of 2018, extending the steady fall that has characterized the market since mid-2017. The price slide this year is mainly associated with prospects of large sugar availabilities, following a robust expansion in area planted to sugar crops in the past two years. Policy measures to curb imports, or boost exports, as well as the strength of the US dollar, particularly against the Brazilian Real, have further exacerbated the fall in international sugar quotations. On the other hand, rising international crude oil prices are foreseen to sustain indirectly sugar price quotations, as increasing quantities of sugar crops are being utilized for the production of ethanol instead of sugar.

INTERNATIONAL SUGAR PRICES

US cents per lb.
25



Source: Intercontinental Exchange (ICE)

WORLD SUGAR MARKET AT A GLANCE

	2015/16	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>	Change: 2017/18 over 2016/17
	<i>million tonnes</i>			<i>%</i>
WORLD BALANCE				
Production	169.6	168.9	187.6	11.10
Trade	57.6	57.9	55.5	-4.10
Total utilization	167.8	166.8	170.6	2.28
Ending stocks	87.4	91.3	97.7	6.97
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	24.7	22.2	22.5	1.18
LIFDC (kg/yr)	15.9	16.6	16.6	-0.26
World stocks-to-use ratio (%)	52.1	54.8	57.3	4.58
ISA DAILY PRICE AVERAGE (US cents/lb)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 <i>%</i>
	18.05	16.01	13.03	-28.59

Contact:

Elmamoun.Amrouk@fao.org

MEAT AND MEAT PRODUCTS

According to the FAO Meat Price Index, international meat prices strengthened in 2017, mostly on gains posted over the first half of the year, with prices of the four main meat categories averaging higher on an annual basis. Overall meat quotations softened between July 2017 and January 2018, on account of large availabilities for export and a tightening of access conditions in some major importing countries. Since January 2018, prices of poultry and ovine meat have been rising, while those of bovine and pigmeat have been stable.

Amid a positive world economic outlook and abundant feed supplies, global meat production in 2018 is forecast to increase to 336 million tonnes, in carcass weight equivalent, 1.7 percent (or 6 million tonnes) more than in 2017, and the fastest growth since 2013. All the major meat categories are anticipated to contribute to the global expansion, primarily pig and poultry meat, followed by bovine meat and, more marginally, ovine meat. The sector is anticipated to expand vigorously in Asia, where China is anticipated to witness a recovery after three years of retrenchment, as well as in the Americas and in Europe. Prospects are more subdued for Africa, and Oceania.

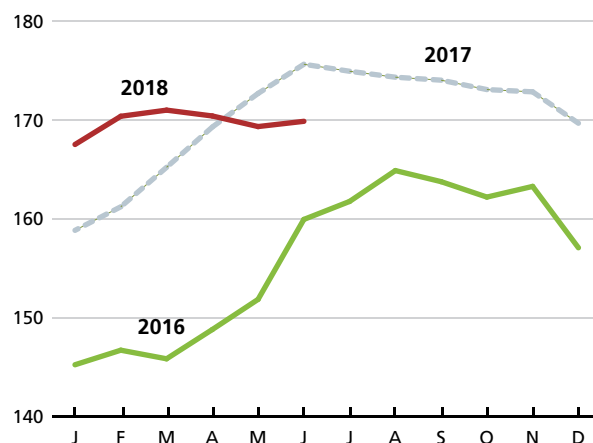
Since most of the meat produced is destined for immediate intake rather than storage, consumption of the four major meat categories is estimated to hover around 335 million tonnes in 2018, virtually matching the production forecast. On a per capita basis, meat consumption would average 43.9 kg in 2018, or 0.6 percent more than in 2017, consistent with the positive, broad-based economic prospects for 2018 and the urbanization process that is ongoing in many developing countries.

World meat trade in 2018 is forecast to progress by around 600 000 tonnes, or 1.8 percent, to a 33.3 million tonne record. This would represent a substantial slowdown compared with the 4.3 percent and 2.7 percent growth achieved respectively in 2016 and 2017, when trade was propelled by surging imports by China. The anticipated increase in 2018 would mostly consist of bovine and poultry meat, as shipments of pig and ovine meat are anticipated to change little. Meat trade in 2018 is predicted to be especially bolstered by rising imports by China, Japan and Mexico. By contrast, purchases by the Russian Federation and Saudi Arabia are expected to decline substantially, partly due to the imposition of import restrictions. Much of the increase in total meat exports is likely to be met by the United States, the EU, Argentina and India, in that order. Conversely, meat exports may fall in Brazil, which has been barred from access to some important markets, as well as in New Zealand, the Russian Federation and Uruguay, often as a result of supply constraints.

Contact:

Upali.GalketiAratchilage@fao.org

FAO INTERNATIONAL MEAT PRICE INDEX (2002-2004 = 100)



WORLD MEAT MARKET AT A GLANCE

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes</i>			<i>%</i>
WORLD BALANCE				
Production	327.1	330.4	336.2	1.7
Bovine meat	69.7	70.8	72.1	1.8
Poultry meat	119.2	120.5	122.5	1.6
Pigmeat	117.8	118.7	121.1	2.0
Ovine meat	14.7	14.8	14.9	0.5
Trade	31.9	32.7	33.3	1.8
Bovine meat	9.7	10.2	10.6	3.9
Poultry meat	12.7	13.1	13.3	1.9
Pigmeat	8.3	8.2	8.1	-0.9
Ovine meat	0.9	1.0	1.0	1.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	43.8	43.6	43.9	0.6
Trade - share of prod. (%)	9.7	9.9	9.9	0.1
FAO MEAT PRICE INDEX (2002-2004=100)	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	156	170	170	1.6

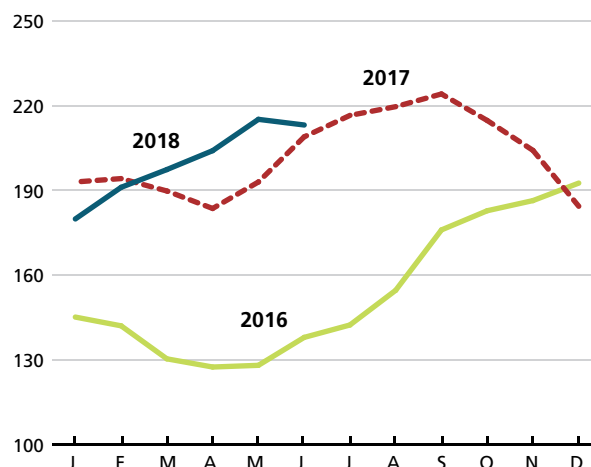
MILK AND MILK PRODUCTS

Increased export availabilities, especially in the Northern Hemisphere, weighed on international dairy prices during the last quarter of 2017, bringing the FAO Dairy Price Index (2002-2004=100) down to a 16-month low in January 2018. Since then, prices have rebounded, rising by 18.5 percent between January and June, with the upturn sustained by all major dairy products, especially butter and cheese, the prices of which soared, underpinned by limited supplies and sustained domestic and import demands.

Reflecting a general expansion of output in most producing countries, in particular India, the EU, the United States and China, global milk production is forecast to increase to 829 million tonnes in 2018 – expanding by 16.7 million tonnes, or 2.1 percent, from 2017 and registering its fastest growth since 2014. Except for droughts in parts of South America and Africa, weather has been favourable in most regions, benefiting pasture growth. Furthermore, with higher farmgate prices and/or lower feed costs, producer margins have improved in most of the major milk producing regions. These factors are anticipated to result in higher milk per cow yields and larger or stabilized dairy herd numbers, boosting global milk production this year. Policy driven strategies, such as the National Ingredient Strategy in Canada, and the farm consolidations underway in China and the Russian Federation, are also contributing to the global expansion.

International trade in milk products is forecast to increase by 2.5 percent in 2018, to 73.5 million tonnes, largely fuelled by rising imports by China, Algeria, Mexico and Viet Nam, which would more than offset the anticipated declines in the Russian Federation, Brazil, the EU and the United States. A substantial share of the higher volume of imports mirrors strong demand from the middle to higher-income populations, driven by rising per capita incomes and changing lifestyles and food habits. The EU, the United States, New Zealand, Australia, Argentina and Canada are forecast to account for most of the increase in world exports. The trade is anticipated to expand across all the major dairy products, but in particular SMP and WMP, the exports of which are forecast to grow by 3.8 percent and 3.4 percent, respectively, faster than the anticipated 2.3 percent for butter and 1.8 percent for cheese.

FAO INTERNATIONAL DAIRY PRICE INDEX (2002-2004 = 100)



WORLD DAIRY MARKET AT A GLANCE

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes, milk equiv.</i>			%
WORLD BALANCE				
Total milk production	800.2	811.9	828.5	2.1
Total trade	70.4	71.7	73.5	2.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	107.2	107.5	108.5	0.9
Trade - share of prod. (%)	8.8	8.8	8.9	0.5
FAO DAIRY PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	154	202	200	3.3

Contact:

Upali.GalketiAratchilage@fao.org

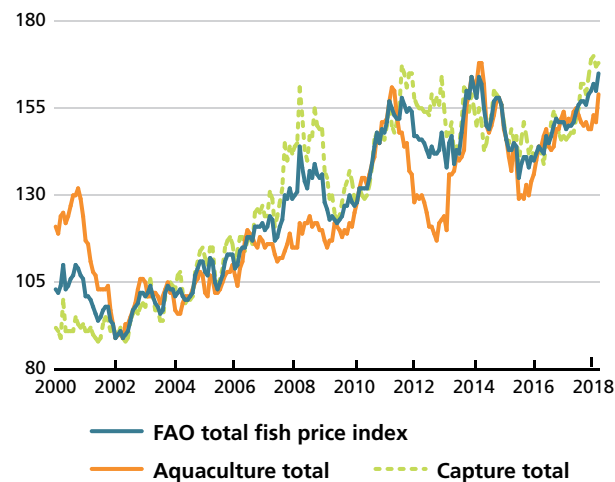
FISH AND FISHERY PRODUCTS

Overall, the global seafood sector is expected to be characterised in 2018 by a tight balance between supply and demand across most major commodity groups. Global fish production increased by an estimated 2.3 percent in 2017 and is forecast to grow by an additional 2.0 percent overall in 2018, lagging behind demand for a number of highly traded seafood commodities. Consequently, prices for these products are expected to remain elevated in the second half of 2018, in some cases reaching record levels. These upward price trends will contribute to an estimated 8.3 percent increase in the total USD value of world trade in fish and fishery products in 2018.

Of the major wild-caught species, lower forecasted tuna catches have seen raw material prices rise. Reduced groundfish quotas combined with a strong demand worldwide is likely to have a similar effect for these species. Cephalopod fisheries production remains low and the situation has pushed prices up sharply, particularly for octopus exports out of major suppliers Morocco and China. Landings are also expected to fall for small pelagic species such as mackerel and herring in 2018, with the exception of anchovy, the primary species used in fishmeal and fish oil production.

The outlook for the main aquaculture species in the second half of 2018 is more varied. Increases in farmed shrimp production, led by India, and leftover inventories are keeping shrimp prices down. Higher harvest volumes are also expected for tilapia, seabass and seabream. For pangasius, however, prices for fillets have reached record heights this year, driven by a lack of raw material and rising consumption in emerging markets. In the farmed Atlantic salmon sector, prices are spiking once again due to booming demand in old and new markets and limits on the rate of global supply expansion. Demand for farmed bivalves such as mussels, oysters and scallops is also strong and growing, boosted by improving economic fundamentals and income growth in developing regions, and prices are expected to remain very high for these products.

FAO FISH PRICE INDEX (2002-2004 = 100)



WORLD FISH MARKET AT A GLANCE

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes (live weight)</i>			<i>%</i>
WORLD BALANCE				
Production	170.9	175.1	178.7	2.0
Capture fisheries	90.9	91.5	91.7	0.2
Aquaculture	80.0	83.6	87.0	4.0
Trade value (exports USD billion)	142.5	153.1	165.8	8.3
Trade volume (live weight)	59.5	60.5	60.8	0.7
Total utilization	170.9	175.1	178.7	2.0
Food	151.2	154.4	157.6	2.1
Feed	14.6	15.6	15.8	1.0
Other uses	5.1	5.1	5.2	2.9
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
Food fish (kg/yr)	20.3	20.5	20.7	1.0
From capture fisheries (kg/year)	9.5	9.4	9.3	-1.2
From aquaculture (kg/year)	10.7	11.1	11.4	2.9
FAO FISH PRICE INDEX (2002-2004=100)	2016	2017	2018 <i>Jan-Mar</i>	Change: Jan-Mar 2018 over Jan-Mar 2017 <i>%</i>
	146	154	163	8.3

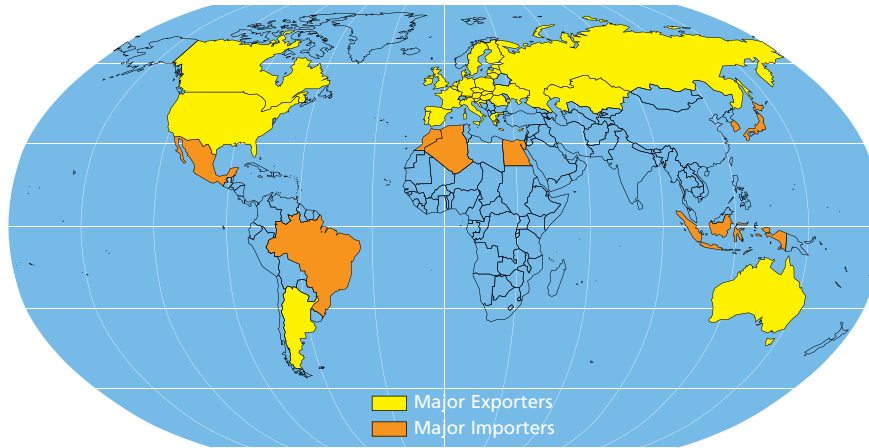
Contact:

Audun.Lem@fao.org
Stefania.Vannuccini@fao.org

MARKET ASSESSMENTS

WHEAT

Major Wheat Exporters and Importers



PRICES

International prices up from last year

Despite abundant supplies and strong export competition, international wheat prices have mostly risen since January, fuelled by logistical constraints earlier in the year in several exporting countries, followed by concerns about 2018/19 crops in a number of key growing regions. While at times the price increases were contained because of favourable weather, in June the **US wheat (No.2 Hard Red Winter, f.o.b. Gulf)**, which sets the benchmark price for global

wheat markets, averaged USD 241.5 per tonne, up nearly 6 percent from the beginning of the year and 7 percent above June 2017. Export quotations from Argentina made even higher gains, with **Argentina Trigo Pan (Up River f.o.b.)** increasing to USD 278 per tonne, up as much as 40 percent from June 2017, largely on tightening old crop export availabilities as well as unfavourable weather conditions threatening 2018/19 plantings.

Firmer prices in the global wheat market are also reflected in the **International Grains Council (IGC) Wheat sub-Index**, a trade-weighted price measure of

Figure 1. IGC Wheat Price Index

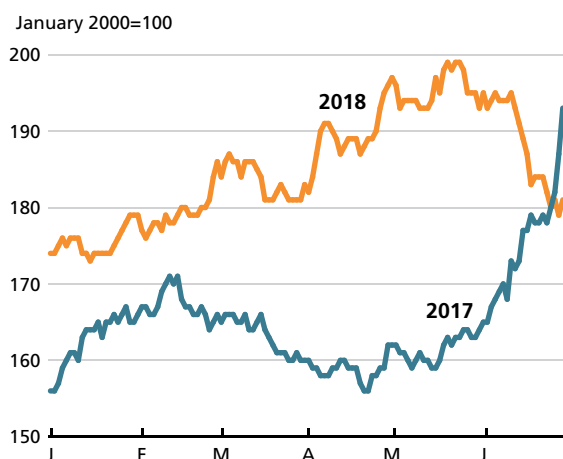


Figure 2. CBOT wheat futures for September



ten major export quotations, which soared to a 10-month high in May. In recent weeks old-crop prices fell, especially in the United States, where a strengthening of the US dollar made US wheat more expensive compared with that from other origins. However, new-crop prices remained underpinned by weather risks following prolonged dry conditions affecting production prospects across Australia, the Black Sea region and North America. In early June, prices received further support from deteriorating production prospects in the Russian Federation, the world's largest wheat exporter in 2017/18, although beneficial rains over spring wheat planting regions in the US, combined with weaker tone across most agricultural commodities, dampened the overall upward pressure. The **IGC wheat sub-index** averaged 188 points in June, down 3.7 percent month-on-month and 7.8 percent from June 2017.

In June, the **wheat futures in Chicago for September 2018 delivery** averaged USD 196 per tonne, up 9 percent since both the beginning of the year and the corresponding period last year. Persistent crop worries continued to influence price movements in the US futures, resulting in several rallies in recent months. However, the general weakness across most commodity markets, largely linked to US-China trade disputes, limited the price increase in wheat markets, pressuring down the nearby wheat futures in June. More detailed analysis of the futures markets can be found in the Market Indicators section of this report.

PRODUCTION

Production to fall in 2018

FAO's latest forecast for global 2018 wheat production stands at 736.1 million tonnes, down 20.7 million tonnes (2.7 percent) from 2017. The bulk of this year's production decline is expected to occur in the EU, the Russian Federation and the CIS countries of Asia, mostly reflecting weather-depressed yields. Moderate production upturns in North America and South America are expected to stem an otherwise larger decline at the global level.

In *Europe*, the aggregate wheat output is forecast to contract in 2018. The foreseen decline is largely associated with the **Russian Federation**, where the wheat production forecast has been trimmed due to unfavourable weather conditions in May that lowered winter-wheat yield prospects, while colder and wetter conditions diminished the production outlook for the spring season. Overall, wheat production in the Russian Federation is forecast at 72 million tonnes in 2018, 16 percent down from the record output in 2017. Similarly, driven by precipitation deficits, wheat production in **Ukraine** is forecast to decline, but to a lesser extent, with production forecast

Table 1. World wheat market at a glance

	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	Change: 2018/19 over 2017/18
	<i>million tonnes</i>			%
WORLD BALANCE				
Production	757.2	756.8	736.1	-2.7
Trade¹	176.4	173.5	175.0	0.9
Total utilization	734.8	738.2	741.1	0.4
Food	498.1	503.5	508.9	1.1
Feed	143.1	142.8	143.6	0.6
Other uses	93.7	91.9	88.5	-3.6
Ending stocks²	256.3	273.4	264.2	-3.3
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	66.7	66.7	66.7	0.0
LIFDC (kg/yr)	53.1	52.9	52.6	-0.6
<i>World stocks-to-use ratio (%)</i>	<i>34.7</i>	<i>36.9</i>	<i>34.9</i>	
<i>Major exporters stocks-to-disappearance ratio³ (%)</i>	<i>19.8</i>	<i>20.8</i>	<i>16.8</i>	
FAO WHEAT PRICE INDEX⁴ (2002-2004=100)	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	125	133	144	12.4

¹ Trade refers to exports based on a common July/June marketing season.

² May not equal the difference between supply (defined as production plus carryover stocks) due to differences in individual country marketing years.

³ Major exporters include Argentina, Australia, Canada, EU, Kazakhstan, Russian Fed., Ukraine and the United States.

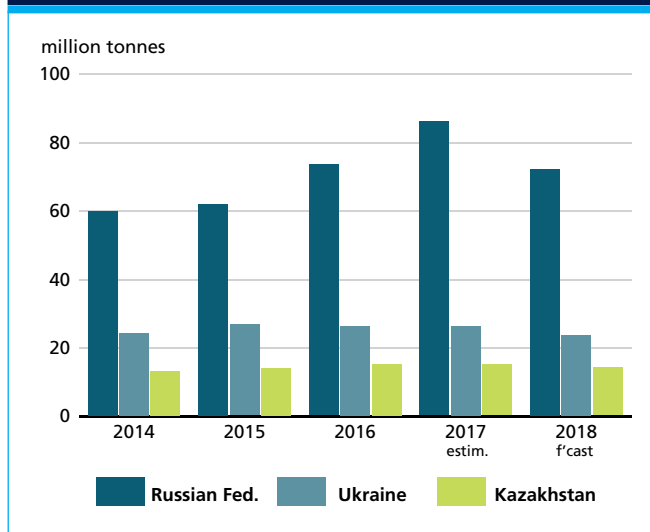
⁴ Derived from the International Grains Council (IGC) wheat index.

Table 2. Wheat production: leading producers*

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes</i>			%
European Union	144.5	152.0	147.0	-3.3
China (Mainland)	128.8	129.8	126.7	-2.3
India	92.3	98.5	98.6	0.1
Russian Federation	73.3	85.9	72.0	-16.1
United States	62.8	47.4	49.7	5.0
Canada	32.1	30.0	31.3	4.4
Pakistan	25.5	26.4	25.4	-3.7
Ukraine	26.1	26.2	23.4	-10.5
Australia	31.8	21.2	21.9	3.1
Turkey	20.6	21.5	21.0	-2.3
Argentina	18.6	18.5	20.0	8.1
Kazakhstan	15.0	14.8	14.0	-5.4
Iran Islamic Rep. of	11.1	12.5	13.4	7.2
Other countries	74.7	72.2	71.7	-0.8
World	757.2	756.8	736.1	-2.7

* Countries listed according to their position in global production (average 2016-2018)

Figure 3. Wheat production in major CIS producers



at 23.4 million tonnes, 10.5 percent lower year-on-year. In the **European Union**, wheat production is anticipated to decline 147 million tonnes, mainly on account of a contraction in the sown area in the main producing countries, induced by lower prices.

In *North America*, a moderate production upturn is forecast in the **United States**. This rests on an expected increase in spring wheat production, the minor crop, which is foreseen to more than offset a lower winter output, due to drought-reduced yields and a contraction in the harvested area. At 49.7 million tonnes, the United States' output is 5 percent higher year-on-year, but still remains well down on the average of the previous five years. In **Canada**, larger spring plantings are expected to drive up production to 31.3 million tonnes in 2018, a 4 percent year-on-year increase.

In *Asia*, with the wheat harvest under way, prospects point to a modest production downturn in 2018. The decrease largely relates to **China**, where production is forecast at 126.7 million tonnes, 2.3 percent lower on a yearly basis. The decrease would mostly result from a reduced planted area, reflecting a lower minimum state purchase price for wheat. Lower wheat outputs are also forecast in the CIS countries, notably **Tajikistan**, **Turkmenistan** and **Uzbekistan**. Precipitation deficits during winter months were the main driving factor, which have resulted in reduced yield expectations. In **Pakistan**, constrained water availability and input supplies are expected to result in a moderate decline in the country's wheat output in 2018, but the harvest is still anticipated to remain close to the 5-year average. In **India**, where the main wheat harvest has been completed, record high yields are foreseen to offset a contraction in plantings,

and push production slightly above the previous year's record level.

In the *Near East*, with the end of the harvest period approaching, **Turkey** is forecast to gather a wheat crop of 21 million tonnes, just shy of the previous year's high level, but still above average. The minor decrease is mainly reflective of drier conditions at the start of the season. In the other countries of the subregion, a similar sized production is forecast in the **Islamic Republic of Iran**, while ongoing conflicts continue to constrain agricultural production in **Afghanistan**, **Iraq** and **Syria**, keeping wheat outputs at below-average levels.

In *North Africa*, beneficial rainfall in February and March compensated for early seasonal rainfall deficits and improved yield prospects for the 2018 wheat crop. As a consequence, outputs in **Algeria**, **Egypt** and **Morocco** are forecast to rise marginally this year. However, in **Tunisia**, dry conditions persisted and, as a result, production is expected to fall to a near average level.

In **Australia**, where planting is under way, despite persistent dry weather conditions, wheat yields are expected to surpass the previous year's sharply reduced level and more than outweigh the impact of lower sowings. As a result, Australia is forecast to register a small year-on-year production increase in 2018.

In *South America*, beneficial rains in recent months and higher prices are expected to encourage an expansion in plantings in **Argentina**, which has boosted its production forecast to 20 million tonnes, up 8 percent year-on-year. In *Central America and the Caribbean*, in **Mexico**, the main producer in the region, record low wheat plantings, due to insufficient soil moisture, have acutely weighed on production prospects, resulting in a below average production forecast for 2018.

TRADE

Trade likely to increase further in 2018/19

FAO's latest forecast for world wheat trade in 2018/19 (July/June) stands at 175 million tonnes, up 1.5 million tonnes from 2017/18, but still down 1 million tonnes from the record volume traded in 2016/17. The anticipated small increase in 2018/19 would largely reflect increased imports by several countries in Asia and Latin America, while imports by other regions are projected to remain close to 2017/18 levels.

In *Asia*, total wheat imports in 2018/19 are forecast to approach 89 million tonnes, up 600 000 tonnes from 2017/18. Larger anticipated imports by **Afghanistan**, the **Islamic Republic of Iran** and **Iraq** are seen to more than offset anticipated declines in imports by several

Table 3. Top 10 wheat importers*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
Egypt	11.8	12.5	0.7
Indonesia	10.4	12.0	1.6
Algeria	8.2	7.7	-0.5
Brazil	6.7	7.5	0.8
Bangladesh	5.4	6.0	0.6
Japan	5.7	5.8	0.1
Philippines	5.4	5.5	0.1
European Union	5.7	5.5	-0.2
Mexico	4.8	5.2	0.4
Nigeria	4.9	5.1	0.2

* Imports are based on a common July/June marketing season

countries, in particular **Turkey**, where domestic supplies are forecast to remain ample due to relatively high carry-in stocks. Overall, however, imports by most Asian importing countries are likely to remain very close to the previous year's levels. In May, the **Islamic Republic of Iran** signed a three-year provisional free trade agreement with the **Eurasian Economic Union (EAEU)**, a development that could result in higher imports of wheat this season. Large domestic supplies in India are expected to keep imports at 1.5 million tonnes, unchanged from 2017/18 but well below 6.1 million tonnes registered in 2016/17. In May, **India** raised the customs duty on wheat imports from 20 percent to 30 percent in view of this year's anticipated record production.

In *Latin America and the Caribbean*, 2018/19 imports of wheat are forecast to approach 25 million tonnes, up by around 1 million tonnes from 2017/18. The increase would be mostly on account of larger imports by **Brazil**, the region's biggest wheat importer, due to rising domestic demand. Wheat imports by **Mexico**, the region's second biggest wheat importer, are also forecast to increase, mainly due to an anticipated decline in this year's domestic production.

In *Africa*, total wheat imports are forecast to remain steady at 48.4 million tonnes. Purchases by the world's biggest wheat importer, **Egypt**, are forecast to reach an all-time high of 12.5 million tonnes, up 4 percent from 2017/18 on rising domestic food demand. Earlier this year, Egypt amended tender requirements on imported wheat by lowering the minimum protein content (now within the 11 to 11.5 percent range), depending on the origin. Slightly higher imports are also forecast for **Morocco**. In **Algeria**, in view of the anticipated recovery in production, imports

Table 4. Top 10 wheat exporters*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
Russian Federation	30.7	37.0	6.3
European Union	27.2	27.5	0.3
United States	24.7	25.0	0.3
Canada	21.0	22.2	1.2
Australia	17.9	15.1	-2.8
Ukraine	17.7	15.0	-2.7
Argentina	11.4	12.0	0.6
Kazakhstan	7.7	8.0	0.3
Turkey	4.6	4.5	-0.1
Mexico	1.2	1.3	0.1

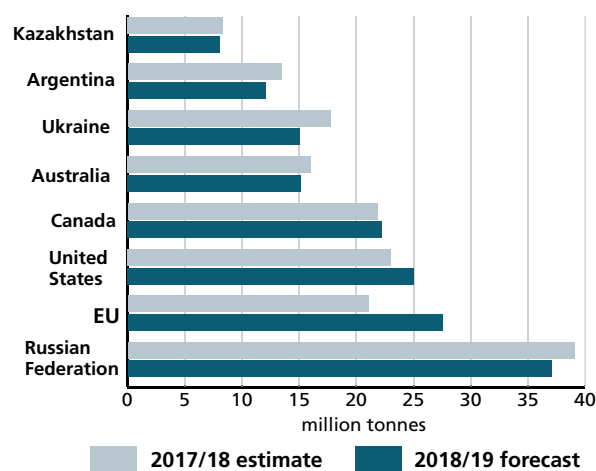
* Exports are based on a common July/June marketing season

are set to decline. However, higher imports are anticipated in **Tunisia**, given the likely decline in production.

In *Europe*, wheat imports in 2017/18 are forecast to remain broadly unchanged, totaling just over 8 million tonnes, with the **EU** accounting for the biggest share, at 5.5 million tonnes, similar to 2017/18. While wheat production in the EU is forecast to decline, the overall supplies in 2018/19 are expected to remain large, thanks to the large carry-in stocks from the previous season.

Regarding *exports*, the biggest year-on-year increase is forecast for the **EU** in the wake of lesser competition from the Black Sea exporters. Wheat shipments from the EU are currently forecast at 27.5 million tonnes, representing a 31 percent rebound from the reduced sales in 2017/18. Exports from the **United States** are also projected to

Figure 4. Major wheat exporters



increase, by around 9 percent to 25 million tonnes, while sales by **Canada** are anticipated to rise by just under 2 percent to 22.2 million tonnes. By contrast, exports from **the Russian Federation** are likely to decrease by at least 5 percent from the 2017/18 record high level to 37 million tonnes, due to this year's anticipated fall in domestic production. Despite this decline, the country remains the world's largest wheat exporter for the second consecutive season. Lower domestic outputs in **Kazakhstan** and **Ukraine** are also expected to keep exports from both countries below the previous season's levels, at 8 and 15 million tonnes, respectively. Smaller shipments are also anticipated from **Argentina** and **Australia**.

UTILIZATION

Consumption keeps pace with population growth

Global total wheat utilization in 2018/19 is forecast to increase by 0.4 percent from the 2017/18 estimated level, to reach an all-time high of 741.1 million tonnes. Utilization of wheat for **direct human consumption** is forecast to increase by 1.1 percent, to nearly 509 million tonnes, thus remaining broadly in line with the global population growth. At this level, world per capita wheat consumption would be steady at around 66.7 kg per annum, remaining in the order of 60 kg in developing countries and 95 kg in developed countries.

The usage of wheat for **animal feed** is forecast at roughly 144 million tonnes, up 0.6 percent from 2017/18. In the EU, traditionally the biggest market for feed wheat, total use of wheat for feeding livestock is forecast to reach

a near record level of 56 million tonnes in 2018/19, up 1 percent from the 2017/18 estimated level. Despite an anticipated decline in this year's production and larger exports, domestic supplies in the EU would still remain substantial, a factor that is likely to stimulate greater use of wheat as animal feed in 2018/19.

According to the latest (May 2018) estimates from the International Grains Council (IGC), total **industrial use** of wheat hovers around 23.5 million tonnes, up 2.7 percent from 2017/18, with higher production of starch in the EU accounting for most of this growth. By contrast, total **post-harvest losses**, another component of the overall utilization, are projected to decline by at least 3.0 percent year-on-year, mainly because of falling world production in 2018. Generally, the size of post-harvest losses is closely associated with production levels.

STOCKS

Inventories to decline in 2018/19

Based on the latest forecasts for 2018 production and 2018/19 utilization, world wheat stocks by the close of seasons in 2019 are expected to decline by at least 9 million tonnes (3.3 percent), to 264 million tonnes. FAO's projection for the 2018/19 end-season wheat stocks has been downgraded by as much as 19 million tonnes (6.8 percent) since June.

The bulk of the year-on-year anticipated reduction in global wheat inventories is likely to take place in the **CIS**, with carryovers in the **Russian Federation** alone falling by almost 40 percent. Significant drawdowns are also forecast for the **EU** and the **United States**, mostly driven by likely drops in production. By contrast, wheat inventories in

Figure 5 . Global wheat utilization

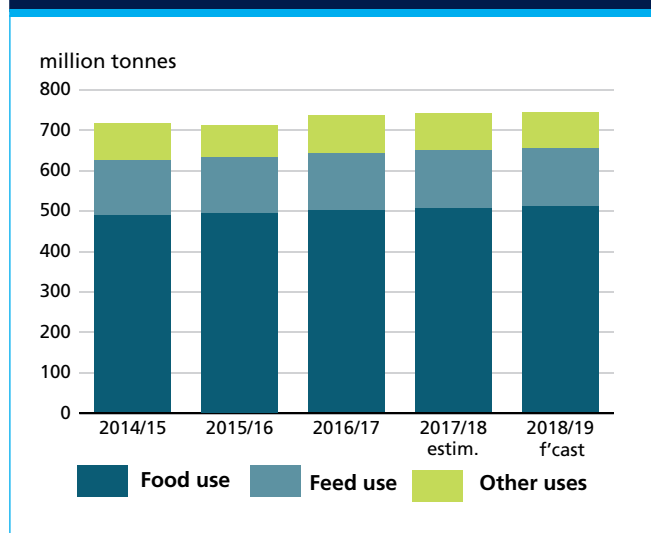
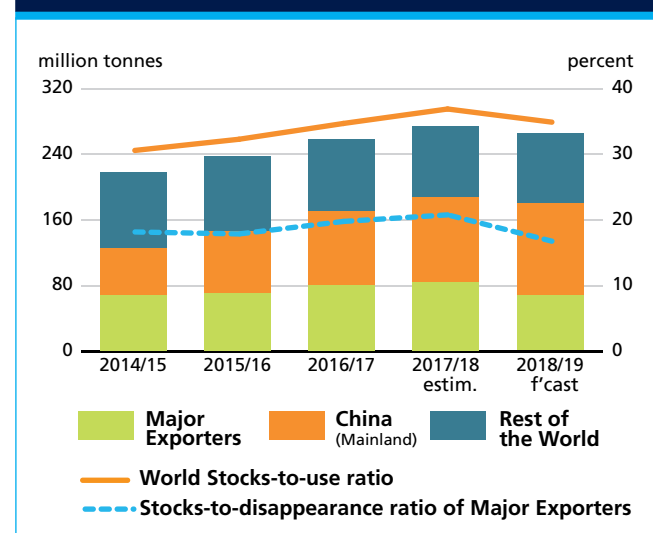


Figure 6. Wheat stocks and ratios



China are set to increase for the fourth consecutive season to 111 million tonnes, some 9 million tonnes (8.8 percent) above their already high opening levels, despite a forecast fall in this year's production. The decline in wheat production of **China** is unlikely to result in a downturn in stocks, as domestic production would still exceed the anticipated consumption requirements by a significant margin. In **India**, given another domestic bumper wheat crop this year, carryovers are heading for a sharp rise, hitting an expected 4-year high of 21 million tonnes, which would be 3 million tonnes higher than their opening levels.

Overall, the **world wheat stocks-to-use ratio** in 2018/19 is set to drop slightly, from 36.9 percent to 34.9 percent, still well above the historic low of 23.4 percent registered in 2007/08. However, the decline is much larger when China is excluded, since not only is

China the largest world stockholder of wheat, but it is also where carryovers are projected to increase the most in 2018/19. In fact, the ratio of the **major wheat exporters' closing stocks to their total disappearance** (defined as domestic utilization plus exports), which is considered a better measure of availabilities in global markets and does not include China, is set to fall from 20.8 percent in 2017/18 to 16.8 percent in 2018/19, the smallest ratio in five years. The drop points to some potential tightening of wheat supplies in international markets. With the exception of **Argentina** and **Canada**, where carryovers are set to increase, stocks held by all other major exporters are heading for a sharp decline in 2018/19, in particular those in the **Russian Federation**, the **United States** and the **EU**.

COARSE GRAINS*

Major Coarse Grain Exporters and Importers



* Coarse grains include maize, barley, sorghum, millet, rye, oats and NES (not elsewhere specified)

PRICES

International prices remain generally above last year despite a slide in June

Smaller supplies, amid expectations of falling production from last year's record levels, contributed to the upward trend in international prices of major coarse grains during the first five months of 2018. Following an already strong start to the year, maize quotations increased further,

influenced by logistical difficulties in the United States and weather concerns affecting production prospects in South America. Slower pace of exports from Argentina – partly due to farmers withholding sales because of production uncertainties, coupled with expectations of a contraction in plantings in the United States – provided further support to international maize prices, which continued to climb for five consecutive months before retreating in June. Despite reports of tighter domestic maize supply

Figure 1. Maize export price (US No. 2 yellow, Gulf)

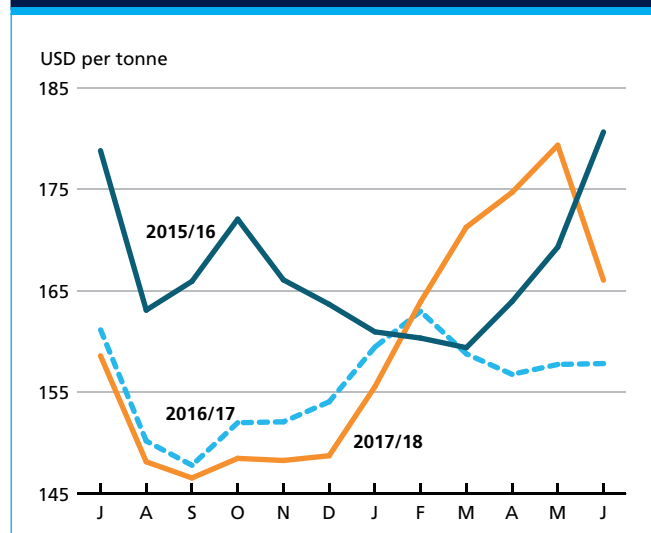
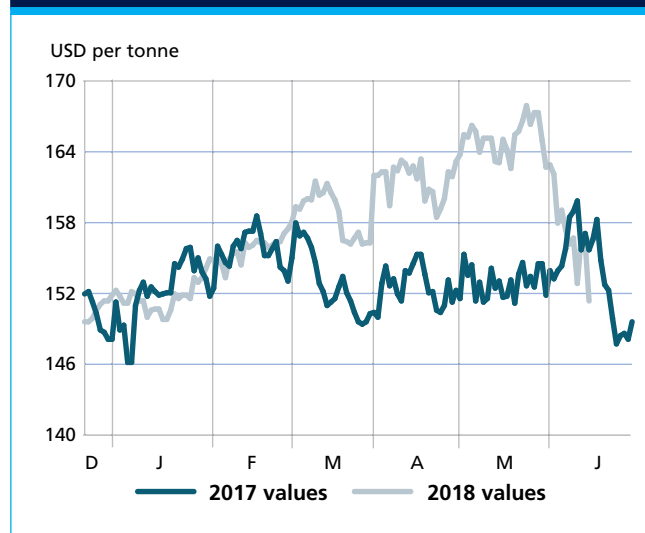


Figure 2. CBOT maize December futures



in the United States and a further downgrading of the maize crop harvest in Brazil, slower trade activity, in part due to a stronger US dollar, coupled with a general price weakness across most agricultural commodities due to rising trade tensions, pushed down maize prices sharply lower, especially during the second half of the month. The **US maize (yellow, No. 2, f.o.b.)** price averaged USD 166 per tonne in June, down over 7 percent from May, but still around 5 percent above that of June 2017. The year-on-year increase of **Argentina (Up River, f.o.b.)** origin maize was even more significant, with June prices averaging almost 10 percent higher than in June 2017.

In Chicago, **maize futures for delivery in December 2018**, which is the benchmark delivery month for the new crop, averaged USD 152 per tonne in June, down 7 percent from May and also 1.3 percent below the previous year's level. Despite expectations of considerably less abundant export availabilities in 2018/19 compared with the previous season, increased restrictive trade measures have weighed heavily on maize quotations in recent weeks. More detailed analysis of the maize futures markets can be found in the Market Indicators section of this report.

International prices of **barley** and **sorghum** also remained mostly above last year's levels, especially in the case of feed barley, which received support from strong import demand by China and several countries in the Middle East. By late June, **feed barley** prices from the EU and Black Sea stood around 20 percent higher than the corresponding period of last year. Increases in international **sorghum** quotations in the earlier months of this year were largely influenced by the rising maize prices, while uncertainties regarding sorghum purchases by China from the United States limited the increase. While China's decision in May to end the anti-dumping probe against US sorghum reversed the earlier slide in sorghum price quotations and raised hopes of possible resumption of sorghum imports from the United States, sorghum prices in June averaged at nearly the same level as a year ago.

PRODUCTION

Production to fall below last year's record

FAO's forecast for global coarse grains production in 2018 stands at almost 1 339 million tonnes, 3.7 percent (51 million tonnes) down from the previous year's record high. The contraction mostly reflects a forecast reduction in world maize production and, to a lesser extent, barley.

World maize production in 2018 is forecast to decrease sharply to nearly 1 045 million tonnes, down 46 million tonnes (4.2 percent) from 2017. The bulk of this fall is expected to occur in the **United States**, the

world's largest maize producer, which is forecast to harvest a maize crop of about 357 million tonnes – 4 percent (14.3 million tonnes) down from the high output of 2017. The decrease would mostly result from a price-induced contraction in the area sown, as farmers switched to planting more profitable crops, including soybean. By contrast, maize production in **Canada** is expected to surpass last year's record high, reaching 14.8 million tonnes, 5 percent up on a yearly basis, resting on an expansion in plantings triggered by higher prices.

In *South America*, significant production declines are forecast in **Argentina** and **Brazil**, with maize harvests expected to fall by about 15 percent from the record highs of 2017. Rainfall deficits are the primary factor for the decreases, with yields expected at below average levels, while in Brazil lower prices led to a contraction in plantings, further contributing to the diminished production outlook. In Argentina, however, an expected increase in the secondary minor season crop should limit the decline in the country's total maize production.

In *Europe*, production of maize in the **EU** is anticipated to fall by 3 percent to 63 million tonnes. The decline is mainly due to a likely reduction in plantings in 2018, estimated at their lowest level in the past seven years, while yields are forecast to remain above average, which would help to avert a steeper year-on-year output decline. By contrast, in both the **Russian Federation** and **Ukraine**, production is forecast to rise moderately in 2018, reflecting an expansion in plantings.

Maize production in *Africa* is predicted to fall in 2018, mostly because of steep harvest contractions in *Southern Africa* from the record highs of the previous year. Production in **South Africa**, the largest producer of

Figure 3. Major maize producers

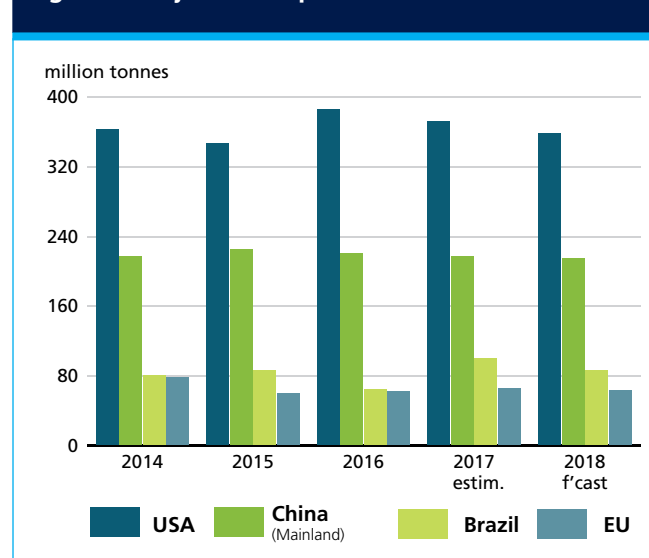


Table 1. World coarse grain market at a glance

	2016/17	2017/18 estim.	2018/19 f'cast	Change: 2018/19 over 2017/18
	million tonnes			%
WORLD BALANCE				
Production	1 354.4	1 389.4	1 338.7	-3.7
Trade¹	180.8	189.7	189.6	0.0
Total utilization	1 338.4	1 372.4	1 390.8	1.3
Food	205.2	208.6	210.1	0.7
Feed	757.5	771.3	782.3	1.4
Other uses	375.8	392.5	398.4	1.5
Ending stocks²	353.6	363.5	311.0	-14.4
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	27.5	27.6	27.5	-0.4
LIFDC (kg/yr)	38.3	38.4	37.9	-1.3
World stocks-to-use ratio (%)	25.8	26.1	21.7	
Major exporters stocks-to-disappearance ratio ³ (%)	13.5	14.7	11.3	
FAO COARSE GRAIN PRICE INDEX (2002-2004=100)				
	2016	2017	2018 Jan-Jun	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	151	146	160	6.0

¹ Trade refers to exports based on a common July/June marketing season.

² May not equal the difference between supply (defined as production plus carryover stocks) due to differences in individual country marketing years.

³ Major exporters include Argentina, Australia, Brazil, Canada, EU, Russian Fed., Ukraine and the United States.

Table 2. Coarse grain production: leading producers*

	2016	2017 estim.	2018 f'cast	Change: 2018 over 2017
	million tonnes			%
United States	403.0	384.6	370.1	-3.8
China (Mainland)	229.0	225.9	223.5	-1.1
European Union	153.2	156.6	154.1	-1.6
Brazil	65.8	102.5	88.1	-14.1
Argentina	47.0	56.4	48.1	-14.6
India	41.9	44.8	44.8	0.1
Russian Federation	43.4	44.3	41.5	-6.2
Ukraine	39.4	34.6	34.3	-0.9
Mexico	34.3	34.2	33.5	-2.0
Canada	26.7	26.3	26.8	1.9
Indonesia	20.4	24.3	24.5	0.7
Ethiopia	20.7	20.5	20.5	0.0
Nigeria	18.9	19.0	18.0	-5.0
Australia	18.3	11.7	12.4	5.8
Turkey	13.8	13.7	14.1	2.8
Other countries	178.7	190.1	184.3	-3.0
World	1 354.7	1 389.4	1 388.7	-3.7

* Countries listed according to their position in global production (average 2016-2018)

maize on the continent, is forecast at 13.8 million tonnes, down 21.4 percent, due to reduced plantings, reflecting lower prices, and lower yields following a mid-season dry spell. In neighbouring countries, large production declines are also forecast in **Malawi** and **Zambia**, on account of unfavourable weather conditions. Although early in the season, aggregate maize production in *West Africa* is also expected to decline this year, mostly based on predicted rainfall deficits.

In *Asia*, planting of the main season maize crop is under way in **China** (Mainland), and the early outlook points to a small decrease in production. An expected area contraction, on account of farmers switching to more profitable soybeans, is the primary reason for the lower production forecast of 213.7 million tonnes, down 1 percent year-on-year. In **India**, where the main maize crop will be harvested from August, production is expected to remain virtually unchanged from last year, at 26.8 million tonnes.

The global forecast for barley production in 2018 stands at around 142 million tonnes, down 2.4 percent from the previous year. The fall reflects expectations of weather-reduced outputs, especially in the **Russian Federation** and **Ukraine**, while production is forecast to remain steady in the **EU** at 59 million tonnes. World sorghum production in 2018 is forecast to reach 57.5 million tonnes, nearly unchanged from last year's level. Overall, reduced outputs in **Argentina** and the **United States** could largely offset higher anticipated production in **Australia**.

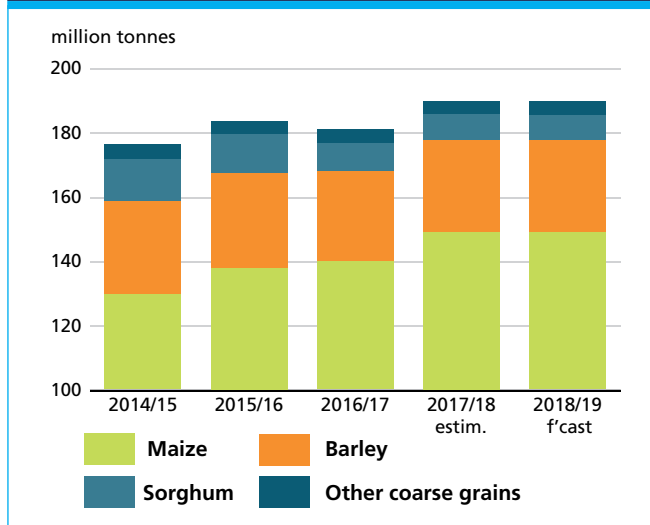
TRADE

World trade to remain high

World trade in coarse grains in 2018/19 (July/June) is forecast at 189.6 million tonnes, nearly unchanged from the 2017/18 record level. FAO's trade forecast for coarse grains has been raised by 2.4 million tonnes since June on expectations of larger imports of maize and sorghum than previously anticipated. Overall, world trade in all three major coarse grains is projected to remain close to the 2017/18 estimated volumes, with maize trade in 2018/19 forecast at close to 149 million tonnes (July/June), similar to the 2017/18 record level, barley at 28.7 million tonnes, and sorghum at 8 million tonnes.

In *Asia*, maize imports in 2018/19 (July/June) are predicted to reach a new high of 71.2 million tonnes, up 1.8 percent from 2017/18, largely due to expectations of more substantial imports by **Bangladesh**, the **Republic of Korea**, **Saudi Arabia**, and **Viet Nam**. Growing feed demand is the main reason for the expected rise in maize imports, while reduced domestic production levels, as in the case of Viet Nam, are also seen as contributing

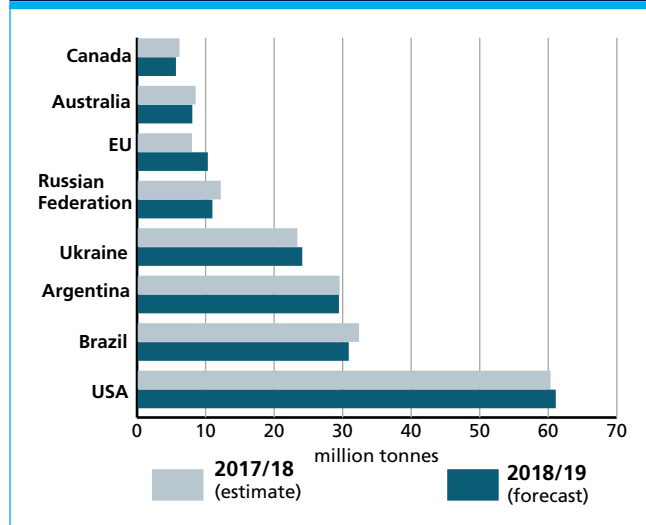
Figure 4. Global trade of coarse grains by type



to larger maize purchases from international markets. However, in **China** (Mainland), the region's leading maize producer, despite an expected decline in domestic production this year, imports could decline by 20 percent to 3.2 million tonnes as domestic requirements are expected to be met by drawing down from inventories. Total maize imports in *Africa* could reach 22.4 million tonnes in 2018/19, some 4 percent higher than in 2017/18, with most of the increase anticipated to take place in **Algeria**, **Egypt** and **Morocco**. Strong feed demand is expected to boost maize deliveries to Egypt, which are forecast at 9.6 million tonnes, up 200 000 tonnes from 2017/18, and an all-time high. In *Latin America and the Caribbean*, total maize imports are forecast at nearly 36 million tonnes, 1.3 million tonnes more than in 2017/18, with the biggest increase foreseen in **Mexico**, followed by **Colombia** and **Chile**. Maize imports by the region's largest importer, Mexico, are set to reach a record 16.7 million tonnes, up 900 000 tonnes from 2017/18, driven by growing feed demand and this year's decline in domestic production. By contrast, 2018/19 deliveries to *Europe* are forecast to decrease by nearly 1 million tonnes (5.4 percent) to 16.8 million tonnes, with all the predicted decline in the **EU**. While maize production in the EU is set to drop from last year's level, large carry-in stocks, coupled with ample supplies of feed wheat, are expected to dampen import demand for maize. In addition, although maize imports from the United States are relatively small, the recent imposition by the EU of a 25-percent retaliatory tariff on imports of maize from the United States could also contribute to reduced imports.

World trade in barley in 2018/19 (July/June, excluding malt) is pegged at 28.7 million tonnes, up marginally

Figure 5. Coarse grain exports: major exporters



(0.7 percent) from the estimated level in 2017/18. Most of the anticipated year-on-year increase is expected in *Asia*, mostly in **Japan**, and to a lesser extent in **China**. Total imports of barley by Asian countries could reach 23.3 million tonnes, representing almost 81 percent of the global volume. Purchases by **China** in 2018/19 are forecast at around 8 million tonnes, the second highest on record and above the predicted 7.5 million tonnes of imports by **Saudi Arabia**, traditionally the world's largest importer of feed barley. In *Africa*, barley imports are likely to remain steady, at almost 3 million tonnes, with the region's largest buyers, **Morocco** and **Algeria** importing about the same levels as in 2017/18, while deliveries to **Tunisia** could decline slightly on weaker feed demand and better domestic availabilities.

World trade in sorghum is currently forecast at 8 million tonnes in 2018/19 (July/June), unchanged from 2017/18. Total imports into *Asia* is expected to reach 6.2 million tonnes, almost 400 000 tonnes more than in 2018/17. Most of the anticipated expansion in imports into Asia are accounted for by larger imports by **China** (Mainland), purchasing as much as 5.4 million tonnes of sorghum from world markets, although still below the record purchases of nearly 9.4 million tonnes registered in 2015/16. The latest forecast is 1 million tonnes higher than reported in June, following the recent suspension of anti-dumping measures on sorghum imports from the United States. Sorghum purchases by **Mexico**, which until 2012/13 ranked as the world's leading market for sorghum, are expected to total 400 000 tonnes, up from 2017/18, but still well below the high levels of past imports.

While global trade in coarse grains is likely to hover near record levels, export prospects vary significantly across the

Table 3. Top 10 maize importers*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
Mexico	14.5	16.7	2.2
European Union	14.6	16.0	1.4
Japan	15.2	15.0	-0.2
Korea Rep. of	9.9	10.3	0.4
Egypt	9.0	9.6	0.6
Viet Nam	8.2	9.5	1.3
Iran Islamic Rep. of	6.8	7.5	0.7
Colombia	4.8	5.2	0.4
Chinese prov. of Taiwan	4.4	5.0	0.6
Algeria	4.2	4.6	0.4

* Imports are based on a common July/June marketing season

Table 4. Top 10 maize exporters*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
United States	53.6	54.0	0.4
Brazil	26.7	30.0	3.3
Argentina	22.4	26.0	3.6
Ukraine	18.6	18.7	0.1
Russian Federation	5.1	5.0	-0.1
Paraguay	2.4	2.5	0.1
South Africa	1.2	2.2	1.0
European Union	2.0	1.5	-0.5
Canada	1.5	1.4	-0.1
Mexico	1.4	1.0	-0.4

* Exports are based on a common July/June marketing season

Table 5. Top 5 sorghum importers*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
China (Mainland)	6.7	5.4	-1.3
Japan	0.6	0.6	0.0
Mexico	0.5	0.4	-0.1
Colombia	0.2	0.3	0.0
Somalia	0.2	0.2	0.0

* Imports are based on a common July/June marketing season

Table 6. Top 5 sorghum exporters*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
United States	7.2	6.0	-1.2
Australia	0.7	0.6	-0.2
Argentina	0.6	0.4	-0.2
Sudan	0.2	0.4	0.2
Ethiopia	0.4	0.3	-0.1

* Exports are based on a common July/June marketing season

Table 7. Top 10 barley importers*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
China (Mainland)	7.5	8.1	0.6
Saudi Arabia	9.0	7.5	-1.5
Iran Islamic Rep. of	1.8	2.5	0.7
Japan	1.1	1.2	0.1
Libya	1.1	1.0	-0.1
Algeria	0.7	0.8	0.1
Jordan	0.8	0.8	0.0
Morocco	0.6	0.6	0.0
Brazil	0.6	0.6	-0.1
Turkey	0.3	0.5	0.2

* Imports are based on a common July/June marketing season

Table 8. Top 10 barley exporters*

	2015/16-2017/18 average	2018/19 f'cast	Change
	million tonnes		%
European Union	7.3	7.6	0.3
Australia	7.0	6.5	-0.5
Russian Federation	4.3	5.0	0.7
Ukraine	4.8	4.3	-0.5
Argentina	2.6	2.2	-0.4
Canada	1.5	1.5	0.0
Kazakhstan	0.9	1.3	0.4
United States	0.1	0.1	0.0
Uruguay	0.1	0.1	0.0
Belarus	0.1	0.1	0.0

* Exports are based on a common July/June marketing season

leading suppliers. Exports of maize by the **United States**, the world's largest maize exporter, are predicted to reach 54 million tonnes, up 1 million tonnes from 2016/17. Tighter export availabilities, however, are expected to result in a slide in sales of maize by **Brazil**, which are forecast to fall by 1.5 million tonnes to 30 million tonnes in 2018/19. Total exports of coarse grains by **Argentina** could remain steady, at just under 29 million tonnes, while those from **Ukraine** are set to increase slightly, reaching just over 23 million tonnes, with higher deliveries of maize compensating for a small decrease in exports of barley. Exports of both maize and barley from the **Russian Federation** will most likely decline, due to tighter domestic supplies compared with the previous season. Elsewhere, maize shipments from **Canada** and **South Africa** are forecast to remain steady.

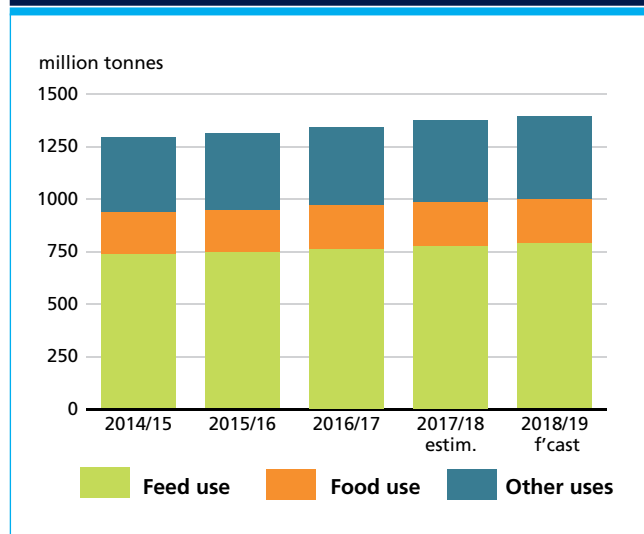
UTILIZATION

Total utilization to reach a new high

World total utilization of coarse grains in 2018/19 is set to reach an all-time high of 1 391 million tonnes, up 1.3 percent, or 18.4 million tonnes, from the 2017/18 estimated level. Feed and industrial uses are the main drivers of the projected increase in total utilization of coarse grains.

Total **feed use** of coarse grains in 2018/19 is forecast at around 782 million tonnes, some 11 million tonnes (1.4 percent) higher than the estimated level for 2017/18. Maize feeding, in particular, is expected to expand the most, by 12.5 million tonnes (2.1 percent) to 614 million tonnes, with the bulk of the increase projected in China and Latin America. In China, declining prices are expected to boost feed use of maize to 146 million tonnes, almost 3 percent higher than in 2017/18. China's feed use of coarse grains is likely to continue its upward trend, rising by 2.6 percent in 2018/19 to 157.8 million tonnes. In Latin America, meanwhile, significant year-to-year increases are expected in Argentina, Brazil and Mexico, with maize feed use up, respectively, by 14.7, 2.9 and 14.6 percent from

Figure 6. Coarse grains utilization



the 2017/18 levels. By contrast, feed use of coarse grains in the United States is anticipated to decline by 2.9 percent to 140.3 million tonnes, largely because of falling domestic maize production this year.

Global **food use** of coarse grains in 2018/19 is pegged at 210 million tonnes, up marginally (1.5 million) from 2017/18. Africa accounts for the bulk of the food use of coarse grains, forecast at 91 million tonnes in 2018/19, followed by Asia, at 62 million tonnes. On the global level, the growth in food consumption of coarse grains is anticipated to virtually match the increase in world population, thus maintaining a stable per capita consumption of 27.5 kg per year. In Africa, per capita consumption is projected to average 71 kg, while in sub-Saharan Africa it is forecast at around 78 kg in 2018/19, falling marginally from the 2017/18 level.

World **industrial use** of coarse grains in 2018/19 is forecast to reach a record 344 million tonnes, up 3 percent from the 2017/18 estimate. Globally, more than one-half of total industrial utilization of coarse grains is concentrated in the United States (180 million tonnes), followed by China, with around 86 million tonnes. According to the

Table 9. Maize use for ethanol (excluding non-fuel) in the United States

	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18 estim.	2018/19 (f'cast)
Maize production	316.166	313.956	273.188	351.270	361.101	345.504	384.774	370.956	356.630
Ethanol use	127.538	127.005	117.886	130.155	132.085	132.695	137.978	141.611	144.151
Yearly change (%)	9.4	-0.4	-7.2	10.4	1.5	0.5	4.0	2.6	1.8
As % of production	40.3	40.5	43.2	37.1	36.6	38.4	35.9	38.2	40.4

Source: WASDE-USDA. * 12 June 2018

latest (May 2018) forecasts by the International Grains Council, industrial utilization of maize for the production of ethanol (excluding non-fuel uses) is foreseen to increase by 1.3 percent from 2017/18, reaching 177.3 million tonnes in 2018/19. Industrial use of maize for the production of starch is likely to grow more significantly in 2018/19, by 5.3 percent, to reach an all-time high of 125 million tonnes. A sharp (over 7 percent) boost to the use of maize for the production of starch and ethanol in China is the main factor behind the projected year-on-year predicted expansion in the world total industrial utilization of coarse grains.

STOCKS

First drawdown on stocks in five years

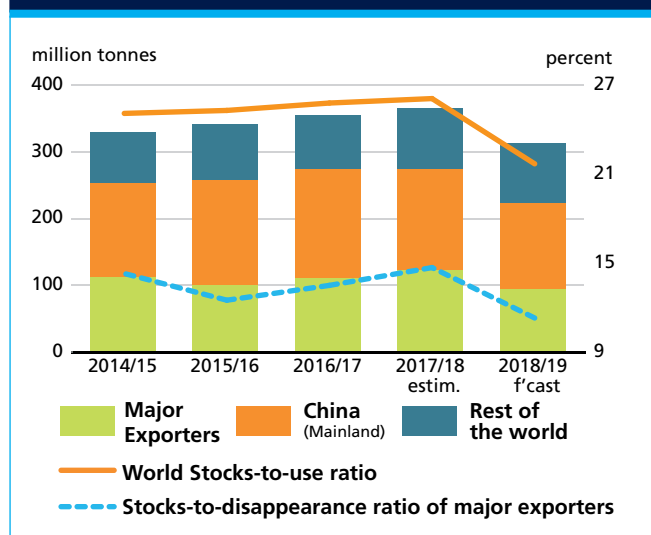
Based on the current forecasts for global production in 2018 and utilization in 2018/19, world inventories of coarse grains by the close of crop seasons in 2019 should decline for the first time in five years to 311 million tonnes, some 52 million tonnes (14 percent) below their revised opening levels. Among the major coarse grains, maize stocks are predicted to register the biggest decline, falling to around 260 million tonnes, down nearly 50 million tonnes (16 percent) from 2018. The bulk of the drawdown in world stocks of maize is expected in **China**, where the Government's effort to curb the size of the state reserves by boosting its domestic utilization is expected to result in a fall of almost 24 million tonnes in the country's maize inventories, to 122.4 million tonnes. Among the major exporters of maize, **Argentina** is expected to end the season with much smaller inventories, mostly due to lower domestic maize production as well as higher

feed use. Lower maize carryovers, largely because of the projected fall in production, are also forecast for **Brazil** and the **United States**. In the United States, maize inventories could fall to 40 million tonnes, down 13.3 million tonnes, marking the lowest level since 2013/14. In Brazil, maize stocks are likely to reach 11 million tonnes, down 5 million tonnes from their record high opening level.

World barley stocks are also projected to decline sharply, by 11 percent, to 23.5 million tonnes, with most of the decrease to occur in the **EU** and the **Russian Federation**. Sorghum inventories are forecast to drop by 8.5 percent, to around 8 million tonnes, mostly on drawdowns in **Argentina**, due to a fall in domestic production, and several countries in Africa, in particular the **Sudan**.

Given the projected decrease in world inventories and increase in utilization, the **world stocks-to-use ratio** for coarse grains should drop from 26.1 percent in 2017/18 to 21.7 percent in 2018/19. At this level, the ratio would be the smallest in five years, but still well above the historical low of 15.3 percent registered in 2003/04. Similarly, the ratio of **major exporters' stocks-to-disappearance** (defined as domestic consumption plus exports), which is a more reflective measure of global availabilities for trade, is set to decrease to 11.3 percent from 14.7 percent in 2017/18.

Figure 7. Coarse grain stocks and ratios



RICE

Major Rice Exporters and Importers



PRICES

Export quotations keep rising

The upward trajectory exhibited by international rice prices since late 2016 held during the first half of 2018, as reflected by the FAO All Rice Price Index (2002–2004=100) rising by another 6 percent since December, to reach 232 points in June 2018. At this level, the Index stood at its highest since November 2014 and 11 percent above its value a year earlier. Price increases have particularly affected the most widely traded Indica varieties since

December. These have risen by 9-11 percent, despite currency depreciations in various exporting countries. The gains have been demand driven, coming in the aftermath of large purchases by Bangladesh, Indonesia and the Philippines, although in the case of Viet Nam increases tended to be accentuated by tighter availabilities following a shift away from cultivation of lower-grade Indica varieties in the country. In the aromatic segment, subdued demand softened basmati quotations somewhat, but Thai Hom Mali values reached fresh peaks in June, fueled by flood-induced output losses incurred last year. Supply tightness owing to

Figure 1. FAO rice price indices

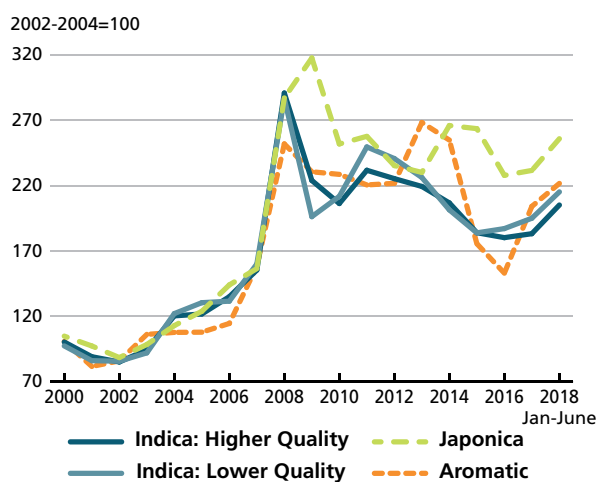
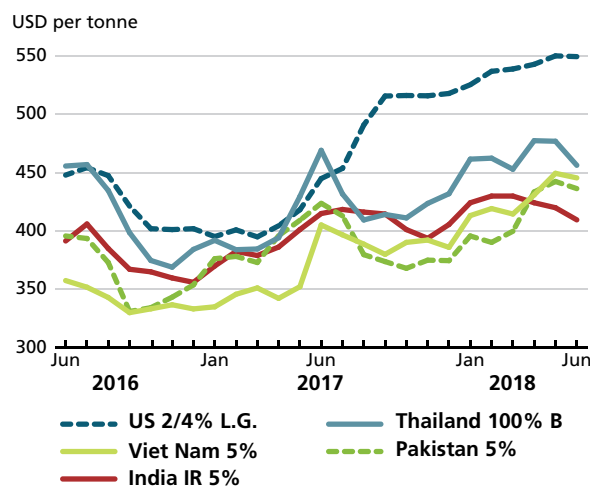


Figure 2. Export prices for higher-quality Indica rice in selected countries



a steep output shortfall in 2017 also provided support to quotations of Indica and Japonica rice in the United States since December, while prices declined in the major South American exporters, pressured by harvest progress and currency movements.

PRODUCTION

Production growth to regain momentum in 2018

World rice production increased by a modest 0.7-percent rate in 2017, as only a few Asian and African countries were in a position to expand plantings by a substantial margin. Although the outlook for 2018 is preliminary at this stage, given that growing conditions during the northern hemisphere summer months will prove decisive, early expectations for 2018 point to the easing of many of the constraints faced last year, namely weather disruptions and unattractive prices. If confirmed, this would result in global rice production expanding by 1.4 percent in 2018, to reach an all-time high of 511.4 million tonnes (milled basis).

Asia is expected to drive the global production expansion of 2018, harvesting a record 461.9 million tonnes, up 1.2 percent from 2017. Among major producers in the region, the outlook is especially positive for **India**, given forecasts of normal monsoon rains, as well as government announcements in February about setting minimum support prices for Kharif crops at 1.5 times their cost of production. This has fueled expectations that 2018 support prices will be raised by a higher rate than the 4-5 percent annual increases applied since 2013. These factors, combined with schemes fostering productivity improvements, could

shore up Indian production by 2 percent to a fresh peak of 113.5 million tonnes. Strong output recoveries are also forecast in Asian countries that experienced climatic setbacks last year, in particular **Bangladesh** and **Sri Lanka**, but also **Nepal** and **Viet Nam**. However, in Sri Lanka, tight water availabilities for irrigation may keep output below levels achieved in recent years. Concerns that water shortages could undermine 2018 plantings have also emerged in **Pakistan**, although officials point to possible improvements in reservoir levels due to increased snowmelt. As such, and pending developments in the next few months, FAO has kept its production forecast for the country at 7.6 million tonnes, up 1.8 percent from 2017, based on expected productivity improvements fostered by greater cultivation of high-yielding hybrids. Current prospects also point to **Cambodia**, **Indonesia**, the **Philippines**, **Myanmar** and **Thailand** producing more in 2018, but the outlook is less buoyant elsewhere in Asia. This is especially the case for **China** (Mainland), where in a bid to curb a supply overhang caused by successive bumper harvests and large imports, officials are targeting a 700 000 hectare area reduction this season. In line with this objective, a February decision reduced government procurement prices for paddy by 7-13 percent. Although part of the ensuing area contraction could be compensated by yield improvements, the move is expected to reduce output in China by 1 percent to 141.3 million tonnes. Under similar efforts to curb surplus production, the **Republic of Korea** could see its third successive season of output contractions, while expected reductions in **Afghanistan** and the **Islamic Republic of Iran** would be linked to tight water availabilities.

Combined, countries in *Africa* are forecast to produce

Figure 3. Global paddy production and area

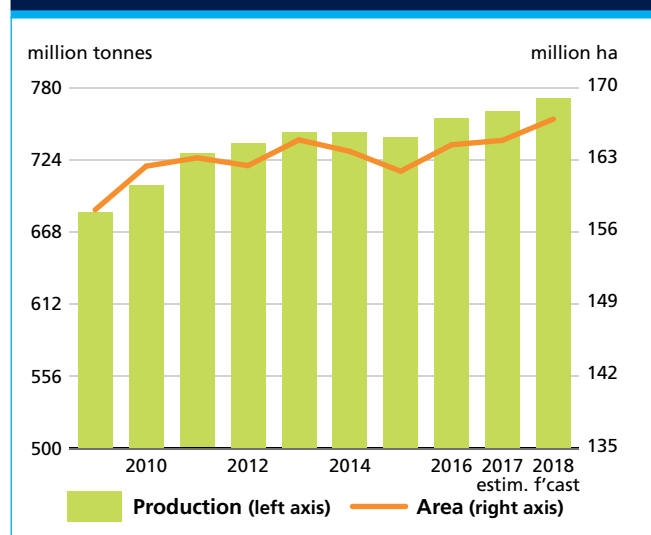


Figure 4. Rice production trends in leading producers

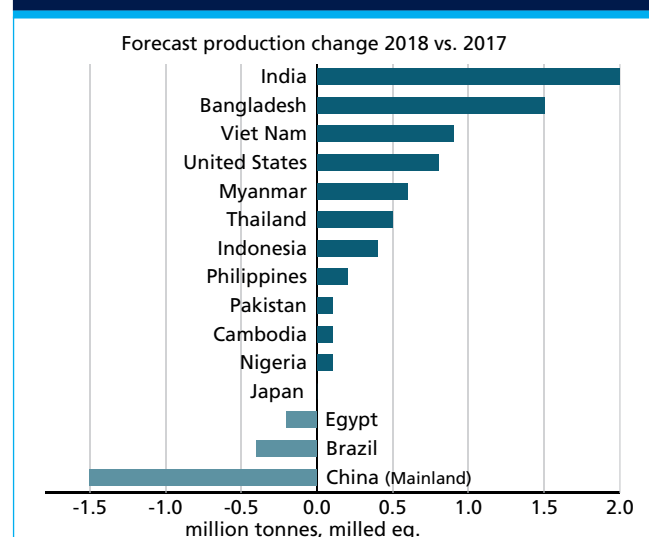


Table 1. World rice market at a glance

	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f.cast</i>	Change: 2018/19 over 2017/16
	<i>million tonnes, milled equivalent</i>			<i>%</i>
WORLD BALANCE				
Production	501.2	504.6	511.4	1.4
Trade ¹	48.1	47.8	47.5	-0.5
Total utilization	498.1	504.3	509.5	1.0
Food	400.4	405.9	411.8	1.5
Ending stocks²	169.0	171.1	173.7	1.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	53.6	53.8	54.0	0.4
LIFDC (kg/yr)	55.2	55.3	55.5	0.4
World stocks-to-use ratio (%)	33.5	33.6	33.6	
Major exporters stocks-to-disappearance ratio ³ (%)	18.7	17.5	17.8	
FAO RICE PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-June</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 %
	194	206	228	15.2

¹ Calendar year exports (second year shown).

² May not equal the difference between supply (defined as production plus carryover stocks) due to differences in individual country marketing years.

³ Major exporters include India, Pakistan, Thailand, the United States and Viet Nam.

Table 2. Rice Production: leading producers *

	2016	2017 <i>estim.</i>	2018 <i>f.cast</i>	Change: 2018 over 2017
	<i>million tonnes, milled equivalent</i>			<i>%</i>
China (Mainland)	141.8	142.9	141.3	-1.1
India	109.7	111.5	113.5	1.8
Indonesia	45.5	46.3	46.7	0.9
Bangladesh	34.7	33.9	35.3	4.3
Viet Nam	28.1	27.8	28.7	3.1
Thailand	21.5	22.3	22.8	2.4
Myanmar	17.2	17.7	18.2	3.2
Philippines	12.1	12.7	12.9	1.6
Brazil	7.2	8.4	8.0	-4.8
Japan	7.7	7.5	7.5	0.2
Pakistan	6.8	7.4	7.6	1.8
United States	7.1	5.7	6.5	14.0
Cambodia	6.0	6.3	6.4	1.7
Egypt	4.3	4.4	4.2	-3.8
Nigeria	3.9	4.2	4.3	2.6
World	501.2	504.6	511.4	1.4

* Countries listed according to their position in global production (average 2016-2018).

21.6 million tonnes in 2018, 4 percent more than the 2017 reduced outcome. To a large extent, the predicted increase hinges on expectations that output would recover partially in **Madagascar** and the **United Republic of Tanzania**. Although not ideal, this season's precipitation patterns have been more conducive in both countries, compared with the severe deficits experienced in 2017, which caused output to decline sharply in each case. Provided that no major setback occurs, input assistance programmes and increased investments in the rice sector are expected to underpin production increases in various West African countries, in particular **Burkina Faso**, **Ghana** and **Nigeria**. Combined, these gains would more than compensate for a reduction in **Egypt**, where officials have intensified their efforts to preserve scarce water resources by reducing 2018 area allotments by 25 percent to 0.35 million hectares. This is further to announcements that penalties on paddies cultivated outside this perimeter would be strictly enforced. In **Mali** and **Mozambique**, less than ideal growing conditions could also lower production from the record levels seen in 2017.

For *Latin America and the Caribbean*, prospects are negative, pointing to a likely 1.5-percent annual retrenchment in aggregate production to 18.6 million tonnes. The forecast reduction comes in the aftermath of weather setbacks encountered by various South American producers, including untimely rains at planting time and unseasonable temperatures. This has compounded the prospects of reduced producer margins due to further increases in input costs, or steep falls in producer prices. Within the region, **Argentina**, **Brazil**, **Ecuador**, **Colombia**, **Uruguay** and **Venezuela** are all poised to harvest less rice than in 2017, outweighing anticipated increases in **Bolivia**, **Chile**, **Cuba**, the **Dominican Republic**, **Guyana**, **Paraguay** and **Peru**.

In the *other regions*, following a decline in 2017 production to a 21-year low of 5.7 million tonnes, the **United States** looks set to produce an overall average 2018 crop of 6.5 million tonnes, after farmers reacted to price recoveries by expanding plantings. **Australia** is estimated to have harvested 0.4 million tonnes – 22 percent less than in 2017 – after reduced water availabilities for irrigation constrained the area under paddy, offsetting yield increases promoted by favourable growing conditions. The production outlook is also unfavorable for the **European Union** and the **Russian Federation**, which may see lower price prospects reduce 2018 output by 2 percent each, to 1.7 and 0.7 million tonnes, respectively.

TRADE

World trade in rice to remain close to all-time highs in 2018 and 2019

FAO's latest forecast continues to point to world rice trade falling only marginally from the 2017 record high, to total around 48 million tonnes. The continued positive outlook comes amid prospects of a second successive year of import growth in Asia, where aggregate deliveries are likely to expand by 4 percent year-on-year to 23.2 million tonnes.

Iraq, Malaysia, Saudi Arabia and **Viet Nam** are all forecast to contribute to this growth, although the largest absolute annual increases will likely take place in **Indonesia** and **the Philippines**. Reduced public inventories and domestic price increases have prompted both countries to actively seek supplies from abroad since the start of the year. Import demand is also anticipated to remain strong in **China** (Mainland), which may retain its position as the world's leading rice importer by keeping purchases close to the 2017 high volume of 6.0 million tonnes. Meanwhile, **Bangladesh** and **Sri Lanka**, the two countries behind the rebound of Asian imports in 2017, may lower their purchases somewhat in 2018. Indeed, improved local harvests have already encouraged both countries to end the import duty reductions approved last year to facilitate private sector purchases.

By contrast, 2018 imports by *Africa* are predicted to fall 6 percent short of the 2017 record, amounting to 16.1 million tonnes. Although a few African countries are expected to require greater imports to compensate for production shortfalls, only **Nigeria** is forecast to see a sizeable (7 percent) import increase in 2018 to 2.9 million tonnes, as local demand growth continues to outstrip production increases. Instead, **Benin, Cameroon, Madagascar, Sierra Leone** and **Senegal** could all reduce their purchases, after a fast pace of imports in 2017 and good harvest results allowed them to replenish local inventories. In the *other regions*, although import demand is expected to remain strong in the **European Union** and the **United States**, total purchases by *Latin America and the Caribbean* could decline by 5 percent to 4.2 million tonnes, as a result of cuts in **Brazil, Haiti, Mexico** and **Peru**, due to sufficient local availabilities and higher international prices.

Among rice suppliers, **India** is expected to remain the world's top exporter, although weaker demand from its traditional South Asian buyers could lower its 2018 shipments 4 percent below the 2017 all-time record, to 12.0 million tonnes. The export outlook is similarly negative for **Uruguay, the United States** and **Thailand**, in all

Figure 5. Rice imports by region

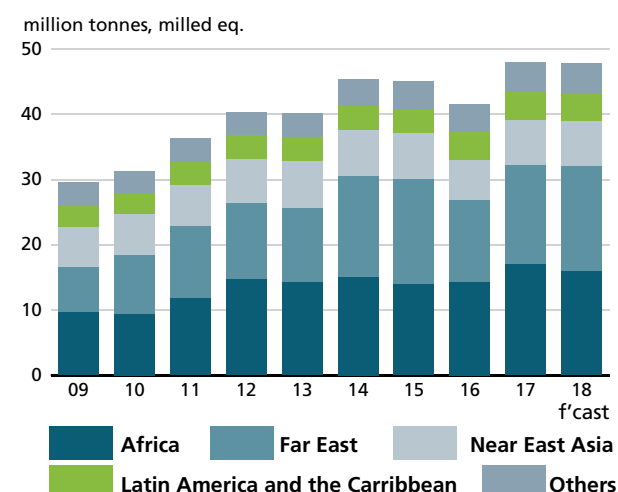


Figure 6. Rice exports by the major exporters

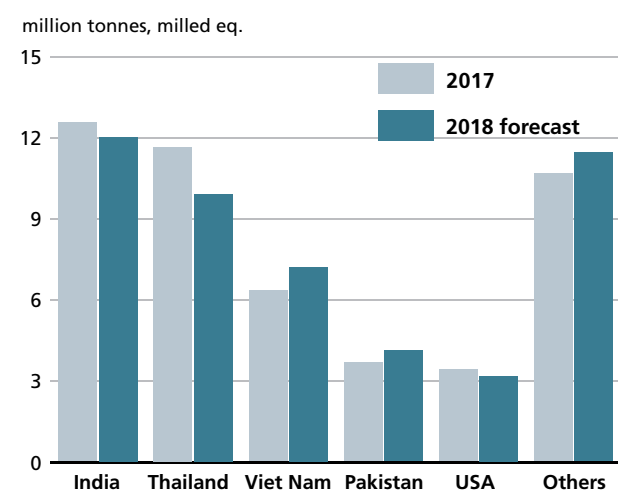
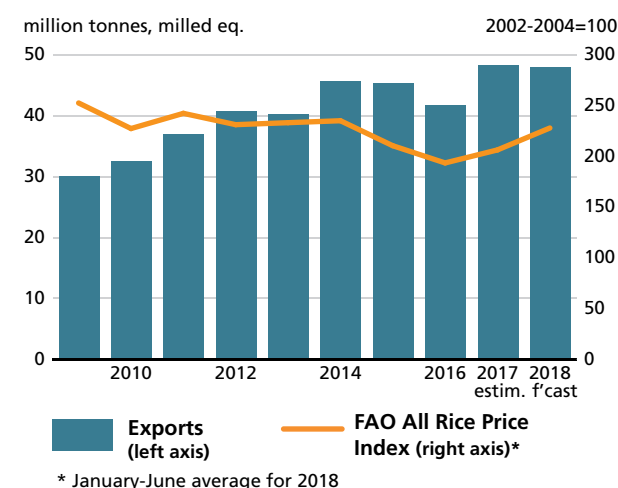


Figure 7. World rice trade and FAO all rice price index



cases given expectations that tighter availabilities will hinder their ability to compete over the year. In the case of Thailand, supply tightness would be mostly associated with production shortfalls of fragrant rice incurred in 2017. Together with the depletion of state stockpiles of food-grade rice and more ample fragrant availabilities in other suppliers, this could cause Thai deliveries to fall 15 percent short of the 2017 high, at 9.9 million tonnes. In the case of the United States, export prospects are further dampened by intensifying competition from South American exporters and trade disputes, which have already entailed the imposition of retaliatory duties on US rice by, for example, the European Union and Turkey. By contrast, **Australia, Cambodia, China** (Mainland), **Ecuador** and **Myanmar** look set to have sufficient supplies to increase their shipments in 2018. However, the largest absolute export increases are forecast to come from **Pakistan** and **Viet Nam**, as a result of higher expected sales of lower grade Indica rice to Asian buyers, as well as efforts in both countries to raise their market shares in higher valued segments. Reduced competition from regional suppliers and a weaker currency are also anticipated to sustain a strong (55 percent) annual recovery in 2018 rice exports by **Brazil**, forecast at 0.9 million tonnes.

Although still very preliminary, FAO's forecasts of **world trade in rice in calendar 2019** is pegged at 47.5 million tonnes, down fractionally (0.5 percent) from current 2018 expectations. From a regional perspective, the comparatively buoyant outlook mirrors anticipation that strong local demand would underpin a rebound in African purchases, more than compensating for anticipated import declines in Latin America and the Caribbean and, especially, in Asia, where larger local harvests and replenished inventories could dampen demand for imports. On the export side, the reduction in Asian imports could hinder deliveries by Thailand and Viet Nam the most, although Argentina, Brazil, Uruguay could also face export reductions in 2019. By contrast, ample and affordable availabilities could boost India's export position in 2019, with China (Mainland), Pakistan, Paraguay and the United States similarly seen shipping more.

UTILIZATION

Population growth in Asia and strong African demand to sustain further expansion in world rice use

FAO forecasts world rice utilization to expand by 1.0 percent in 2018/19 to 509.5 million tonnes (milled basis). The projected annual expansion would be based on a 1.5 percent increase in rice food use to

411.8 million tonnes, chiefly the result of population growth in Asia and continued strong growth in food intake in Africa. Nonetheless, use of rice as food is also seen to be staging a modest annual recovery in North America, while it is expected to change little year-to-year in all other regions. Based on these tendencies, global per capita consumption would increase from an estimated 53.8 kg in 2017/18 to 54.0 kg in 2018/19. Combined, all other end-uses of rice are predicted to amount to 97.7 million tonnes in 2018/19. This level would be 0.7 percent below the 2017/18 estimate, due to lower expected global use of rice for industrial and, in particular, animal feed purposes. Volumes destined to animal feed are forecast to decline by 6 percent in 2018/19 to a five-year low of 16.4 million tonnes, mainly as a result of anticipated declines in the Republic of Korea and Thailand. In both countries, the release of supplies from state stockpiles had lifted the use of rice as animal feed to all-time highs in 2017/18. Over the course of 2018/19, cheaper feed alternatives, a production contraction in the Republic of Korea, and the depletion of public rice inventories in Thailand are likely to attenuate the need by these countries to continue allocating large quantities of rice to the feed sector.

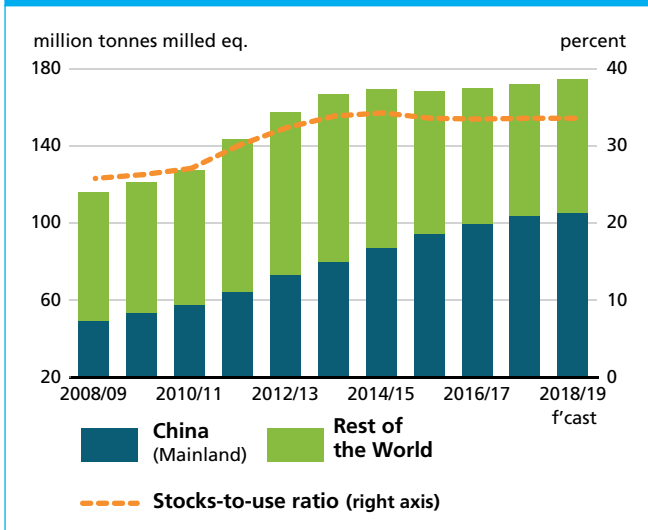
STOCKS

Global rice inventories to rise for the third successive season

World rice stocks at the close of 2018/19 marketing years are forecast to reach 173.7 million tonnes (milled basis), up 1.5 percent from 2017/18 and sufficient to keep the global stocks-to-use ratio steady at a robust 33.6 percent. If confirmed, 2018/19 would mark the third successive season of global reserve increases. However, unlike the previous two seasons, when continued build-ups in China (Mainland) overshadowed drawdowns in the rest of the world overall, prospects point to reserves outside China (Mainland) expanding for the first time since 2013/14, albeit at a modest rate. This is expected to be the case in the five major rice exporting countries.¹ As a group, they could end the 2018/19 season with a combined 32.0 million tonnes in stocks, up 3 percent from 2017/18. **India** would account for much of this increase, boosting the size of its carryovers by 4 percent to 21.3 million tonnes, in the wake of another record-breaking crop and sizeable state purchases from the local market. A predicted production recovery should also enable the **United States** to replenish its reserves by 11 percent to 1.3 million tonnes. As for the other leading global rice

¹ India, Pakistan, Thailand, the United States and Viet Nam.

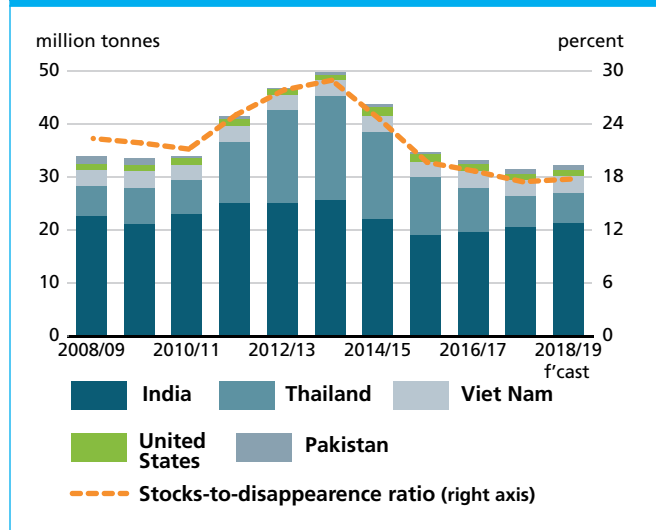
Figure 8. Global closing stocks and stocks-to-use ratio



exporters, a fast pace of outflows could limit their reserve increases in 2018/19, or even cause stocks to fall, as in **Thailand**, where reserves are forecast to reach an 11-year low of 5.5 million tonnes. Based on these trends, the major rice exporters' stocks-to-disappearance ratio is expected to post only a small improvement, from a decade-low of 17.5 percent in 2017/18 to 17.8 percent in 2018/19.

Among traditional rice importers, government efforts to reconstitute state stockpiles should lead to carryover buildups in **Indonesia** and the **Philippines**. Combined with expected gains in **Nigeria** and **Nepal**, these would more than compensate for drawdowns expected elsewhere, namely in **Bangladesh**, where carryovers will likely

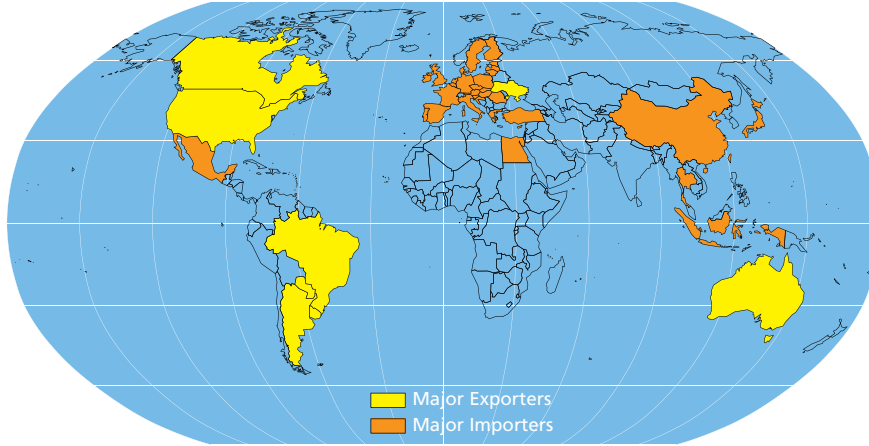
Figure 9. Stocks held by the five major rice exporters and stocks-to-disappearance ratio



decline from heights seen in 2017/18, following a record pace of imports. As for carryovers in **China** (Mainland), prospects point to another 1.6-percent year-to-year increase to 104.6 million tonnes, due to larger carry-ins and sizeable imports. However, the forecast growth would be considerably more limited than the 4 to 9 percent annual rate at which FAO estimates Chinese stocks have expanded over the past five years. This takes into account the increased efforts made by the Government in China to relieve pressure from expanding state rice inventories, including encouraging production cuts, amending procurement rules and putting large volumes of state-owned rice up for sale.

OILCROPS, OILS AND MEALS ¹

Major Oilseed Exporters and Importers



PRICES ²

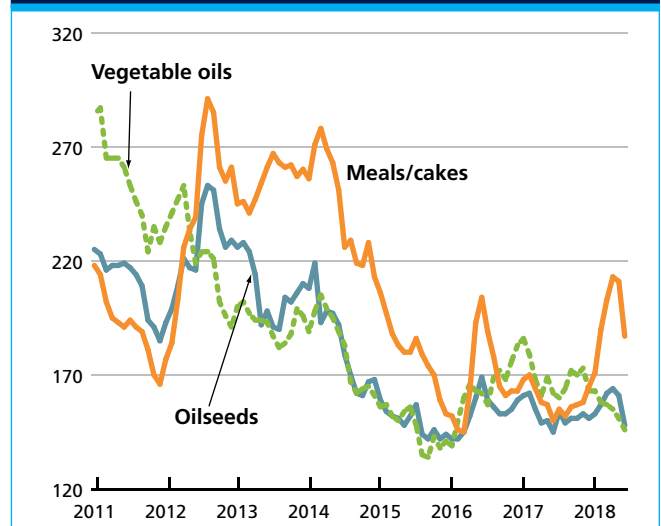
Prices of oilseeds, oils and meals moving in opposite directions

Reversing the trend observed during the 2016/17 (October/September) season, the first half of 2017/18 had seen an increase in international oilseed and oilmeal prices and a softening in vegetable oil values – as reflected by FAO’s price indices trailing the oilseed complex. As the 2017/18 season unfolded, the prospect of a sharp drop in Argentina’s soybean production marred the global outlook for oilseeds and meals. This setback in one of the world’s key suppliers of soybean products – which coincided with limited availabilities both from other origins and of other protein meals – triggered a gradual upward movement in

world oilseed and oilmeal prices. By April 2018, FAO’s price indices for oilseeds and oilmeals had climbed, respectively, to 22-month and 40-month highs.

Vegetable oil prices, on the other hand, have declined since late 2017, in response to prospects of increased global production in 2017/18. The key market developments pressuring prices were: i) steady improvements in Southeast Asia’s palm oil output, which – combined with sluggish global import demand – foreshadowed ample inventory levels in Malaysia and

Figure 1. FAO monthly international price indices for oilseeds, vegetable oils and meals/cakes (2002-2004=100)



¹ Almost the entire volume of oilcrops harvested worldwide is crushed to obtain oils and fats for human nutrition or industrial purposes, and to obtain cakes and meals that are used as feed ingredients. Therefore, rather than referring to oilseeds, the analysis of the market situation is mainly undertaken in terms of oils/fats and cakes/meals. Production data for oils and meals are derived from domestic production of the relevant oilseeds in a specific year, i.e. they do not reflect the outcome of actual oilseed crushing in a given country and period. Regarding oilseed trade, situations where oilseeds are produced in one country but crushed in another are reflected in national oil/meal consumption figures. It is important to note that data on trade in oils (meals) refer to the sum of trade in oils (meals) plus the oil (meal) equivalent of oilseeds traded. Similarly, stock figures for oils (meals) refer to the sum of oil (meal) stocks plus the oil (meal) equivalent of oilseed inventories.

² For details on prices and corresponding indices, see Statistical appendix table 24

Figure 2. FAO monthly price index for oilseeds (2002-2004=100)

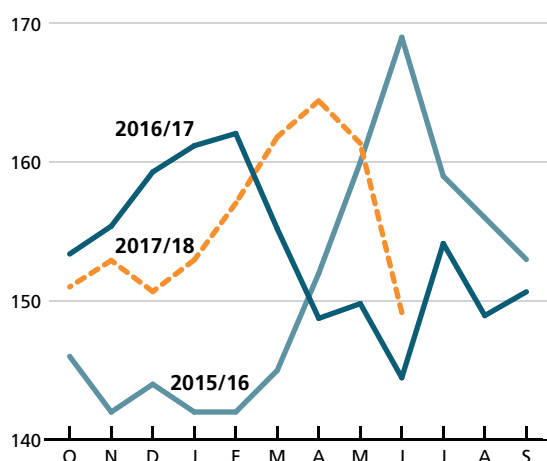


Figure 3. FAO monthly price index for oilmeals/cakes (2002-2004=100)

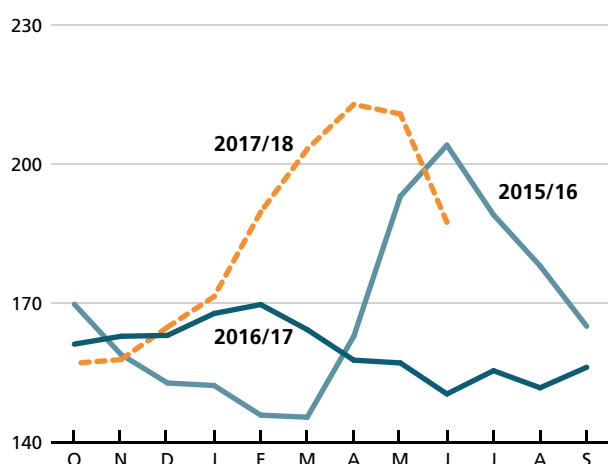


Figure 4. FAO monthly price index for vegetable oils (2002-2004=100)

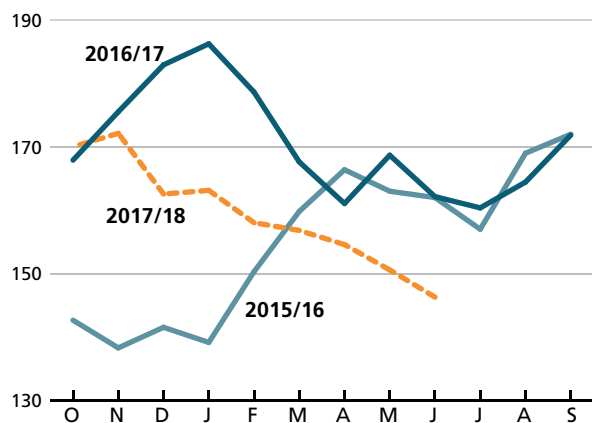
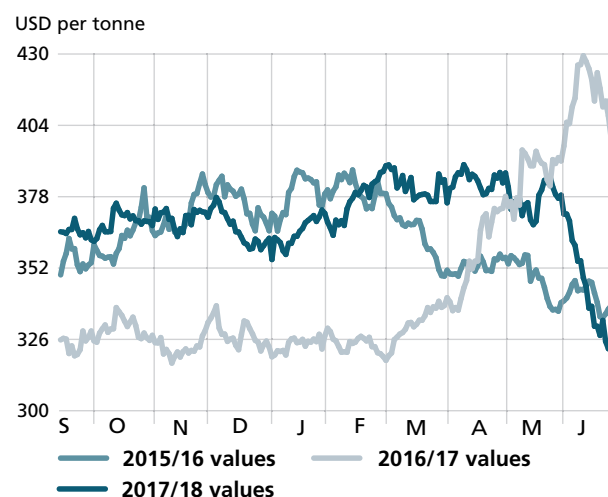


Figure 5. CBOT soybean futures for September



Indonesia; and ii) higher than anticipated soybean crushing in the Americas and elsewhere, which resulted in large soyoil availabilities. Against this backdrop, FAO's price index for vegetable oils gradually declined, approaching a two-and-a-half year low in June 2018.

From March 2018 onwards, a dispute between the United States and China concerning their overall trade balance resulted in considerable market instability. The mere possibility that China could impose retaliatory tariffs on imports of US soybeans started exerting strong downward pressure on international soybean and meal prices – given that China is by far the world's largest soybean buyer, while the United States ranks first among soybean producers and is China's second biggest supplier. When, in mid-June, China confirmed the tariff measure, the world's key soybean spot and futures prices plunged, respectively, to 12-month and multi-year lows, with strong spillover effects across the oilcrops complex.

OILSEEDS

Global oilseed production to contract slightly in 2017/18

Global oilseed output is estimated at 584 million tonnes in 2017/18, marginally below the 2016/17 record level. While global harvest area increased further, adverse weather conditions affected yields in a number of countries. Year-on-year contractions are anticipated for soybeans and, less markedly, sunflower seed, while all other oilcrops would see production gains.

Global soybean production is pegged at 338 million tonnes, 4 percent down year-on-year, but still the second highest output on record thanks to bumper harvests in the United States and Brazil. In the Northern hemisphere,

production expanded in all major producing countries except **India** and **Ukraine**, where output declined on lower yield levels. In the **United States**, the world's leading soy producer, as well as in **China** and **Canada**, production expanded further as expectations of attractive returns led to higher plantings and because crops benefited from normal or better than average weather conditions. By contrast, in the Southern hemisphere, aggregate soybean output is estimated to register a 9-percent setback, as severe weather-related losses in **Argentina**, **Paraguay** and **Uruguay** outweigh further production gains in **Brazil**. In Argentina, the third largest soybean producer and top supplier of soymeal and soyoil in the world, the crop was first affected by protracted dry and hot weather and then, during harvest, losses were exacerbated by heavy rainfall. Accordingly, the country's average yield and soybean output tumbled, respectively, to 6 and 9-year lows. In Brazil, on the other hand, increases in area sown and near ideal growing conditions elevated output to unprecedented levels.

Reversing the last three seasons' downward trend, world rapeseed production is estimated at a record 75.6 million tonnes. The year-on-year rise stems primarily from robust gains in area planted. The world's two leading producers, the **EU** and **Canada**, reported record crops due, respectively, to favourable weather conditions and record high sowings prompted by attractive relative prices. By contrast, production setbacks stemming from lower plantings have been recorded in **China** and **India**, while **Australia's** crop suffered from unfavourable weather conditions. Among smaller producers, significant output gains were observed in **Ukraine** and the **Russian Federation**, on account of both higher acreage and beneficial weather.

Table 1. World production of major oilcrops

	2015/16	2016/17	2017/18 f'cast	Change 2017/18 over 2016/17
	million tonnes			%
Soybeans	316.3	350.5	337.9	-3.6
Rapeseed	70.2	71.5	75.6	5.8
Cottonseed	37.6	39.8	43.4	9.0
Groundnuts (unshelled)	39.0	41.9	43.2	3.0
Sunflower seed	43.6	50.1	49.7	-0.8
Palm kernels	14.5	16.2	17.2	5.9
Copra	5.1	5.2	5.7	9.1
Total	526.3	575.2	572.6	-0.4

Note: The split years bring together northern hemisphere annual crops harvested in the latter part of the first year shown, with southern hemisphere annual crops harvested in the early part of the second year shown. For tree crops, which are produced throughout the year, calendar year production for the second year shown is used.

Table 2. World oilcrops and product market at a glance

	2015/16	2016/17	2017/18 f'cast	Change: 2017/18 over 2016/17
	million tonnes			%
TOTAL OILCROPS				
Production	538.0	586.8	584.3	-0.4
OILS AND FATS ¹				
Production	207.3	226.0	231.5	2.4
Supply ²	246.2	260.4	267.7	2.8
Utilization ³	213.3	222.7	228.8	2.7
Trade ⁴	115.4	123.9	124.9	0.8
Global stocks-to-use ratio (%)	16.2	16.2	16.6	
Major exporters stocks-to-disappearance ratio (%) ⁵	10.0	10.7	11.3	
MEALS AND CAKES ⁶				
Production	138.5	152.3	150.6	-1.1
Supply ²	164.6	177.3	179.2	1.0
Utilization ³	138.9	145.3	151.2	4.0
Trade ⁴	90.4	96.2	98.4	2.2
Global stocks-to-use ratio (%)	18.0	19.0	17.0	
Major exporters stocks-to-disappearance ratio (%) ⁷	11.1	12.0	10.8	
FAO PRICE INDICES (Oct-Sept) (2002-2004=100)				
	2015/16	2016/17	2017/18 (Oct-Jun)	Change: Oct-Jun 2017/18 over Oct-Jun 2016/17 %
Oilseeds	151	154	156	1.3
Oilmeals/cakes	168	160	184	15.1
Vegetable oils	155	171	159	-6.6

Note: Refer to footnote 1 on page 32 for overall definitions and methodology.

¹ Includes oils and fats of vegetable, animal and marine origin.

² Production plus opening stocks.

³ Residual of the balance.

⁴ Trade data refer to exports based on a common October/September marketing season.

⁵ Major exporters include Argentina, Brazil, Canada, Indonesia, Malaysia, Ukraine and the United States.

⁶ All meal figures are expressed in protein equivalent; meals include all meals and cakes derived from oilcrops as well as meals of marine and animal origin.

⁷ Major exporters include Argentina, Brazil, Canada, India, Indonesia, Malaysia, Paraguay, the Russian Federation, Ukraine, Uruguay and the United States.

Underpinned by yield improvements, global groundnut and copra production posted new records, while cottonseed output rose mostly as a result of larger plantings, and palm kernel production grew amid both area increases and higher yields. In the case of groundnut, output growth was concentrated in **China** and the **United States**, while cottonseed, copra and palm kernel production picked up across key producers.

Global sunflower seed output is estimated to trail behind last season's all-time high. While in the **EU** and **Turkey** crops benefited from good growing conditions, poor weather affected output in the **CIS** region.

OILS AND FATS ³

Global oils/fats production to expand further in 2017/18

The above crop output estimates are expected to translate into a further expansion in total oils/fats production to 231.5 million tonnes. With regard to individual oils, conspicuous growth in palm and rapeseed oil, and, to a lesser extent, olive, palm kernel, cottonseed, copra and groundnut oils, are poised to outweigh a drop in global soyoil output. The expansion in palm oil will be led by **Indonesia**, the world's leading producer, followed, at some distance, by **Malaysia**. Compared with last year, both countries face a slowdown in growth, mainly reflecting slower expansion in mature area due to ongoing replanting efforts and lower yields as palms take a rest after last year's exceptionally high productivity levels. As for rapeseed oil, production growth will be concentrated in **Canada** and the **EU**, while the contraction in soyoil is confined to **Argentina**.

Global oils/fats supplies, which comprise 2017/18 production and 2016/17 ending stocks, are forecast to grow by about 3 percent year-on-year. In **Brazil**, **Canada**, the **EU**, **Indonesia**, **Malaysia** and the **United States**, domestic availability is expected to climb to record or near record levels, mostly resting on record harvests. Conversely, a sizeable contraction is anticipated in **Argentina**, where domestic availabilities are forecast to drop to a 5-year low due to this year's poor soy crop. In **China**, supply could edge down compared with recent years, mainly reflecting a further drop in carry-in stocks. Regarding soyoil, record large global opening stocks are likely to prevent a year-on-year contraction in supplies.

Growth in oils/fats consumption could slow in 2017/18

Growth in total consumption of oils/fats is poised to trail behind last season's rate because of slower economic growth among both developing and developed economies, and despite the recent softening in vegetable oil prices. With regard to individual oils, soy and palm oil – and, to a lesser extent, rape and sunflower oil – are set to drive consumption growth, aided by relatively ample supplies and competitive prices.

As a group, developing nations in Asia would continue driving the expansion in global oils/fats uptake, although consumption growth could slow in some countries, notably **China** and **India**, while accelerating in others, especially

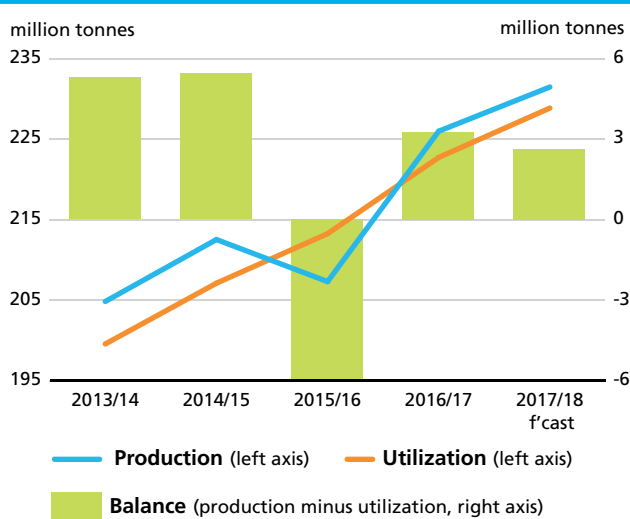
Indonesia. Elsewhere, sizeable year-on-year gains are anticipated in **Brazil** and the **United States**, whereas an only marginal increase is envisaged in the **EU**.

While population and income growth remain the main drivers of demand for food and other traditional uses, especially in Asia, higher demand from the biodiesel sector also plays a role. Compared with last year, growth in biodiesel production, and hence uptake of vegetable oils as feedstock, is estimated to accelerate in 2018, on account of both national biofuel policies and discretionary blending. National consumption targets and mandatory blending rates have been raised in a number of countries, including **Brazil**, **Colombia**, selected **EU** member states, the **Republic of Korea** and the **United States**, while biodiesel use has been made mandatory for the first time in **Turkey** and the **United Arab Emirates**. In addition, given the recent firmness of mineral oil prices relative to vegetable oils, discretionary blending is expected to re-emerge for the first time since 2014, notably in **China** and possibly also in some African countries. In **Indonesia**, the improved price competitiveness of oils/fats has reduced the cost of subsidizing biodiesel production, which should allow a higher fulfilment of the country's consumption targets. Regarding individual oils/fats, palm, soy and recycled cooking oils would benefit the most from increased global demand from biodiesel manufacturers. Rapeseed oil uptake, by contrast, could stagnate, especially in the **EU**, where local producers are confronted with a rebound in biodiesel imports (following the removal of import barriers).

Global inventories of oils/fats to rise further

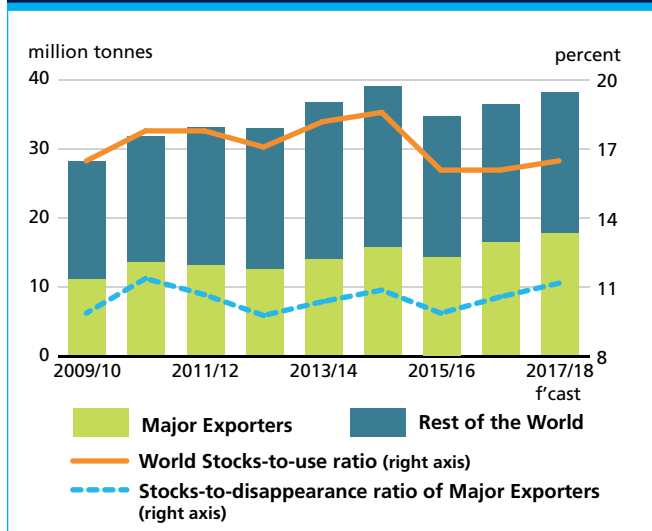
Similar to last season – when an excess of global oils/fats production relative to demand led to a replenishment of

Figure 6. Global production and utilization of oils/fats



³ This section refers to oils from all origins, which – in addition to products derived from the oilcrops discussed under the section on oilseeds – includes palm oil, marine oils and animal fats.

Figure 7. World stocks and ratios of oils/fats (including the oil contained in seeds stored)



stocks – in 2017/18 a production surplus should allow global inventories to rise further. Year-on-year, ending stocks (including the oil contained in stored oilseeds) are forecast to rise by about 5 percent to 38 million tonnes, the second highest level on record. Commodity-wise, palm and rapeseed oil reserves could climb to record levels, tied to fresh production gains and, in the case of rapeseed oil, also subdued consumption growth. Conversely, soyoil inventories are expected to retreat from last season's peak, mirroring this season's crop outturns.

Among main stockholding countries, sizeable replenishments are expected in **Canada**, the **EU**, **Indonesia** and the **United States**, due to good harvests and, in the case of the US, also as a result of lower exports. By contrast, **Argentina** is expected to release roughly half of its stocks to compensate for this year's decimated soy harvest. Poor crops could also trigger drawdowns in **India**. In **Brazil**, reserves could decline despite production gains, as exports are anticipated to expand strongly.

The above forecasts would permit a modest improvement in the global stocks-to-use ratio for oils/fats in 2017/18, while the stocks-to-disappearance ratio for the major exporting countries⁴ would increase more markedly, reaching a multi-year high.

Global oils/fats trade to increase only marginally

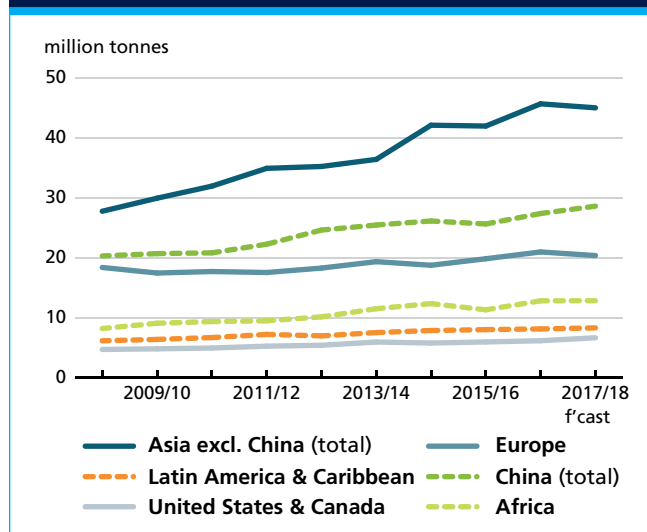
Unlike last season, when a rebound in palm oil shipments propelled trade upward, global trade in oils/fats – including the oil contained in traded oilseeds – is

forecast to expand by just 1 percent in 2017/18. Backed by production gains, much of the anticipated rise in global transactions would be on account of record high sales of palm oil, the leading traded oil. Trade in soy and rapeseed oils, respectively the second and third most traded oils, would remain at around last season's level. In the case of soy oil, maintaining stability in the level of shipments would require the release of stocks in exporting countries. For sunflower oil, a retreat from last season's peak is considered likely. Aided by its more competitive price, palm oil could regain market share lost to other oils (especially soyoil) in the past two years.

On the import side, purchases by developing countries in Asia are seen growing slower than last season, notably in **China** and **India**, due to large domestic supplies and slower consumption growth. In the case of India, successive hikes in the country's import tariffs have also affected imports. Purchases by countries in Africa are poised to remain unchanged. Elsewhere, a contraction in imports is expected in the **EU**, where ample domestic availabilities coincide with weak demand growth, while purchases could grow in the **United States** and **Argentina**, both net exporters of oils/fats.

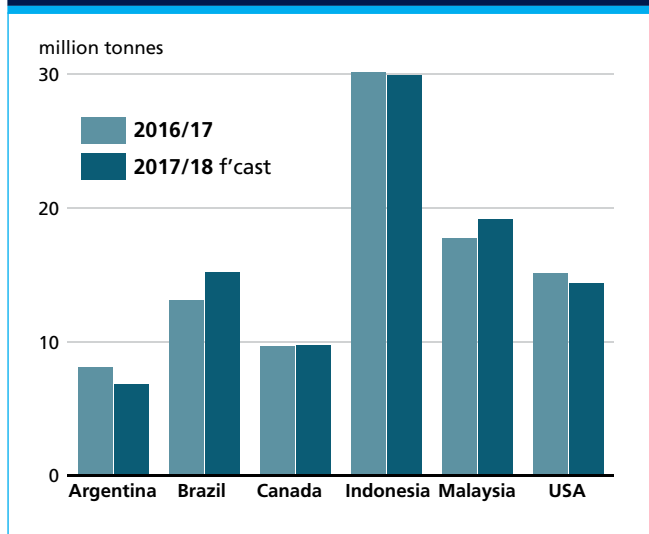
Regarding exports, higher sales by **Malaysia** and **Brazil** are expected to make up for contractions elsewhere. Malaysia would account for much of the anticipated expansion in palm oil shipments, given that in **Indonesia** a higher portion of production will likely be absorbed domestically, including for biodiesel production. Regarding soyoil, much of the anticipated sharp drop in shipments from **Argentina** and **Uruguay** would be made up for by **Brazil**, this season's most competitive

Figure 8. Oils/fats imports by region or major country (including the oil contained in seed imports)



⁴ Argentina, Brazil, Canada, Indonesia, Malaysia, Ukraine and the United States.

Figure 9. Oils/fats exports by major exporters (including the oil contained in seed exports)



supplier. Indeed, in 2017/18, Brazil could replace the **United States** as the world's third largest supplier, as US exports are forecast to retreat from last year's strongest ever level. Slight contractions in sales are also expected in **Ukraine** and **Australia**.

MEALS AND CAKES ⁵

Global supplies up in 2017/18, aided by large opening stocks

Based on current crop forecasts, 2017/18 meal production is pegged at 150.6 million tonnes (expressed in protein equivalent), which, although below last season's level, would still be the second highest on record. Gains foreseen in rapeseed meal and, to a lesser extent, cottonseed and groundnut meals, would not be sufficient to offset a likely steep drop in soymeal output, concerning mainly **Argentina**.

Notwithstanding the anticipated contraction in global production, world oilmeal supplies could post a 1 percent increase, owing to large carry-in stocks. While **Argentina's** year-on-year decline also stands out in terms of supplies, sizeable improvements are expected elsewhere, notably in **Brazil**, the **United States**, **China**, **Canada** and the **EU**. In Brazil and the United States, the concurrence of exceptionally large opening stocks and bumper crops is set to drive supplies to unprecedented levels. Together, the two countries are poised to hold half of the world's meal supplies.

⁵ This section refers to meals from all origins. In addition to products derived from the oilcrops discussed under the section on oilseeds, fish meal and meals of animal origin are included.

World meal consumption to rise further in 2017/18

While global meal consumption is heading towards a fresh record in 2017/18, firming prices could limit the year-on-year growth compared with last year. Mirroring supplies, soymeal is bound to account for just two-thirds of the prospective utilization growth (compared with three-quarters last season), while the use of other meals would pick up, in particular that of rape and sunflower seed meals.

In many countries, oilmeal uptake continues to be supported by expanding demand from the livestock and aquaculture sectors. Developing countries in Asia – led by **China**, by far the world's leading consumer – remain the main engine of growth. However, in China, growth could slow down compared to last season due to the country's less dynamic hog industry, which is faced with falling profits after pig meat production outpaced domestic demand. In the **EU** and **United States**, the world's second and third largest consumers, meal uptake could regain momentum. In the case of the United States, below average soymeal protein content could contribute to demand growth. In **Brazil** and **Canada**, burgeoning domestic supplies are expected to boost domestic meal uptake.

Global meal inventories (including the meal contained in seed stocks) could fall from last season's peak

Contrary to last season, global meal consumption in 2017/18 is forecast to outstrip production. If confirmed, the expected imbalance should lead to a drawdown in the end-of-season inventories. In particular, reserves of the world's leading protein meal – soymeal – are prone to fall. Modest replenishments in

Figure 10. Global production and utilization of meals/cakes (in protein equivalent)

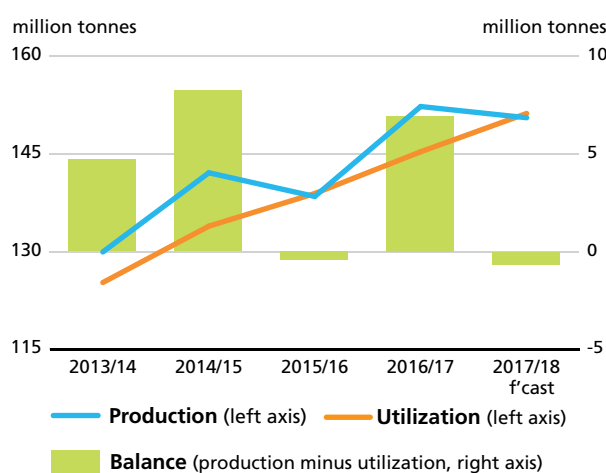
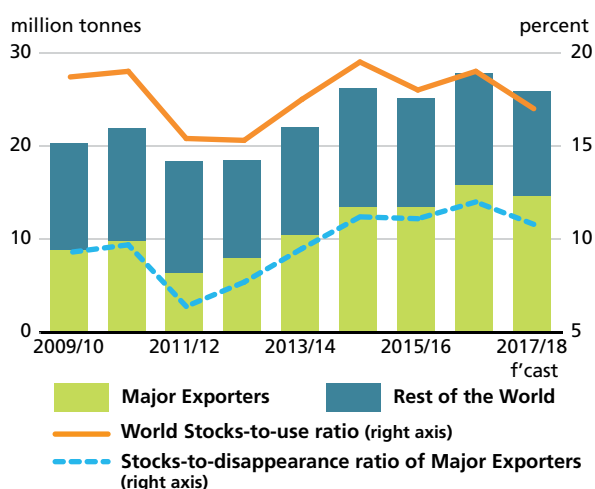


Figure 11. World stocks and ratios of meals/cakes (in protein equivalent and including the meal contained in seeds stored)



other meals, notably rapeseed meal, will not be sufficient to alter the picture. The most pronounced disposal is forecast to occur in **Argentina**, where 7.5 million tonnes (expressed in product weight) could be released to cover for the sharp fall in domestic supplies. Stock drawdowns are also likely in **Brazil** (despite the anticipated rise in domestic availabilities) to support increases in domestic demand and overseas shipments. By contrast, in the **United States**, where exports could suffer a setback, domestic supply gains could ramp up stocks by another 60 percent, lifting the country's carry-out stocks to an 11-year high. In **China**, the country holding the highest reserves, stock levels would remain close to the average of recent years.

Based on the above forecasts, both the global stocks-to-use ratio and the stocks-to-disappearance ratio for the major exporters⁶ would drop from last season's high level.

Growth in global meal transactions to slow

International trade in meals/cakes (including the meal contained in traded oilseeds) could grow at a below average pace in 2017/18. While trade in soybean meal would continue to drive growth, the anticipated stagnation in soybean supplies could limit this year's expansion in total meal trade to 1.8 percent, well below the recent three-year average. The steady appreciation in soybean prices observed during the first half of the season would contribute to the slowdown. Trade in all other meals would advance marginally, except for sunflower meal shipments, which may contract.

With regard to imports, while Asia would continue to dominate demand, in 2017/2018, the region's aggregate purchases are anticipated to expand less than last year,

Figure 12. Meal/cake imports by region or major country (in protein equivalent and including the meal contained in seed imports)

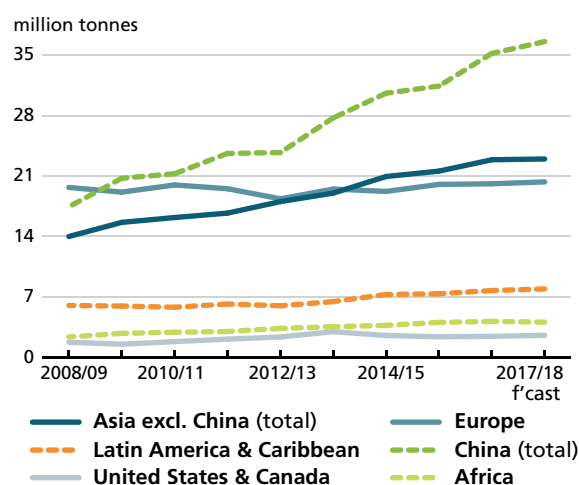
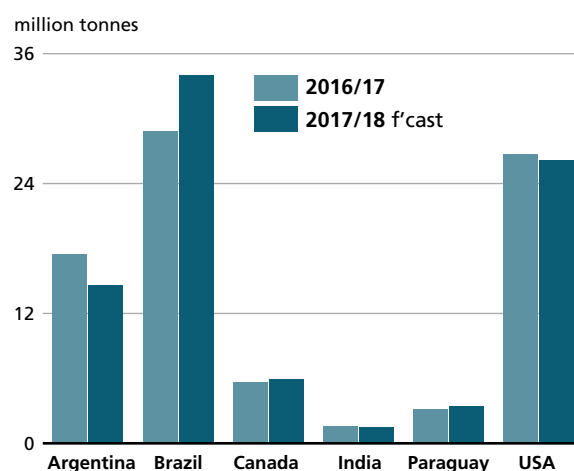


Figure 13. Meal/cake exports by major exporters (in protein equivalent and including the meal contained in seed exports)



amid below average growth in **China** (tied to weaker growth in feed demand and low processing margins) and lacklustre demand elsewhere (reflecting flat meal uptake by domestic feed producers). In the world's second largest buyer, the **EU**, purchases are forecast to rise, as supply improvements may be insufficient to cover the expected growth in consumption. In **Argentina**, one of the world's leading exporters, crushers resorted to importing soybeans in a bid to make up for the tight domestic supplies and maintain soybean exports.

⁶ Argentina, Brazil, Canada, India, Indonesia, Malaysia, Paraguay, the Russian Federation, Ukraine, the United States and Uruguay.

On the export side, 2017/18 is likely to see some changes in global trade patterns, with corresponding shifts in market shares. **Argentina** could experience a marked drop in exports, possibly recording a 9-year low. Also in **Uruguay, Ukraine** and **Australia**, sales may contract on poor crop outturns. In the **United States**, deliveries could fall, despite this season's bumper production and large opening stocks. The main beneficiary would be **Brazil**, whose exports are forecast to expand by another 17 percent, consolidating the country's position as the world's top supplier – ahead of the United States. Aided by the pronounced devaluation of the *Real* (which made the country's exports more competitive), Brazil's share in the global market (including the meal contained in seed sales) could climb to 34 percent. Exports by **India**, formerly an important supplier within Asia, are expected to remain at around last year's subdued level, whereas **China** (a net importer of meals) could strengthen its position as a regional supplier.

2018/19 PRODUCTION OUTLOOK

With the 2017/18 season still ongoing, it is very early to make supply and demand projections for 2018/19. While preparations for the next crop have started in some Northern hemisphere countries, only limited information is available about planting intentions or planting progress, whereas in the Southern hemisphere, sowings will only start in the last quarter of this year. While farmers' planting decisions will be influenced by price relations between oilseeds and competing arable crops as well as policy changes and exchange rate movements, productivity will hinge on weather conditions.

Regarding individual crops, a possible rebound in global soybean and sunflower seed production, along with further growth in Southeast Asia's palm oil output, could more than compensate for likely losses in global rapeseed production. Cottonseed, groundnut and copra production are forecast to remain about unchanged. World soybean

production could grow by about 6 percent, mainly on expectations of area gains and yield recoveries in some key producing countries, notably **Argentina, Paraguay, Uruguay** and **India**. Also, **China's** soybean output could expand, tied to fresh support payments. By contrast, in the world's two leading producers, the United States and Brazil, production expansion could come to a halt. The **United States'** crop could nearly match last season's record, assuming a slight drop in area harvested and an above-average 3.3 tonnes per ha yield level. **Brazil's** production could remain unchanged, as yields are assumed to revert to average levels, while sowings may rise further. World rapeseed production is seen dropping from the all-time record achieved in 2017/18, as anticipated production increases in **China, India, the United States** and **CIS** countries could be outweighed by possible contractions in the **EU, Canada** and **Australia**. By contrast, global sunflower seed production could see a rebound, with likely improvements in **Ukraine, the Russian Federation** and **Argentina** more than offsetting possible drops in the **EU** and **Turkey**.

Based on the above highly tentative forecasts, global oilcrop production would total 605 million tonnes, up almost 4 percent from 2017/18, and marking a new record. The crop forecasts would translate into record outputs of both oils and meals. Assuming a continuation of current consumption trends, the anticipated supply levels would be adequate to satisfy projected demand in both markets. The expected match of supply and demand provides limited scope for change in global inventory levels. Accordingly, during the coming months, international prices for oilseed, oils and meals could remain close to their current level – barring unexpected developments. Considering that plantings of 2018/19 crops have only just started, growing conditions in key growing regions will have to be monitored closely. As for policy developments, there is considerable uncertainty about how the reciprocal tariff measures recently announced by the United States and China will affect the global markets of oilseeds and derived products.

SUGAR

Major Sugar Exporters and Importers



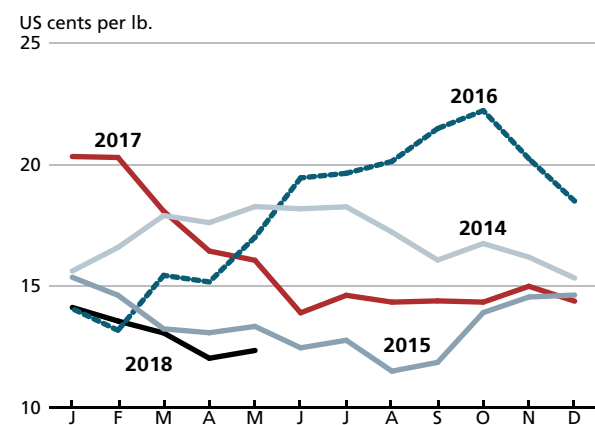
PRICES

Large supplies weigh on international sugar quotations

International sugar prices, as measured by the ISA (International Sugar Agreement) daily prices for raw sugar, have been declining since the beginning of 2018, extending the steady fall that has characterized the market since February 2017. The slide is attributed to large expansions in production capacity, boosted by remunerative returns over the past two seasons, which resulted in rising global

sugar inventories to near record levels. After averaging USD 14.12 cents per pound¹ in January 2018, sugar quotations declined for four successive months, when they hit their lowest monthly average since September 2015 at US 12.4 cents per pound. Consequently, between January and May 2018, prices dropped by 28.6 percent, compared to the same period in 2017. Reports of increasing production in **India**, the **EU** and **Thailand**, coupled with lower anticipated import demand by **China**, and other traditional sugar importing countries, have put further downward pressure on international prices so far in 2018. Firmer estimates indicating a reduction in sugar production in **Brazil** were not sufficient to reverse the tendency for prices to fall. Early forecasts for the 2018/19 point towards a continuation of the market imbalance between supply and demand, but with the market surplus becoming smaller than in 2017/18. At the same time, firm energy prices could boost demand for sugar crops-based ethanol, particularly in Brazil, a factor which may provide upward support to sugar prices through the sugar/ethanol nexus (see page 42 on the impact of rising crude oil prices on international sugar quotations).

Figure 1. International sugar prices*



Source: Intercontinental Exchange (ICE)

¹ Equivalent to USD 311.3 per metric tonne.

PRODUCTION²

World sugar production to expand significantly in 2017/18

World sugar production is estimated by FAO to reach a record level of 187.6 million tonnes in 2017/18 (October/September), an 11.1 percent increase over the 2016/17 season, and an all-time high. Favourable weather conditions, along with expanding planted areas, on the back of remunerative returns relative to competing crops, are expected to lead to higher output in most countries, with the most notable exception being **Brazil**. The substantial expected expansion in world sugar output means that production is set to surpass utilization by as much as 17 million tonnes, the largest production surplus in history, leading to significant accumulated inventories, in both importing and exporting countries. Similar to the past couple of years, the entire increase in world production in 2017/18 is expected to occur in the developing countries, where production is forecast to expand by 14.4 million tonnes, while in developed countries output is predicted to remain at about the same level as the previous season.

In *South America*, the latest estimates show that production is expected to decline in 2017/18, amid generally unfavourable weather conditions (**Argentina**), and a higher share of sugarcane harvest being used for ethanol production (**Brazil**). In fact, sugar output in **Brazil**

is forecast to fall as a result of dry weather conditions in the north-northeast region, which had a negative effect on sugarcane yields, and greater use of sugarcane for ethanol production at the expense of sugar in the Centre-South, Brazil's largest producing region. Brazil's production is now estimated at 36 million tonnes, down 4 million tonnes from the volume reached in 2016/17. About 58 percent of the sugarcane harvest is expected to be utilized for the production of ethanol, more than last season, when sugar mills converted about 54 percent of the crop into ethanol. Brazil's sugar output is influenced by changes in the ethanol/sugar price ratio, which eventually determines how much of the two products will be produced from sugarcane. The higher the price ratio, the larger the amount of cane converted into ethanol instead of sugar, and vice versa. The relationship between ethanol and sugar prices has become stronger recently, as the Government of Brazil decided that gasoline prices at the pump should reflect changes in international gasoline prices. The extent to which sugarcane is allocated to ethanol production in Brazil will now be more closely linked to international crude oil prices. As a result, changes in crude oil prices will alter the country's current sugar production forecast. Elsewhere in South America, sugar production is expected to increase in **Colombia**, the second largest producer in the region, and in **Peru**, on the expectation that more favourable growing conditions would prevail in the main producing regions, while sugar output is anticipated to fall in **Argentina** amid extreme dry conditions.

In *Central America and the Caribbean*, 2017/18 estimates indicate that sugar production in **Mexico** will remain at about the same level as last season, as area

² Sugar production figures refer to centrifugal sugar derived from sugarcane or beet, expressed in raw equivalents. Data relate to the October/September season.

Figure 2. World sugar production by region

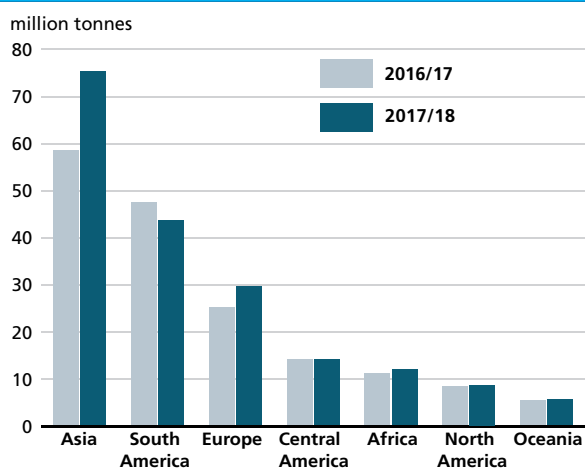
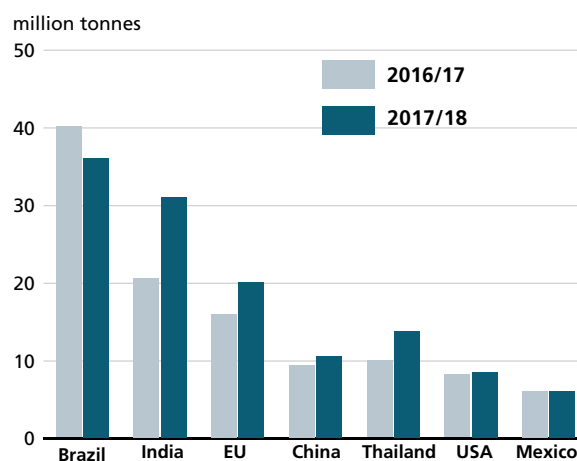


Figure 3. Sugar production in major producing countries



The upturn in world crude oil prices expected to create a price floor effect for international sugar prices

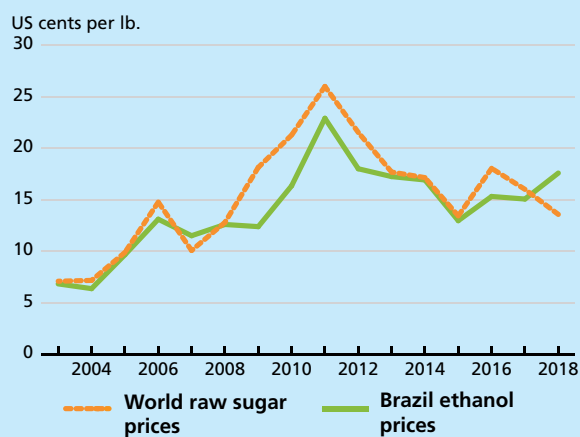
One of the key features of the sugar market is its strong linkage with energy markets, mainly because sugar crops can also be processed into ethanol – a product that can be used as an engine fuel. While most countries use an E10 ethanol fuel mixture (blend of 10 percent ethanol and 90 percent gasoline) and, to a much lesser extent, E85 (85 percent ethanol), Brazil, the largest sugar producing and exporting country in the world, uses hydrous ethanol (95 percent ethanol and 5 percent water) that can be utilised directly as a fuel for the vast majority of new gasoline-based cars sold in the country. Consumers there have the flexibility, at the pump, between fuelling their car with sugarcane based ethanol or with gasoline. This choice has a direct impact on the level and direction of international sugar prices.

The decision on which type of fuel to use is based on the relative price of ethanol to gasoline, on an energy equivalent basis. The lower the price ratio, the greater the incentive to substitute ethanol for gasoline, and vice versa. As more ethanol is consumed, a larger share of sugarcane is used to produce ethanol rather than sugar, reducing sugar availability for export to the world market. Given the importance of Brazil in the sugar export market, with a 48 percent share in 2016/17, a contraction in its supplies tends to raise world sugar quotations. In the current context of weak world sugar prices, the question is to what extent steady gasoline prices can provide support to the sugar market. One element of the response lies in what sugar experts refer to as the ethanol parity price. This is the price of raw sugar below which it becomes profitable to produce ethanol instead of sugar. FAO's estimates show that, currently, the parity price hovers around US 17.53 cents per pound. This parity level is itself dynamic and depends on changes in the energy markets, movements in the Brazilian currency (Real) against the US dollar, the ethanol import regime, and other factors (e.g. sugar and ethanol production costs).

Evidently, current international raw sugar prices (US 11-13 cents per pound) are far below the parity level. This shows that the relationship between ethanol and sugar prices is much more complex,

and is contingent on additional factors. For example, the relationship tends to weaken during the sugarcane harvest season in Brazil, when both ethanol and sugar prices mainly reflect prevailing supply and demand market situations. Also, bumper harvests in other major sugar producers, such as India, Thailand and the EU, weaken the effect of crude oil/gasoline markets on sugar quotations, with sugar prices more responsive to the physical market. In general, however, the price correlation tends to hold in the long run, as the figure below illustrates. Assuming higher oil prices to persist, this should support strengthening sugar prices over the medium term. The ethanol-sugar price relationship is also likely to become stronger, given the recent decision by the Government of Brazil to allow domestic gasoline prices to track those of the international market. Typically, ethanol prices hover around 70 percent of gasoline prices, with values below that share enticing flex-fuel car owners to shift from gasoline to ethanol, a move that also prevents ethanol prices from falling too far below those of gasoline. Brazil's ethanol market, therefore, is also an automatic stabiliser for world sugar markets. Without the dynamics of the ethanol/sugar complex, international sugar prices would have dropped much more, given the prospect of surging sugar production in the EU, India, and Thailand for the 2017/18 marketing season.

World sugar prices and Brazil ethanol prices, in raw sugar equivalent



Sources: Intercontinental Exchange (ICE), FAO

Table 1. World sugar market at a glance

	2015/16	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>	Change: 2017/18 over 2016/17
	<i>million tonnes</i>			<i>%</i>
WORLD BALANCE				
Production	169.6	168.9	187.6	11.10
Trade	57.6	57.9	55.5	-4.10
Total utilization	167.8	166.8	170.6	2.28
Ending stocks	87.4	91.3	97.7	6.97
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	24.7	22.2	22.5	1.18
LIFDC (kg/yr)	15.9	16.6	16.6	-0.26
World stocks-to-use ratio (%)	52.1	54.8	57.3	4.58
ISA DAILY PRICE AVERAGE (US cents/lb)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 <i>%</i>
	18.05	16.01	13.03	-28.59

planted to sugarcane is to remain unchanged from 2016/2017. In **Guatemala**, despite lower expected sugarcane yields, sugar output in 2017/18 is foreseen to expand by 2 percent, as a result of gains in sugar extraction rates. In **Cuba**, sugar production increased by 12.5 percent in 2016/17, in comparison with 2015/16, reaching 1.8 million tonnes, a production level not seen since 2004. Better sugar recovery rates coupled with greater harvested area accounted for the increase, as the restructuring of the subsector continued. For 2017/18, Cuba's sugar output is expected to remain at the level of last season, as most mills begun operations late in the season due to damages caused by hurricane Irma. As part of an ambitious objective to increase the use of bioenergy, the Government of Cuba has recently developed a plan to expand the country's capacity to produce electricity from sugarcane residues. Bioelectric plants are to be established in 27 sugar mills across the island, with incentives to attract foreign investments.

In **Africa**, 2017/18 sugar production is set to rise, prompted by continued area expansion and improved processing capacities. **Egypt, South Africa, Ethiopia** and **Mozambique** are anticipated to harvest larger crops, while output is expected to fall in **Mauritius** because of excessive rain. The significant boost in sugar output in **Ethiopia** is due to large expansion projects undertaken by the Government, with the objective of achieving self-sufficiency. A total of six sugar mills are now operational in the country. Sugar output in **South Africa** has recently

Table 2. World sugar production

	2016/17	2017/18
	<i>million tonnes</i>	
Asia	58.3	75.1
South America	47.3	43.4
Europe	24.9	29.5
Central America	13.9	13.9
Africa	11.0	11.8
North America	8.2	8.5
Oceania	5.3	5.4
World	168.9	187.6
Developing countries	139.6	154.0
Developed countries	29.2	33.6

been expanding but at a moderate rate, as labour disputes and land reform challenges limit any significant increase. In **Mozambique**, sugar production has expanded by an annual average of 8.7 percent over the past ten years, driven by investment in irrigation and price incentives introduced under the 2009 EU Economic Partnership Agreement (EPA). Sugar production is estimated to increase further in 2017/18.

In **Asia**, output forecasts have been revised a number of times since November 2017, and now they point to a significant increase of 28.8 percent from the 2016/17 marketing season. The expanded output is attributed to **China** (+13 percent), **India** (+51 percent) and **Thailand** (+39 percent). By contrast, production is set to remain stable in **Indonesia**, the **Philippines** and **Turkey**. In **India**, favourable monsoon rainfalls in August 2017 boosted yields, resulting in a 10.5 million tonne increase in sugar production to 31 million tonnes in 2017/18. Also, remunerative sugarcane prices have led farmers to substitute sugarcane for wheat or rice. The recent partial deregulation of the sugar industry in India, which involved the elimination of the required 10 percent levy on sugar mills and the deregulation of sales in the open market, allowed sugar mills to gain some financial flexibility to repay cane arrears, which are the financial obligations that mills have vis-à-vis growers. Non-payment of sugarcane arrears was seen as the main factor behind a longstanding production cycle in India, which led periodically the country from being a net exporter to a net importer of sugar. However, for 2017/18, it is reported that sugar mills have again accumulated large cane arrears, due to relatively high sugarcane prices and lower domestic wholesale sugar prices.

In **Thailand**, favourable weather conditions throughout the growing season are expected to boost the country's sugar output by 39 percent from the 2016/17 level. The increase is also underpinned by a continuous expansion in area, as farmers substitute sugarcane for the less

remunerative cassava. For the moment, the temporary deregulation of the domestic sugar market, implemented on 15 January 2018 by the Government of Thailand, is not expected to have a negative impact on growth of the sugar sub-sector. The deregulation calls for the elimination of the sugar price control and the sugar sales administration. Similarly, sugar production in **China** is expected to increase in 2017/18, due to expansion in both sugarcane and beet planted areas, in response to remunerative domestic prices. Favourable weather conditions also helped to boost cane yields, while subsidies provided by local governments should support additional gains in farm productivity. For the industry to expand further, increases in output will need to originate from high-yielding varieties, coupled with better crop husbandry and productivity gains at farm and processing stages, since the available area for expansion is limited due to competition with other crops. Production is also foreseen to expand in **Pakistan**, following an estimated 7 percent rise in planted area. Sugar production expanded in response to the relatively high sugar returns witnessed over the past four seasons. Remunerative prices also encouraged the use of fertilizers and other inputs, which boosted sugar crop yields. With large opening stocks at the onset of the current season, the Government of Pakistan introduced a freight subsidy of USD 97 per tonne in an effort to move excess production into the world market. Sugar output is set to remain relatively unchanged from 2016/17 in **Indonesia**, as the planted area and yields are not expected to increase. The area expansion over the past years occurred mainly in Central Java, Lampung and South Sulawesi. Expansion in the sugar market is largely attributed to sustained demand for sugar by the food and beverage industries, reflecting growing per capita incomes. Similarly, sugar production in **Turkey**, the world's fifth largest sugar beet producer, is not expected to surpass its last season level. In 2016/17, sugar output rose to 2.4 million tonnes as a result of an 18 percent growth in cultivated beet area, driven by higher procurement beet prices.

In *Europe*, the latest estimates for the **EU** point to a significant rise in sugar production on the back of the elimination of the domestic sugar production quotas on 1 October 2017. The area planted to beet is estimated to have increased by 18 percent in comparison to 2016/17, with notable expansions in **France** (+16.5 percent), **Germany** (+29.6 percent), the **Netherlands** (+20.8 percent), **Poland** (+14.4 percent) and the **United Kingdom** (+29.1 percent). With the elimination of production quotas, the EU is projected to become more self-sufficient in sugar in the medium term, while the price gap between EU white sugar and world white sugar is

anticipated to tighten. Exporters supplying the EU under the Everything But Arms (EBA) initiative, or holding preferential access through bilateral or multilateral tariff rate quotas (TRQs), may find it difficult to sustain their shipments, as long as the EU internal price is higher than their own export price, plus transportation and marketing costs.

Sugar production in the **Russian Federation** in 2017/18 is expected to grow by 5 percent year-on-year, on the back of higher yields and better processing technologies at the factory level. Domestic prices have been fairly remunerative in recent years, prompting increases in plantings, at the expense of competing crops such as grains and oilseeds. The growth in sugar production is also likely to be limited by more expensive imported inputs, such as seeds and fertilizers, given the depreciation of the Russian rouble notably with respect to the US dollar. Sugar production in **Ukraine** is expected to stay at about the same level as last season, despite an increase in planted beet acreage. Lower soil moisture during the summer of 2017 curtailed beet yields. Sugar supply chain in **Ukraine** is highly integrated, with large agribusiness controlling the entire sugar value chain from production to retail sales. Likewise, sugar output is anticipated to contract in **Australia**, as sugarcane production was affected by dry conditions in the main producing region of Queensland, and damage was caused by tropical cyclone Debbie. The country has also been battling with the spread of Yellow Canopy Syndrome (YCS), which has led to lower sugar content in the cane.

In the *rest of the world*, production in the **United States** is forecast to rise from its 2016/17 level, on the back of higher sugarcane output in Louisiana, which more than offset a setback in Florida, caused by hurricane Irma and also wet conditions during the early stages of the harvest. The current forecast for 2017/2018 represents the largest sugar output in the history of the United States. In 2013/14, ample supplies put pressure on domestic sugar prices, forcing the US Department of Agriculture (USDA) to purchase sugar and resell it, at a loss, to bioenergy producers, as part of the Feedstock Flexible Program (FFP). The USDA has recently indicated that for the 2018 fiscal year, it is not planning to make use of the FFP.

UTILIZATION

Per caput sugar consumption to increase in 2017/18

Global sugar consumption is anticipated to reach 170.6 million tonnes in 2017/18, up 3.8 million tonnes, or 2.3 percent, from 2016/17, in line with the 10-year trend. Large supply availabilities and lower world and domestic sugar prices are foreseen to underpin increases in per capita

sugar intake in 2017/18. Domestic prices in local currencies are already falling, particularly in the **EU, India, the Russian Federation, Mexico, China, and Brazil**. Under current prospects, world per capita sugar consumption is set to rise slightly, from 22.2 kg in 2016/17 to 22.5 kg in 2017/18. In developing countries, aggregate sugar utilization is estimated to expand by 3.6 million tonnes, to 136.3 million tonnes, equivalent to 80 percent of the world total, underpinned by expansion in *Africa, Asia and Latin America and the Caribbean*. In the generally more mature markets of the developed countries, both total and per capita consumption are estimated to remain relatively unchanged.

Sugar consumption in the long run is mainly driven by per capita income, population growth and consumer preferences. According to the April 2018 issue of the World Economic Outlook of the International Monetary Fund (IMF), the global economy is expected to grow by 3.9 percent in 2018, up from 3.8 percent in 2017. Economic growth usually leads to dynamic derived demand for sugar, as beverages and food processing sectors, which account for the bulk of aggregate sugar use, are positively influenced by positive economic conditions. However, three elements of risk underpin the outlook on the consumption side. First, movements in the value of currencies with respect to the US dollar affects domestic prices and, therefore, the level of sugar consumption. This would be particularly the case for **Indonesia, China, and the Islamic Republic Iran**. Second, a great deal of uncertainty persists regarding expected sugar consumption in the EU following the elimination of the sugar and isoglucose quotas. The question is to what extent isoglucose can displace sugar in the EU sweetener market. Third, a number of countries have implemented legislation to

tax sugar-sweetened beverages. At this point, the impact of these taxes on consumer demand for beverages, and hence sugar, remains ambiguous, as manufactures can decide either to absorb the tax or modify their product formulas to retain consumers. More evidence on this will become available over time.

TRADE

Sugar trade to contract in 2017/18

The forecast for world trade in sugar in 2017/18 (October/September) is pegged at 55.2 million tonnes, down 5 percent from the previous season. A key feature of international sugar trade in 2017/18 is the greater availability of supplies in the traditional largest importers, including the **EU, Indonesia and the United States**. Occasional large importers, such as **India**, are also expected to produce substantial quantities of sugar. Although not expected to export more than in 2016/17, given its reduced sugar production, **Brazil** is set to supply 42 percent of world exports in 2017/18. The bulk of Brazilian exports is in raw form and mainly shipped to the markets of **Algeria, Bangladesh, Egypt and India**. However, the final volume Brazil will sell abroad will depend on the quantity of sugarcane production processed into ethanol, especially given the tighter relationship between gasoline and hydrous ethanol domestic prices. Also, any additional depreciation of the Brazilian real against the US dollar could further stimulate Brazil's exports beyond the current estimates.

Propelled by a surge in output, **Thailand**, the world's second largest sugar exporter, is expected to consolidate its position and raise deliveries from about 6.8 million tonnes in 2016/17 to 7.2 million tonnes in 2017/18. About

Figure 4. Sugar consumption per capita

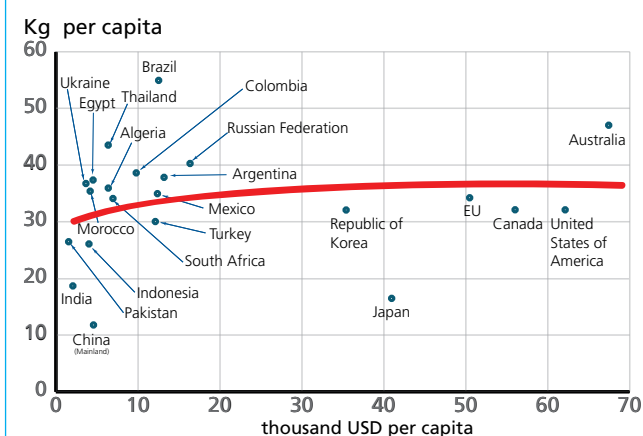
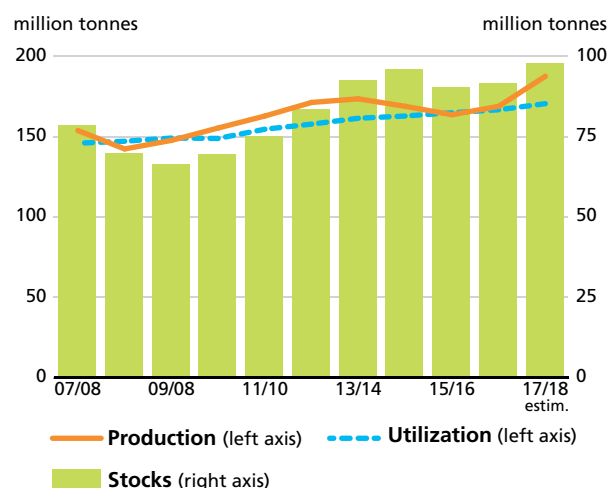


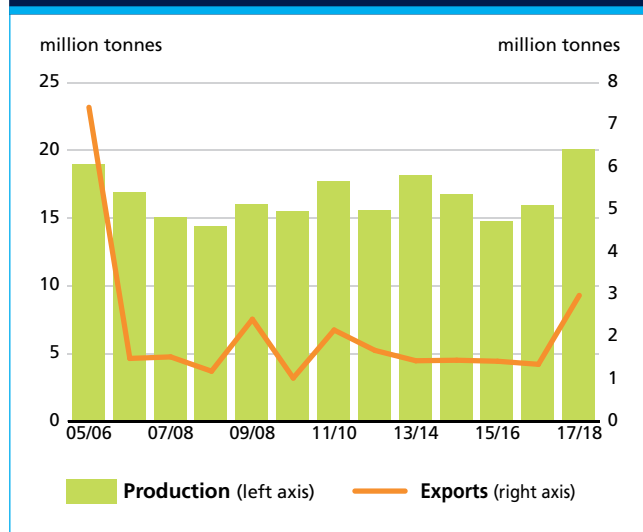
Figure 5. Sugar production, utilization and stocks



60 percent of the country's exports are forecast to be shipped in raw form to neighbouring countries, including **Indonesia, Cambodia, China, and Japan**. In the short term, Thai exports to ASEAN countries should benefit from the reduction of import tariffs under the existing ASEAN economic community free trade agreement, which came into effect on 31 December 2015. Under the agreement, sugar imports are duty-free in most ASEAN countries, with the exception of the Philippines (5 percent import tariff), Indonesia (5-10 percent), and Myanmar (up to 5 percent). As a result of the expected bumper crop, shipments from **India** are foreseen to rise, sustained by large inventories and recently approved measures to cut export duty on sugar from 20 percent to zero. The objective of the export subsidy is to provide sugar millers with additional cash flow through exports, which can help to address accumulating sugarcane arrears. Exports are composed of raw sugar and geared to markets in *Africa* and *Asia*. Deliveries from **Australia**, the world's third largest raw sugar exporter, are set to remain relatively unchanged from their 2016/17 level, in spite of production setbacks in the current season. The country is able to supply the world market with sugar throughout the year, supported by a vast network of bulk port terminals. The recently concluded Free Trade Agreement between Australia and Peru provides **Australia** with a sugar duty free quota access of 30 000 tonnes per year, increasing to 90 000 tonnes after 18 years. **Australia** has already signed a similar agreement with the **Republic of Korea**.

In 2017/18, the **EU** is set to become the world's fourth largest sugar exporter. With surging sugar output and the removal of World Trade Organization (WTO) export limits, following abolition of the sugar quota regime, shipments from the EU are anticipated to reach 3 million tonnes, a 120 percent increase from 2016/17. Since the beginning of the current season, exports from the EU have been strong, despite the white sugar prices in the EU being higher than the London Number 5 benchmark for world white sugar prices. Similarly, exports by **Guatemala**, the second largest exporter in *Latin America and the Caribbean*, are foreseen to expand, given ample stock availabilities and competitive pricing. Sugar has become a key source of foreign exchange earnings for the country, which has increasingly focused on gaining market shares in the refined sugar segment. On the other hand, sales by **Mexico** are anticipated to remain at about the same level as in 2016/17, or even increase slightly, reflecting uncertainty around the recently signed agreement between the **United States** Department of Commerce and **Mexico** to suspend the anti-dumping and countervailing duty investigations launched against imports from **Mexico**. Under this agreement, Mexican

Figure 6. EU: Sugar production and exports (million tonnes, raw value)



sugar exports entering the **United States** will be subject to quantity limits, as well as to a minimum reference price for both white and raw sugar. In addition, Mexican exports of refined sugar into the **United States** will be kept at 30 percent of total sugar exports. Reductions in deliveries from **Cuba** are also projected on the basis of a cutback in sugar output for 2017/18. The bulk of export sales are directed to **China**, as part of an export agreement between the two countries.

Imports by *Asian* countries are estimated to fall in 2017/18 as a result of contractions in purchases by **India** and **China**, given expected increases in domestic sugar production. Furthermore, China introduced safeguard measures in May 2017, by raising out-of-quota tariffs from 50 percent to 95 percent, while the within-quota tariff stayed unchanged at 15 percent. Nevertheless, **China** is expected to remain the world's largest sugar importer in 2017/18. By contrast, sugar imports by **Indonesia** are set to remain strong, underpinned by robust domestic use, especially from the beverage and food processing sectors. The country is forecast to retain its position as the world's second largest sugar importer.

In *Europe*, imports by the **EU** are forecast to fall significantly due to the estimated bumper crop, resulting from abolition of the sugar production quota regime. With lower imports required into the EU, duty-free preferential imports from EBA countries are foreseen to be halved, while the WTO CXL quotas³ are most likely to remain unused. EU sugar refiners that specialize in importing raw cane sugar

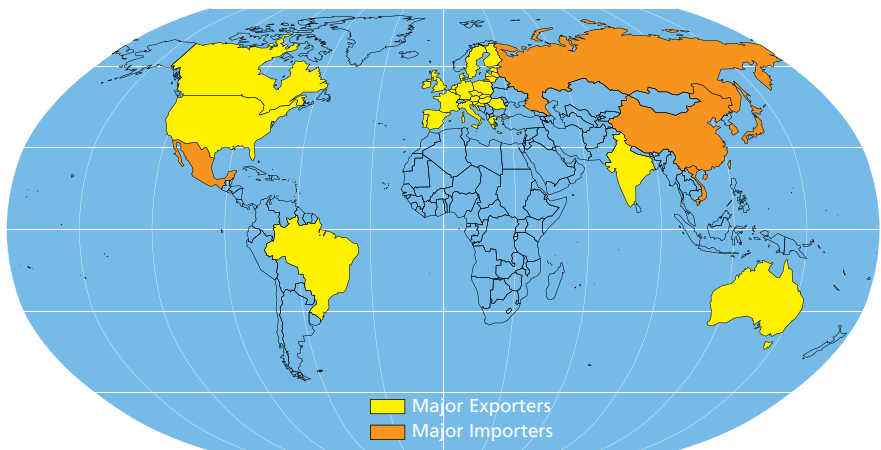
³ CXL quotas result from compensation agreement following the 1995 EU enlargement to account for traditional sugar imports from Austria, Finland and Sweden. The countries of origin of the sugar are mainly Brazil and Cuba.

for processing into white sugar are most exposed by the end of the sugar quota system. As a result of expanding domestic production, imports by the **Russian Federation**, once the world's largest sugar importer, are anticipated to be stable in 2017/18. It is expected that for this current season, the country will actually become a net sugar exporter. Also, any further depreciation of the Russian currency against the US dollar (beyond current levels) could further dampen purchases. **Belarus** and **Australia** are the main suppliers to the **Russian Federation**. Likewise, imports by **Kenya** and **Morocco** are expected to fall, unlike

those by **Indonesia**, the world's second largest sugar importer, which are expected to increase. The Government of **Indonesia** controls the level of imports by allocating permits at the beginning of each year. In the *rest of the world*, imports by the **United States**, about half of which are managed through a TRQ system of 1.4 million tonnes, are set to remain relatively stable, while *African* countries are expected to limit their imports to levels below those of last season, due to anticipated gains in sugar output in 2017/18.

MEAT AND MEAT PRODUCTS

Major Meat Exporters and Importers



PRICES

International meat prices move sideways in the first months of 2018

According to the FAO Meat Price Index, international meat prices strengthened by close to 9 percent in the calendar year 2017, mostly on gains registered over the first semester. Compared with 2016, prices of all the various meat categories rose in 2017: ovine meat by 26 percent; pigmeat by 10 percent; poultry meat by 8 percent; and bovine meat by 6 percent. Overall meat quotations softened between July 2017 and January 2018, reflecting large availabilities for export combined with more difficult market access to some major importing countries. Since last January, meat prices have moved sideways, with a tendency for poultry and ovine meat prices to firm, while bovine and pigmeat prices to be stable. Overall, according to the FAO Index, in the first six months of 2018, meat prices averaged about 1.6 percent higher compared to the corresponding period last year, sustained by a rise of 3.7 percent for bovine meat and of 27.6 percent for ovine meat. By contrast, prices of poultry and pigmeat fell by 1.6 percent and 4.5 percent, respectively.

PRODUCTION

Meat production in 2018 to expand at its fastest rate since 2013

Amid positive world economic prospects and abundant feed supplies, global meat output is forecast to increase

Figure 1. FAO monthly meat price index (2002-2004=100)

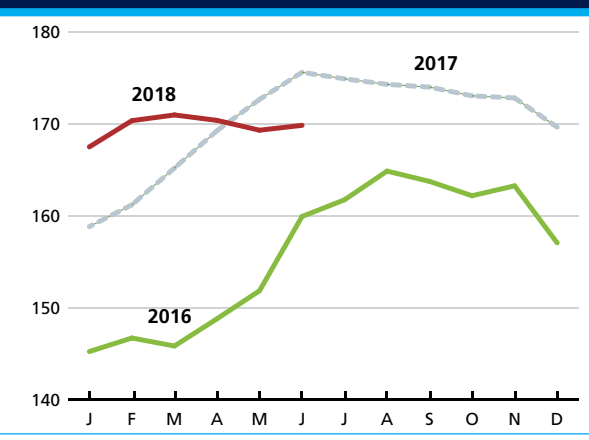


Figure 2. FAO monthly international price indices for bovine, ovine, pigmeat and poultry meat (2002-2004=100)

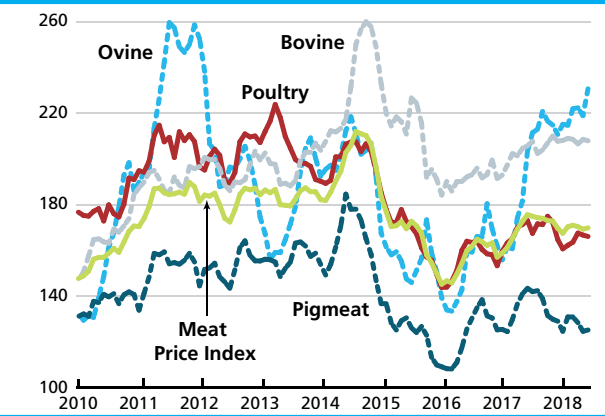


Table 1. World meat market at a glance

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes</i>			<i>%</i>
WORLD BALANCE				
Production	327.1	330.4	336.2	1.7
Bovine meat	69.7	70.8	72.1	1.8
Poultry meat	119.2	120.5	122.5	1.6
Pigmeat	117.8	118.7	121.1	2.0
Ovine meat	14.7	14.8	14.9	0.5
Trade	31.9	32.7	33.3	1.8
Bovine meat	9.7	10.2	10.6	3.9
Poultry meat	12.7	13.1	13.3	1.9
Pigmeat	8.3	8.2	8.1	-0.9
Ovine meat	0.9	1.0	1.0	1.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	43.8	43.6	43.9	0.6
Trade - share of prod. (%)	9.7	9.9	9.9	0.1
FAO MEAT PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 <i>%</i>
	156	170	170	1.6

to 336 million tonnes in 2018, up 1.7 percent (or 6 million tonnes) from the previous year, and the fastest growth since 2013. The sector is anticipated to expand vigorously in Asia, where **China** is anticipated to witness a recovery after three years of retrenchment, as well as in the Americas and in Europe. Prospects are more subdued for Africa, and Oceania. At country level, much of the 2018 global output expansion is forecast to originate in the **United States, China, Brazil, the EU, the Russian Federation, India, Mexico and Turkey**. All the major meat categories are anticipated to contribute to the 6 million tonne global production increase, primarily in pig and poultry meats, followed by bovine meat and, marginally, ovine meat. Pigmeat output is expected to progress by 2.4 million tonnes, or 2.0 percent, underpinned by a steady recuperation of the sector in **China** and by gains in the **United States, the EU** and the **Russian Federation**. Output of poultry, the meat with the largest production since 2016, is expected to grow by 2 million tonnes in 2018, or 1.6 percent, as global efforts to contain the spread of Highly Pathogenic Avian Influenza (HPAI) are yielding good results in most of the affected areas, including **China** and the **EU**. Bovine meat production is anticipated to increase by 1.3 million tonnes, or 1.8 percent, spurred by sizeable gains in the Americas, while ovine meat output is likely to register only a modest expansion for a second consecutive year.

CONSUMPTION

Average per capita consumption of the four major meat categories to grow by 0.6 percent in 2018

Given that most of the meat produced is destined for immediate intake rather than storage, global consumption of the four major meat categories is estimated to hover around 335 million tonnes in 2018, virtually matching the production forecast. At that level, per capita meat consumption would average almost 44 kg in 2018, or 0.6 percent more than in 2017, consistent with the positive, broad-based economic outlook for 2018 and the urbanization process that is ongoing in many developing countries, both factors that tend to lift demand for livestock products. Poultry and pigmeats are forecast to remain the most consumed meat categories in 2018, with about 16 kg per capita each, followed by bovine meat at 9 kg and sheep meat at 2 kg.

TRADE

Poultry and bovine meat to drive the increase in meat trade this year

World trade in all meat categories in 2018 is forecast to increase by around 600 000 tonnes, or 1.8 percent, to a 33.3 million tonne record. This would represent a substantial slowdown compared with the 4.3 percent and 2.7 percent rates of growth achieved respectively in 2016 and 2017, when trade was propelled by surging imports by China. Under the current forecasts, trade in 2018 would represent 9.9 percent of global production, up from 8.9 percent at the beginning of the decade, confirming the progressive integration of livestock industries in global value chains. The anticipated increase in meat trade this year would mostly rely on larger shipments of bovine and poultry meat, as the traded volumes of pig and ovine meat are forecast to change only little.

Global meat trade in 2018 is predicted to be especially bolstered by rising imports by **China, Japan, Mexico, Angola, and Viet Nam**. By contrast, deliveries to the **Russian Federation** are likely to fall, hindered by the imposition of a ban against Brazilian meat imports and a planned extension, until the end of 2018, of counter sanctions prohibiting access to a wider set of meat products from a number of origins, including the EU and the United States. Meat purchases by **Saudi Arabia** are also predicted to fall sharply, reflecting a smaller domestic demand and a temporary reduction of imports due to the process for implementing stricter halal standards.

Under current expectations, much of the increase in total meat exports is likely to be met by the **United States,**

the **EU, Argentina** and **India**. On the other hand, meat exports from **Brazil** may fall, hampered by the imposition of trade restrictions in several key destination markets while a tightening of supplies may depress sales from, **New Zealand**, the **Russian Federation** and **Uruguay**.

BOVINE MEAT PRODUCTION AND TRADE

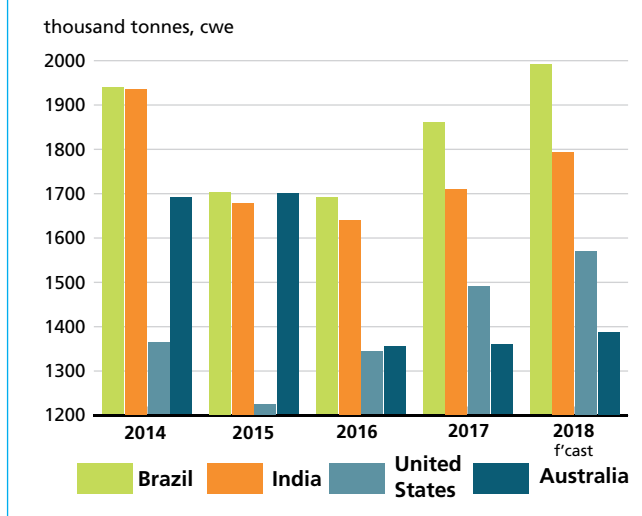
Bovine meat production set to expand for the third consecutive year

World bovine meat output is forecast to rise by 1.8 percent to 72.1 million tonnes in 2018, marking a third year of solid growth. Particularly large increases are expected in the **United States, Brazil, Argentina** and **China**, while the **EU, New Zealand** and the **Russian Federation** may incur a contraction. In the **United States**, output continues to rise briskly, assisted by ample supplies of both animals and feed. In **Brazil**, the sector is benefiting from an abundant availability of cattle for slaughter, as herds are reaching the end of the retention phase. Likewise, **Argentina's** bovine meat output is anticipated to expand on increased slaughter numbers. In **China**, production is forecast to rise by 1 percent in 2018, far below the 4 percent registered last year, partly reflecting reduced availability, compared with last year, of animals from smaller operators that are leaving the sector. Much of the 2018 expected expansion will continue to be instigated by large-scale cattle operators who can also take advantage of the government release of maize stocks to raise the number of cattle placed in feedlots. By contrast, bovine meat output in the **EU** is likely to decline somewhat, as the availability of animals for slaughter has dwindled with the ending of the phasing-out of unproductive dairy cattle under the EU policy reform. In **New Zealand**, a reduced herd following a deep cull in 2015-16, followed by retention of animals for herd rebuilding, is behind an expected decline in the country's bovine meat production. The outlook is also negative for the **Russian Federation**, where bovine meat production is anticipated to drop for the fourth consecutive year, on falling numbers of dairy cattle, which remain the main source of animals used for beef production.

A brisk world demand expected to lift trade in bovine meat

Spurred by dynamic international import demand and ample export availabilities in the Americas, world trade in bovine meat is forecast to rise by 400 000 tonnes, or 3.9 percent, in 2018 to 10.6 million tonnes. With the exception of the **Russian Federation**, all major importers are anticipated to purchase more than in 2017, in particular **China, Egypt, Viet Nam** and **Indonesia**.

Figure 3. Bovine meat: major exporters



Much of the world's trade expansion is forecast to be met by larger exports from **Brazil, India**, the **United States** and **Argentina**, while supply constraints could depress sales by **New Zealand** and **Uruguay**. Following a 12-percent expansion in 2017, imports by **China**, the largest destination of bovine meat trade since 2016, are anticipated to grow by a further 11 percent in 2018, prompted by dynamic demand from an increasingly prosperous and urbanized population. Likewise, rising consumer demand is anticipated to boost meat purchases by **Egypt, Viet Nam, Indonesia, Angola** and the **Republic of Korea**. The **United States** is also likely to step up imports, especially of grass-fed beef and other specialized beef products. By contrast, deliveries to the **Russian Federation** are forecast to decline, as consumer demand for bovine meat has fallen amid relatively high retail prices.

Among exporters, **Brazil** is expected to sell 7 percent more beef to international markets than in 2017, thereby consolidating its position as the world leading beef exporter. The sizeable increase would be in spite of the trade barriers imposed by a number of importers against meat originating in Brazil. Shipments from **India** are anticipated to grow by 5 percent, spurred by strong import demand in its traditional market destinations, including Indonesia, Viet Nam and Malaysia. Large supplies and limited competition from Oceania could help to boost shipments from the **United States**, especially to China, the Republic of Korea and Mexico. **Australia's** bovine exports are forecast to recover but still below 2015 level while supply constraints may result in reduced sales by **New Zealand**.

PIGMEAT PRODUCTION AND TRADE

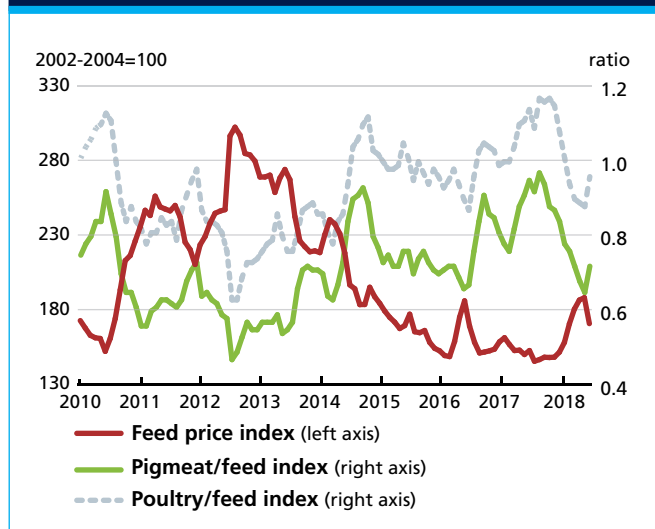
Global pigmeat production to increase at its fastest pace since 2012

World pigmeat output could reach 121.1 million tonnes in 2018, up 2 percent from 2017 and the fastest registered growth since 2012. Much of the regained momentum reflects expectations of a continued recovery in **China**, but also of a massive increase in the **United States** and smaller gains in the **EU**, the **Russian Federation** and **Viet Nam**. In **China**, production may expand by more than 2 percent, reflecting the restructuration and modernization of the sector. Investments in large-scale operations have been accelerated, while the enforcement of stringent environmental regulations was largely responsible for a

production slump in 2016. Since then, production has rebounded, with a further rise expected in 2018, assisted by ample feed availabilities, as the Government strives to reduce its accumulated grains inventories. Pigmeat production is also foreseen to grow vigorously in the **United States**, amid attractive prices, abundant feed supplies and ample processing capacity. Large investments and the modernization of the industry are expected to boost output in the **Russian Federation**. Following a marginal decline in 2017, output in the **EU** is anticipated to recover this year with the support of a relatively large breeding herd. However, growth is expected to be modest, contained by declining prices. By contrast, **Brazil's** pig meat output is likely to contract somewhat in 2018, negatively affected by the imposition of import bans against Brazilian meat, especially by China and the Russian Federation.

Production also looks set to decline in **Ukraine**, constrained by high feed costs and by the swine fever epidemic, which led to the culling of animals, reducing the size of the pig herd.

Figure 4. Feed prices are trending unfavourable for poultry and pigmeat producers

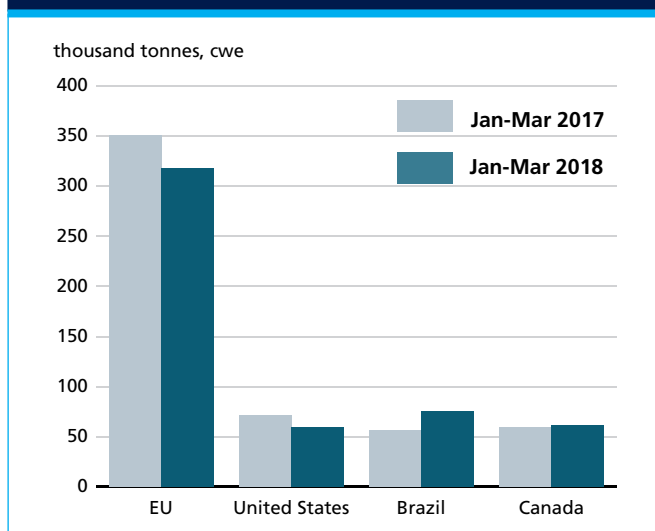


Faltering import demand behind an expected contraction in pigmeat trade

Although export availabilities are expected to increase, weakening import demand is anticipated to reduce world trade in pigmeat by 0.9 percent to some 8.1 million tonnes in 2018. Purchases by **China**, which had surged in 2016, but retreated in 2017, are forecast to fall again in 2018 to some 2.1 million tonnes, still preserving China's leading position among pigmeat importers. Faced with increasing pigmeat outputs this year, purchases are anticipated to decline in the **United States** and especially in the **Russian Federation**, which banned imports from Brazil in December 2017. Among the other major destinations, **Japan** and, especially, **Mexico** are foreseen to buy more.

On the export side, competition for markets is likely to intensify in the course of the year. Emerging trends indicate likely increases in pigmeat exports from the **United States**, the **EU**, **Canada** and **Belarus**. The outlook is less positive for the other world suppliers, with **Brazil**, the **Russian Federation** and **Viet Nam** likely to see exports fall in 2018. **Brazil**, in particular, may incur a 34 percent contraction, as its meat is barred from entering important Chinese and Russian markets.

Figure 5. China's pigmeat imports by main origins

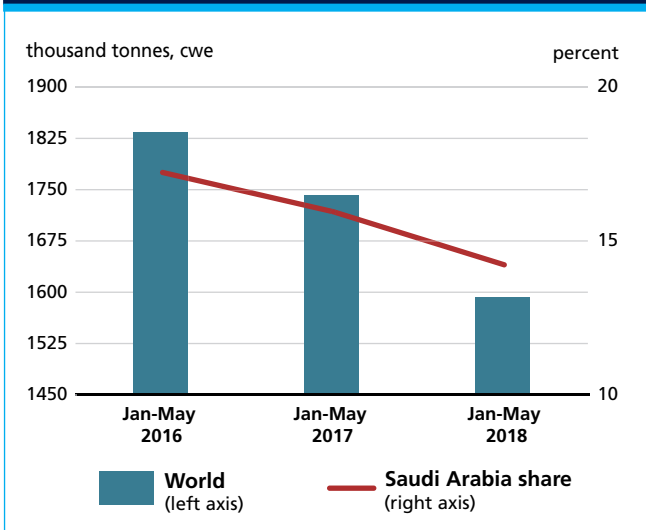


POULTRY MEAT PRODUCTION AND TRADE

All major poultry meat producers anticipated to produce more in 2018, as Avian Influenza largely under control

World poultry meat production is forecast to increase by close to 2 million tonnes, or 1.6 percent, to 122.5 million tonnes in 2018, supported by generally abundant feed supplies and lively domestic demand. All major producing countries are anticipated to see output grow, primarily the **United States**, the **Russian Federation**, the **EU**, **India**, **China**, **Turkey** and **Brazil**. After several years of continued expansion, sustained by the use of genetics and streamlined production processes, the **United States** is expected to witness a 1.6 percent output rise in 2018. Following large-scale investments in the sector in recent years, the **Russian Federation** is forecast to record a 4.5 percent production growth, slower than the 7.2 percent of 2017, as saturation of the market is weighing on prices. Prospects are also positive in the **EU**, where the sector could register a 1.2-percent output growth. In **China**, the second largest producer in the world after the United States, ample feed supplies and the successful control of HPAI are expected to foster a production rebound after the sharp contraction experienced in 2017. Strong domestic demand is forecast to sustain continued production growth in **India** and **Turkey**. In spite of more difficult access to several key external markets, **Brazil's** poultry meat production is expected to make further inroads, supported by the plentiful availability of feed and buoyant domestic demand.

Figure 6. Brazil's poultry meat exports



New non-tariff barriers to slow growth in poultry meat trade in 2018

World trade in poultry meat in 2018 is anticipated to reach some 13.3 million tonnes, about 250 000 tonnes, or 1.9 percent more than in 2017. If confirmed, it would represent a considerable slowdown compared to the growth of 4.6 percent and 2.7 percent registered in 2016 and 2017, respectively. Much of the predicted rise in world poultry imports in 2018 would stem from **China** and **Japan**, the two largest international poultry markets, the **EU** and **Angola**, in that order, with sizable increases also expected in **Ghana**, **Iraq** and **Mexico**. By contrast, sales of poultry meat to **Saudi Arabia** are forecast to fall by more than 10 percent to their lowest level since 2009. The decline has been partly driven by a reportedly large outflow of foreign residents from the country, triggered by the introduction of an expatriate levy. In addition, the country is considering barring entry to meat that does not meet strict Halal standards, particularly in relation to the stunning of animals to be slaughtered, a move that would mostly affect shipments from Brazil and the EU. The **Russian Federation** is also likely to buy less poultry meat in 2018, as increased domestic production is exerting downward pressure on local prices, making imports less attractive.

Much of this year's expansion of world exports is anticipated to be met by the **United States**, **Thailand**, **Ukraine** and the **EU**. In the case of **Ukraine**, the increase is likely to be fostered by easier access to the EU market under the Association Agreement that came officially into force on 1 September 2017. By contrast, exports from **Brazil** may decline somewhat, as the country faces more difficult access to important markets, in particular that of the EU, which has banned imports from 35 Brazilian packers, but also to those of China and Saudi Arabia. Nonetheless, Brazil is forecast to remain the leading poultry meat exporter in the world.

OVINE MEAT PRODUCTION AND TRADE

Production of ovine meat to stagnate again in 2018

World ovine meat output in 2018 is forecast to hover around 14.9 million tonnes, which is 80 000 tonnes, or barely 0.5 percent, more than in 2017, marking the second year of stagnation. Output is set to expand in **China** and the **EU**, but to decline in **Mongolia**, **Syrian Arab Republic** and **Sudan**. As for the two leading exporters, production is anticipated to grow marginally in **Australia** and to fall in **New Zealand**. Much of the expected global production growth relies on expectations of an expansion in **China** – the world's largest ovine meat producer – where

sheep and goat farming is becoming large-scale, with operations using extensive feeding management systems. This, along with brisk domestic demand, is expected to lift the country's production to 4.7 million tonnes this year. A modest 1 percent growth to more than 900 000 tonnes is also expected in the **EU**, which is the world second largest producer, supported by sheep flock expansion. In **New Zealand**, an expected retention of lambs for flock rebuilding, after various years of downsizing, is likely to result in a third year of declining output. The outlook is somewhat more positive for **Australia**, where production may grow slightly, in response to attractive international prices. While production is expected to record modest growth in most of the other major producing countries, output may fall in **Mongolia**, where drought conditions in 2017 led to a deep cull of animals.

Attractive prices behind an expected increase in world ovine meat trade this year

World trade in ovine meat is forecast to increase by 14 000 tonnes, or 1.5 percent, in 2018, to reach 995 000 tonnes, sustained by lively import demand,

in particular by **China**, the **EU** and **Malaysia**. In both **China** and the **EU**, rising domestic demand is behind the expected rise in imports. By contrast, purchases by the **United States**, which surged by more than 17 percent in 2017, are anticipated to decline slightly, still remaining well above average.

Despite rising world import demand, overall export supplies from the two leading exporters – **New Zealand** and **Australia** – remain limited. Yet **Australia** is expected to export about 466 000 tonnes, 12 000 tonnes, or 2.6 percent more than last year, providing the main impetus to growth in global trade. Indeed, highly attractive international prices are expected to entice the sector to delay the retention of lambs for the rebuilding of flocks in order to export more in the course of the year. By contrast, the more severe supply constraints in **New Zealand** are expected to result in a slight contraction in shipments from the country to 394 000 tonnes.

MILK AND MILK PRODUCTS

Major Dairy Exporters and Importers



PRICES

Dairy prices recover strongly between January and June 2018

Increased export availabilities, especially in the Northern Hemisphere, weighed on international dairy prices during the last quarter of 2017, bringing the FAO Dairy Price Index (2002-2004=100) down to a 16-month low in January 2018. Since then, prices have rebounded, rising by 18.5 percent between January and June this year, with the upturn sustained by double-digit increases in all the major dairy product price quotations, and in particular those of butter and cheese.

Since the beginning of the year, butter prices have advanced the most (+29.5 percent), followed by cheese (+16.6 percent), Skim Milk Powder (SMP) (+16.0 percent) and Whole Milk Powder (WMP) (+10.5 percent). The surge in international butter prices partly mirrors the low butter inventories held by the major exporters, the EU in particular, which coincided with a strong demand from consumers in Europe, North America and Asia, especially China, but also the Middle East and several Northern African countries. Sustained demand for cheese, especially in Asia, has been supported by rising per capita incomes and the growing popularity of some restaurant chains that use cheese as a key food item in their menus. Limited amounts of SMP currently being manufactured in Oceania compared with import demand has contributed to the recent increases of international SMP prices. For WMP, strong import demand,

Figure 1. FAO monthly dairy price index (2002-2004=100)

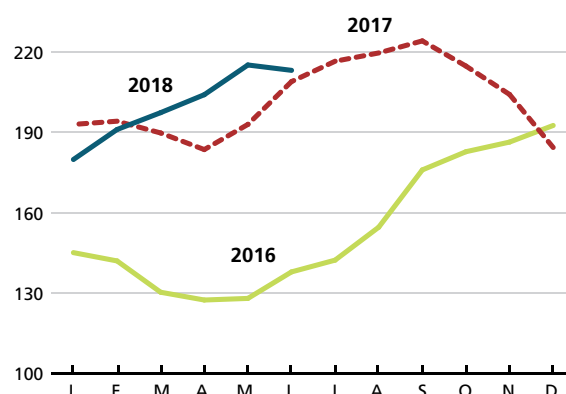


Figure 2. FAO monthly international price indices for butter, cheese, SMP and WMP (2002-2004=100)

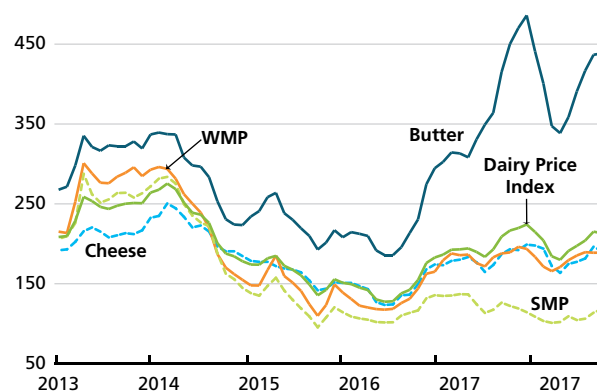


Table 1. World dairy market at a glance

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes, milk equiv.</i>			<i>%</i>
WORLD BALANCE				
Total milk production	800.2	811.9	828.5	2.1
Total trade	70.4	71.7	73.5	2.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	107.2	107.5	108.5	0.9
Trade - share of prod. (%)	8.8	8.8	8.9	0.5
FAO DAIRY PRICE INDEX (2002-2004=100)				
	2016	2017	2018 <i>Jan-Jun</i>	Change: Jan-Jun 2018 over Jan-Jun 2017 <i>%</i>
	154	202	200	3.3

especially from China, Algeria, Oman and Viet Nam, was the main factor that underpinned world quotations of the product.

PRODUCTION

Milk production to reach its fastest growth since 2014

World milk output in 2018 is forecast to reach 829 million tonnes – expanding by 16.7 million tonnes, or 2.1 percent, from 2017 and registering its fastest growth since 2014, supported by output expansion in all regions. Most of the increase in global milk production is predicted to be concentrated in *Asia*, where output is set to rise by 9.7 million tonnes, or 3 percent, to 333 million tonnes, principally led by gains in **India**, **China**, **Turkey** and **Pakistan**, but tempered by declines in **Japan** and **Saudi Arabia**. Driven mainly by a herd expansion, **India's** milk output is anticipated to increase by 4.4 percent to nearly 173 million tonnes, confirming the country as the world's top producer, ahead of the EU, a position that it has maintained since 2017. In **China**, milk output is forecast to rise after two years of decline, especially supported by high farmgate prices and a stabilization of dairy herd numbers after several years of farm consolidation and enlargement. Likewise, in **Turkey**, the size of the dairy herd has stabilized after several years of downsizing, which is expected to foster an expansion of milk production. In **Pakistan** – the fifth largest milk producer – output is forecast to recover, albeit marginally, supported by a strengthening of farmgate prices. By contrast, **Japan's** milk output is forecast to decline, extending a downward trend during the last few years.

In *Europe*, milk output is predicted to rise by 2.7 million tonnes in 2018, or 1.2 percent, to 227 million tonnes, with much of the growth concentrated in the **EU**, the **Russian Federation** and **Belarus**. Despite a marginal reduction in dairy herd numbers, the **EU** is anticipated to expand milk output, bolstered by higher milk yields, following a campaign aimed at replacing unproductive dairy animals, competitive feed prices, and more favourable weather supporting pasture growth. In the **Russian Federation**, milk output of large-scale dairy farms is increasing, countering a continued reduction in small-scale dairy farms. In **Belarus**, dairy herd numbers remain stable, but productivity is rising, supported by improvement to farm management practices and increased use of better quality feed. In **Ukraine**, milk output declined for five months in 2018, compared to the corresponding period last year, due to subdued farmgate prices and rising feed costs, a trend that is likely to continue.

In *North America*, milk output is forecast to increase by 2 million tonnes, or 1.9 percent, in 2018. The **United States** alone is forecast to record a nearly 1.7 million tonnes increase this year, reflecting a rise in dairy herd numbers and higher milk per cow output. In **Canada**, output is being stimulated by higher milk quota allotments under the country's supply management system, and by the National Ingredient Strategy, with its new milk class-7 that allows processors to make efficient use of the leftover skim milk from butter making, which, in turn, has raised milk prices received by farmers.

In *South America*, the region's milk output is anticipated to rise by 2.1 percent to 64.8 million tonnes, mainly led by gains in **Argentina**, **Brazil** and **Colombia**. A severe drought in **Argentina**, which had caused concerns about

Figure 3. Farmgate prices of raw milk in US dollar per 100 kg

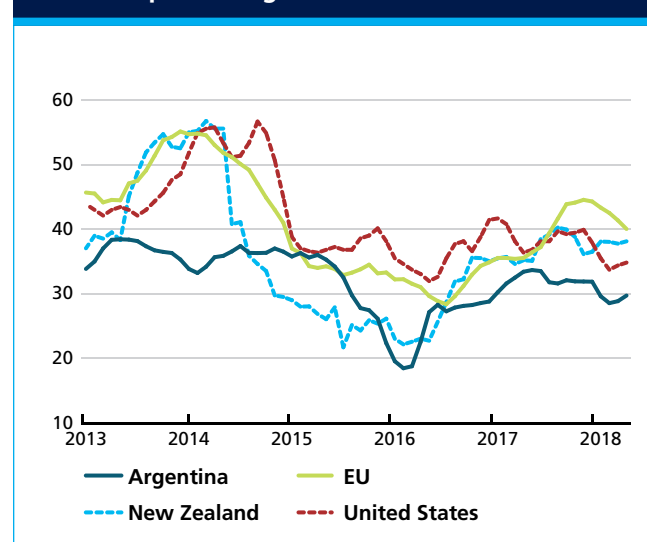
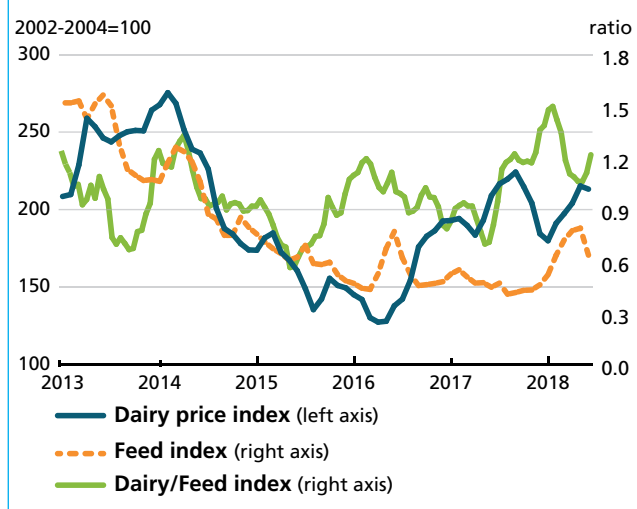


Figure 4. FAO dairy and feed price indices



pasture quality and forage availability, is not expected to impair production this year since the peak milk production season is already over and the drought is anticipated to subside before the next dairy season begins in August. As a result, Argentina's milk output is expected to increase by 6 percent in 2018. However, a downside risk to production arises from continued high inflation, which is increasing transport costs, eroding farm profitability and reducing consumer purchasing power. Dairy farms in most **Brazilian** states continue to expand production, supported by higher prices as a result of a recovery in consumer demand. In **Colombia**, positive economic growth prospects and strong demand from the urban population are fostering an expansion in milk output, even though competition from imports is likely to intensify under bilateral agreements signed with a number of countries in the Americas. Conversely, production is likely to decline in **Venezuela** due to difficulties in getting regular supplies of inputs including fodder, feed and veterinary supplies.

In *Central America and the Caribbean*, milk output is forecast to rise by 0.9 percent to 17.7 million tonnes, mainly driven by an expected expansion in **Mexico**, the largest milk producing country in Central America. There, rising demand from the dairy processing industry, along with the use of improved genetics and the formation of cooperatives and public-private partnerships, are boosting the sector.

In *Oceania*, milk output is foreseen to recover slightly after two years of decline, rising by 1.1 percent to 31 million tonnes, but still falling short of the volume produced in 2016/2017. **Australia's** milk production is expected to rebound by around 3 percent, underpinned by more favourable weather and pasture conditions, ample

feed availability and lower water prices. In **New Zealand**, milk production in the 2017/18 cycle was stable compared with 2016/17. However, in the forthcoming 2018/19 dairy cycle that started in June, output is anticipated to bounce back, given a reported increase in dairy cow numbers and higher farmgate prices announced by the New Zealand's largest co-operative in May 2018. This forecast remains subject to some uncertainty, as these factors would have to be weighed against the planned culling of some 150 000 cattle in an effort to eradicate the mycoplasma bovis disease.

In *Africa*, aggregate milk output is forecast to reach 45.5 million tonnes, 1.0 percent higher than in 2017. At this level, Africa's milk production would still be 5.4 percent below the level of 2011, when it reached its highest level. Milk production is forecast to expand in **Kenya, Algeria, Morocco** and **Tunisia**, to stagnate in a vast majority of countries, and to decline in **Sudan**. In **Kenya**, milk output is anticipated to rise, supported by abundant rains at the beginning of the year and increased capacity for processing. **Algeria's** output expansion has been fostered by normal rains so far this year, which have improved vegetation in the main dairy regions. In sub-Saharan and western parts of Africa, droughts and conflicts, along with inadequate fodder availability, continue to disrupt pastoral agricultural activities. In **Sudan**, displacement of people and poor rainfall have compromised grazing, while food insecurity and a lack of fodder are resulting in distress sales of livestock for slaughter, with negative effects on milk production.

TRADE

Dairy trade to grow faster in 2018, spurred by dynamic import demand

World trade in dairy products (in milk equivalent) is forecast to rise by 1.8 million tonnes, or 2.5 percent, to 73.5 million tonnes in 2018, higher than the 1.8 percent recorded in 2017. Among importers, **China, Algeria, Mexico, Viet Nam, Yemen, Oman** and **Japan** are expected to be the main drivers of the increase this year, while the **Russian Federation, Brazil, the EU** and the **United States** may cut their purchases. Under current expectations, **China** would account for nearly 20 percent of world total milk imports, reflecting the continued inability of the domestic sector to satisfy the fast-growing domestic demand for dairy products, especially WMP. **Algeria, Mexico** and **Viet Nam** are in a similar situation, with domestic milk production expanding, but still insufficient to cover the growing consumer demand, thereby stimulating imports to cover for the gap. Although the increase in

**Table 2. Trade in dairy products:
Principal exporting countries**

	Average 2014-16	2017 <i>prelim.</i>	2018 <i>f'cast</i>	Change 2018 over 2017
	<i>thousand tonnes (product weight)</i>			
WHOLE MILK POWDER				
World	2 541	2 424	2 508	3.4
New Zealand	1 383	1 346	1 399	4.0
European Union*	390	393	397	1.0
Uruguay	94	109	109	0.5
Argentina	131	71	80	12.4
SKIM MILK POWDER				
World	2 183	2 383	2 472	3.8
European Union*	637	779	818	5.0
United States	569	608	658	8.2
New Zealand	413	403	395	-1.9
Australia	176	158	160	1.7
BUTTER				
World	965	855	875	2.3
New Zealand	504	436	441	1.1
European Union*	178	172	180	5.0
Belarus	80	79	81	2.8
United States	43	34	35	1.1
Ukraine	12	30	31	1.8
CHEESE				
World	2 415	2 538	2 584	1.8
European Union*	747	830	863	4.0
United States	326	343	360	5.0
New Zealand	320	343	353	2.7
Belarus	183	189	188	-0.4
Australia	163	172	179	4.4
Egypt	114	105	106	0.5

* Excluding trade between the EU member countries. From 2013: EU-28

dairy product consumption is moderated in **Japan** by a shrinking and ageing population, the decline of domestic production continues to boost the country's imports. In the **Russian Federation, Brazil, the EU and the United States** increases in milk production this year are anticipated to curb imports.

Much of the expected expansion in export volume in 2018 is likely to be supplied by the **EU, the United States, New Zealand, Australia, Argentina and Canada**. The **EU**, in particular, is anticipated to gain a greater market share for its branded cheese products in Asian markets, especially in Japan and China. In addition, strong demand for SMP by Algeria, China and Mexico is resulting in increased EU production of butter (a joint product of SMP). The continued expansion of milk production in the **United States** has given the country a competitive edge in prices and exports, a position further bolstered by the expansion of its franchised restaurant chains outside of the country. After a 4.1 percent contraction in 2017, **New Zealand's**

exports are predicted to increase by 2.4 percent to 19 million tonnes, mostly due to expansions in butter and WMP to destinations such as China, Algeria and Viet Nam.

Australia's exports of milk products, which have declined for the past two years, are forecast to rise by nearly 6 percent, assisted by a depreciation of the Australian dollar and a larger exportable surplus. After a sharp drop in 2017, a recovery of production in **Argentina** should help to drive an upturn in the country's dairy exports, although the volume is likely to remain well short of the levels recorded in the first half of the decade. Following an 84-percent surge in 2017, **Canada** is predicted to export more in 2018, especially SMP products, as its National Ingredient Strategy may have contributed to improving the price of those milk ingredients more cost-effective for processors.

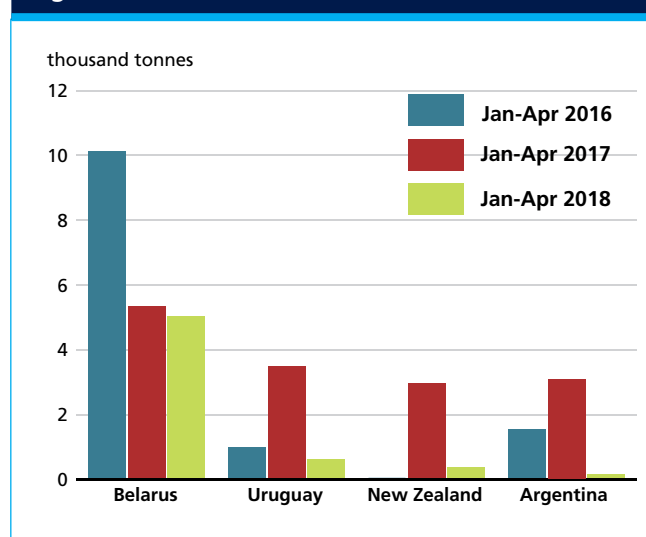
Trade performance of key milk products

Compared with 2017, which saw exports of butter declining sharply and cheese, SMP and WMP expanding, the trade expansion in 2018 is expected to extend to all dairy products.

Whole milk powder

After three years of decline, world exports of WMP are anticipated to expand by 3.4 percent to nearly 2.5 million tonnes in 2018. Imports are anticipated to rise mainly in **China, Algeria, Oman and Viet Nam**, but decline in **Venezuela, Brazil, the Russian Federation, Angola and Nigeria**. **Algeria**, which saw its WMP imports soar by 27 percent in 2017, is predicted to purchase more in 2018, as consumer demand is likely to rise more than the country's capacity to expand domestic production. Similarly, in **China**, although increasing milk output should

Figure 5. Russian Federation's imports of WMP by region



facilitate an increase in WMP production, it is likely to remain insufficient to meet burgeoning consumer demand, especially in the wake of a continuing mismatch between consumption and milk production cycles. **Oman** and **Viet Nam**, which bought less WMP in 2017, are likely to step up purchases this year. **Saudi Arabia** and the **United Arab Emirates** – the two largest WMP importers in the Middle East – are also forecast to import more. By contrast, mirroring a rise in domestic milk output, **Brazil** and the **Russian Federation** may cut back WMP imports in 2018. Much of the world's expanded WMP exports are anticipated to rest on larger shipments from **New Zealand** and **Australia**, where the relatively high profitability in processing milk into WMP compared with other products should foster an increase in both WMP production and exports in 2018. In contrast, **Mexico's** WMP exports in 2018 are anticipated to be lower than in 2017, as the surge in exports in 2017 is seen as a result of a one-off due to a large volume of WMP exported to Venezuela.

Skim milk powder

World SMP exports in 2018 are forecast to expand for a second consecutive year to reach nearly 2.5 million in 2018, up 3.8 percent from 2017. Much of the expected trade expansion in 2018 is likely to be fuelled by rising imports by **Algeria, China** and **Mexico**, partly offset by contractions in countries such as the **Russian Federation, Malaysia** and **Indonesia**. In **China** and **Mexico**, purchases of SMP are likely to rise in response to growing demand from the food processing industry, or for making reconstituted milk. **Algeria's** SMP imports are expected to surge by 17 percent in 2018, to 174 000 tonnes. In the **Russian Federation**, based on the pace during the first five months, imports

are forecast to decline, as accumulated stocks in 2017 are expected to help cover part of the production shortfall. A greater proportion of the expanded SMP export supplies is forecast to come from the **United States**, the **EU**, **Canada** and **Mexico**, more than offsetting predicted declines in the **Republic of Iran, New Zealand, Malaysia** and **Turkey**. Ample production and high stocks are likely to enable the **US** to lift its SMP exports above its 2017 level, although the expansion could be limited should the US dollar continue to strengthen over the remaining part of the year, thereby eroding exports' competitiveness. The **EU's** SMP exports increased by 8 percent up to March 2018. Owing to competitive prices and lively demand in its traditional markets of Algeria and Egypt, the **EU's** exports over the full year are anticipated to rise by 5 percent, compared to a 36-percent increase registered in 2017. In **Canada**, supported by implementation of the new ingredient Class-7, a new milk class implemented in early 2017, part of the National Ingredient Strategy designed to positively position the dairy industry, investment has expanded in the SMP processing industry, boosting production and expanding exports. Trade agreements are expected to provide further help in maintaining the positive momentum. By contrast, in **New Zealand**, higher profitability of alternative combinations of dairy products is likely to dampen SMP production and exports.

Butter

World butter exports, which declined by 11 percent in 2017, are currently forecast to recover partially, rising by 2.3 percent to 875 000 tonnes, still short of the 963 000 tonnes registered in 2016. The 2018 increase in world butter trade is anticipated to be fuelled

Figure 6. SMP: Major exporters

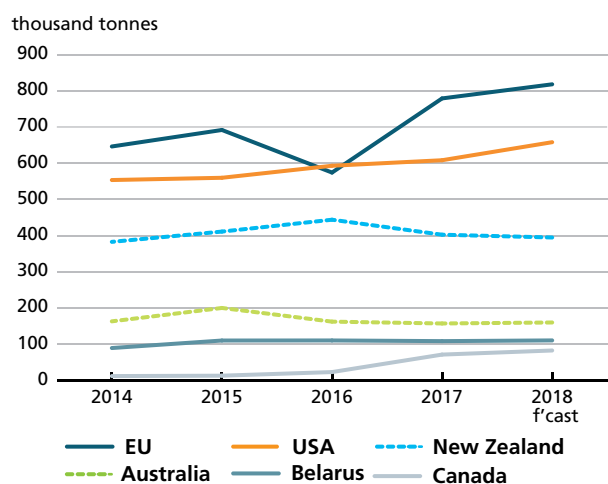
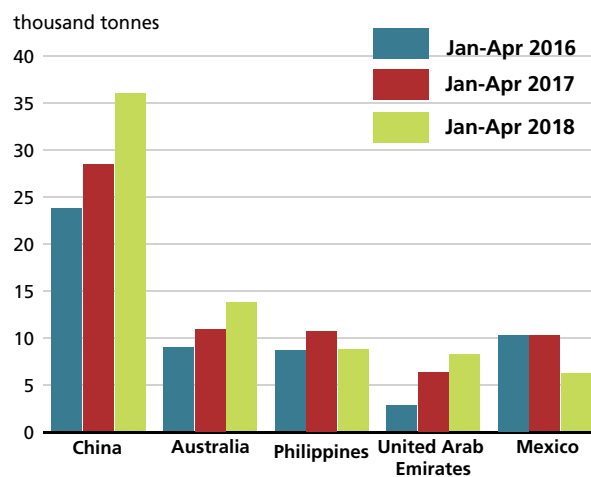


Figure 7. New Zealand's butter exports by main destinations



by a sustained growth in imports by **China** and the **United Arab Emirates**, and by recovery of purchases by **Mexico, Egypt**, the **United States, Morocco** and **Saudi Arabia**. **China's** butter imports are forecast to rise by 14 percent in 2018 in response to strong demand from affluent consumers. Rising demand from the food processing industry is encouraging **Mexico** to import more butter this year, despite growing domestic production. Butter imports by **Egypt** are likely to rebound, while still below the 2016 level. By contrast, the **Russian Federation** and **Canada**, but also **Australia** and the **Islamic Republic of Iran**, look set to purchase less in 2018, reflecting in most cases an expanding domestic production. In the case of the **Russian Federation**, accumulated butter stocks have also contributed to the expected drop in imports.

On the supply side, most of the increased demand for butter is forecast to be met by the **EU, New Zealand, Australia, Belarus** and **Mexico**. In the **EU**, butter production expansion is anticipated to generate a higher exportable volume in 2018. In **New Zealand**, processors are likely to produce more butter, prompted by a surge in import demand for both butter and newly produced SMP, especially from **China**. **Belarus** is forecast to expand butter exports, with the increase facilitated by its access to new markets. The **United States, Ukraine** and **India** are forecast to maintain export momentum in 2018, although they are likely to face stronger competition, as several of the countries that had lost market shares in 2017 such as **Australia, the EU** and **New Zealand** are likely to export more this year.

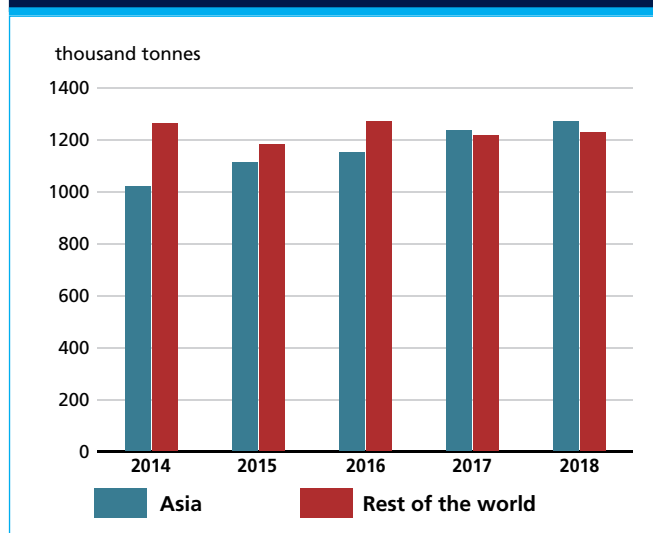
Cheese

World cheese exports are forecast to expand for a third successive year, growing by 1.8 percent in 2018 to nearly

2.6 million tonnes. In 2018, cheese purchases by four of the world's largest importing countries – **Japan, the Russian Federation, Saudi Arabia** and **China** – are expected to rise further, while those of the **United States** are forecast to decline. Asia's imports, principally led by **China, Japan** and the **Republic of Korea**, are forecast to account for 51 percent of the global cheese market this year. Imports are still increasing, buoyed by rising demand for cheese, fostered by growing incomes, changing food habits and the spread of restaurant chains that use cheese as a key food ingredient. In addition, **Canada, Mexico** and the **United Arab Emirates** are expected to step up their cheese purchases in 2018, but imports are likely to change little in the **Republic of Korea**, and to fall in the **United States** and **Iraq**.

Among the key global exporters, the **EU, the United States, New Zealand, Australia, Argentina** and **Turkey** are expected to increase their sales. The **EU's** cheese export outlook is positive, boosted by increased domestic production and strong import demand, especially from Asia. EU-origin cheese with geographic labelling has continued to make strong inroads into the Japanese market. The **United States** is also expected to export more cheese in 2018, underpinned by higher export availabilities and expanding demand from overseas buyers, including from certain restaurant chains; however, this might be affected by the stronger US dollar. In **New Zealand**, cheese production continues to expand, driven by higher producer margins and strong import demand, providing a positive outlook for exports in 2018. Improved milk production, strong import demand from East Asia and competitive prices are also likely to boost **Australia's** sales of cheese to foreign markets.

Figure 8. Cheese imports



FISH AND FISHERY PRODUCTS

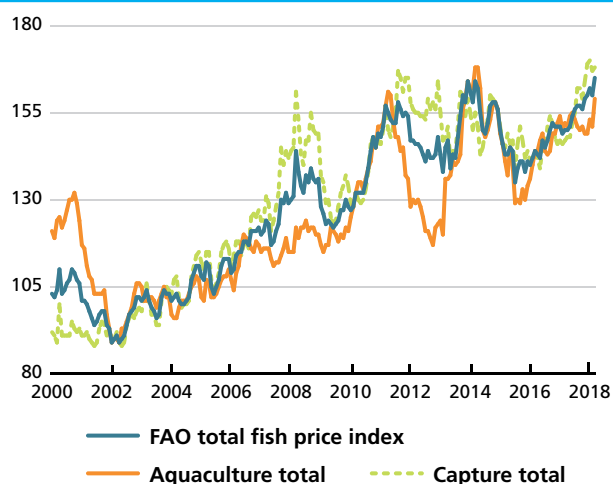
Major Exporters and Importers of Fish and Fishery Products



Strong demand and production forecast, with high prices for many seafood categories

Strong global seafood demand in 2017 can be expected to continue throughout 2018, given the relatively positive economic outlook for both developed and developing markets. Overall, the total value of international seafood trade is projected to rise by 8.3 percent in US dollar terms. Global fish production increased by an estimated 2.4 percent in 2017 following the departure of El Niño and is forecast to rise a further 2 percent in 2018 on the back of a good outlook for the important Peruvian anchovy

Figure 1. The FAO Fish Price Index (2002-2004=100)



Source: FAO Fish price index is Norwegian Seafood Council (NSC)

Table 1. World fish market at a glance

	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	Change: 2018 over 2017
	<i>million tonnes (live weight)</i>			<i>%</i>
WORLD BALANCE				
Production	170.9	175.1	178.7	2.0
Capture fisheries	90.9	91.5	91.7	0.2
Aquaculture	80.0	83.6	87.0	4.0
Trade value (exports USD billion)	142.5	153.1	165.8	8.3
Trade volume (live weight)	59.5	60.5	60.8	0.7
Total utilization	170.9	175.1	178.7	2.0
Food	151.2	154.4	157.6	2.1
Feed	14.6	15.6	15.8	1.0
Other uses	5.1	5.1	5.2	2.9
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
Food fish (kg/yr)	20.3	20.5	20.7	1.0
From capture fisheries (kg/year)	9.5	9.4	9.3	-1.2
From aquaculture (kg/year)	10.7	11.1	11.4	2.9
FAO FISH PRICE INDEX (2002-2004=100)	2016	2017	2018 <i>Jan-Mar</i>	Change: Jan-Mar 2018 over Jan-Mar 2017 <i>%</i>
	146	154	163	8.3

Source: FAO Fish price index is Norwegian Seafood Council (NSC)
Totals may not match due to rounding

fishery. Although further expansion in international seafood trade is anticipated overall, tighter supply for a number of highly traded species for global trade, combined with continuing demand growth will keep prices up for certain key commodity categories. Although this is a generally positive outlook for producers, supply intermediaries may suffer economically due to delayed price transmission, while sustained high prices can also erode consumer demand over time. Additional risks that could potentially impact demand are an economic slowdown caused by rising interest rates and the possibility of further escalation of the 'trade war' between the United States and China, both of which are key players in international seafood trade.

SHRIMP

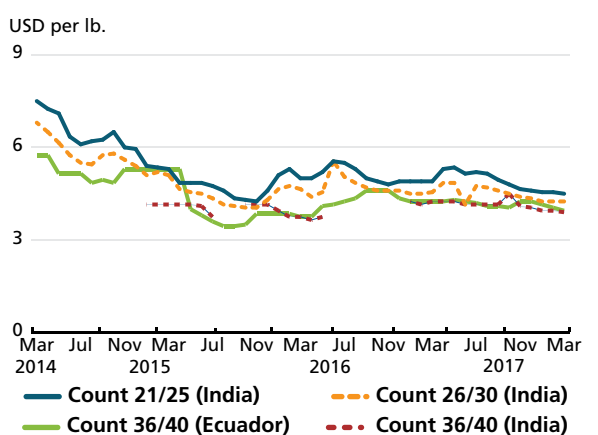
The 2018 shrimp farming season in Asia started in April/May with positive harvest expectations for the major Asian producers. Export prices of vannamei from India, where production has been booming, softened over the first half of the year. This has in turn pushed down vannamei

Table 2. Japanese imports of shrimp (by product)

	2013	2014	2015	2016	2017
	<i>Jan-Dec (thousand tonnes p.w.)</i>				
Frozen, raw	187.3	162.3	153.1	163.0	170.9
Cooked, frozen	24.2	20.1	19.5	19.6	19.4
Prepared/preserved*	45.7	36.8	37.5	38.8	39.8
Sushi (with rice)	2.2	2.0	2.4	2.8	2.7
Total*	262.1	223.4	213.7	223.5	234.4

(*Including other)
p.w.: product weight
Source: Japan Customs/INFOFISH

Figure 2. Ex-warehouse prices of shrimp in New York, USA*



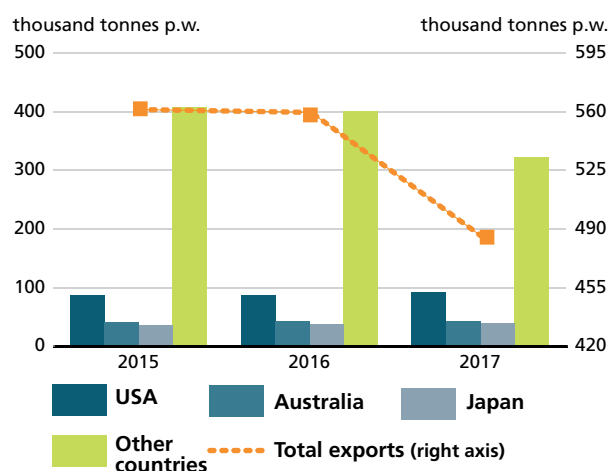
Note: Headless, shell-on, farmed vannamei, ex-warehouse, NY, USA
Source: INFOFISH Trade News

prices in other producing countries, including Thailand, Viet Nam, Indonesia, and Ecuador. This downward adjustment is expected to be sustained by seasonal rises in production over the coming months. A relatively low incidence of disease compared with previous years, and high inventories in the US market after a significant rise in imports in 2017, are contributing to plentiful global supply and the associated lull in prices. In the European Union, the competitive position of importers has been additionally strengthened by a stronger euro, and import volumes can be expected to rise this year. In China, meanwhile, buying activity has slowed amidst a reported excess of inventory, and it is not expected to pick up until after the summer. Overall, the industry is hopeful that an improved economic outlook and demand later in the year will be sufficient to prevent further price declines, despite the expectation of another strong production year.

TUNA

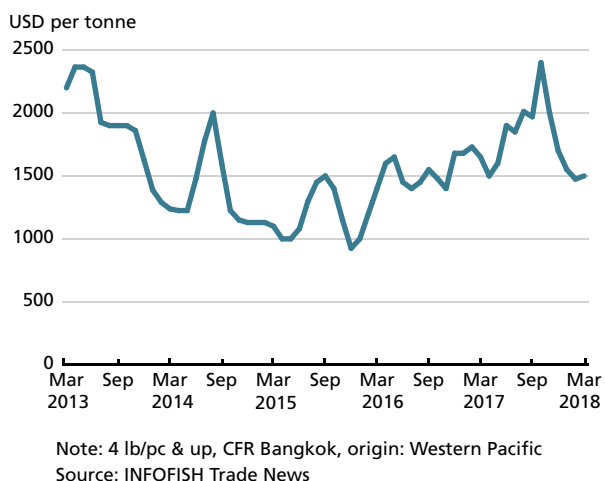
From January to May 2018, catches of skipjack in the Western and Central Pacific improved moderately and the delivery price of frozen skipjack from these fisheries to Thai canneries remained firm at around USD 1 800 per tonne. However, during the July to October Fish Aggregating Device (FAD) fishing ban period, catches are forecast to be lower, and prices may subsequently rise further. At the Global Tuna Trade Conference held in Bangkok during late May 2018, US tuna marketers confirmed the positive demand trend for non-canned frozen tuna in the United States, continuing even amidst rising prices. In the canned tuna category, consumer demand is expected to

Figure 3. Thailand exports tuna canned



Source: Thai Customs

Figure 4. Prices skipjack: Thailand

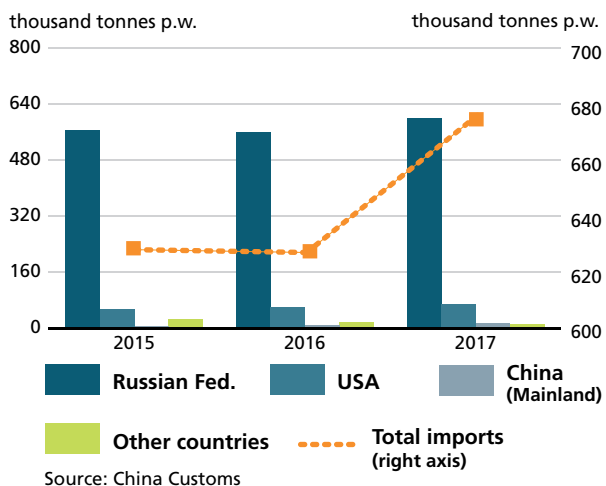


remain positive for higher-value canned tuna, pouched albacore and solid yellowfin, and relatively weaker for conventional tuna in brine. In Europe, the seasonal increase in tuna consumption can be expected to translate into stronger consumer demand for canned tuna during the summer months. However, rising raw material prices may have a negative impact on canned tuna imports. In emerging markets in the Middle East and Africa, positive demand for canned tuna is forecast for the rest of 2018.

GROUND FISH

The 2018 total allowable catch (TAC) for Alaska pollock in the Bering Sea has been set at 1 364 341 tonnes, up 19 000 tonnes compared with last year, while the TAC for

Figure 5. China imports Alaska Pollock



Pacific cod was reduced by 15 percent to 204 101 tonnes. The reduced quotas for cod and haddock saw prices overall rise moderately early in the year, helped by strong demand for both species at the retail level. Over the 12-month period from February 2017 to February 2018, retail sales of haddock rose 4.3 percent by volume, and 6.7 percent by value. Haddock prices in the United Kingdom increased by 2.2 percent during the same period, while cod prices increased by 5.5 percent. Demand for Alaska pollock fillets has also been strong, and is expected to be even stronger in the second half of 2018. US consumers have embraced the wild and domestic origin of the product, and it is competing well with foreign products. The general groundfish outlook for 2018 is for tighter supplies of almost all species. Alaska pollock, in particular, will be in great demand and supplies are likely to be insufficient. Cod and haddock supplies will also be tight, and prices are expected to increase further.

CEPHALOPODS

With continued growth in demand for octopus, global resources have been heavily fished for many years and supplies are now low. This is reflected in reduced trade and higher market prices. The general outlook is for continued tight octopus supply, with potential for further price increases. For squid, there has also been a shortage of supplies in some regions, particularly in the Republic of Korea, due to poor fishing in the East Sea. However, squid supplies have been abundant in other regions, with the Argentine squid season off to a good start in 2018, reporting landings of 22 000 tonnes of *Illex argentinus* during the first three weeks of fishing. Overall, squid

Figure 6. Export prices of cod in Norway

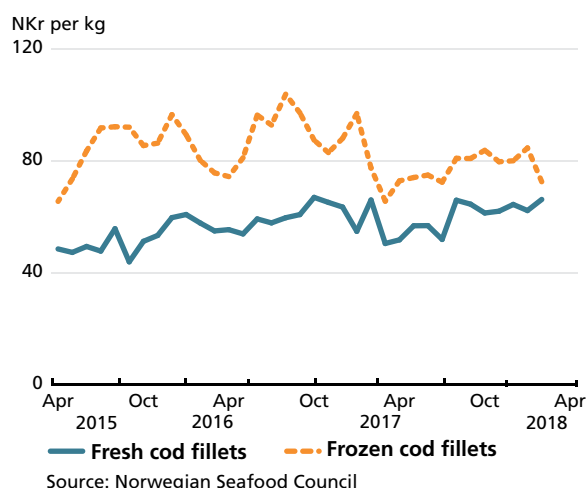
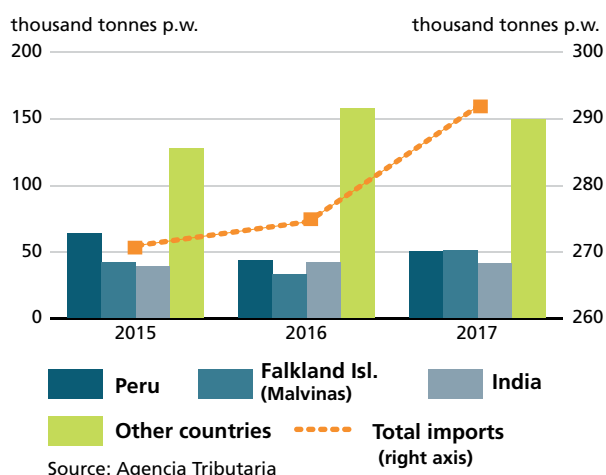


Figure 7. Spain imports of squid and cuttlefish

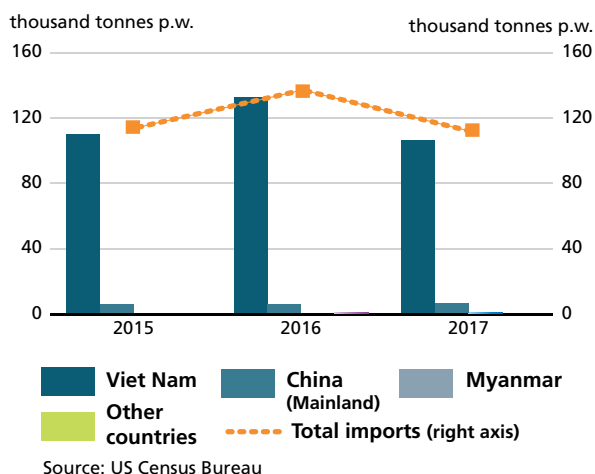


supplies are expected to be relatively more plentiful this year, boosted by these good landings in South America. Squid trade should increase, with China as lead importer and exporter, while prices can be expected to stay relatively stable or to decline marginally.

PANGASIUUS

Prices of pangasius fillets have reached record levels in 2018, driven by a combination of raw material shortages and strong demand. While the large developed markets in the United States and the EU remain weak, positive growth in emerging markets in Latin America and East and Southeast Asia is supporting the current price level. The leading producer, Viet Nam, is targeting more than USD 2

Figure 8. US imports of catfish



billion in exports in 2018, with China overtaking the United States as its most important market. Trade with the United States has been challenging for Vietnamese exporters in recent times, following the United States Department of Commerce's decision to impose anti-dumping duties on shipments of Vietnamese pangasius. This is likely to continue to impact imports into the US market, but the industry nevertheless expects overall demand to lift prices further in 2018.

TILAPIA

China, already the leading producer and exporter of farmed tilapia, is now seeing steady domestic demand growth supported by the rapid development of retail marketing networks and cold chain infrastructure. Of its major export destinations, the large US market weakened further in 2017 despite lower average import prices, indicating a decrease in consumer demand that has persisted into 2018. African markets continue to hold considerable potential for further growth, while domestic and regional markets for Asian producers are also growing in importance. Global production levels are forecast to rise in 2018, and producers will be hoping that the expected further drop in prices will boost demand in the traditional core markets.

SEABASS AND SEABREAM

The Mediterranean seabass and seabream aquaculture industry, led by Greece and Turkey, is currently experiencing a rise in marketing and investment activity, as well as horizontal consolidation and vertical integration. An important factor driving this development is the need to

Table 3. Chinese exports of tilapia

	2015	2016	2017
<i>Jan-Dec (thousand tonnes p.w.)</i>			
FROZEN WHOLE			
Côte d'Ivoire	20.8	29.5	27.4
USA	22.6	25.6	22.6
Burkina Faso	6.9	3.5	7.5
Other countries	82.3	74.3	74.1
Total	132.7	132.8	131.6
FROZEN FILLETS			
USA	84.0	62.5	57.9
Mexico	24.0	28.9	21.1
Iran (Islamic Rep. of)	10.7	16.4	13.5
Other countries	34.5	38.6	44.0
Total	153.3	146.4	136.6

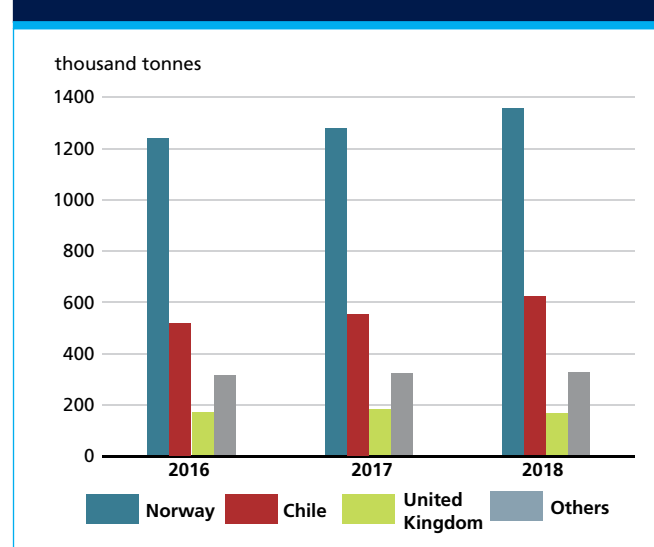
Source: Trade Data Monitoring

increase efficiencies and develop new markets to offset rapid supply growth, which has pushed prices down. In Turkey's case, producers' profit margins are protected from price declines by a large drop in the value of the Turkish lira versus the euro over the past few years, in addition to the recovery of the Russian Federation market and the success that Turkish exporters have had in developing new markets in the Middle East. For EU-based producers, however, a general improvement in economic conditions in the key markets of Italy, Spain, France and the UK is unlikely to be sufficient to lift prices from their current level, given the expectation of higher harvests across the Mediterranean in 2018.

SALMON

Initial forecasts of some 8 percent growth in global farmed Atlantic salmon harvests in 2018 have been revised downwards due to a winter period that saw colder water temperatures and higher than anticipated losses in European waters, as well as some algal blooms in Chile. After some temporary relief from exceptionally high price levels, brought about by the relative surplus of fish that hit the market in late 2017, farmed Atlantic prices returned to near record levels in the second quarter of 2018. A favourable exchange rate has enhanced the effect on revenues for the Norwegian industry, in particular. Forward prices suggest that a softening of prices can again be expected in the second half of 2018, but the medium-term outlook is for continuing tight supply relative to the rapid rate of growth in global demand. In the longer term, investment in new regions should not have a significant impact on total supply for some years to come, and

Figure 9. Top three global producers of farmed Atlantic salmon



alternative farming systems such as closed-containment are not yet viable on a large scale. Thus, aggregate demand should continue to be more than sufficient to absorb current volumes at profitable prices for producers, so long as relatively stable economic conditions persist in core markets, including in large emerging markets such as Brazil, the Russian Federation and China. In the wild salmon sector, catches in the Russian Federation should be offset at the global level by an expected reduction in Alaskan harvests in 2018.

SMALL PELAGICS

In 2018, landings of Atlantic mackerel are expected to decline slightly. Norway, one of the world's major suppliers, is expected to land about 277 000 tonnes, compared with 348 000 tonnes in 2017. With mackerel inventories lower than last year, prices are forecast to rise. Atlantic herring quotas are set to be slightly reduced in 2018 compared with 2017, based on the advice given by International Council for the Exploration of the Sea (ICES), and consequently landings are anticipated to drop somewhat. Norway is expected to land about 484 000 tonnes of Atlantic herring, down from about 560 000 tonnes in 2017. Overall, prices for both mackerel and herring are expected to weaken, but may recover slightly during the second half

Table 4. Chilean exports of salmon

	2015	2016	2017
<i>Jan-Dec (thousand tonnes)</i>			
FRESH			
USA	99.5	96.1	95.3
Brazil	80.6	67.8	73.1
China	6.7	13.5	11.2
Other countries	12.6	11.9	13.3
Total	199.4	189.3	192.9
FROZEN			
Japan	112.6	82.6	95.8
Russian Federation	56.4	45.8	40.1
USA	16.0	17.6	18.8
Other countries	110.4	103.7	101.8
Total	295.3	249.7	256.5
PREPARED			
USA	1.9	1.3	1.4
Japan	0.1	0.0	0.3
Canada	0.2	0.2	0.2
Other countries	0.8	0.6	0.6
Total	2.9	2.1	2.5

Source: Trade Data Monitor
(small shares of product type like salted not included)

Table 5. Norwegian exports of small pelagics

	2015	2016	2017
<i>Jan-Dec (thousand tonnes p.w.)</i>			
MACKEREL			
China	51.9	51.5	71.5
Japan	62.8	64.4	62.4
Republic of Korea	27.7	38.8	38.0
Other countries	217.1	154.1	165.9
Total	359.5	308.7	337.8
HERRING			
Denmark	26.0	21.5	36.5
Egypt	12.5	12.1	32.4
Ukraine	25.2	34.1	31.3
Other countries	97.1	97.8	125.0
Total	160.8	165.5	225.2

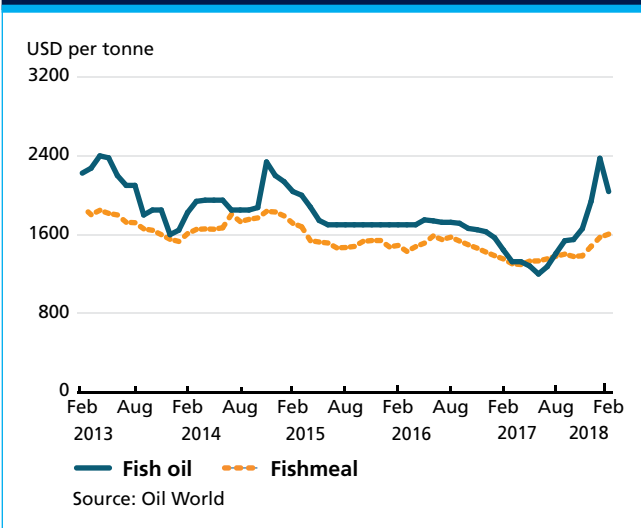
Source: Trade Data Monitoring

of 2018. The supply outlook for the 2018 anchovy fishery is for a significant increase in catches, up to an estimated 1.8 million tonnes. For horse mackerel, a slight increase is expected due to the more extensive presence of cold water in the coastal zone of south-central Chile. Meanwhile, total capelin landings are expected to increase to some 200 000 tonnes, most of which will be used for reduction purposes, with some 17 000 reserved for direct human consumption.

FISHMEAL AND FISH OIL

The quota for the first anchovy fishing season in 2018 in Peru's north-center fishing region has been set at 3.32 million tonnes, which has been interpreted by the industry as signaling an ample supply of fishmeal and

Figure 10. Prices of fish oil/fishmeal in Europe



fish oil for the rest of 2018. With relatively good progress in landings of small pelagics from other producers, fishmeal and fish oil products are likely to be relatively plentiful on the market over the coming months. This is reflected in prices for fishmeal and fish oil, which have corrected downwards from their seasonal peak, and will probably level off at the current rate, or even trend further downwards if good landings continue to be reported for the remainder of the year.

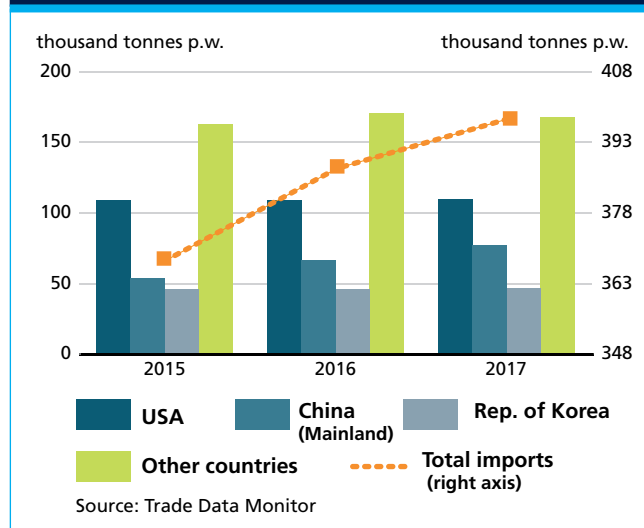
CRAB

Total quotas for snow crab have been cut significantly in Canada and the United States. The global supply of snow crab is therefore expected to be limited to around 104 000 tonnes in 2018. This is a reduction of about 10 percent from 2017, and a 30 percent reduction from 2015, when the amount landed was 150 000 tonnes. With the expected tighter supplies, it is anticipated that snow crab prices will continue to rise throughout the year. The same goes for king crab prices, despite an increase in the Russian king crab quota (from 21 000 tonnes in 2017 to 26 000 tonnes in 2018). Prices for blue swimming crab from Southeast Asia are also very high, and are expected to remain that way. Global trade in crab appears to be increasing, despite a decline in Japanese import volumes, with the three main importers (United States, China, and the Republic of Korea) reporting increased imports.

BIVALVES

Demand for bivalves is growing worldwide. All major consuming countries are reporting high buyer interest in

Figure 11. Top three importers of crab

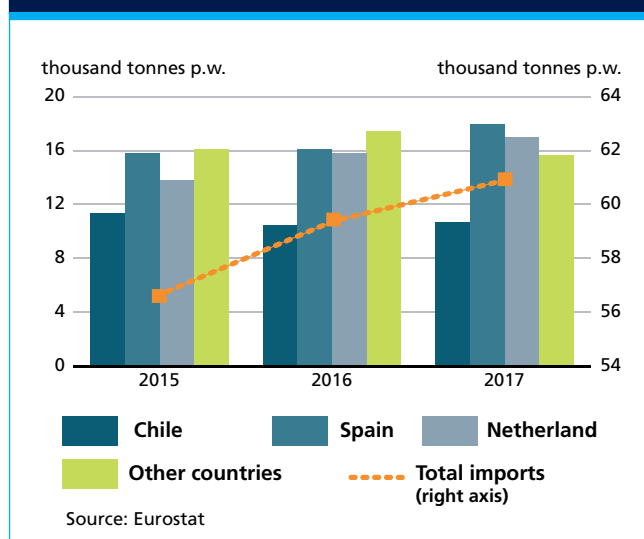


bivalve products. As one of the most versatile products in terms of product presentation, bivalves are also increasingly being used in the preparation of convenient, ready-to-eat meals. Production is growing with the recovery of the Peruvian scallop industry and a good outlook for mussel harvests, but it is not sufficient to meet current global demand, leading to rising prices in all major markets across multiple bivalve species. Further increases in demand for bivalves are expected amidst a positive economic environment in North America and Europe, as well as strengthening demand in China, resulting in traders' price expectations being extremely high.

LOBSTER

Production of lobster in warmer areas may be improving, but the overall picture in 2018 will be one of tighter supplies and higher prices. China's rapidly growing appetite for lobster, particularly from North America, seems to be the main driver of the global market, while demand for Australian rock lobster is also very strong. The sustained decline in US lobster exports to the EU, which accelerated after Canada and the EU signed a bilateral trade agreement in September last year, has been somewhat compensated for by increased exports to Asia. At the consumer level,

Figure 12. EU imports of mussels



prices are up by almost 50 percent compared with two years ago, spiking during festive periods in core markets. Total supplies of lobster will decrease in 2018 if predictions about the decline in the Maine lobster fishery are correct, and this will push prices upwards.

SPECIAL FEATURES

MINOR TROPICAL FRUITS

Mainstreaming a niche market

Contributed by:

Sabine Altendorf

Sabine.Altendorf@fao.org

As a follow-up to the assessment of global prospects for major tropical fruits published in the November 2017¹ issue of Food Outlook, this special feature focuses on developments in minor tropical fruits markets.

Contrary to their major counterparts, only a small share of minor tropical fruit production enters local markets, and, with few exceptions, the different varieties continue to be little known outside the areas where they are grown. However, production and trade of minor tropical fruits are gaining importance globally, mainly in recognition of their contribution to a healthy diet. In producing areas, minor tropical fruits play an important role not only in food and nutrition security but also as a source of income. Available household surveys from key producing areas indicate that the revenue from minor tropical fruits can account for up to 75 percent of the entire income of small rural households. In Cambodia, for example, fruits and vegetables are the second most important crop after rice, and provide the main additional source of income for most households in the country. In terms of agricultural export earnings, trade in minor tropical fruits weighs non-trivially in Thailand and Viet Nam. For Thailand, the latest estimates point to revenues of nearly USD 1.3 billion – or 7 percent of total agricultural earnings – from exports of minor tropical fruits in 2017.

In international markets, minor tropical fruits are still regarded as a novelty or niche product. Only a small number of varieties tend to be available either through ethnic markets targeting migrant consumers, mostly of Asian origin, or premium retail channels targeting conspicuous and affluent consumers. However, market opportunities have shown to be developing rapidly in China and other emerging markets on the back of income growth and urbanization. Demand is also set on an upward trajectory in key developed markets, most importantly the US and EU, mainly in response to increasing health awareness and changing dietary preferences.

¹ <http://www.fao.org/3/a-18080e.pdf>

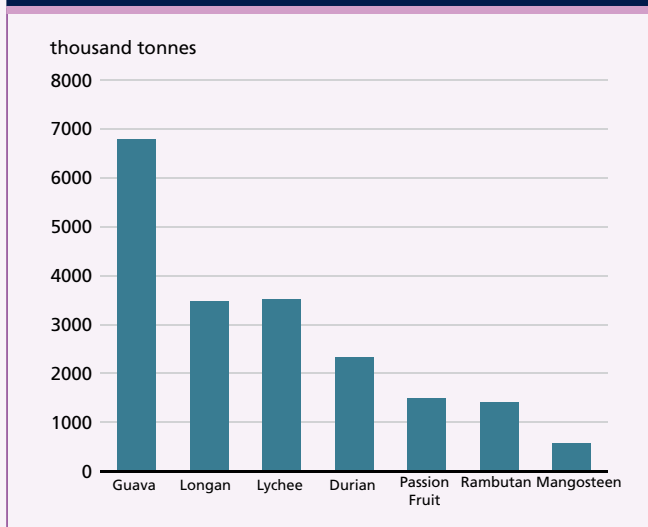
PRODUCTION²

Following a decade of strong growth at an annual average rate of 3.8 percent, global aggregate production of minor tropical fruits suffered some weather-related declines in 2016 and 2017, arriving at an estimated 24 million tonnes in 2017. The value of production of minor tropical fruits is estimated at close to USD 20 billion in 2017. The bulk of these tropical fruits, in both volume and varietal terms, is produced in Asia, which is estimated to have accounted for 86 percent of aggregate global production over the 2015-2017 triennium. India and China rank as the largest producers, accounting for 24 percent and 22 percent of total global output in 2015-2017 respectively, but their produce is almost exclusively destined for domestic markets. Other significant producers are mostly located in Southeast Asia, with Thailand, Indonesia and Viet Nam accounting for approximately one third of global output combined. Brazil, as the leading producer of passion fruit, meanwhile held an estimated share of 7 percent of total global minor tropical fruit production in 2015-17. Again, production in Brazil is primarily for local consumption. Strong domestic demand helps sustain robust price levels.

The largest of the minor tropical fruits in output terms is guava, with an estimated volume of 6.8 million tonnes over the triennium 2015-2017. Longan and lychee, two fruits of the soapberry family, accounted for an estimated production of 3.4 and 3.5 million tonnes, respectively. Production of durian, a highly popular fruit in Southeast Asia and China, was estimated at 2.3 million tonnes in 2015-2017. Meanwhile, rambutan, another popular fruit in Asia, and passion fruit, a staple in the fruit basket of Brazil, reached production volumes of around 1.4 million tonnes each in 2015-2017.

² Given the informality of production, most producing countries do not routinely record or collect data on minor tropical fruits, rendering analyses difficult. This report presents an assessment of the current situation of global minor tropical fruit production and trade, based on data collected and conveyed to the FAO by some producing countries, industry sources, as well as desk research of secondary data sources.

Figure 1. Annual average production by type (2015-2017): Guava dominates the minor tropical fruit landscape



Source: Official and unofficial sources including author's estimates

Production of jackfruit³ amounted to an estimated 3.7 million tonnes in 2015-2017. Jackfruit is a widely known staple fruit in India and Bangladesh, where it is mostly prepared as a meat substitute, appearance- and taste-wise. Given jackfruit's rich micronutrient profile, the fruit plays a significant role in the nutrition security for its consumers. Average output of jackfruit stood at approximately 1.8 million tonnes in India over 2015-2017, 1 million tonnes in Bangladesh and around 700 000 tonnes in Indonesia. In all countries, jackfruit production has seen fast growth in response to increasing domestic demand.

³ Estimates on global jackfruit production are currently included in the 'Others' category in the statistical tables, which further includes production volumes of carambola (star fruit); dragonfruit; salak (snakefruit); and lansat.

TRADE

Previously little known outside the Far East, where the bulk of minor tropical fruits is produced and consumed, trade has moved minor tropical fruits outside their narrow original confines. The bulk of trade takes place within Asia, where demand for premium fruits is strongest in countries experiencing rapid income growth. This particularly applies to demand from China, the largest importer and the main recipient of minor tropical fruits from Thailand, the leading exporter.

In developed markets, import demand has evolved with migration, with consumers of Asian origin tending to maintain their dietary preferences. Higher health consciousness among Western consumers and the growing awareness of the nutritional benefits of minor tropical fruits are adding to demand for these fruits in developed markets. Retailers in the US and EU have started to routinely stock a growing array of minor tropical fruits, most importantly the better known fruits such as lychee, guava and passion fruit.

Global data on the trade of minor tropical fruits remain difficult to obtain, since apart from durian, there is no explicit Harmonised System (HS) classification for the individual fruits.⁴ As such, HS trade data on guava and mangosteen are reported together with the more important mango. The three fruits combined reached a trade volume of 1.7 million tonnes in 2017⁵, but available information

⁴ Given the small volumes of traded quantities, and as per regulation of the World Customs Organization, data on fruit with an annual trade value of less than USD 50 million are collected at an aggregate level. Even at the 'tariffline' – HS codes of higher than 6 digits – information remains sparse on species of minor tropical fruit.

⁵ Comprehensive analysis on recent developments and the outlook for major tropical fruits (including mango as well as pineapple, papaya and avocado) can be found in the November 2017 issue of Food Outlook (<http://www.fao.org/3/a-I8080e.pdf>).

Table 1. Minor tropical fruit key producing regions and countries ('000 mt) Average (2015-2017)

	World	Asia	Africa	Centr. America & Car.	S. America	Dev'd	Dev'ing	China	India	Indonesia	Thailand	Viet Nam	Brazil	Malaysia	Pakistan	Philippines
Guava	6 752.5	5 519.3	435.6	223.5	574.1	36.7	6 715.9	365.5	3 885.0	264.8	218.1	24.2	353.2	49.5	474.2	10.8
Lychee	3 477.2	3 333.4	124.3	19.5	-	9.3	3 468.0	2 215.8	567.0	-	52.8	374.8	-	-	4.3	-
Longan	3 445.4	3 445.4	-	-	-	-	3 445.4	1 919.4	-	-	980.3	517.1	-	-	-	-
Durian	2 295.0	2 295.0	-	-	-	-	2 295.0	-	-	862.1	717.6	253.0	-	381.6	-	74.7
Passion Fruit	1 468.8	181.5	39.1	6.3	1 241.8	31.3	1 437.5	-	-	114.6	10.0	20.0	948.1	5.0	0.2	0.4
Rambutan	1 386.1	1 386.1	-	-	-	-	1 386.1	-	-	692.0	344.8	261.4	-	62.7	-	7.7
Mangosteen	545.9	545.2	-	-	0.6	-	-	-	-	172.0	349.7	-	-	20.9	-	-
Others	5 205.4	5 202.1	-	-	3.3	-	-	-	1 854.7	1 694.0	-	513.3	-	50.2	-	-
Total	24 576.3	21 908.1	599.0	249.3	1 819.9	77.3	18 747.8	4 500.7	6 306.7	3 799.6	2 673.3	1 963.7	1 301.3	569.9	478.7	93.6

Source: Official and unofficial sources including author's estimates

suggests that guava and mangosteen accounted for shares of only 5 and 3 percent of the total, respectively.

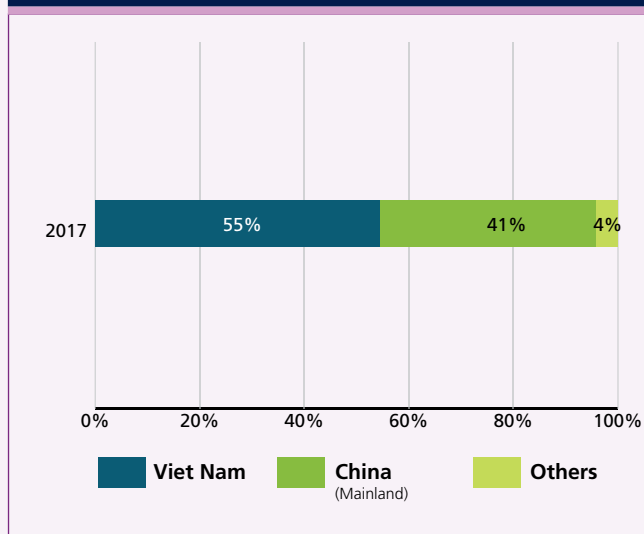
Trade data for longan, lychee, passion fruit and rambutan are clustered under the Harmonised System (HS) code 081090, together with other fresh fruit that are not classified separately because of their limited importance at the international level. This group collectively reached a global trade volume of 2 million tonnes in 2017. Within this cluster, Viet Nam and Thailand ranked as the largest exporters, accounting for 32 percent and 23 percent of global shipments, respectively, in 2017. Notably, Viet Nam registered fast trade growth for minor tropical fruits over the past decade, expanding export volumes from a total of 59 000 tonnes in 2007 to an estimated 600 000 tonnes in 2017 (all items in HS code 081090).

Similarly, exports of minor tropical fruits from Thailand, the largest supplier overall, nearly tripled over the past decade, from 332 000 tonnes in 2007 to 930 000 tonnes in 2017. Minor tropical fruits constitute important commercial crops in Thailand, with half of all production destined for exports, predominantly to China and Viet Nam. For durian, global trade reached an estimated 609 000 tonnes in 2017, up from 172 000 tonnes a decade ago, with Thailand again having consistently dominated exports over this period to the tune of 90 percent

OUTLOOK

While overall, global trade in fresh minor tropical fruits is estimated to account for only approximately 10 percent of production, there is ample commercial potential for exporters, including low-income countries. With wholesale unit prices

Figure 2. Value of Thai exports by destination 2017



Source: Official and unofficial sources including author's estimates

Table 2. Estimated volumes of global trade in minor tropical fruit ('000 mt)

	2007 ¹	2017 ²
Durian	171 627	609 000
Guava	22 818	85 000
Mangosteen	17 113	51 000
Others ²	957 476	2 000 000
Total	1 169 034	2 745 000

Source: Official and unofficial sources including author's estimates

¹ Preliminary estimates.

² Data refer to HS code 081090, which clusters other fresh fruit that are not identified separately because of their minor relevance in international trade. The group includes, *inter alia*, data on longan, lychee, passion fruit and rambutan. Figures in this table exclude export volumes of durian, which are reported separately.

Figure 3. US Wholesale prices

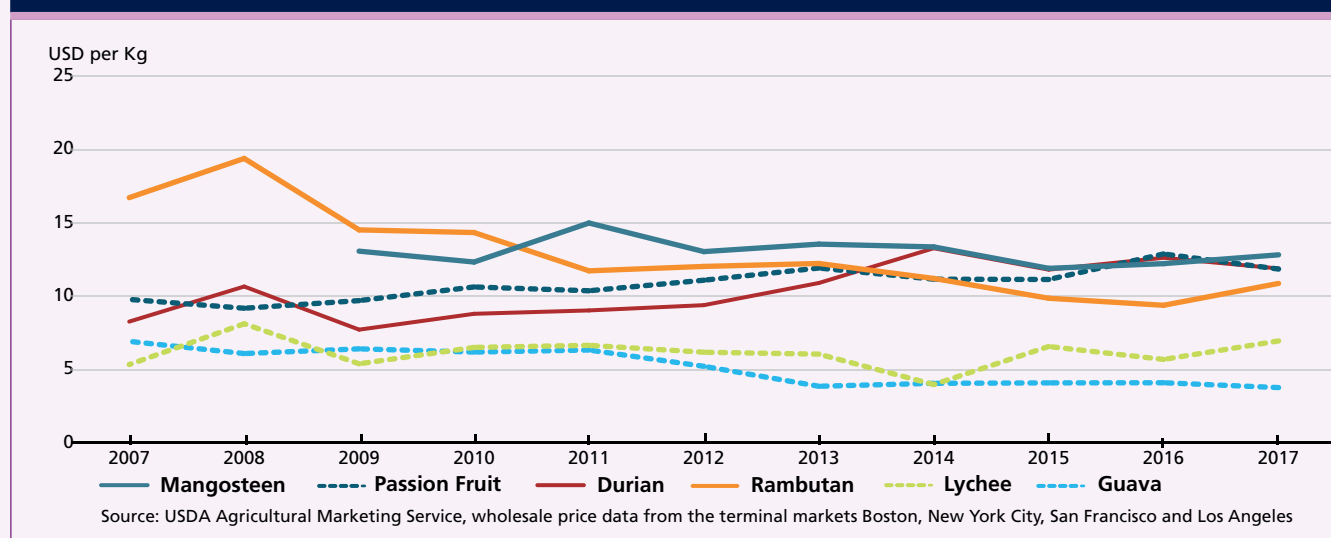


Table 3. Evolution of exports from Thailand 2007-2017 ('000 mt)

Tonnes	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Durians	157 407	203 127	256 172	207 501	271 948	351 124	367 056	369 602	358 192	403 634	488 716
Guavas	2 183	1 567	2 001	2 426	3 043	2 896	4 069	4 985	5 901	6 360	6 625
Jackfruit (incl. Cempedak & Nangka)	607	3 028	8 623	12 283	16 548	18 201	17 644	20 642	21 476	31 938	32 453
Longans	112 752	91 567	144 154	72 705	162 441	129 255	140 232	196 666	110 729	125 526	213 981
Lychees	10 372	5 880	16 811	6 496	3 750	11 642	3 461	8 138	4 260	4 748	4 900
Mangosteens	46 860	43 979	117 690	119 263	111 451	148 844	215 182	195 108	178 384	142 877	205 467
Rambutan	2 241	5 521	5 347	7 822	12 027	11 242	4 222	3 882	6 743	2 233	9 333
Total	332 423	354 669	550 797	428 496	581 208	673 204	751 866	799 026	685 686	717 316	961 475

Source: Official customs data

in the US ranging from around USD 4/kg for guavas and lychees, to around USD 13/kg for durian, passion fruit and mangosteen, cultivating minor tropical fruits could be more lucrative to smallholder farmers than staple crops, provided post-harvest handling and transportation of these highly perishable fruits are managed efficiently and cost-effectively.

However, a number of challenges persist on both the supply and demand side in moving minor tropical fruits from niche to mainstream. On the supply side, these relate to either low quality or low productivity in small-scale farming, as well as high perishability, especially in the harvesting of fruit when ripe. Moreover, the cultivation of minor tropical fruits is mostly seasonal, often characterized by short harvesting periods, which results in irregular market supply and large price fluctuations. Weather-induced shocks and the impact of climate change often threaten flowering and fruit bearing, promote pests and diseases, and affect production stability and regular availabilities for exports. Consequently, prices for minor tropical fruits can display high levels of volatility. The erratic quantity and quality of supply in turn impedes market penetration, a problem that is often compounded by a lack of infrastructure and logistics necessary to get the highly perishable produce to markets swiftly. Improvements in post-harvest handling, new technologies to prolong shelf life and lowering the cost of distribution are therefore critical to opening new markets.

On the demand side, seasonal variations are also observed for some fruits such as lychee, longan and rambutan, which usually experience higher demand and

peak pricing during festive periods in both Asian and developed markets. European demand for lychee, for example, generally peaks in December and vanishes in January. Varying transport costs are another cause of price fluctuations, as are the costs associated with additional processing and preparation for retail sales. A lack of consumer awareness, high unit prices and increasing concerns about 'food miles'⁶ pose further obstacles to a more expansive international marketplace. Furthermore, phytosanitary certification requirements and stringent private standards imposed by supermarkets act as hindrances, especially for destinations in developed regions. Much of the future market penetration will be contingent on making these fruits more accessible to the consumer, most importantly by lowering their cost of production and distribution, enabling them to be offered at more competitive prices, and not least, through strengthening consumer awareness. As low-calorie but nutrient-rich products, minor tropical fruits could gain market shares in the context of rising overweight and obesity rates and related non-communicable diseases.

In the shorter term, a more promising stimulus to minor tropical fruit sectors could arise from south-south trade. Preliminary estimates for 2018 indicate that the value of exports of minor tropical fruit from Thailand to Viet Nam and China alone could exceed USD 1 billion. This highlights the importance and the potential of south-south trade when viewed in light of Thailand's total estimated minor tropical fruit revenue of USD 1.3 billion in 2017.

⁶ The perception that long distance value chains are environmentally unfriendly.

Commodity Focus

GUAVA AND MANGOSTEEN

At an estimated production volume of 6.5 million tonnes in 2017, guava is the largest of the minor tropical fruits in terms of production volume. The fruit is predominantly cultivated and consumed in Asia. India ranks as the major guava producing country, accounting for an estimated 56 percent of total global output in 2017. Adverse weather conditions were reported to have significantly reduced yields in the country, leading to a production decline by 10 percent, to 3.6 million tonnes, in 2017. Production in India is almost entirely directed towards domestic consumption, with only a negligible volume of approximately 2 100 tonnes exported to the US, EU, Saudi Arabia, Kuwait and Jordan. Other noteworthy producers, albeit at significantly lower levels,

include Pakistan, Egypt, China and Brazil. With respect to trade, Ecuador ranks as the key player, with an estimated export volume of 30 000 tonnes in 2017.

Production of mangosteen, predominantly pursued in Southeast Asian countries, reached an estimated 700 000 tonnes in 2017. The fruit, known for its appealing flavour, is also gaining recognition thanks to its antioxidant properties and versatile uses that span nutritional, pharmaceutical and industrial uses. Thailand ranks firmly as the leading producer and exporter of mangosteen, at an estimated output of 530 000 tonnes and reported shipments of 205 000 tonnes in 2017, an increase of 44 percent compared with 2016.

Purple mangosteen
@ kovalys



Guava fruit
@ nuwatphoto



LONGAN

Global production of longan increased by an estimated 6 percent in volume terms between 2016 and 2017, following strong demand in China and Thailand, the two largest producers. In total, world longan production is estimated to have reached 3.6 million tonnes in 2017, placing longan as the second most important minor tropical fruit behind guava. Originating in Southern China, the fruit is widely cultivated throughout Asia, including locations in India, Sri Lanka and Myanmar. However, large-scale production is only pursued in China, Thailand and Viet Nam, which currently account for approximately 50, 30 and 15 percent of global production, respectively.

A close relative to lychee, longan has seen rapid expansion in global production over the past decade, with an estimated 4.6 percent annual average growth over 2007-2016. Rising demand in China is the main driver of these developments, with both China itself and Thailand – as the largest exporter to China – investing heavily in crop expansion. Production growth in Thailand reportedly slowed in 2017 due to adverse weather conditions – both drought and excessive precipitation – leading to a slower growth rate than in 2016. Thai longans are particularly sought after in China and fetch higher prices due to their superior quality compared with domestically grown longans. Imports of longans by China reached approximately 49 000 tonnes in 2017, an annual increase of an estimated 140 percent.

Longan fruit
@ topphoto



Longan trees are considerably more productive than lychee trees, and harvesting can be postponed without the fruit losing quality. Longan's very high vitamin C content, and the fact that the fruit does not require chemical treatment to extend its shelf life, make it a popular substitute for lychee. Given the rising demand in China, the fruit's various positive attributes compared with lychee as well as the potentially larger profit margins, there is further commercial scope for moving to longan production. This is providing investment incentives to both existing growers and new market entrants. For example, longan growers in Australia have started to invest in production expansion to cater to rapidly growing import demand from China, and are expected to increase the volume of their shipments significantly.

LYCHEE

Global lychee production has endured year-on-year contractions since 2015 owing to unfavourable weather conditions in two of the key producing countries, China and Viet Nam. Total global output is estimated to have reached 3.3 million tonnes in 2017, representing a fall of 8 percent from the previous year.

The fruit is native to the southern region of China, and historically, the country has ranked as the largest producer with a global output share of around 60 percent. But in 2016 and again in 2017, adverse weather severely disrupted flowering in the country's key producing

Fresh lychees
@ tristantan71



province of Guangdong. Production of lychee in China almost exclusively caters for domestic demand and the fruit continues to be widely popular, despite growing competition from longan.

After China, India and Viet Nam rank as the second and third largest producers, with an estimated volume of 580 000 tonnes and 330 000 tonnes, respectively, in 2017. Lychee production in India predominantly serves its domestic market, while in Viet Nam, approximately half of its produce is exported, mainly to China, the US, Japan and Australia.

Africa is the second most important growing region for lychee. While output volumes for the continent are dwarfed by Asia, production is on a firm upward trajectory, reaching 131 000 tonnes in 2017. Madagascar is by far the leading producer, accounting for some 80 percent of the region's output. Much of the commercially grown crop is targeted for export, with EU member states, especially France and the Netherlands, being the principal destinations for African lychee. Production in South Africa reached an estimated 9 800 tonnes in 2017, of which 4 900 tonnes were delivered to the international market. The main export destination for African lychees is Europe, with France ranking as the core market for exports from Madagascar, and the Netherlands for exports from South Africa. Other destinations for South African shipments are the UK, Canada, Dubai and the US. In South Africa, lychee cultivation faces pressure from more lucrative crops like avocado and macadamia, which promise farmers better remuneration.

Marketing of lychee is difficult due to the fact that the fruit is highly perishable. Lychees deteriorate rapidly after harvest and have to be shipped within 24 hours of picking.

DURIAN

Global production of durian reached an estimated 2.4 million tonnes in 2017 on the back of favourable weather conditions and strong production growth in the main producing countries of Indonesia and Thailand.

With an estimated production volume of 840 000 and 860 000 tonnes, respectively, Thailand and Indonesia combined accounted for approximately 70 percent of world durian production in 2017, with the remainder produced by Malaysia and Viet Nam, at an estimated 390 000 and 270 000 tonnes, respectively. Durian is an exceptionally high-value crop, and, being one of the most prolific fruits in Southeast Asia, the market for durian is experiencing vibrant growth. Its popularity arises not only from its much-heralded taste, but also from its strong, yet unique odour.

Global trade in durian reached an estimated 609 000 tonnes in 2017, an increase of 18 percent compared with 2016. Thailand by far ranks as the main exporter of durian, accounting for an average 82 percent of world shipments over 2015-2017. China, as the leading importer of durian, procured an estimated annual average of some 300 000 tonnes during 2015-2017. Testament to the fruit's growing popularity beyond Asia, the value of exports of Thai fresh durians to the US increased by 68 percent in 2017, to approximately USD 5.1 million.



Durian fruit
@ davidgn

Table 4. World exports of durian 2007-2017 (mt)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017 (estim.)
Indonesia	n/a	n/a	n/a	25	n/a	3	0	11	0	10	174
Malaysia	14 089	19 443	19 624	15 390	19 515	23 521	20 152	13 215	19 892	17 754	14 106
Philippines	10	3	1	1	1	19	18	94	71	37	129
Thailand	157 474	203 127	256 172	207 501	271 949	351 124	367 057	369 602	358 192	402 660	488 716
Viet Nam	n/a	14	35	n/a	145	n/a	820	2 087	23 189	94 352	105 537
World	171 627	222 795	275 869	222 928	291 763	374 852	388 346	385 086	401 473	514 839	608 754

Source: Official customs data
n/a (not available)

PASSION FRUIT

Global production of passion fruit reached an estimated 1.5 million tonnes in 2017, on the back of strong harvests in Brazil, Colombia and Indonesia, the most important producers. Passion fruit is native to Brazil and enjoys high levels of popularity in the country, to the extent that domestic supply struggles to meet domestic demand. Brazil's total production volume reached nearly 1 million tonnes in 2017, following year-on-year growth of about 3 percent. In response to surging domestic demand, Brazil opened its borders to passion fruit imports from Peru in June 2017. According to industry sources, the value of passion fruit shipments from Peru to Brazil is expected to reach USD 2 million over the next three years. Peru has ample potential for exporting passion fruit, since production covers more than 12 000 ha in the country's highlands and rainforests. In terms of other international suppliers, Ecuador ranks as the largest producer and exporter globally, followed by Australia and New Zealand.

Yellow passion fruit
@ areeya



RAMBUTAN

Rambutan is native to Malaysia and Indonesia, where it is predominantly produced for domestic consumption. Global production of the fruit witnessed a slight recovery from the contraction experienced in 2016, reaching an estimated 1.3 million in 2017. Output in Indonesia, the largest producer, had been severely disrupted by poor weather conditions in 2016, inducing an estimated 21 percent decline in total global production. Rambutan is a fragile crop with low resistance to weather changes, and, despite an improvement in growing conditions in 2017, total global production remained well below the estimated annual average of 1.5 million tonnes over the previous decade.

Rambutan is equally fragile after harvesting, requiring consistent cold chains and humidity control during transport to avoid darkening of the peel. Even though no damage to the flesh occurs, darkening is known to negatively influence prices. Exposure to inadequate temperatures during transport and storage also results in rapid deterioration of the fruit. As such, rambutan is typically shipped in small quantities by airfreight, within 24 hours of harvesting.

Perishability lowers availability for domestic consumption and even more so for trade, and makes rambutan a high value crop. Thailand has emerged as the second largest producer of the fruit on the back of rising regional demand, exporting around 9 300 tonnes in 2017, up from an average of 4 500 tonnes in 2015-2016.

Outside the region, the international market for rambutan remains niche. Demand largely stems from Asian buyers located outside the continent. The fruit is little known by Western consumers, and high prices have further curtailed market penetration in the past. However, as retail prices have softened recently, rambutan could gain market shares going forward.



Rambutan
@ Andrelix



A PERSPECTIVE ON FOOD IMPORT BILLS

Are countries paying more for less food?

Contributed by:

Adam Prakash

Adam.Prakash@fao.org

Food imports are playing an increasingly important role in meeting world food security. Higher incomes and population growth are the predominant factors stimulating higher demand for foodstuffs from the international marketplace, while trade liberalization and technological innovation – especially in the form of transportation, information and communications – have also facilitated trade expansion¹. In addition, there are numerous countries that have little choice but to perennially procure from world markets, since their resource and factor endowments to produce food are low, or productivity lags behind population growth. Food imports can also become necessary when production demonstrates significant year-on-year variability, e.g. high dependence on rainfed crops, or in the aftermath of natural disasters, adverse weather events or other unpredictable events, such as pest and disease outbreaks.

The value of food imports, which is simply the summation of the product of volumes and their respective unit 'cost, insurance and freight' (CIF) price, is known as the food import bill. As most international transactions are priced in US dollars, the import bill is denominated in this currency. The totality of country bills – the world food import bill – is sometimes used as a metric to assess global food security vulnerabilities, provoking particular consternation when the bill rises steeply. However, its relevance as an indicator in this respect can easily be misconstrued. This is because the bill, by construction, embodies many variables, and their interplay makes it difficult *prima facie* to make pronouncements on why bills change. For instance, a bill can increase even if less food is being imported, and this can transpire when rising unit prices and freight costs offset the lower volumes. Changes in the composition of the food import bill are also

important to understand. A rising bill should not be deemed alarming to food security if larger imports of high-value items such as beverages are behind the increase. Another dimension to food import bills that deserves attention concerns exchange rates and foreign exchange reserves. Adverse movements in local currencies and/or scarcity in foreign exchange reserves can impose a severe strain on financing food imports, especially in food deficit countries that are severely disadvantaged economically.

Against this backdrop, this study explores the evolution of food import bills and their composition over the period 2000-2017², contextualizing the bills in the macroeconomy and its dimensions. Attention is paid to global developments, and the contrast between the aggregate bill of the richest countries (developed regions) and those of the most vulnerable, including low-income food deficit countries (LIFDCs) and least developed countries (LDCs).

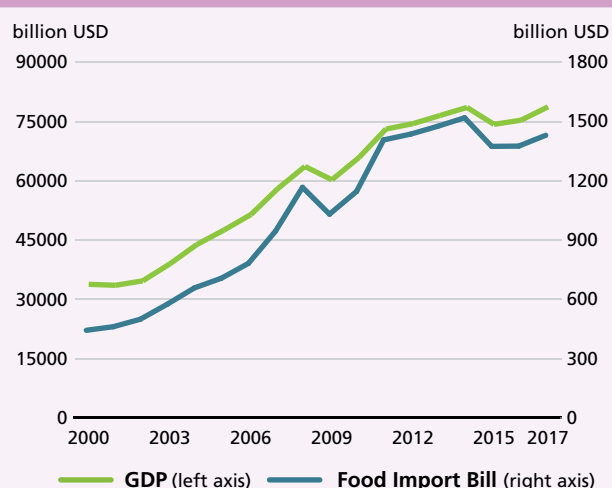
Poorer countries spend 28 percent of all their export earnings on imported food

From the beginning of the millennium to 2017, the world's population increased by one-quarter, while the size of the world's economy grew by 60 percent in real terms. During this period, the world food import bill at current prices rose by almost USD 1 trillion, more than threefold, from USD 442 billion to USD 1 430 trillion.

¹ The Global Landscape of Agricultural Trade, 1995-2014, by Jayson Beckman, John Dyck, and Kari E.R. Heerman, ERS, November 2017.

² Trade data for 2000-2016 were extracted from UNSD COMTRADE, while for 2017 data were taken from Trade Data Monitor. The raw data, consisting of trade flows by commodity between reporting and partner countries, pertain to HS 1992 and are at the 6-digit level. The data were initially processed using reflected data for non-reporting countries, and then a battery of algorithms was applied to detect and replace outliers based on the distributional properties of unit values drawn from a sample of matching trade flows. Finally, imports and exports were balanced using relative 'reliability' between reporters and exporters to resolve discrepant trade flows. Following validation, the data were mapped to the Standard International Trade Classification (SITC, version 4), which has an explicit categorization of food, thereby allowing for the compilation of the food import bill.

Figure 1. World food import bill and GDP, 2000-2017



Source: FAO and World Bank

Driven largely by global GDP and population increases, growth in the world food import bill has not been uniform, with a large spike and subsequent fall during the volatile price period of 2006-2008, when for the first time the global food import bill surpassed the USD 1 trillion mark. The bill rose again on the back of further turmoil in international markets in 2011 and 2012, culminating in its historic peak in 2014 of USD 1.5 trillion. Since then, much of the bill's upward momentum has ended, but the world food import bill has remained close to record levels.

Figure 2 positions the global food import bill from a wider economic perspective, as well as bills for economic regions characterized by varying degrees of vulnerability. While seemingly large in absolute terms, the world food import bill relative to world GDP remains very small, rising from a share of 1 percent in 2000 to 2 percent in 2017. The food import bill of developed regions accounted for as much as 71 percent of the entire world bill in 2000, but almost two decades later, this share had fallen to 59 percent. Nevertheless, movements in the world bill continued to closely resemble those of the richest countries. Likewise, at the global level, the value of food imports as a share of GDP is inconsequential for this country group. Among the vulnerable economic groupings, food import bills are more conspicuous relative to GDP, especially in LIFDCs.

Food imports as a share of total merchandise imports assume more prominence in these regions, the highest being in LDCs where 17 percent of all merchandise trade consists of foodstuffs. In fact, the ratio of food in merchandise imports has been steadily rising in the past decade at the world level as well as in the three groups of countries.

A telling statistic pertaining to LDCs, and to some extent LIFDCs, is the large share of food imports in merchandise exports. For example, in 2017, spending on food imports by the LDCs represented 28 percent of all export earnings. The burden of importing food by vulnerable countries is discussed later in this article.

Figure 3 compares the structure of merchandise imports at the beginning of the millennium with 2017. For the purpose of contrast, the world is juxtaposed with LIFDCs. Despite the huge expansion in merchandise trade, the ranking in importance of the different categories of imports remains unchanged for both the world and for LIFDCs. Of the seven broad categories, food stood as fifth most important. However, there have been some subtle changes in the shares of each category. At the world level, machinery and manufactured equipment have seen their combined share fall from 68 percent in 2000 to 61 percent in 2017 at the expense of increases in shares of mineral fuels (+2 percent), chemicals (+1 percent) and food (+2 percent). This might be explained by the greater sensitivity of manufacturing sectors to investment, which in turn is influenced by changes in GDP, with economic growth much higher in the 2000s compared with recent years.

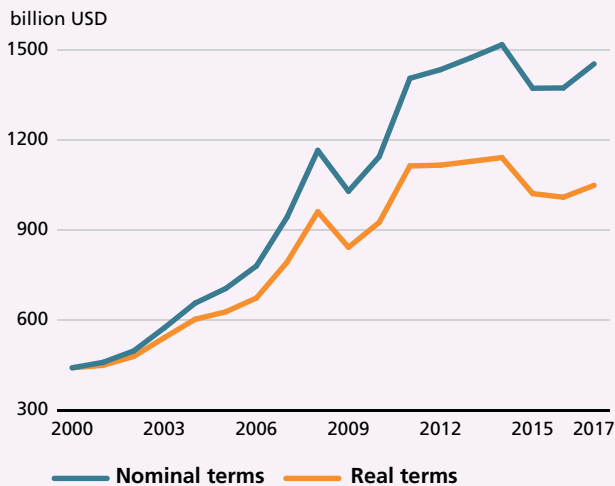
As for LIFDCs, chemical products gained a share in total merchandise imports from most other categories over the period 2000 to 2017. The share of food in LIFDC merchandise imports fell by nearly 2 percent during this time, which can be explained by the graduation of China from the group. Unsurprisingly, the basic necessities of mineral fuels, food and crude materials (e.g. fertilizers) have remained important categories of imports for LIFDCs, and amounted to almost 30 percent of all merchandise imports in 2017, compared to 24 percent at the world level in the same year.

Little change in the composition of food import bills over time

The composition of the world food import bill has undergone moderate change, both in terms of each commodity's ranking and the commodity's contribution to the total bill. A comparison of the bill's structure between 2000 and 2017 is presented in Figure 4. Animal proteins (livestock, fish, dairy and eggs), still the leading product category, previously assumed a share of almost 33 percent in the world bill, but this declined to 27 percent in 2017. Vegetables and fruits, the second most important category, has seen its share rise to 19 percent, while oilseeds and vegetable oils (oilseed complex) now constitute the fourth most valuable imported group in the world bill, after cereals with a share of over 12 percent in 2017 (up from nearly

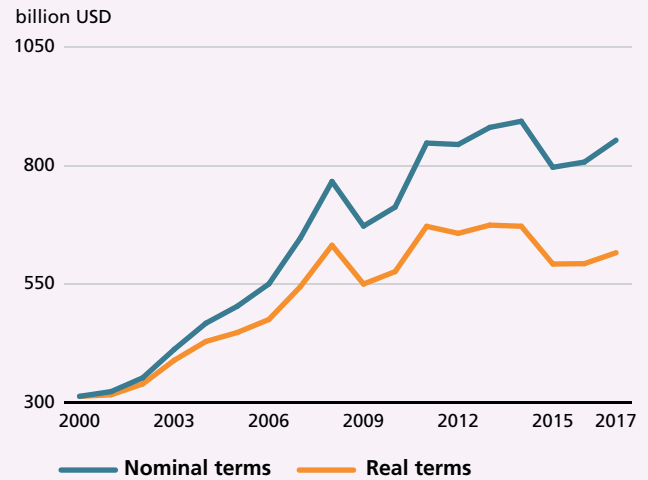
Figure 2. The relative importance of food imports from a macroeconomic perspective

World



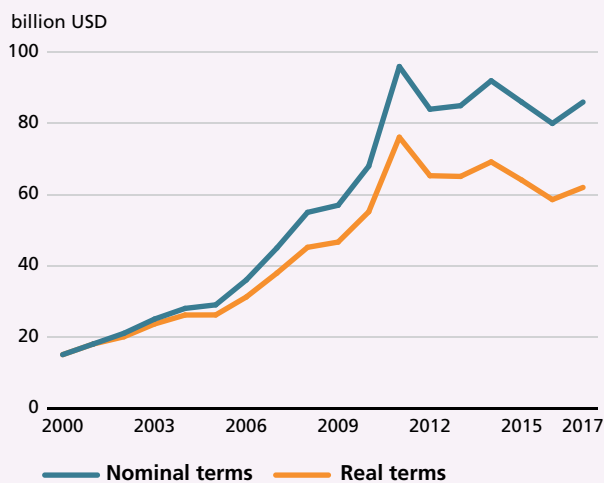
<Ratio>	2000	2005	2010	2015	2017
FIB/GDP	0.01	0.01	0.02	0.02	0.02
FIB/MERCH. IMP.	0.07	0.05	0.07	0.08	0.09
FIB/MERCH. EXP.	0.07	0.05	0.08	0.08	0.09

Developed regions



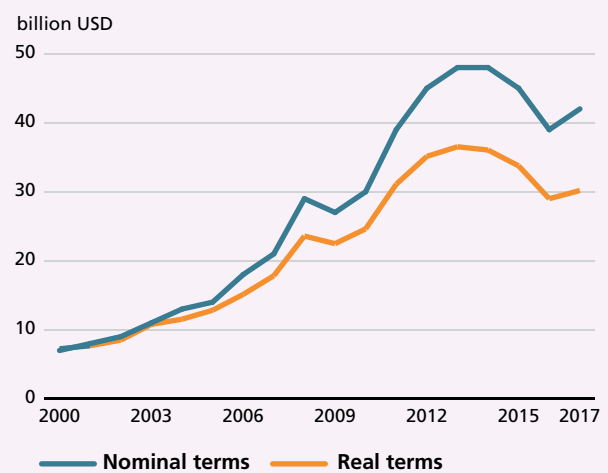
<Ratio>	2000	2005	2010	2015	2017
FIB/GDP	0.01	0.01	0.02	0.02	0.02
FIB/MERCH. IMP.	0.07	0.06	0.08	0.09	0.09
FIB/MERCH. EXP.	0.08	0.06	0.09	0.09	0.10

LIFDCs



<Ratio>	2000	2005	2010	2015	2017
FIB/GDP	0.07	0.09	0.10	0.09	0.08
FIB/MERCH. IMP.	0.12	0.06	0.10	0.11	0.10
FIB/MERCH. EXP.	0.12	0.07	0.13	0.17	0.17

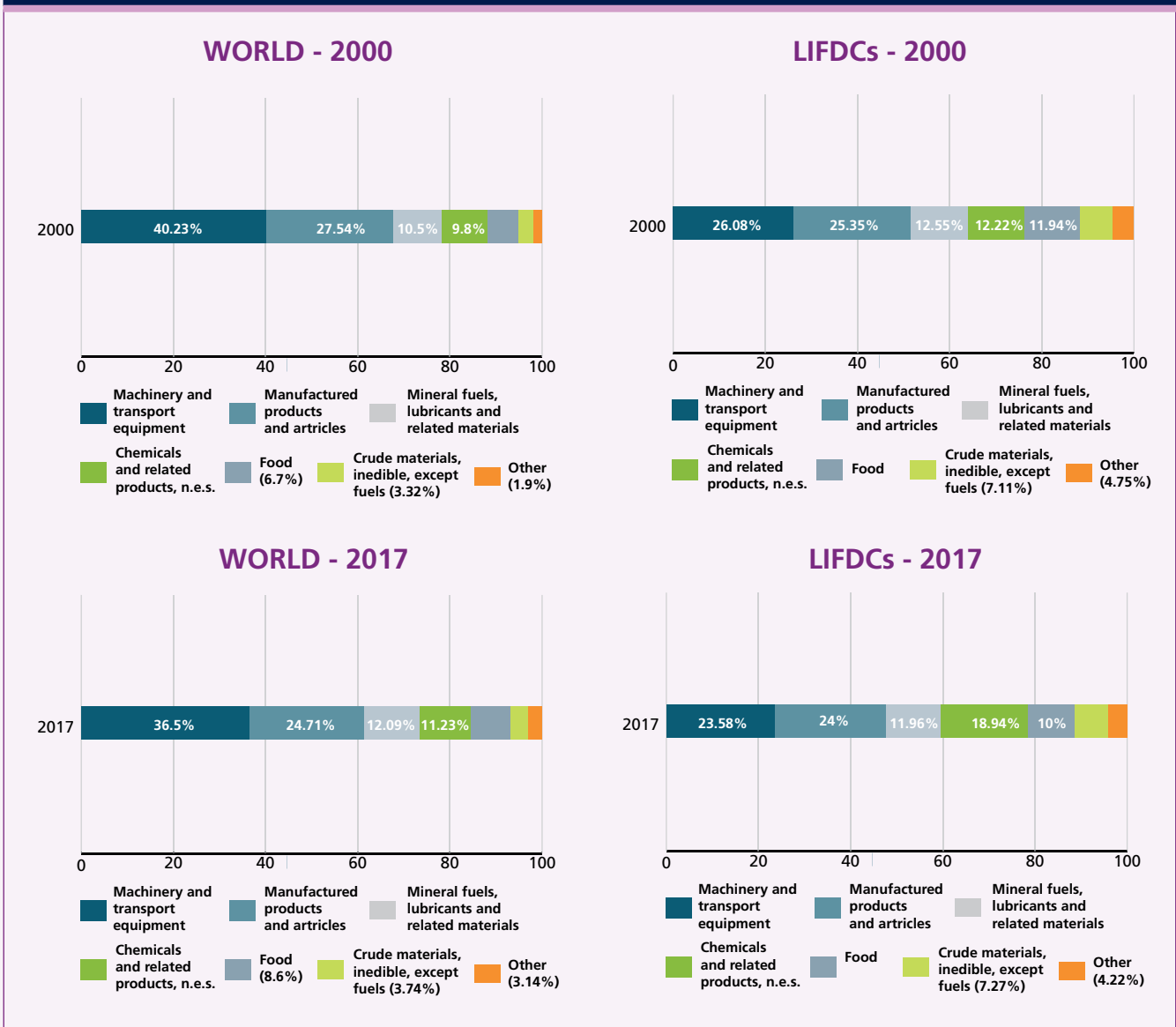
LDCs



<Ratio>	2000	2005	2010	2015	2017
FIB/GDP	0.04	0.04	0.05	0.05	0.04
FIB/MERCH. IMP.	0.15	0.07	0.15	0.16	0.17
FIB/MERCH. EXP.	0.20	0.13	0.19	0.23	0.28

Source: FAO and World Bank

Figure 3. Changes in the composition of merchandise imports



8 percent in 2000). Cereals and cereal preparations have maintained their share over the period, while beverages have declined.

Changes to the composition of the LIFDC food import bill have been more drastic over the same period. Cereals and cereal preparations led the imports by LIFDCs in 2000, but were superseded by oilseed products in 2017. Vegetables and fruit have also seen their share in the LIFDC import bill rise markedly, up from around 9 percent to 15 percent, constituting the third most important category in the bill in 2017 and relegating animal protein products lower down the order of importance.

The analysis of change in the structure of food import bills does not give any indication if less or more food is being bought. Nor does it shed light on what factors

are behind changes in food import bills. However, a decomposition of these changes by component, namely, volumes and unit costs, and for each detailed food category, can explain movements in bills. Table 1 tabulates such a decomposition³ for changes in product bills over

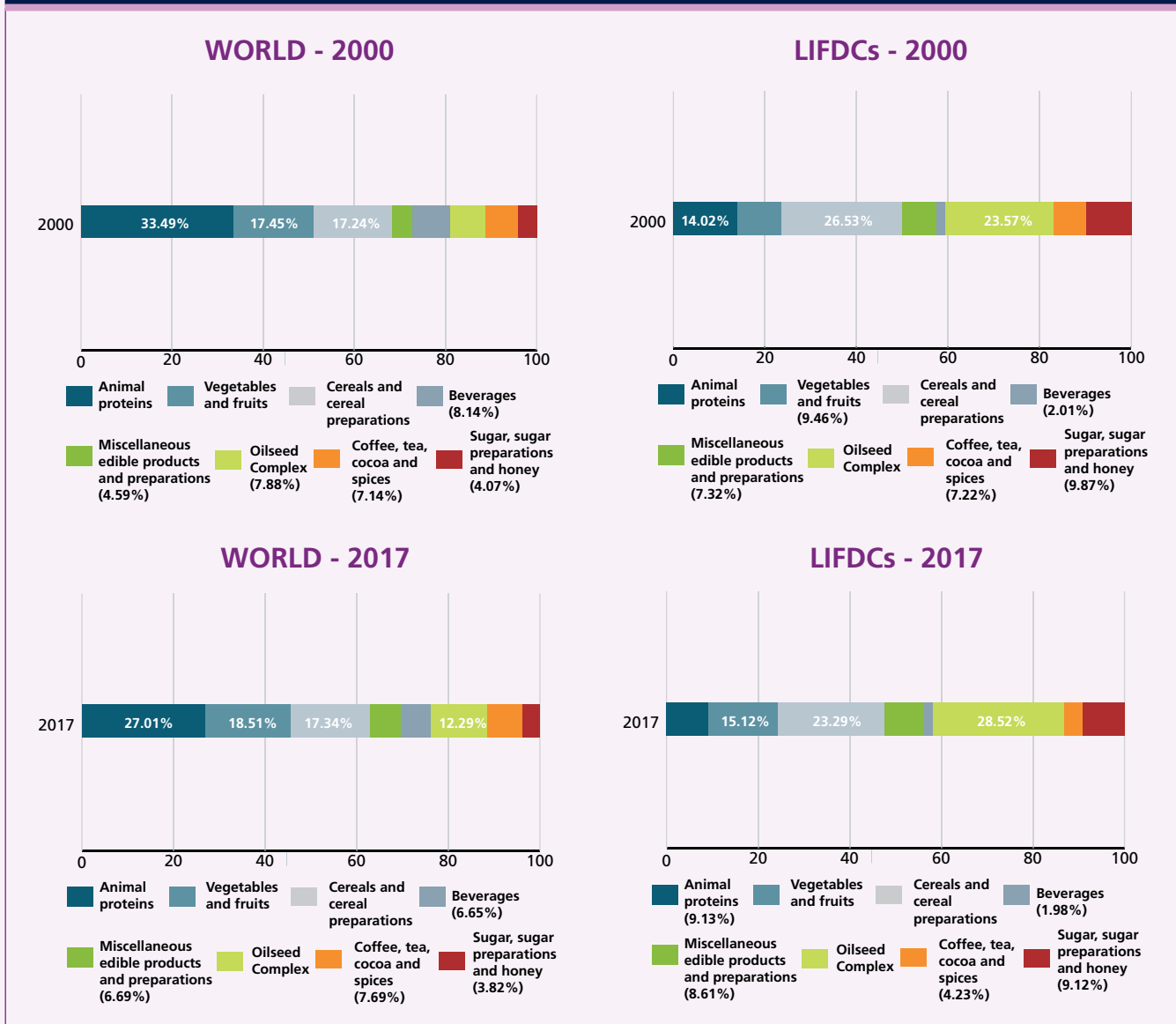
³ The change in a product bill between two time periods can be decomposed into effects attributed to a volume change, effects attributed to unit cost changes and the combination of these two factors:

$$\Delta \text{FIB} = M_1 U_1 - M_0 U_0 = M_0 (U_1 - U_0) + U_0 (M_1 - M_0) + (U_1 - U_0)(M_1 - M_0)$$

= volume effect + unit cost effect + interaction effect

Where FIB is the food product import bill, M and U are the, volume imported and the import unit cost, respectively, and the subscripts 0 and 1 correspond to the beginning and end period of comparison, respectively. Generally, both volumes and unit costs tend to vary between two points in time that results in a positive interaction term (if changes in volumes and unit costs are of the same sign) or a negative interaction term (if of the opposite sign).

Figure 4. Changes in the composition of food import bills



three periods: 2000-2005, 2006-2011 and 2012-2017. For exposition, the world food bill is presented. Taking, for example, 'cereals and cereal preparations' over the period 2006-2011, the product bill increased by USD 99 billion, of which 70 percent can be explained by higher imported volumes, 17 percent by a higher CIF price, and an 'interaction' effect of 13 percent. In turn, the change in the CIF price can be positively attributed (98 percent) to the rise in the Free On Board (FOB) price in respect to a slight rise in freight costs. In yet another example, global expenditures on imported 'vegetables and fruit' rose from USD 232 billion in 2012 to USD 265 billion in 2017, and were driven mostly by higher unit costs – 77 percent.

Indeed, an examination of the decomposition coefficients in the table reveals that increases in unit costs

(which can be decomposed into the CIF effect and the FOB price effect) are on many occasions influential in driving import bills higher. When small volume effects are observed, this directly implies that countries are paying more for less quantities of food, and is a cause for concern for economically disadvantaged countries required to meet their food consumption needs from international markets.

Food imports becoming more burdensome for the poorest

An issue mentioned earlier concerns the burden for food insecure countries in financing food imports, especially when food imports assume a large and increasing share of foreign exchange earnings. Table 2 profiles the least developed low-income food deficit countries (those LIFDCs

that belong in the LDC group), and for comparative purposes, Table 3 depicts profiles of a number of developed countries. For the vast majority of the poorest countries, since 2000, average annual growth rates of food import bills have been at double-digit levels, far exceeding the global average of 8 percent. The fact that cereal staples were among the major imported food items in 2000, and remained so in 2017, underscores the importance of the global marketplace for basic food needs and overall food security of these countries. By stark contrast, growth rates of food import bills for the developed countries in Table 3, are either near or well below the global average, with imports habitually consisting of high-value items such as animal proteins, vegetables and fruit, and beverages.

Due to the fact that virtually all international transactions are priced in US dollars, importing can also be encumbered by adverse movements in domestic currencies vis-à-vis the US dollar. A further negative development is that exchange rates of numerous countries depicted in

Table 2 have in general been falling in real terms against the US dollar, bringing about diminishing purchasing power, and again, at a higher intensity than in developed countries.

The capacity to absorb heightened food import bills and adverse currency movements is conditioned by macroeconomic fundamentals, *inter alia* GDP, total export earnings and the extent of other import expenditures. While net imports reduce GDP, income is important for accessing markets, including the international arena. However, in 2017, GDP per capita (at current prices) amounted to a weighted average of USD 1 100 for the poorest countries.

Food imports clearly play an important role in food security, but of concern is that the indicators of Table 2 and those in Figure 2 for the most vulnerable countries have been deteriorating over time, portending an increasing challenge, especially for the poorest countries, to meet their basic food needs from international markets.

Table 1. Decomposition of the world food import bill

				CHANGE IN VOLUME UNIT COST		VOLUME AND UNIT COST EFFECT			UNIT COST EFFECT		
	Import bill	Change	Contribution to total bill	Volume	Unit cost	(a) Volume	(b) CIF price	(c) Interaction (a.b)	(d) FOB price	(e) CIF	(f) Interaction (d.e)
	<i>USD million</i>		<i>Share</i>	<i>000 tonnes</i>	<i>USD</i>	<i>(a)+(b)+(c)=1</i>			<i>(d)+(e)+(f)=1</i>		
FOOD IMPORT BILL											
2000	442 104		1,00	...	...	...	...	...	...	...	...
2005	705 801	263 697	1,00	...	...	...	...	...	...	...	...
2006	780 960		1,00	...	...	...	...	...	...	...	...
2011	1 405 653	624 693	1,00	...	...	...	...	...	...	...	...
2012	1 434 965		1,00	...	...	...	...	...	...	...	...
2017	1 430 462	- 4 503	1,00	...	...	...	...	...	...	...	...
CEREALS AND CEREAL PREPARATIONS											
2000	76 206		0,17	51 809	73	0,69	0,23	0,08	0,92	0,06	0,02
2005	116 247	40 041	0,16	95 321	214	0,70	0,17	0,13	0,98	0,01	0,01
2006	127 490		0,16	84 117	- 118	0,51	0,39	0,10	0,96	0,03	0,01
2011	263 322	135 832	0,19	19 937	36	0,21	0,77	0,02	0,77	0,23	0,01
2012	275 119		0,19	30 880	219	0,45	0,42	0,13	0,99	0,01	0,00
2017	248 008	- 27 111	0,17	33 347	288	0,51	0,37	0,11	1,00	0,00	0,00
VEGETABLES AND FRUIT											
2000	77 163		0,17	19 937	36	0,21	0,77	0,02	0,77	0,23	0,01
2005	129 662	52 500	0,18	3 014	- 141	0,41	0,56	0,03	0,94	0,05	0,00
2006	144 085		0,18	4 699	430	0,52	0,37	0,11	0,95	0,04	0,01
2011	229 008	84 923	0,16	6 689	682	0,53	0,34	0,13	0,96	0,03	0,01
2012	232 747		0,16	12 604	- 1 395	0,36	0,49	0,15	0,97	0,02	0,01
2017	264 827	32 080	0,19	17 417	176	0,36	0,47	0,17	1,00	0,00	0,00
MEAT AND LIVE ANIMALS											
2000	59 061		0,13	13 246	671	0,70	0,15	0,15	0,98	0,01	0,01
2005	91 137	32 076	0,13	8 237	- 270	0,63	0,30	0,06	0,98	0,02	0,00
2006	99 887		0,13	5 230	291	0,24	0,69	0,07	0,90	0,09	0,01
2011	159 338	59 451	0,11	3 134	1 040	0,66	0,26	0,08	0,99	0,01	0,00
2012	165 153		0,12	10 870	634	0,42	0,47	0,12	0,99	0,01	0,00
2017	164 044	- 1 109	0,11	3 234	- 238	0,04	0,85	0,11	0,78	0,19	0,03
DAIRY PRODUCTS AND BIRDS' EGGS											
2000	30 784		0,07	5 230	291	0,24	0,69	0,07	0,90	0,09	0,01
2005	48 798	18 014	0,07	10 870	634	0,42	0,47	0,12	0,99	0,01	0,00
2006	52 230		0,07	12 604	- 1 395	0,36	0,49	0,15	0,97	0,02	0,01
2011	88 386	36 156	0,06	17 417	176	0,36	0,47	0,17	1,00	0,00	0,00
2012	86 990		0,06	13 246	671	0,70	0,15	0,15	0,98	0,01	0,01
2017	88 951	1 962	0,06	8 237	- 270	0,63	0,30	0,06	0,98	0,02	0,00
FISH, SEAFOOD AND PREPARATIONS											
2000	58 199		0,13	17 417	176	0,36	0,47	0,17	1,00	0,00	0,00
2005	81 160	22 962	0,11	13 246	671	0,70	0,15	0,15	0,98	0,01	0,01
2006	89 191		0,11	10 870	634	0,42	0,47	0,12	0,99	0,01	0,00
2011	130 430	41 240	0,09	12 604	- 1 395	0,36	0,49	0,15	0,97	0,02	0,01
2012	135 828		0,09	17 417	176	0,36	0,47	0,17	1,00	0,00	0,00
2017	133 394	- 2 434	0,09	8 237	- 270	0,63	0,30	0,06	0,98	0,02	0,00
FATS AND OILS											
2000	18 679		0,04	17 417	176	0,36	0,47	0,17	1,00	0,00	0,00
2005	36 991	18 312	0,05	13 246	671	0,70	0,15	0,15	0,98	0,01	0,01
2006	43 488		0,06	10 870	634	0,42	0,47	0,12	0,99	0,01	0,00
2011	103 683	60 194	0,07	12 604	- 1 395	0,36	0,49	0,15	0,97	0,02	0,01
2012	103 358		0,07	17 417	176	0,36	0,47	0,17	1,00	0,00	0,00
2017	82 577	- 20 782	0,06	8 237	- 270	0,63	0,30	0,06	0,98	0,02	0,00

Table 1. Decomposition of the world food import bill (cont'd)

	Import bill	Change	Contribution to total bill	CHANGE IN VOLUME UNIT COST		VOLUME AND UNIT COST EFFECT			UNIT COST EFFECT		
				Volume	Unit cost	(a) Volume	(b) CIF price	(c) Interaction (a,b)	(d) FOB price	(e) CIF	(f) Interaction (d,e)
	<i>USD million</i>		<i>Share</i>	<i>000 tonnes</i>	<i>USD</i>	<i>(a)+(b)+(c)=1</i>			<i>(d)+(e)+(f)=1</i>		
OIL-SEEDS AND OLEAGINOUS FRUITS											
2000	16 170		0,04								
2005	26 807	10 637	0,04	14 533	87	0,55	0,33	0,12	0,96	0,03	0,01
2006	27 215		0,03								
2011	76 669	49 454	0,05	33 734	321	0,57	0,21	0,22	0,97	0,01	0,02
2012	84 210		0,06								
2017	89 003	4 793	0,06	62 467	- 193	0,31	0,53	0,15	0,98	0,01	0,00
SUGARS, SUGAR PREPARATIONS AND HONEY											
2000	17 982		0,04								
2005	28 617	10 634	0,04	8 915	126	0,59	0,30	0,11	0,89	0,08	0,03
2006	35 416		0,05								
2011	64 523	29 107	0,05	12 741	292	0,62	0,25	0,13	0,99	0,01	0,00
2012	61 590		0,04								
2017	55 553	- 6 037	0,04	6 443	- 148	0,62	0,32	0,06	0,81	0,16	0,02
COFFEE, TEA, COCOA, SPICES, AND MANUFACTURES THEREOF											
2000	31 574		0,07								
2005	47 861	16 287	0,07	3 758	447	0,42	0,48	0,10	0,97	0,02	0,01
2006	52 300		0,07								
2011	110 578	58 278	0,08	4 224	1 986	0,66	0,20	0,14	0,98	0,01	0,01
2012	105 448		0,07								
2017	111 774	6 326	0,08	1 104	66	0,26	0,72	0,01	0,35	0,64	0,00
BEVERAGES											
2000	35 979		0,08								
2005	60 605	24 625	0,09	- 39 258	245	0,70	0,14	0,16	0,99	0,01	0,01
2006	68 397		0,09								
2011	104 970	36 573	0,07	18 132	172	0,68	0,23	0,09	0,82	0,12	0,06
2012	109 748		0,08								
2017	96 676	- 13 072	0,07	17 216	- 1 097	0,04	0,50	0,46	0,98	0,01	0,01
MISCELLANEOUS EDIBLE PRODUCTS AND PREPARATIONS											
2000	20 306		0,05								
2005	37 915	17 609	0,05	4 634	583	0,38	0,47	0,15	0,99	0,01	0,00
2006	41 260		0,05								
2011	74 747	33 486	0,05	5 156	939	0,50	0,36	0,14	0,99	0,01	0,00
2012	74 774		0,05								
2017	95 654	20 880	0,07	3 477	100	0,17	0,80	0,03	0,14	0,85	0,01

Table 2. Food import bill profiles of the least developed low-income food deficit countries

	2000 food import bill (USD 1000)	Leading imports	2017 Food import bill (USD 1000)	Leading imports	Annual Avg. growth in bill (%)	Food import bill (2000-2017)	Ann Avg. growth in real exchange rate (%)	Real exchange rate (2000-2017)
Afghanistan	95 259	Tropical beverages, Cereals, Sugar		Cereals, Veg. and fruit, Oilseed complex	22		-8	
Bangladesh	1 370 698	Oilseed complex, Cereals, Sugar	8 610 484	Cereals, Oilseed complex, Sugar	13		-7	
Solomon Islands	10 003	Animal proteins, Misc., Other beverages	67 254	Animal proteins, Misc.	17		-3	
Burundi	39 753	Cereals, Oilseed complex, Misc.	67 390	Cereals, Sugar, Misc.	9		-11	
Central African Rep.	19 185	Cereals, Misc., Sugar	38 535	Animal proteins, Cereals, Misc.	9		-1	
Chad	19 860	Cereals, Misc., Animal proteins	65 520	Misc., Cereals, Animal proteins	11		1	
Comoros	27 926	Cereals, Sugar, Animal proteins	60 496	Animal proteins, Sugar, Cereals	10		-0	
Benin	173 643	Animal proteins, Cereals, Misc.	2 316 444	Cereals, Oilseed complex, Animal proteins	16		1	
Djibouti	89 153	Cereals, Animal proteins, Oilseed complex	872 513	Oilseed complex, Cereals, Veg. and fruit	18		-2	
Gambia	83 398	Cereals, Sugar, Oilseed complex	439 937	Misc., Cereals, Sugar	10		-9	
Guinea	159 398	Cereals, Animal proteins, Sugar	749 764	Cereals, Misc., Sugar	12		-20	
Haiti	324 889	Cereals, Animal proteins, Misc.	1 032 510	Cereals, Animal proteins, Sugar	8		-12	
Lesotho	101 995	Cereals, Animal proteins, Veg. and fruit	376 745	Animal proteins, Cereals, Veg. and fruit	12		-7	
Liberia	66 071	Cereals, Animal proteins, Tropical beverages	355 823	Cereals, Animal proteins, Misc.	13		-11	
Madagascar	152 330	Cereals, Oilseed complex, Sugar	663 860	Cereals, Oilseed complex, Sugar	8		-11	
Malawi	48 682	Cereals, Oilseed complex, Animal proteins	149 407	Cereals, Misc., Animal proteins	6		-22	
Mali	143 187	Cereals, Misc., Animal proteins	573 707	Misc., Cereals, Animal proteins	10		1	
Mauritania	145 977	Sugar, Cereals, Animal proteins	831 920	Sugar, Oilseed complex, Cereals	11		-5	
Mozambique	246 328	Cereals, Animal proteins, Oilseed complex	789 034	Cereals, Animal proteins, Oilseed complex	11		-11	
Nepal	242 284	Oilseed complex, Cereals, Veg. and fruit	1 290 370	Cereals, Veg. and fruit,	19		-7	
Niger	111 762	Cereals, Oilseed complex, Sugar	336 875	Cereals, Misc., Oilseed complex	9		1	
Guinea-Bissau	24 131	Other beverages, Cereals, Animal proteins	111 741	Cereals, Misc., Other beverages	12		1	
Eritrea	56 142	Cereals, Oilseed complex, Animal proteins	49 016	Sugar, Cereals, Oilseed complex	-2		-17	
Rwanda	34 233	Cereals, Oilseed complex, Sugar	187 845	Cereals, Sugar, Oilseed complex	15		-8	
Sao Tome and Principe	11 282	Cereals, Other beverages, Animal proteins	38 003	Cereals, Animal proteins, Other beverages	9		-18	
Senegal	417 952	Cereals, Oilseed complex, Misc.	1 569 222	Cereals, Misc., Sugar	7		2	
Sierra Leone	74 910	Cereals, Oilseed complex, Animal proteins	337 694	Cereals, Misc., Animal proteins	12		-14	
Somalia	89 981	Sugar, Cereals, Oilseed complex	1 218 342	Sugar, Cereals, Veg. and fruit	21		-10	
United Rep. of Tanzania	269 114	Cereals, Oilseed complex, Sugar	1 120 309	Oilseed complex, Cereals, Sugar	10		-10	
Togo	83 775	Cereals, Animal proteins, Tropical beverages	847 166	Cereals, Oilseed complex, Sugar	13		1	
Uganda	140 841	Cereals, Sugar, Oilseed complex	831 007	Oilseed complex, Cereals, Sugar	12		-9	
Burkina Faso	110 131	Cereals, Misc., Veg. and fruit	504 028	Cereals, Misc., Animal proteins	10		1	
Ethiopia	142 138	Cereals, Misc., Oilseed complex	2 029 278	Cereals, Oilseed complex, Sugar	16		-17	
Yemen	756 613	Cereals, Animal proteins, Sugar	2 637 538	Cereals, Sugar, Animal proteins	11		-11	
Dem. Rep. of the Congo	178 799	Cereals, Animal proteins, Sugar	847 393	Animal proteins, Cereals, Sugar	12		-28	

Table 3. Food import bill profiles of selected developed countries

	2000 food import bill (USD 1000)	Leading imports	2017 Food import bill (USD 1000)	Leading imports	Annual Avg. growth in bill (%)	Food import bill (2000-2017)	Ann Avg. growth in real exchange rate (%)	Real exchange rate (2000-2017)
Australia	3.127.592	Animal proteins, Misc., Veg. and fruit	13.417.831	Animal proteins, Veg. and fruit, Misc.	10		2	
France	22.637.171	Animal proteins, Veg. and fruit, Tropical beverages	57.945.323	Animal proteins, Veg. and fruit, Tropical beverages	6		2	
Germany	32.025.955	Animal proteins, Veg. and fruit, Tropical beverages	90.501.838	Animal proteins, Veg. and fruit, Tropical beverages	6		2	
Italy	19.522.952	Animal proteins, Veg. and fruit, Cereals	46.569.416	Animal proteins, Veg. and fruit, Oilseed complex	5		1	
Japan	45.186.553	Animal proteins, Veg. and fruit, Cereals	60.596.927	Animal proteins, Veg. and fruit, Cereals	3		3	
United Kingdom	27.765.712	Animal proteins, Veg. and fruit, Other beverages	58.325.336	Animal proteins, Veg. and fruit, Other beverages	5		-1	
United States of America	48.573.270	Animal proteins, Veg. and fruit, Other beverages	138.111.199	Animal proteins, Veg. and fruit, Other beverages	7		0	

MARKET POLICY DEVELOPMENTS

GRAINS: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2017 TO MID-JUNE 2018*

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Afghanistan	Apr-18	Wheat	Import tariff	Cut the import duty on Kazakh wheat and flour to 5 percent, effective from April. In addition, the wheat import duty was reduced to 2.5 percent for Afghan millers processing Kazakh wheat into flour.
Algeria	Jan-18	Barley and maize	Import policy	Announced the removal of the import licensing system for most agricultural products, but introduced new measures as part of the 2018 Finance Act. Import licenses are no longer needed for feed grains. Barley, maize, DDGs and other feed grains are exempt from VAT.
	Dec-17	Barley and wheat	Import policy	Introduced wheat and barley in the list of products that require a phytosanitary certificate for the banking domiciliation's application prior to import.
Argentina	Nov-17	Grains	Transport measures	Announced a 30 percent cut in costs of docking services in the port of Rosario.
	Jan-18	Maize	Export tariff	Modified its variable export tax on biodiesel to a fixed rate of 8 percent.
	Mar-18	Maize	GMO policy	Approved the commercialization of two genetically modified (GM) maize varieties from Syngenta and Dow Chemical through Resolutions No. 26/2018 and 28/2018.
	May-18	Maize	GMO policy	Approved three GM maize varieties resistant to Lepidoptera and Coleoptera (Resolution No. 19/2018).
Australia	Nov-17	Wheat	Bilateral agreement	Concluded a free trade agreement with Peru (PAFTA). On entry into force, Australia will have duty-free access to Peru for wheat.
	May-18	Grains	Government support	Established a fund of AUS 24 million (USD 18.04 million) to promote grain related research and development.
Azerbaijan	Nov-17	Barley and rye	Import tariff	Removed import duties on barley and rye for sowing, currently set at 0.5 percent and 5 percent. Import duties on barley and rye intended for consumption will remain at 5 percent. Duties on maize imports will also be eliminated. The measures came into effect from 1 January 2018.
Bolivia	Feb-18	Maize and sorghum	Production support	Announced that maize and sorghum farmers have joined a Government project to produce and sell ethanol as an alternative fuel.
	Oct-17	Wheat	Import tariff	Requested approval from the country's foreign trade chamber for a duty-free quota of 750 000 tonnes of wheat for local processors to import from outside the Mercosur trade bloc.
Brazil	Nov-17	Wheat	Import tariff	Abandoned plans to establish a 750 000 tonne duty-free quota to import wheat from non-Mercosur countries.
	Dec-17	Wheat	Import requirements	Issued Regulatory Instruction No.47 with immediate effect, which describes the procedural requirements for pest risk mitigation applicable to Russian wheat imports. The policy enables access of Russian wheat imports to the northern states of Brazil.
	Dec-17	Maize	Production support	Passed a national biofuel policy (No. 13.576/2017) called RenovaBio to foster commitments made under the Paris Climate Agreement. The policy is designed to expand biofuel production and enhance the predictability of energy markets by establishing mandates related to biofuel certification and tradable decarbonization credits.
	Mar-18	Maize and wheat	Government support	Announced support amounting to BRL 384 million (USD 115.9 million) in favour of the Rural Insurance Premium Grant Programme. Of this total, at least BRL 155 million (USD 34.7 million) will be granted to contract policies for maize, wheat and other winter grains; BRL 175 million (USD 52.8 million) for summer grains.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Brazil	Apr-18	Wheat	Government procurement	Approved the new minimum prices of all wheat types and wheat seeds for the 2018/19 season. The reference price of bread-type wheat was set at BRL 36.17 per 60 kg bag (USD 177.74 per tonne), down nearly 3 percent from BRL 37.26 (USD 183.10) per tonne last year in the South Region. The same decline rate was applied to all other types of wheat and regions of the country. Prices of wheat seeds went from BRL 1.48 per kg (USD 436.4 per tonne) to BRL 1.44 per kg (USD 424.58 per tonne). Prices will be effective from 1 July 2018 to 30 June 2019.
	Apr-18	Maize	Stocks release	Announced the sale of 1 million tonnes of maize from its state reserves through auctions. The measure aims to support livestock producers, amid high domestic prices of yellow maize, above the threshold price of BRL 19.95 per 60 kg bag (USD 332.5 per tonne) in the State of Mato Grosso set by the Government for the release of stocks.
	May-18	Wheat	Import requirements	Agreed to ease requirements for wheat imports from the Russian Federation. The new instruction allows for the presence of weed seeds if the grain shipment is headed for processing at plants, registered with the Brazil phytosanitary organization (ONPF), which have the necessary equipment and processes for storage and to ensure that there will be no reproduction or waste from its processing.
Canada	Nov-17	Wheat	Futures markets	ICE Canada delisted milling wheat, durum and barley futures contracts.
	Apr-18	Grains	Government market intervention	The Canadian Grain Commission (CGC) reduced fees for many of its services and licenses, such as lowering fees for reinspection of grain or eliminating the standby fee, which was charged for conducting inspection during off-duty hours.
	Apr-18	Wheat	Import requirements	Revised the maximum residue levels of Propiconazole in wheat from 0.05 ppm to 0.09 ppm.
	Apr-18	Wheat	Government market intervention	Under the Canadian Grain Commission's plan to modernize Canada's wheat classes, 25 other Canadian Western Red Spring (CWRS) varieties move to the Canada Northern Hard Red (CNHR) class, effective from 1 August 2018.
	May-18	Grains	Transport measures	Passed the Transportation Modernization Act, which is expected to improve the timeliness and efficiency of grain transportation, particularly when delays are due to bad weather.
	Oct-17	Grains	Production support	Allocated USD 756 million to support a new project focused on 'high quality grain'. The goal is to raise the grading standard of grain and oilseeds produced in China's major grain producing counties rated as 'high quality' to more than 30 percent. The fund will also facilitate development of post-harvest handling, distribution and marketing networks.
China	Nov-17	Grains	Value added tax	Announced removal of 11 percent VAT on distillers' grains imports, effective from 20 December 2017.
	Nov-17	Grains	Government support	Issued Regulation No. 1987 titled 'Food Security Control and Emergency Facilities within the Central Budget Investment Management Measures'. The regulation aims to subsidize projects designed to build and upgrade grain transportation and storage facilities along the main railways/ports in order to reduce distribution costs and improve efficiency.
	Nov-17	Wheat	Price procurement	Wheat minimum purchase price lowered by 2.5 percent.
	Nov-17	Maize	Transport measures	Heilongjiang province announced that from 20 December 2017 to 30 April 2018, trucks carrying maize would face lower highway toll fees. Jilin province also relaxed trucking rules in an effort to ease traffic congestion and transport costs.
	Dec-17	Maize		The city of Tianjin announced a municipal E10 fuel blending mandate effective from 1 October 2018. This measure is part of China's major cities' and provinces' efforts to move towards compliance with the national E10 blending mandate scheduled for implementation in 2020.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
China	Dec-17	Grains	Value added tax	Announced that VAT assessed on imported grains and fodders, which have been minimally processed as principal products, would be lowered from 13 percent to 11 percent. Imports of animal feeds, chemical fertilizers, pesticides, agricultural machinery and agricultural plastic sheeting will also be subject to 11 percent VAT.
	Jan-18	Grains	Import requirements	Announced that US grain traders and other foreign-owned entities will be able to directly market wheat, maize and rice in Free Trade Zones (FTZs) of major grain producing provinces, including Guangdong, Fujian, Liaoning, Zhejiang, Henan, Hubei, Sichuan and Shaanxi, as well as major trading centres, including Shanghai, Tianjin Municipality and Chongqing.
	Feb-18	Sorghum	Import duty	Self-initiated an anti-dumping and countervailing duty investigation on US sorghum exports to China.
	Feb-18	Maize	Government market intervention	The People's Government of Guizhou Province issued the Notice about Implementing Strategic Adjustment of Crop Framing Structure, which places emphasis on reducing maize planting areas and promoting cash crop planting.
	Feb-18	Wheat	Import ban	Lifted a ban imposed in 2016 on wheat imports from six regions of the Russian Federation.
	Mar-18	Maize	Government market intervention	Jilin province announced that maize deep processors and feed producers were eligible to purchase MY2017/18 maize from 15 March to 30 April 2018. The purchases had to be completely processed before 30 June 2018 in order to qualify for a USD 16 per tonne subsidy.
	Mar-18	Maize	Government market intervention	Heilongjiang province announced a subsidy of CNY 150 (USD 24) per tonne of maize for processing.
	Apr-18	Maize, sorghum and wheat	Import tariff	Published a list of tariffs that could affect close to USD 16.5 billion worth of US agricultural and food imports, including maize and maize products, wheat and sorghum.
	Apr-18	Wheat	Government procurement	Lowered the floor prices for wheat harvested from 2014 to 2016 from CNY 2 410 (USD 381.72) to CNY 2 350 (USD 372.22) per tonne.
	Apr-18	Maize	Stocks release	Announced plans to sell more maize stocks from state reserves from 12 April 2018. The floor price for maize is set at CNY 1 350 (USD 214.40) per tonne, slightly higher than last year.
	Apr-18	Sorghum	Import duty	Started imposing an anti-dumping duty of 178.6 percent on imports of US sorghum.
	May-18	Grains	Value added tax	Reduced VAT on the sale and imports of agricultural products, including grains, from 11 percent to 10 percent.
	May-18	Sorghum	Import duty	Dropped anti-dumping and countervailing duty investigations on imports of US sorghum. The Ministry also announced that it would return the deposits of 178.6 percent that were imposed in February.
	May-18	Wheat	Import quota	Agreed to increase the quotas for Kazak wheat supplies to 500 000 tonnes in 2019, and to 1 million tonnes in 2020.
Jun-18	Wheat	Import tariff	Lowered applied tariff rates on bulgur wheat from Argentina from 30 percent to 10 percent and on some cereal-based products from 25 percent to 10 percent. The new tariffs would be in effect from 1 July 2018.	
Colombia	Nov-17	Maize	Government market intervention	Announced that maize farmers of Cordoba department will receive COP 1 billion (USD 334 635) worth of subsidies for the harvest of the second semester of 2017. The resources were made available until 20 December 2017, with the Bolsa Mercantil de Colombia (BMC) exchange in charge of issuing and monitoring the funding.
Egypt	Oct-17	Wheat	Import requirements	Issued Directive No. 48, allowing wheat imports containing up to 0.05 percent ergot fungi, in line with international standards.
	Dec-17	Wheat	Import requirements	Issued a decree (No. 1761/2017) to authorize wheat imports with ergot content below 0.05 percent subject to further treatment.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Egypt	Jan-18	Wheat	Government market intervention	Signed a USD 3 billion agreement with the International Islamic Trade Finance Corporation (IITFC) to fund imports of basic commodities, including wheat.
	Feb-18	Wheat	Import requirements	Amended tender requirements on imported wheat regarding protein and demurrage. It reduced the minimum protein content from 12 to 11.5 percent for Russian, Romanian and Ukrainian wheat, from 11.5 to 11 percent for French and US soft wheat, and from 12.5 to 12 percent for US hard red wheat.
	Feb-18	Wheat	Government market intervention	Set a cap on demurrage fees; suppliers are now responsible for only the first 12 days of demurrage at a cost of USD 12 000 per day, instead of being responsible for any duration and all demurrage fees accrued. Sieving fees increased from USD 2 per tonne to USD 3 per tonne.
	Apr-18	Wheat	Price procurement	Set local wheat buying price at EGP 570-600 per ardeb (USD 215-226 per tonne), tying it to international prices.
	May-18	Wheat	Import ban	Ruled in favour of an appeal, presented by the State Lawsuits Authority, against the ban on imports of Russian wheat after they were found to contain traces of ergot fungus.
	Oct-17	Wheat	Government procurement	Announced the procurement of 400 000 tonnes of milling wheat, to be used for the government's bread subsidy programme.
European Union	Jan-18	Maize	GMO policy	Renewed the authorization of one variety of GM maize for ten years. Any products derived from this variety will be subject to EU labelling and traceability rules.
	Mar-18	Maize	Import duty	Effective from 2 March, maize, sorghum and rye import duties were reduced to EUR 0.56 (USD 0.67) per tonne.
	Jun-18	Maize	Import duty	Introduced retaliatory tariffs of 25 percent on imports of certain maize and rice products from the United States.
	Nov-17	Wheat	Import duty	Doubled the import duty on wheat to 20 percent, after reintroducing it in March this year. The measure aims to curb imports, support local prices and boost production, with planting of the 2018 raby crop currently ongoing.
India	Dec-17	Wheat	Import requirements	Decided to extend the relaxation in fumigation regulations regarding the use of methyl bromide until 30 June 2018 (Memo 8-131/2016-PP.II).
	Jan-18	Wheat	Import requirements	Extended the exemption o fumigation quarantine rules, expired in December 2017, until the end of June, allowing imported wheat cargoes to be fumigated with methyl bromide at the port of unloading, instead of the port of origin.
	Feb-18	Wheat	Government procurement	Announced that the Government target minimum supply price will be at least 1.5 times the cost of production. The cost of production will be taken as cost of all inputs plus imputed cost of family labour.
	Feb-18	Wheat	Import policy	Introduced a Social Welfare Surcharge of 10 percent of basic custom duty on imported goods, including wheat and wheat products, effective 1 March 2018.
	Feb-18	Wheat	Production support	Announced that farmers will be paid INR 200 (USD 2.93) bonus over the minimum support price on every quintal of wheat they sell to the state government.
	Feb-18	Wheat	Government procurement	Fixed wheat procurement target at 32 million tonnes for 2018/19 marketing year starting April.
	May-18	Grains	Government market intervention	Released the National Biofuels Policy 2018, expanding the range of feedstock available for ethanol to sugar-cane juice, beet, sorghum, maize and cassava, rotten potato, wheat and broken rice. The policy also allows farmers to divert excess crop produce to biofuel production and establishes a viability gap funding scheme of INR 5 000 crore (USD 74.13 million) in six years, tax incentives, as well as higher purchase prices to set up second-generation ethanol refineries.
	May-18	Wheat	Import tariff	Raised the customs duty on wheat from 20 percent to 30 percent.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Iran	May-18	Wheat	Trade agreement	Signed an agreement to enter a three year provisional free trade agreement with the Eurasian Economic Union (EAEU).
Iraq	Mar-18	Wheat	Price procurement	Announced the purchasing prices for the 2018 wheat crop. The prices is IQD 560 000 (USD 467) per tonne for first quality wheat, IQD 480 000 (USD 400) per tonne for second quality wheat, and IQD 420 000 (USD 350) per tonne for grain of lower grade.
	Mar-18	Wheat	Price procurement	Raised price for imported wheat it sells to the private sector by 3.5 percent on 1 April. Imported wheat would be sold to domestic millers at an average price of 54 730 (USD 513) per tonne between April and September.
Japan	Apr-18	Maize	Import policy	Announced that it will allow imports of Ethyl tert-butyl ether (ETBE) made from US maize-based ethanol.
	May-18	Wheat	Import policy	Temporarily suspended tender and sale of wheat from Canada after grain containing a GM trait was discovered last summer in Canada's Alberta province.
Kazakhstan	Dec-17	Wheat	Government procurement	Stated that it will procure 2 million tonnes of milling wheat at KZT 42 000 (USD 126) per tonne.
	Nov-17	Maize	Government market intervention	Under the 'Big Four' Government programme, maize production is prioritized for acceleration, thorough a public-private partnerships model that will involve identification and leasing of underutilized medium/large scale farms and dedicating them to maize production. The programme targets an additional 50 000 hectares in 2018.
Kenya	Dec-17	Maize	Government procurement	Opened its purchase programme and had purchased 3.2 million bags (288 000 tonnes) of maize by end of February 2018 for public stocks.
	7/6/2018	Maize	Government support	Released KES 1 billion (USD 9.9 million) in order to pay part of the KES 3.5 billion (USD 34.6 million) owed to maize farmers.
Rep. of Korea	Mar-18	Maize	Import policy	Announced the intention to restart trade talks with the Mercosur trade bloc in the first half of 2018 after meeting the Brazilian president, with a key focus on the bloc's maize exports to the country.
	May-18	Wheat	Import policy	Temporarily suspended the sale of wheat and flour from Canada after that country announced the discovery in mid-2017 of an unapproved GM trait in Alberta province.
	May-18	Maize	Export ban	Lifted a two-year ban on maize exports, which had been implemented in an effort to stem the impact of tight domestic supplies following reduced output, due to dry weather, in 2016.
Malawi	Oct-17	Maize	Export ban	Reintroduced ban on maize exports. The reimplementation of trade measures reflects an expected fall in the 2018 output from last year's above-average level, mainly due to dry weather during the growing season.
Mexico	Feb-18	Maize and sorghum	Government market intervention	Set new temporary incentive programmes to encourage consumption of domestic maize and sorghum, due to oversupply in key regions, storage problems and a decline in international prices. These were: a MXN 240 (USD 13.23) per tonne incentive for up to 500 000 tonnes of maize used in Guanajuato, Jalisco and Michoacan for human and starch consumption; a MXN 300 (USD 16.6) per tonne incentive for up to 110 000 tonnes of maize to be consumed by the livestock sector; a MXN 200 (USD 11) per tonne incentive for up to 54 000 tonnes of yellow maize to be sold by Chiapas farmers; and a MXN 250 (USD 13.8) incentive for up to 12 500 tonnes of sorghum to be sold by Oaxaca farmers.
	Apr-18	Wheat	Import tariff	Approved restoration of the common wheat import duty to 135 percent, up from the previous level of 30 percent, effective until 31 October 2018.
Morocco	May-18	Wheat	Production subsidies	Announced subsidies to millers to incentivize the purchase of domestic wheat over imports, including a flat rate subsidy of MAD 10 per 100 kg (USD 10.7 per tonne) to millers using local wheat, and a storage premium of MAD 2 per 100 kg (USD 2.1 per tonne) every 15 days to partially offset the costs for storage agencies. The measures apply to locally harvested wheat between 16 May and 15 October 2018.
	May-18	Wheat	Price procurement	Set the reference price for purchasing local standard quality soft wheat at MAD 280 per 100 kg (USD 299.7 per tonne), compared with USD 213 per tonne on the international market, in order to support domestic production.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Nigeria	Jun-18	Maize	Government support	Launched the OCP School Lab, an innovative programme of OCP Africa, aimed at increasing the yield and income of 10 000 smallholder maize farmers in 70 communities across the state.
Pakistan	Jan-18	Wheat	Government market intervention	Approved a programme to export 2 million tonnes of wheat in the current financial year, with 1.5 million tonnes coming from the state of Punjab and 500 000 tonnes from the state of Sindh. The state incentive programme aims to export the bumper harvest of 2017.
	Nov-17	Grains	Transport measures	Expanded the railways discount for grain exports to six new regions, effective from end of June 2018. Seven other regions have already benefited from the scheme since October 2017.
	Nov-17	Wheat	Bilateral agreement	Signed a memorandum with Venezuela to further increase its supplies of milling wheat from the Russian Federation.
	Dec-17	Wheat	Transport measures	Issued decree No. 1595 on rules for providing grain transportation subsidies. The measure was applied until 30 June 2018, allocating a total RUB 2.99 billion (USD 49.5 million) in subsidies from the Federal Budget in 2017 and 2018 for the transportation of 3.181 million tonnes of wheat, barley and maize from 13 regions of the Central, Volga, Ural and Siberia Federal Districts.
	Dec-17	Barley and wheat	Stocks release	Authorized the export of 0.5 million tonnes of wheat and barley from state intervention funds.
Russian Fed.	Mar-18	Wheat	Bilateral agreement	The Agriculture Ministries of Russia and Iran tentatively agreed on a memorandum to ship Russian wheat to the Iranian market.
	Apr-18	Wheat	Price procurement	Approved new prices for the purchasing interventions of the 2018 grain crop. The price of soft food quality wheat Class 1 was set at RUB 10 900 (USD 190) per tonne; wheat Class 2 at RUB 9 900 (USD 173) per tonne; wheat Class 3 at RUB 8 900 (USD 156) per tonne; 4-grade wheat Class 4 at RUB 7 600 (USD 133) per tonne; and wheat Class 5 at RUB 6 400 (USD 112) per tonne. The new prices, which include VAT, were cut by 13 to nearly 16 percent from those in 2017.
	May-18	Wheat	Government market intervention	United Grain Co. and trade house RIF signed an agreement to build a specialized sea grain terminal in the port of Novorossiysk. The terminal would have annual capacity up to 12.5 million tonnes and a grain storage facility with capacity up to 300 000 tonnes of one-time storage.
	Dec-17	Maize	Import tariff	Adopted decision on conditions for reduction of Customs Tariff for Specific Goods, valid from January 2018. According to this decision, customs tariffs for maize, live cattle, live swine and soybean meal from EU countries will be reduced to zero percent until 31 August 2018.
Serbia	Dec-17	Grains	Production support	Announced the use of EU IPARD funds (Instrument for Pre-Accession Assistance in Rural Development). The fund establishes USD 10 million in grants available to assist with purchases of farm machinery and equipment. The grants will finance refunds up to 60 percent of purchase. Of the remainder, the EU will finance 75 percent and the state 25 percent. Grants range between USD 6 000 and USD 850 000 for the production of grains.
	Dec-17	Wheat	Import tariff	Announced import tariff for wheat at ZAR 716.30 (USD 60) per tonne.
South Africa	Apr-18	Wheat	Import tariff	Revised wheat import tariff downwards to ZAR 394.85 (USD 32.67) per tonne, which is a 45 percent decline from the previous rate of ZAR 716.33 (USD 59.25) per tonne.
Sri Lanka	Nov-17	Maize	Import quota	Allowed feed millers to import maize under a special limited quota to meet the shortfall in local supply.
	Dec-17	Wheat	Production subsidies	Announced the end of wheat subsidies for local farmers.
	Jan-18	Wheat	Import subsidies	Removed import subsidies under the new budget of 2018, leaving wheat imports to the private sector.
Sudan	Feb-18	Wheat	Government market intervention	The Agricultural Bank of Sudan signed an agreement with Turkey's Okan Group for establishing and financing silos, warehouses, wheat supply and export of agricultural products.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Thailand	Feb-18	Maize	Import tariff	Reinforced a zero-tariff and quota free maize import window from 1 February to 31 August 2018 for Laos, Cambodia and Myanmar. Maize imports from other countries are subject to a Tariff-Rate Quota (TRQ) of 54 700 tonnes, with a 20 percent in-quota tariff and an out-of-quota tariff of 73 percent.
Turkey	Jan-18	Barley and wheat	Import tariff	Cut barley import duty from 35 percent to 0 percent, until 1 April 2018. Lowered tariffs on four wheat varieties, from 130 percent to 45 percent.
Uganda	May-18	Grains	Government market intervention	Issued standards for nine grain products: maize, wheat, milled rice, dry beans, dry soybeans, maize, flour, wheat flour, sorghum flour and millet flour.
United States	Apr-18	Wheat	Futures markets	The CME Group raised daily price limits for CME wheat and KCBT HRW wheat by 5.00/cbu (1.87 USD per tonne) to 35.00 c/bu (12.7 USD per tonne).
Uzbekistan	May-18	Grains	Transport measures	Granted 20 to 40 percent discounts for shipments of Kazakh grain and flour across Uzbekistan, in order to make grain transportation through the country more competitive.
Venezuela	Jan-18	Maize	Production support	Announced a new self-sufficiency programme with the goal of producing 80-90 percent of the maize seed to support domestic production for the 2018/19 growing season.
Viet Nam	Jun-18	Wheat	Import policy	Resumed wheat imports from Ukraine and introduced strict biosecurity control over grain imported from that country. In 2015, Viet Nam temporarily stopped buying wheat from Ukraine over contamination with grain weevils.
Zimbabwe	Jun-18	Wheat	Government market intervention	Released USD 20 million requested by millers in order to import part of the 200 000 tonnes of wheat from Canada and Germany to avert a bread shortage.

* A collection of major grain policy developments starting in July 2010 is available at: <http://www.fao.org/economic/est-commodities/commodity-policy-archive/en/?groupANDcommodity=grains>

RICE: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2017 TO MID-JUNE 2018*

COUNTRY	DATE	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Azerbaijan	Feb-18	Sector policy framework, production target	Approved the State programme for rice production development 2018-2025, which encourages greater local production of rice to reduce reliance on imports. The programme aims to nearly double area under paddy in eight years to 10 000 ha, in order to raise output from 15 900 tonnes in 2017 to 40 000 tonnes in 2025. According to the programme, interventions to achieve this end would include the promotion of improved seed varieties, enhancing technical assistance, processing capacity, research and development, and infrastructural improvements.
	Nov-17	Import tariff	Lowered customs duties on imported paddy for sowing, effective 1 January 2018. According to the decision, imports of paddy for sowing would be duty free between January and April and accrue an import tariff of 5 percent in the remaining months. The revised rates compare with a previous duty of 5 percent for January through April, and of 15 percent for the remaining months. Customs tariffs for all other classes of rice were left unchanged at 15 percent.
	Feb-18	Production support	Announced it would allocate BDT 400 million (USD 4.8 million) to support 240 000 small- and medium-scale farmers cultivating Aus rice, by providing them with free fertilizer and seeds, as well as a cash outlay for land preparation and irrigation costs.
	Nov-17 to Feb-18	Government procurement, purchasing prices	Announced it would buy 300 000 tonnes of Aman rice, between December 2017 and February 2018. The procurement target was successively doubled, with volumes purchased at BDT 39 per kg (USD 464 per tonne), up from the BDT 33 per kg (USD 392 per tonne) offered a year earlier.
Bangladesh	Apr-18	Government procurement, purchasing prices	Announced its intention to purchase 150 000 tonnes of paddy, 800 000 tonnes of parboiled rice and 100 000 tonnes of white rice from the 2018 Boro harvest. The procurement drive would run from 2 May until 31 August 2018, offering BDT 26 per kg of paddy (USD 313 per tonne), BDT 38 per kg of parboiled rice (USD 457 per tonne) and BDT 37 per kg of white rice (USD 445 per tonne).
	Nov-17	Imports, Government procurement	Decided that it would purchase 100 000 tonnes of imported parboiled rice through a local tender.
Bolivia	Jun-18	Import tariff	Rescinded import duty concession on rice approved in 2017, in order to support the local rice sector. Accordingly, rice imports would accrue a 28 percent import tariff, consisting of a 2 percent customs duty and 3 percent regulatory duty, effective from 7 June 2018.
	Apr-18	Government procurement, purchasing prices	Announced that the state enterprise EMAPA would offer USD 65 per 200 kg fanega (USD 325 per tonne) it bought from producers in 2018. EMAPA aims to purchase 50 000 tonnes of paddy from the 2018 harvest.
	Dec-17	Production support	Authorized a fund of BRL 100 (USD 29.2) million to conduct Prêmio e Valor de Escoamento de Produto (PEP) and Prêmio Equalizador Pago ao Produtor (PEPRO) auctions for rice.
Brazil	Dec-17	Production support	Authorized the purchase of 70 000 tonnes of paddy from the 2018 harvest (2017/18 harvest for Brazil) through the Aquisição do Governo Federal (AGF) programme, effective until 31 of December 2018.
	Apr-18	Government procurement	Released planting guidelines for the 2018 season, reiterating the Government's commitment to maintain absolute security in rice and wheat, while pursuing supply-side reforms to address grain over-supply. The document reaffirms official plans to maintain the minimum support price mechanism for paddy and wheat, aiming to stabilize the total area planted to the two crops at 800 million mu (53.3 million ha). In the case of rice, the guidelines seek to reduce area planted to paddy by over 10 million mu (0.67 million ha) in 2018, mostly comprising low-yielding Japonica acreage in the northeastern region, and double-season Indica paddies in the Long river valley. Among other provisions, the document calls for promotion of green agriculture by increasing fertilizer and pesticide efficiency, crop quality improvements and agricultural mechanization, and improving the regulatory system.
China (Mainland)	Feb-18	Support prices	Lowered Government procurement prices for paddy for the 2018 season. Procurement prices would be reduced by 7.7 percent for early Indica paddy to CNY 120 per 50 kg (USD 382 per tonne), by 7.4 percent in the case of late/intermediate Indica paddy to CNY 126 per 50 kg (USD 402 per tonne), and by 13.3 percent for Japonica paddy to CNY 130 per 50 kg (USD 414 per tonne).

COUNTRY	DATE	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
China (Mainland)	May-18	Government procurement, support prices	Announced that the procurement drive for wheat and paddy in 2018 would only begin after market prices for these crops fell below Government purchase prices for three consecutive days, and would be suspended if market rates exceeded state purchase prices. Sinograin would continue to lead the state procurement drive, but other entities such as COFCO, China CO-OP Group, Sinochem, and the China State Farm Group could undertake purchases of wheat and paddy on its behalf. Unlike previous seasons, when crops of national grade 1 to 5 all qualified for procurement, in 2018 state purchases of wheat and paddy would be confined to grains of national grade 3 or higher. The procurement drive of early Indica paddy would span 1 August to 30 September 2018 in Anhui, Jiangxi, Hubei, Hunan and Guangxi, while in the case of late/intermediate paddy, the procurement season would run from 10 October 2018 to 31 January 2019 for Jiangsu, Anhui, Jiangxi, Henan, Hubei, Hunan, Guangxi and Sichuan, and from 1 November 2018 to 28 February 2019 for Liaoning, Jilin and Heilongjiang. In all other provinces, the span of the procurement drive could be determined by provincial authorities.
	Mid Oct-17 to May-18	Stock release	Sold 6.3 million tonnes of paddy from Government reserves through 61 auctions held between 18 October 2017 and 29 May 2018, which offered sale of a total of 51.2 million tonnes of paddy from state stockpiles.
	Oct-17	Import quota	Announced that the 2018 tariff-rate import quota for rice would remain unchanged at 5.32 million tonnes.
	Dec-17	Import tariff	Reduced Most-Favoured-Nation tariff rates on out-of-quota imports of broken rice from 65 percent to 10 percent, effective 1 July 2018.
Colombia	Apr-18	Production support	Allocated up to COP 51.4 billion (USD 18 million) to extend a marketing assistance package to rice producers, in view of declines in paddy prices and increases in production costs. The programme will cover up to 1.56 million tonnes of wet paddy, offering producers in North Santander COP 48 636 (USD 17) per tonne of wet paddy marketed between 30 April and 10 December 2018 (or until allotted funds have been fully utilized), and COP 31 923 (USD 11) per tonne to rice farmers elsewhere in the country.
Costa Rica	Jan-18	Consumer prices	Adjusted price floors and ceilings for all rice qualities at wholesale and retail level, effective 30 January 2018. In the case of the widely consumed 80/20 rice, retail prices were set at CRC 608 (USD 1.06) per kg, representing a 2.1 percent reduction from previously applicable levels set in September 2016.
	Nov-17 and May-18	Import quota	Approved a shortage import quota of 42 176 tonnes of paddy. The volume was to be imported, free of duties, by the National Rice Corporation (CONARROZ) between January and June 2018. A May 2018 decision increased the quota to a total of 62 507 tonnes of paddy, and extended its delivery period to 31 August 2018, in light of production losses caused by Tropical Storm Nate.
Ecuador	Apr-18	Production support, support prices	Replaced the fixed producer support price of USD 35.5 per 200 lb (USD 391 per tonne) with a floor and ceiling, effective 11 April 2018. Based on the decision, producer prices for paddy, with 20 percent moisture content and 5 percent impurities, would fetch a floor of USD 32.30 per 200 lb (USD 356 per tonne) and a ceiling of USD 35.5 per 200 lb (USD 391 per tonne) during the 2018 season.
Egypt	Nov-17	Government procurement	Reached an agreement with the industry, whereby traders and processors would supply the Government with rice at a price of EGP 6.1 per kg (USD 344 per tonne) to enable the state to continue selling rice to consumers through Government outlets at EGP 6.5 per kg (USD 367 per tonne).
	Jan-18 and May-18	Cultivation limits	Decided it would allow a maximum of 724 200 feddans (304 100 ha) to be cultivated with rice during the 2018 season, representing a 33 percent reduction from the 1.1 million feddan (452 000 ha) limit approved for 2017. According to press reports, an early May decision raised the 2018 area limit by 100 000 feddans (42 000 ha).
	Jun-18	Import plan	Issued statements indicating that rice would be imported, in unspecified amounts, to meet domestic consumption requirements, given expected local production cuts resulting from official efforts to preserve scarce water resources.
	May-18	Import tariff	Notified the World Trade Organization that it intended to suspend trade concessions and impose additional import duties on a range of goods originating in the United States, including rice, in response to US tariff increases on steel and aluminum products. A Regulation issued on 20 June 2018 set the customs duty on US semi-wholly milled and fully broken rice at 25 percent, effective from 22 June 2018, and for as long as the United States applied the higher import tariff on EU steel and aluminum products.
The Gambia	Dec-17	Import tariff	Announced that the 15 percent import duty on rice would be rescinded until 2020, effective 1 January 2018.
Guatemala	Nov-17	Import quota	Decided that 26 000 tonnes of paddy from any origin would be exempted from import duties between 1 January and 31 December 2018.
Indonesia	Jan-18	Import quota	Authorized imports of 500 000 tonnes of medium-quality rice, until 28 February 2018, in order to refurbish state stockpiles and quell upward pressure on domestic quotations. Subsequent approval was given to the state enterprise, Bulog, to import additional quantities and to extend the period by which supplies needed to be delivered until June 2018.

COUNTRY	DATE	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Kenya	Jan-18	Budgetary allocations, production support	Announced that it aimed to achieve self-sufficiency in rice, maize and potatoes, among other products, under its Big Four economic agenda. In the case of rice, the aim would be to boost local output to 400 000 tonnes by 2022. Interventions to this end would include bringing 700 000 acres (283 300 ha) of idle land into cultivation of maize, rice, potatoes, cotton and other crops under public-private partnerships, expanding irrigation coverage, reducing post-harvest losses and enhancing smallholder access to basic inputs and credit through warehouse receipts and the commodity fund. Among other measures, public-private partnerships would also be sought to enhance the Strategic Food Reserve and crop insurance against natural disasters upscaled.
Malaysia	Oct-17	Budgetary allocations/ production support	Announced it would set aside MYR 6.5 billion (USD 1.6 billion) to support the agricultural sector, as part of its 2018 budgetary allocations. The sum would include MYR 2.3 billion (USD 562 million) to fund input assistance programmes for paddy producers, rubber farmers and fishers, further to improvements to irrigation and road infrastructure. Another MYR 150 million (USD 37 million) would go to channel a monthly outlay of MYR 200 (USD 49) to paddy farmers for three months preceding the harvest period.
	May-18	Production support	Raised the target price for rice used under the Target Income Program by 20 percent to MXN 4 380 (USD 212) per tonne, effective from the 2017/18 autumn-winter crop cycle.
Mexico	Dec-17	Import quota	Approved a two-year extension to the duty-free import quota for rice originating in countries not party to a free trade agreement with Mexico, first established in March 2017. Accordingly, up to 150 000 tonnes of paddy, husked, milled or broken rice may be imported annually, from any origin and free of duties, until 31 December 2019. Import certificates under the quota will be issued for a maximum of 10 000 tonnes per solicitor, and will be valid for 60 days after their allocation, or until the close of the calendar during which they are issued, whichever comes first.
Nigeria	Nov-17	Budgetary allocations/ production support	Announced it would continue to channel assistance to farmers through the Anchor Borrowers Programme and the President's Fertilizer Initiative, as part of its 2018 budgetary allocations. Additional efforts to bolster agricultural growth would include the completion of irrigation projects, steps to combat smuggling of foodstuffs, and fast tracking the establishment of six Staple Crop Processing Zones to enhance production, processing and storage capacity.
	Jan-18	Price controls	Renewed maximum retail prices on 22 basic foodstuffs until 7 July 2018. The price ceilings were first installed on 1 July 2014, and have been renewed on a biannual basis since then. In the case of high quality rice, maximum retail prices will remain set at PAB 0.88 (USD 0.88) per kg.
Panama	Feb-18	Sector policy framework, production support, consumption and marketing	Approved a law declaring rice a national food security crop, calling on the executive branch of Government to put in place policies that guarantee rice production, availability and consumer access to quality produce. The law calls for a strategy to boost local rice production, while tasking the Ministry of Agricultural Development with taking measures to facilitate research, crop insurance, and credit and technical assistance to local producers, as needed. In order to secure local rice production, it envisages a subsidy of PAB 165 (USD 165) per tonne of wet unclean paddy produced in Panama, to be reviewed every three years, further to tax exemptions on inputs, as well as 40 percent discounts on costs of fuel and lubricants incurred by producers during the growing period. While the Instituto de Mercadeo Agropecuario is charged with purchasing all local produce not absorbed by private sector entities, among other measures, the law also foresees a PAB 11.02 (USD 11.02) per tonne levy on rice imported through shortage quotas, in order to fund capacity development for local rice groups and contributions to the Latin American Reserve Fund. The law became effective on 23 February 2018.
	Mar-18 and Jun-18	Import quota	Approved an import quota of 45 360 tonnes of paddy for 2018, 70 percent of which was assigned to private sector entities, and the balance to the Instituto de Mercadeo Agropecuario. The full volume was to be delivered by 30 June 2018. A June decision approved a second import quota for a similar volume for delivery by 30 August 2018. Volumes purchased under both quotas will be liable to a 3 percent import tariff.
Peru	Dec-17	Import tariff	Decreed that Uruguayan 5 percent long grain quotations would replace Thai 100 percent B white rice prices as a benchmark to calculate import duty rebates/surcharges applied on rice under the price band mechanism. The decree also caps the ceiling on additional import duties to 15 percent of the Cost, Insurance and Freight (CIF) value of imports, down from a previous ceiling of 20 percent, containing the new customs tables based on the revised reference price. The latter will be effective from 21 December 2017 until 30 June 2018.
Philippines	Jan-18	Import quota	Gave standby authority to the National Food Authority (NFA) to import 250 000 tonnes of rice to replenish Government inventories. Following directives from the President ordering the purchases to be expedited, on 18 April 2018 the NFA issued specifications for a government-to-government tender to import 50 000 tonnes of 15 percent broken and 200 000 tonnes of 25 percent broken from Thailand or Viet Nam. The full volume was purchased from the two countries through a tender held on 4 May 2018. Of the total, 100 000 tonnes were to be delivered by 31 May 2018 and the balance by 30 June 2018.

COUNTRY	DATE	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
	May-18	Import tender	Purchased 250 000 tonnes of 25 percent broken rice through a tender open to private sector traders, held on 22 May 2018. Of this volume, 200 000 tonnes are to be delivered by 31 July 2018 and the remainder by 31 August 2018.
Philippines	May-18	Import quota	Announced that certificates of eligibility to import 805 200 tonnes of rice under 2017/18 Minimum Access Volume (MAV) country-specific and omnibus quotas would be issued to the private sector, based on a service fee auction on 14 June 2018. The total MAV import volume would be divided into 48 lots, 20 percent of which to be reserved for farmer organizations, with the minimum service fee bid price set at PHP 250 (USD 4.7) per tonne. Rice imports under the MAV would be liable to a 35 percent import duty and would consist of 25 percent broken or higher-grade rice, to be delivered between July and 31 August 2018, or between 20 December 2018 and 28 February 2019. Successive decisions delayed the service fee auction to 25 June 2018, and lowered the minimum service fee bid price to PHP 100 (USD 1.9) per tonne.
Republic of Korea	Jan-18	Production adjustment programme	Announced its aim to convert 50 000 ha of paddies to other uses in 2018, in order to stabilize the local market in view of steady declines in domestic rice consumption. For this purpose, it would offer an average of KRW 3.4 million (USD 3 172) per ha to farmers who agree to cultivate crops other than rice.
	Nov-17	Consumer prices	Adjusted the prices of three qualities of rice sold through Lak Sathosa outlets, setting them between LKR 65-78 (USD 0.4-0.5) per kg, effective 2 November 2017.
	Dec-17	Price controls	Re-established maximum retail prices for Nadu rice. Accordingly, a price ceiling of LKR 74 (USD 0.5) per kg will be applicable for local and imported Nadu rice, effective 26 December 2017.
	Nov-17	Budgetary allocations/ production support	Announced it would set aside LKR 3.0 billion (USD 19.4 million) to launch a weather index insurance scheme, as part of its 2018 budgetary allocations. Insurance premiums under the programme would be partly subsidized by the Government, with the scheme providing minimum coverage of LKR 40 000 (USD 258) per acre planted to paddy, or five other crops. Additional resources would boost storage capacity, monitor groundwater resources, address soil fertility problems and conserve water resources. Credit assistance for smallholders, processors and farmer organizations would also be provided under the Enterprise Sri Lanka Credit Scheme.
Sri Lanka	Feb-18	Government procurement	Decided that the Paddy Marketing Board would purchase Samba and Keeri Samba paddy at LKR 41 per kg (USD 263 per tonne), and Nadu paddy at LKR 38 per kg (USD 244 per tonne), under the 2018 Maha procurement drive. A subsequent decision allocated LKR 500 million (USD 3.2 million) to fund the purchases.
	Oct-17	Import tender	Issued an international tender to import 150 000 tonnes of parboiled rice and 50 000 tonnes of white rice. Half the total volume sought would need to be delivered by 30 November 2017, and the balance by 31 December 2017.
	Dec-17 to Apr-18	Import tariff	Decided that imports of husked, broken and semi/wholly milled rice (Nadu, Samba and raw) would continue to accrue a Special Commodity Levy of LKR 0.25 per kg (USD 1.6 per tonne) until 1 May 2018.
	Jan-18	Production support	Announced that the direct payment programme encouraging production of high-quality rice would cover all townships during the first and second crops of 2018. Under the scheme, qualified farmers would receive direct payments ranging from NTD 10 000 to NTD 13 500 (USD 336 to 454) per ha, with an additional NTD 1 500 (USD 50) per ha offered to producers who also participate in rice production clusters.
Taiwan province of China	Jan-18	Production adjustment programme	Announced it would raise incentives to rice farmers agreeing to cultivate coarse grains and oilcrops instead of rice, as a part of Green Environment Payment on Land Area programme. Farmers participating in the scheme would receive NTD 25 000 to 70 000 (USD 841 to 2 355) per ha for cultivating import-substitute crops, export-oriented crops and other policy specified items, up NTD 5 000 to 15 000 (USD 168 to 505) from previously offered levels. Farmers could apply twice a year, starting from the first crop cycle of 2018.
	Dec-17	Production adjustment programme	Approved a budget of THB 1.7 billion (USD 54 million) to extend a THB 2 000 per rai outlay (USD 399 per ha), for up to 15 rai (2.4 ha), to rice farmers agreeing to cultivate other crops during the 2017/18 off-season cycle.
	Apr-18	Production support	Allotted a budget of THB 1.67 billion (USD 51.2 million) to implement a 10-year loan scheme for rice farmers and farmer groups constructing storage facilities. The programme aims to avert declines in local prices at harvest time by encouraging farmers to delay their paddy sales. Under the scheme, rice farmers will be able to borrow up to THB 150 000 (USD 4 660) and farmer groups up to THB 3 million (USD 93 120), with the Government providing a 3 percent rebate on these loans' interest for the first five years.
Thailand	Oct-17	Stock release	Announced it would refrain from releasing supplies from Government inventories at harvest time in order to avoid pressuring local quotations. Subsequent statements by officials specified that auctions of state-owned rice would not resume until 2018.
	May-18 and Jun-18	Stock release	Held three auctions in May and June 2018 to sell all the rice amassed through the defunct Paddy Pledging Program that was still left on government reserves. The first, held on 18 May, sold 43 700 tonnes of food-grade rice, while a separate 1.49 million tonnes of rice for animal feed were offered on 14 June, and another 0.54 million tonnes of rice fit for industrial uses only were auctioned on 15 June 2018.

COUNTRY	DATE	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Turkey	Dec-17	Import tariffs	Lowered import tariffs on paddy to 5 percent, on husked rice to 10 percent, and on semi/wholly milled rice to 15 percent, effective from 31 December 2017 until 1 July 2018. Thereafter, customs tariffs will be restored to previously applicable rates of 11.2-34 percent for paddy, 36 percent for husked rice, and 45 percent for semi/wholly milled rice.
Uruguay	Feb-18	Production support, tax policy	Approved a one-year refund on value-added taxes on fuel for producers of rice, milk, flowers, fruits and vegetables that are not liable to income taxes on commercial activities. The reimbursement will be provided for up to 4 percent of the value of producers' annual sales during the previous fiscal year, and is effective as of 1 March 2018.
	Nov-17 and Apr-18	Production support	Approved a 15 percent discount on electricity tariffs for rice producers, valid from November 2017 until March 2018. An April announcement specified that the discount would also be made available to rice producers and millers for 90 days during the 2019 season.
	May-18	Production support, finance and credit facilities	According to press reports, the Banco República (BROU) announced a loan restructuring programme for up to four years for its rice producing clients, in addition to new financing instruments aimed at assisting them in meeting credit commitments due in 2018, and preparing for 2019 cropping activities.
Venezuela	Nov-17	Price controls	Set ceilings on consumer prices for Type I rice at VEF 15 561 per kg, at VEF 13 709 per kg for Type II rice, and at VEF 12 537 per kg for Type III rice.
	Nov-17	Support prices, price controls	Set producer prices for wet paddy at VEF 4 000 per kg. The move follows September discussions between sector representatives and Government entities, under the Law on Sovereign Supply and Agreed Prices (Plan 50) initiative that sets forth a new system to determine the prices of 50 necessities.
Viet Nam	Dec-17	Export requirements	Repealed provisions of a 2010 Circular that set out conditions for traders leasing storage and milling facilities in order to engage in rice trade.
Zimbabwe	Nov-17	Consumer prices	Announced that prices of rice, along with 15 other products deemed essential, would be closely monitored, as part of efforts to stabilize domestic quotations, and that recommended price levels for these goods would be publicly disseminated every fortnight. Essential commodities would also be prioritized in foreign exchange allocations, in order to facilitate their import.

* The full collection starting in January 2011 is available at: http://www.fao.org/economic/est/commodities/commodity_policy_archive/en/?groupANDcommodity=rice.

OILCROPS: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2017 TO MID-JUNE 2018 *

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Argentina	Nov-17	Grains, oilseeds	Export promotion	Ordered a 30 percent cut in docking fees (which represent about 30 percent of total port expenses incurred by exporters) in the country's main grains/oilseed export port.
	Nov-17	Soybeans	GMO policy	Approved the cultivation of a genetically modified (GM) soybean variety resistant to herbicides other than glyphosate.
	Dec-17	Biodiesel	Biofuel policy	Increased the country's variable export tax on biodiesel from 0 to 8 percent, effective 1 January 2018.
	Jan-18	Soybeans, soymeal, soyoil	Export policy	Lowered export taxes on soybean, soymeal and soyoil by 0.5 percentage points, planning to continue with the same half-point-per-month reduction for the next two years.
	Apr-18	Soybeans, soybean products	Export policy	Changed the time of export tax collection from the day a purchase contract is signed to the day of shipment, thus allowing exporters to benefit from monthly tax cuts and encouraging forward sales.
	May-18	Biodiesel	Biofuel policy	Raised, effective 1 July 2018, the export tax on (soybean oil-based) biodiesel from 8 percent to 15 percent, with a view to bringing the tax closer to the rate charged on exports of soybean oil (which, in May 2018, stood at 24.5 percent).
	May-18	Soybeans	GMO policy	Approved the cultivation of a GM soybean variety resistant to herbicides containing glyphosate, glufosate and isoxaflutole.
	Nov-17	Rapeseed	Bilateral trade agreement	Agreed on duty-free entry of Australian rapeseed into Peru.
	Nov-17	Fungicide	Pesticide regulation	Granted regulatory approval for a fungicide developed primarily to combat Asian soy rust.
	Nov-17	Grains, oilseeds	Transport infrastructure	Invited bids for the construction and operation of new roads (3 125 km by the end of 2018), with a view to addressing historical infrastructure bottlenecks.
Dec-17	Biofuels	Biofuel policy	Passed 'RenovaBio', a package of incentives and regulatory measures concerning renewable fuels aimed at i) stimulating domestic biofuel production and consumption; ii) attracting investments; and iii) fostering competition within the sector.	
Dec-17	Grains, oilseeds	Transport infrastructure	Invited bids for the 'Ferrogrão' grain railroad project linking Mato Grosso state with transshipment ports in the Amazon basin, offering prospective contractors a 65-year operating licence.	
Mar-18	Biodiesel	Biofuel policy	Raised the nationwide mandatory blending rate for biodiesel from 8 percent to 10 percent, a shift expected to raise Brazil's annual biodiesel consumption by almost 30 percent. Also confirmed plans to increase the country's mandatory blending rate further in the coming years.	
Mar-18	Oilcrops, other agric. products	Sector development measure	Announced fresh funding for its Rural Insurance Premium Subsidization Programme and launched an online portal, 'Macrologística', designed to facilitate agribusiness.	
Mar-18	Soybeans, maize	Transport infrastructure	Published data on the volume of soybeans and maize shipped through the country's northern export corridors, showing a year-on-year increase of 80 percent (or 51.2 million tonnes) for 2017.	
May-18	Soybeans	GMO policy	Approved three new GM soybean varieties, with full commercial launch expected in about 2 years.	
Jun-18	All crops, livestock	Agricultural policy	Presented the agricultural support programme for 2018/19, which envisages an increase in outlays for: i) farm loans (including a reduction in concessional interest rates and increased attention to: investments in on-farm grain storage, low carbon agriculture, livestock/aquaculture); ii) marketing support programmes; and iii) crop insurance schemes.	
Dec-17	Biofuels	Biofuel policy	Published a regulatory framework outlining the scope and key elements of a national standard for clean fuels, with a focus on reducing carbon intensity across their lifecycle.	
May-18	Grains, oilseeds	Transportation policy	Renewed and expanded the country's transportation law to ensure that Canadian farmers have timely access to reliable rail services, while preserving shipping rate competitiveness and providing sufficient economic incentives for rail companies to continue investing in rail infrastructure.	

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
China (Mainland/ Ukraine)	Sep-17	Sunflower meal	Trade arrangement	Signed a protocol on storage, packaging, labelling and quarantine requirements for importing Ukrainian sunflower meal to China.
	Nov-17	Soybeans, maize	Agricultural policy	Adjusted farmer support payments in Heilongjiang Province, with the objective of curbing maize and encouraging soybean production, while making the country's grain reserve system more flexible. Also announced plans to subsidize grain transportation and storage facilities.
	Nov-17	Soybeans	Public stockholding	Suspended public auctions of soybeans from state reserves as of 1 November 2017, so as not to disrupt marketing of the new 2017/18 crop.
	Nov-17	Dried distillers grains	Tax policy	Removed the country's 11 percent value-added tax on imports of dried distillers grains with solubles (DDGS).
	Dec-17	Grains, soybeans	Food standard	Released a new code of hygienic practice for the processing of grains, including soybeans.
	Dec-17	Soybeans	Trade standard	Lowered the level of impurities allowed in US soybean cargoes amid concerns over the presence of weed seeds in past consignments.
	Jan-18	Rapeseed oil	Public stockholding	Ended public auctions of rapeseed oil sales from state reserves, with dwindling volumes offered pointing to a drying out of government stocks.
	Mar-18	Soy-foods, soy-based feed	Sector development measure	Introduced localized direct support payments for industries processing soybean into food and feed products.
	May-18	Soybeans	Agricultural policy	Renewed area-based payments and other incentives for farmers planting soybeans as part of broader efforts to curb the country's maize production.
	May-18	Soybeans, maize	Agricultural policy	Confirmed that farmer support programmes in Heilongjiang, Inner Mongolia, Jilin and Liaoning – aimed at encouraging crop rotation in favour of soybeans, land fallow and maize stock disposal – would remain in place during 2018/19.
	May-18	Groundnuts, cottonseed	Food standard & safety	Invited comments on a draft code of practice on the prevention and reduction of aflatoxin contamination in food.
	May-18	Olive oil	Food standard & safety	Reported a new case of fraudulent labelling concerning olive oil.
	May-18	Oilseeds, oilmeals, edible oils	Tax policy	Lowered the country's value-added tax on sales and imports of agricultural products – including oilseeds, oilmeals and edible vegetable oils – from 11 percent to 10 percent.
Colombia	Jun-18	Soybeans, soybean oil	Public stockholding	Resumed public auctions of soybeans and soybean oil from state reserves.
	Jun-18	Soybeans	Trade dispute	Announced – in the context of a broad trade dispute – the introduction, on 6 July 2018, of an additional 25 percent tariff on selected goods imported from the United States, including black and yellow soybeans, to reciprocate duties the US is set to impose, effective the same date, on imports of certain goods from China.
	Jun-18	Soybeans, soybean meal, rapeseed, fishmeal	Free trade agreement	Announced the removal, as of 1 July 2018, of tariffs on soybeans, soybean meal, rapeseed and fishmeal imported from Bangladesh, India, the Lao People's Democratic Republic, the Republic of Korea and Sri Lanka. The measure is part of trade facilitation instruments scheduled under the Asia-Pacific Trade Agreement (APTA).
	Mar-18	Biodiesel	Biofuel policy	Raised the mandatory inclusion rate for palm oil-based diesel into regular transport diesel to 10 percent nationwide.
	Mar-18	Olive oil, olives	Sector development measure	Signed the Sixth International Agreement on Olive Oil and Table Olives, thereby regaining full membership in the International Olive Council and securing access to grants in support of domestic olive production.

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
European Union	Nov-17	Glyphosate	Pesticide regulation	Allowed continued use of the controversial herbicide for an abbreviated period of five years, so as not to disrupt trade in grains and oilseeds.
	Dec-17	Biodiesel	Biofuel policy	Confirmed that rapeseed grown in Canada and Australia would remain eligible for use in the EU market as environmentally-friendly feedstock for biodiesel.
	Dec-17	Oilseeds	GMO policy	Authorized new GM crop varieties for food and feed use, including three soybean and two rapeseed varieties.
	Dec-17	Xylella fastidiosa	Pest control	Agreed on a roadmap outlining steps to combat the bacterial disease that threatens olive trees and other plants across the EU.
	Jan-18	Biodiesel	Trade dispute	Was notified by the World Trade Organization's (WTO) dispute settlement body that the bloc's anti-dumping duties on biodiesel imports from Indonesia were inconsistent with WTO law.
	Mar-18	Biodiesel	Biofuel policy	Saw the European Parliament vote for a reform of the bloc's Renewable Energy Directive that would, inter alia: i) freeze production of crop-based biofuels at 2017 levels, while capping their share in total road/rail transport fuels; and ii) phase out, by 2021, the use of biofuels that bring about strong indirect land use changes.
	Mar-18	Xylella fastidiosa	Pest control	Provided an update on the disease's spread and required all member states to carry out annual surveys for the presence of the disease in their territory.
	Mar-18	Soybeans	Sector development measure	Launched an initiative aimed at formulating an EU-wide strategy for the promotion of protein rich crops, notably soybean.
	Mar-18	Biodiesel	Trade dispute	Launched a new investigation concerning biodiesel imports from Argentina, citing evidence that Argentine biodiesel manufacturers benefit from state subsidies that damage EU producers.
	May-18	Olive oil	Food standard	Invited public comments on two proposed amendments to the bloc's labelling regulations for olive oil.
	May-18	Nicotinoids	Pesticide regulation	Backed a proposal by the European Commission to further restrict the use of substances known as nicotinoids, with strict regulations expected to come into force by the end of 2018.
	May-18	Biodiesel	Trade dispute	Removed anti-dumping duties on biodiesel imports from 13 Argentine and Indonesian producers, abiding by a ruling of the European Court of Justice.
	May-18	Biodiesel	Trade dispute	Decided to register, as of 25 May 2018, imports of biodiesel from Argentina in the context of an ongoing trade investigation regarding the alleged subsidization of biodiesel production in Argentina.
Ghana/Malaysia	Jun-18	Biofuels	Bioenergy policy	Reached a provisional, informal agreement regarding the bloc's renewable energy policy after 2020, comprising: i) binding overall and transportation specific targets for renewable energy use; ii) capping the amount of crop-based biofuels in transport to 2020 levels, with a maximum of 7 percent; iii) freezing the use of biofuels that bring about strong indirect land use changes at 2019 levels, with a mandatory phase-out by 2030; iv) introducing binding targets for advanced biofuels; and (v) mandating the presence of waste-based biofuels.
	Nov-17	Oil palm	Bilateral cooperation	Pledged to foster the exchange of technical and marketing expertise between the two countries' palm oil industries, in a bid to strengthen Ghana's production and processing capacities.
Greece	Dec-17	Olive oil	Food standard	Required its restaurant and hospitality sector to serve olive oil only in its original packaging, with the aim of promoting quality and protecting consumers from fraud.

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION	
India	Nov-17	Rabi oilcrops	Agricultural policy	Raised the minimum support prices for Rabi crops, without, however, guaranteeing procurement by state agencies at the established prices.	
	Nov-17	Food product labels	Food standard	Postponed the compliance date for mandatory declaration of trans-fat and saturated fat content on food product labels until 31 December 2017.	
	Nov-17	Edible oils, soybeans	Import policy	Raised the country's import tariffs for edible oils and soybeans, in an effort to curb edible oil imports and lift domestic prices in support of local farmers and refiners.	
	Dec-17	Toria	Agricultural policy	Raised the minimum support price for 'toria', an oilseed variety mainly grown in Rajasthan.	
	Dec-17	Soymeal	Export promotion	Raised the country's export incentives for soymeal shipments.	
	Feb-18	Food products	Import policy	Modified the country's general import levies, adding a Social Welfare Surcharge of 10 percent to the basic customs duty; the surcharge also applies to food and processed food imports.	
	Feb-18	Selected vegetable oils	Import policy	Raised the country's import tariff for selected (crude and refined) vegetable oils further.	
	Mar-18	Coconut	Agricultural policy	Raised the minimum support prices for milling and ball copra aiming to i) ensure remunerative prices for coconut farmers; and ii) encourage investment in coconut cultivation.	
	Mar-18	Edible oils	Food standard	Banned 28 brands of edible oil in Kerala State, based on probes showing adulteration of coconut oil, and earmarked funds for systematic analysis of edible oils.	
	Mar-18	Palm oil	Import policy	Increased import duties for crude and refined palm oil, in a bid to stimulate local oilseed production and help curb edible oil imports.	
	Mar-18	Oilseeds	Public procurement	Approved, for a five-year period, a rise in the volume of oilseeds (and pulses) that state governments can procure under the federal Price Support Scheme.	
	May-18	Edible oils	Export promotion	Lifted the ban on bulk exports of all edible vegetable oils, with the exception of mustard seed oil.	
	May-18	Food product labels	Health policy	Proposed new labelling regulations for prepackaged foods, which envisage mandatory front-of-package display of nutritional data (including on total fat and trans-fat content) and related dietary recommendations.	
	May-18	Oilseeds	Public procurement	Considered reforming the country's public procurement scheme for agricultural crops, including oilseeds, to enforce minimum support prices set by the Government.	
	Jun-18	Crude/refined soybean-, sunflower-, groundnut-, rapeseed-oil	Import policy	Raised import duties for vegetable oils other than palm oil by a further 5-10 percent.	
	Indonesia	Jun-18	Sunflower seed	Public procurement	Initiated procurement of sunflower seed in the state of Haryana at Government-set minimum prices, in a bid to shield growers from sharp price drops.
		Nov-17 to Jun-18	Palm oil	Export policy	Kept the country's sliding tax on crude palm oil exports at zero, marking 14 months in succession with no export tax.
Nov-17		Oil palm	Sector development measure	Launched an oil palm rejuvenation scheme for small oil palm growers, in a bid to raise yields in smallholder plantations. The new scheme will cover 20 000 ha of Indonesian Sustainable Palm Oil (ISPO) certified plantations in a first phase.	
Feb-18		Peatland	Environmental policy	Channelled USD 21.7 million in state funds to the governors of seven provinces designated as priority intervention areas for field programmes to accelerate peatland restoration.	

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Indonesia	Mar-18	Biodiesel	Biofuel policy	Considered widening the scope of the country's biodiesel support policy by channelling subsidies not only to state-owned petrol companies but also to small private outlets, as part of ambitious plans to expand domestic consumption of palm-biodiesel.
	Mar-18	Palm oil	Trade standard	Worked on a presidential regulation to foster the adoption of the country's national ISPO standard, which became mandatory in 2015, but is estimated to cover only 17 percent of the country's total oil palm plantation area.
	Apr-18	Palm oil	Transport infrastructure	Postponed the implementation of regulations requiring exporters of palm oil to use exclusively Indonesia-flagged vessels until 2020.
	May-18	Biodiesel	Biofuel policy	Decided to i) maintain subsidies to producers of palm oil-based diesel; ii) expand mandatory biodiesel use to the mining and railway sectors; and iii) uphold plans to further raise domestic admixture levels in the transportation and energy sectors in the coming years.
	May-18	Oil palm	Land rights	Announced that a unified database integrating various land-use maps – which could be instrumental in identifying overlapping land concessions and addressing the problem of illegal oil palm plantations – would be completed in the course of 2018.
	May-18	Oil palm	Sector development measure	Pledged to expand a countrywide oil palm rejuvenation programme launched in November 2017 to cover 185 000 ha (instead of the originally targeted 20 000 ha) of smallholder plantations in 2018.
	May-18	Palm oil	Trade standard	Conducted research into the adoption of the country's ISPO standard by smallholders, reporting a number of challenges, in particular: a lack of assistance in adopting agricultural best practices; unclear land ownership; and a lack of access to ISPO compliant seedlings and fertilizer.
	Nov-17	Olive oil	Import policy	Announced a gradual increase in the country's duty-free import quota for olive oil, aimed at driving down the price to consumers and stimulating local olive oil consumption.
Kazakhstan	Nov-17	Oilseeds	Agricultural policy	Converted area-based subsidies to payments per tonne delivered by farmers to local crushers, with a view to improving the latter's supply with domestic raw material.
Malaysia/Ghana	Nov-17	Oil palm	Bilateral cooperation	Pledged to foster the exchange of technical and marketing expertise between the two countries' palm oil industries, in a bid to strengthen Ghana's production and processing capacities.
Malaysia/Viet Nam	Nov-17	Oil palm	Bilateral cooperation	Agreed to explore opportunities for strategic collaboration in developing the two countries' plantation industries, particularly concerning oil palm, rubber and pepper.
Malaysia	Nov-17	Palm oil	Trade standard	Continued efforts to increase international acceptance of the Malaysian Sustainable Palm Oil (MSPO) certification scheme. In addition to smallholders, larger producers and processing facilities were also included among recipients of audit cost subsidies.
Malaysia	Nov-17	Palm oil	Trade standard	Saw the state of Sabah proceed with its own local palm oil certification strategy, while the federal Government moved ahead with nationwide implementation of the MSPO standard.
Malaysia/Sri Lanka	Dec-17	Palm oil	Bilateral trade agreement	Explored the possibility of entering into a free trade agreement, which would particularly imply better access of Malaysian palm oil to the Sri Lankan market.
Malaysia	Jan-18	Palm oil	Export policy	Suspended the country's sliding tax on crude palm oil exports from 8 January 2018 to end-April 2018, in a bid to stimulate international demand for Malaysian palm oil, curb domestic stocks and support local prices.
Malaysia	Jan-18	Oil palm	Trade standard	Reported progress in the adoption of the country's MSPO standard set to become mandatory in 2019, and announced additional support measures to facilitate certification, with special attention paid to small-scale growers.

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Mexico	Nov-17	Soybeans	GMO policy	Revoked permission to commercialize a GM soybean, following the variety's detection in areas where its cultivation was not permitted.
	May-18	Oliseeds	Agricultural policy	Renewed national programmes designed to i) encourage domestic oilseed production ('Pro-Oleaginosas'); ii) provide farmers with liquidity to invest in productive activities ('Proagro'); and iii) stimulate forward sales.
	May-18	Soybeans, rapeseed, safflower seed, selected grains	Agricultural policy	Raised the target prices used to determine farmer support payments under the country's Marketing Support Program, with a view to offsetting increases in production costs and supplementing producers' incomes. For soybeans, rapeseed and safflower seed, the target prices were increased by 27 percent.
Montenegro	Mar-18	Olive oil	Sector development measure	Envisaged measures to strengthen domestic olive oil production, with assistance from the Turkish development cooperation agency.
Pakistan	Nov-17	Sunflower seed	Sector development measure	Introduced an area-based subsidy for sunflower seed cultivation in Punjab Province and planned to establish regional procurement centres to ensure farmers receive a guaranteed price.
	May-18	Olive tree	Sector development measure	Continued pursuing efforts to promote olive cultivation in different parts of the country, including free-of-charge distribution and planting of saplings, as well as access to subsidies and training.
Peru/Australia	Nov-17	Rapeseed	Bilateral trade agreement	Agreed on duty-free entry of Australian rapeseed into Peru.
Peru	Nov-17	Food product labels	Health policy	Released a manual with specifications for warnings related to saturated fat, trans-fat, salt and sugar content on food product labels.
Philippines	Dec-17	Coconut	Sector development measure	Planned to distribute 20 million coconut seedlings during the 2018–2020 period via its national replanting programme.
Republic of Korea	Jan-18	Biodiesel	Biofuel policy	Raised the mandatory inclusion rate for biodiesel in transport diesel, which entails a rise in domestic biodiesel production – based on imports of palm oil as primary feedstock.
	May-18	Soybeans, maize	Trade arrangement	Announced its intention to restart trade talks with the Mercosur trade bloc in the first half of 2018, focusing, inter alia, on soybean and maize imports from Mercosur countries.
Senegal	May-18	Groundnuts	Market regulation	Signed a memorandum of understanding with industry stakeholders to regulate the marketing of crude and refined groundnut oil.
Serbia/Turkey	Mar-18	Sunflower seed, sunflower oil	Trade arrangement	Negotiated duty-free quotas for Serbian exports of sunflower seed and crude/refined sunflower oil to Turkey.
Sri Lanka/Malaysia	Dec-17	Palm oil	Bilateral trade agreement	Explored the possibility of entering into a free trade agreement, which would particularly imply better access of Malaysian palm oil to the Sri Lankan market.
Sri Lanka	Mar-18	Coconut	Market regulation	Confirmed plans to temporarily permit imports of fresh unhusked coconut to address a shortage in domestic supplies and halt a surge in local prices.
Thailand	Dec-17	Trans-fatty acid	Health policy	Drafted a new requirement that would ban the use of partially hydrogenated oils in foods, in a bid to reduce consumers' exposure to cardiovascular diseases.
	Dec-17	Palm oil	Market regulation	Implemented measures aimed at stabilizing domestic palm oil supplies and prices, thus protecting growers' incomes. The new measures focused on encouraging palm oil uptake by the country's energy sector and exploring new export opportunities.
Turkey	May-18	Biodiesel	Biofuel policy	Announced plans to raise mandatory blending of palm oil-based biodiesel in the country's automotive and railway sectors from 7 percent to 10 percent, with a view to supporting domestic palm oil prices.
	Nov-17	Food product labels	Food standard	Postponed the implementation of its Product Verification Monitoring System – aimed at eliminating adulterated foods, imitations and fraud – amid industry concerns about cost and food safety issues.
Turkey/Serbia	Jan-18	Biodiesel	Biofuel policy	Introduced mandatory blending of transport diesel with 0.5 percent biodiesel.
	Mar-18	Sunflower seed, sunflower oil	Trade arrangement	Agreed to duty-free quotas for imports of sunflower seed and crude/refined sunflower oil from Serbia.

COUNTRY	DATE	PRODCUT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Uganda	May-18	Oil palm	Sector development measure	Expanded its efforts to promote oil palm cultivation across the country in partnership with UN agency IFAD and a group of private investors.
Ukraine/China	Sep-17	Sunflower meal	Trade arrangement	Signed a protocol on storage, packaging, labelling and quarantine requirements for importing Ukrainian sunflower meal to China.
Ukraine	Dec-17 to May-18	Soybeans, rapeseed	Export policy	Announced the cessation of the existing value-added tax refund for sunflower seed, soybean and rapeseed exports, effective, respectively, 1 March 2018, 1 September 2018 and 1 January 2020. Subsequently postponed the implementation date applying to soybean and rapeseed farmers (but not traders) to 31 December 2021.
United Kingdom	Apr-18	Biodiesel	Biofuel policy	Introduced a number of changes in the country's Renewable Transport Fuel Obligation, including higher mandatory blending rates, a lower cap on crop-based biofuels, and support for the production of sustainable renewable aviation fuel.
	Nov-17	Biodiesel	Biofuel policy	Announced mandatory targets for renewable fuel production in 2018, entailing i) a fractional increase in total volume over 2017; ii) unchanged levels of non-advanced/conventional biofuels; and iii) a marginal rise for advanced biofuels (which include biomass-based diesel).
	Nov-17	Food product labels	Health policy	Proposed revoking an authorized health claim that links soy protein consumption to reduced risk of heart disease, citing inconsistent research results.
	Nov to Dec-17	Dicamba	Pesticide regulation	Reported the following measures: i) an agreement with manufacturers of Dicamba on means of protecting non-resistant crops from potential drift damage; and ii) the introduction of state specific binding restrictions regarding the herbicide's use in Arkansas, Minnesota, Missouri and North Dakota.
United States	Nov-17	Biodiesel	Trade dispute	Set final countervailing duties for biodiesel imports from Argentina and Indonesia.
	Dec-17	Glyphosate	Health policy	Released a draft human risk assessment concluding that glyphosate, a widely used though controversial herbicide, is not likely to be carcinogenic to humans.
	Feb-18	Biodiesel	Biofuel policy	Passed a retroactive one-year extension of a tax credit granted to biodiesel blenders (which had expired on 31 December 2016), triggering a cash transfer of USD 2.6 million to the U.S. biodiesel supply chain.
	Feb-18	Biodiesel	Trade dispute	Set final anti-dumping duties for biodiesel imports from Argentina and Indonesia (in addition to the countervailing duties imposed in November 2017).
	Mar-18	Biodiesel	Biofuel policy	Decided to support research on the development of enhanced sugar cane and elephant grass, in an effort to identify alternative feedstock for the production of transport biodiesel and aviation fuel.
	May-18	Biodiesel	Biofuel policy	Implemented higher biofuel blending requirements for petroleum diesel during the summer months (April to September) in the state of Minnesota.
Uzbekistan	Nov-17	Vegetable oils, cottonseed meal	Market regulation	Instructed state agencies to step up efforts to end alleged artificial overstatement of prices for a number of basic foods and feedstuffs, including vegetable oils and cottonseed meal.
	Jan-18	Oils, fats	Sector development measure	Issued a roadmap for the accelerated development of the country's oils and fats industry, including a one-year exemption from payment of value-added tax for oil/fat manufacturers.
Viet Nam/ Malaysia	Nov-17	Oil palm	Bilateral cooperation	Agreed to explore opportunities for strategic collaboration in developing the two countries' plantation industries, particularly concerning oil palm, rubber and pepper.
Viet Nam	Jan-18	Oilseeds, oilseed products	Import policy	Lowered or removed the country's import tariffs on oilseed and oilseed products, in line with provisions of a number of regional and bilateral free trade agreements.
World Health Organization	May-18	Saturated fatty acids, trans-fatty acids	Health policy	Issued i) a call for public comments on draft recommendations about the intake of saturated fatty acids and trans-fatty acids meant to reduce the risk of cardiovascular diseases; and ii) a step-by-step guide for the elimination of industrially produced trans-fatty acids from the global food supply.

* A detailed description of major policy developments from January 2011 onwards is available at <http://www.fao.org/economic/est/est-commodities/commodity-policy-archive/en/?group=ANDcommodity=Oilseeds.%20oil%20and%20meals>.

MEAT: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2017 TO MID-JUNE 2018*

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Algeria	Jan-18	All	Import ban	Temporarily banned imports of fresh, chilled and frozen edible parts of bovine, lamb and poultry meat, as part of a decree, one of many new measures introduced by the Government to control public spending and offset the fall in energy earnings.
Australia	Jan-18	Bovine meat	Tariff rate	Received further reduction of tariffs on frozen beef (from 32 to 26.6 percent) from the Republic of Korea under the Korea-Australia Free Trade Agreement (KAFTA) and on beef (from 9.6 to 7.2 percent) from China under the China-Australia Free Trade Agreement (ChAFTA).
	Apr-18	Bovine meat	Tariff rate	Received further reduction of tariffs on chilled beef (from 30.5 to 29.3 percent) and frozen beef (from 27.5 to 26.9 percent) under the Japan-Australia Economic Partnership Agreement (JAEPA).
Bahrain	Dec-17	Poultry meat	Import ban	Banned poultry meat imports from Saudi Arabia amid a reported outbreak of avian influenza.
China (Mainland)	Jan-18	All	Environmental protection tax	Rolled out a nationwide environmental protection tax programme, which levies a tax on farms with more than 50 head of cattle, 500 head of pigs or 5 000 head of poultry. Each province is allowed to determine the tax rate to be levied, while farms with qualifying pollution control and rehabilitation measures will be exempt or receive a lower tax rate.
	Mar-18	Poultry meat	Import ban	Halted poultry meat imports from Texas (United States), France and Mexico due to outbreaks of Highly Pathogenic Avian Influenza (HPAI).
China (Hong Kong – SAR)	Oct-17	Poultry meat	Import ban lifted	Lifted the import ban on poultry meat from the Republic of Korea that existed for nearly one year after the outbreak of HPAI in the Republic of Korea in 2017.
European Union	Jan-18	All	Tariff rate quota	Raised tariff rate quotas of poultry and ovine meat applicable for Ukraine in 2018 to 17 600 tonnes and 2 250 tonnes, respectively, as per the EU-Ukraine Association agreement that entered into force in September 2017, establishing an annual increase of quotas by 10 percent for five years.
	Apr-18	All	Import ban	Suspended meat imports, mostly poultry meat, from 20 Brazilian plants that had been authorized to export to the EU, due to concerns over sanitary concerns.
Japan	Apr-18	Bovine meat	Tariff rate	Reverted the duty on frozen beef imports from the United States from 50 percent to 38.5 percent, the normal rate applicable under the Japanese special safeguard system (SSG). Japan increased the tariff rate to 50 percent on 1 August 2017 after cumulative bovine meat imports from the United States exceeded the established trigger volumes for the 2017 Japanese fiscal year.
Kuwait	Apr-18	All	Import ban	Issued 11 administrative decisions to ban the import of beef and ovine meat and live birds from several countries. These included: banning bovine and ovine meat from the Russian Federation due to foot-and-mouth disease (FMD), and from Kazakhstan due to anthrax; banning import of live poultry, hatching eggs and chicks from Pakistan, Mexico, Texas and Missouri in the United States, Denmark and the United Kingdom, due to outbreaks of HPAI.
	May-18	All	Import ban	Recommended banning all imports of beef from the Republic of Korea and Zimbabwe due to FMD, and lifting the ban issued earlier on bovine and ovine meat imports from Kazakhstan.
Mexico	Dec-17	All	Tariff rate quota	Extended tariff rate quotas (TRQs) for importing beef and poultry from the United States until 31 December 2019. The current tariff rate quotas include 200 000 metric tonnes (MT) of beef per year and 300 000 MT of poultry products per year.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/ INSTRUMENT	DESCRIPTION
Morocco	Jan-18	Bovine meat	Market access	Approved the import of beef and beef products from the Russian Federation.
	May-18	Poultry meat	Export subsidies	Expanded the scope and duration of agricultural export subsidies for poultry meat, namely poultry preparations and offal, and frozen poultry meat and edible offal. Under the scheme, subject to certain conditions, 1 MT of exports will qualify for a subsidy of 1 500 Moroccan dirhams (158 USD/MT).
Multilateral	Mar-18	All	Multilateral Trade agreement	Signed on 8 March 2018 the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) by 11 members of the original Trans-Pacific Partnership Agreement (TPP), namely Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Viet Nam. The CPTPP will provide tariff reductions and quotas for exporting meat products, as specified by each signatory to the agreement.
Namibia	May-18	Poultry meat	Market access	Opened its market officially for processed and unprocessed poultry products from the United States from establishments approved for export by the United States Department of Agriculture (USDA) Food Safety and Inspection Service (FSIS).
Oman	Nov-17	Poultry meat	Import policy	Banned the import of poultry and poultry products from Bulgaria, while lifting the ban on imports from Malaysia, the United Kingdom, India, Germany, Wisconsin and Tennessee in the United States.
Russian Federation	Oct-17	All	Import ban extended	Expanded economic sanctions on agricultural trade, banning imports of meat and meat products from the countries that have applied sanctions against the Russian Federation. Russian counter-sanctions will continue until 31 December 2018.
	Dec-17	All	Import ban	Suspended pig meat and beef imports from Brazil from 1 December after traces of banned feed additives were detected in the meat.
	Dec-17	Poultry meat	Import ban lifted	Lifted a ban on poultry meat from Greece, the Czech Republic, Romania and Mozambique due to outbreaks of HPAL in the past three months in those countries.
Saudi Arabia	Jan-18	Poultry meat	Import ban	Banned poultry meat imports temporarily from some provinces in Hungary, Ukraine, Poland, the Netherlands, France and India, after the World Organization for Animal Health reported avian influenza outbreaks.
Turkey	Mar-18	All	Import requirements	Announced a simplified procedure for importing livestock genetic materials, which includes use of the exporter country's top list of genetics and extension of the validity of the certificate from 2 days to the period of certificate validity, thus easing the logistics of trade and facilitating access to better quality genetics for farmers.
United States	Jan-18	Pig meat	Import ban lifted	Determined Mexico to be free from classical swine fever, therefore retracting controls on imports of pigmeat and pig meat products, enabling all the provinces to export to the US.
Vietnam	Nov-17	Poultry meat	Import ban lifted	Lifted import ban on poultry meat from the Republic of Korea one year after sales were banned due to a widespread outbreak of avian influenza.

* A collection of major meat policy developments starting in January 2011 is available at: <http://www.fao.org/economic/est/est-commodities/commodity-policy-archive/en/2/groupANDcommodity=Meat>

DAIRY: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2017 TO MID-JUNE 2018*

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/INSTRUMENT	DESCRIPTION
Algeria	Jan-18	Dairy products	Import ban	Suspended imports of a number of agricultural products, including dairy products, and suspended the import licensing system introduced in 2017 to control government spending and offset the fall in energy incomes.
Canada	Dec-17	Dairy products	Support prices	Announced the decision made by the Canadian Dairy Commission (CDC) to maintain support prices, valid from 1 February 2018, for butter at 8.0062 Canadian dollars (USD 6.36) per kg and skim milk powder (SMP) at 4.5302 Canadian dollars (USD 3.60) per kg. Support prices are the prices at which the CDC purchases and sells butter and SMP within the framework of its various programmes.
China (Mainland)	Oct-17	Cheese	Import ban lifted	Lifted the ban it had earlier imposed on importing several brands of mould-ripened cheese, including Roquefort, Danish Blue, Gorgonzola and Stilton; at the time the authorities determined that the strains of bacteria used to make the cheeses were not approved in China.
	Nov-17	Cheese	Tariff rate	Lowered cheese tariffs from 12 percent to 8 percent as part of a wider set of tariff reductions on imported food items.
	Nov-17	Dairy products	Tariff rate	Reduced duties on two categories of products containing dairy ingredients. The duty on hydrolysed protein formula for people with special nutritional needs (HS 2106.90.90) was lowered from 20 percent to zero, and that on prepackaged infant foods (HS 1901.10.90) was lowered from 15 percent to 2 percent.
European Union	Jan-18	Dairy products	Domestic measures	Decided to set the quantitative limitation for buying-in SMP at a fixed price at zero tonnes for 2018. However, the European Commission opted to continue to buy-in SMP through a tendering procedure, and to decide on a case-by-case basis how much to buy and the price level.
	Jan-18	Dairy products	Tariff rate quota	Expanded tariff quotas of Ukrainian milk, cream and yoghurt by 10 percent, as agreed within the EU-Ukraine Association agreement that entered into force in September 2017, which established that the quotas will be increased by 10 percent a year on average for five years.
Japan	Jan-18	Dairy products	Import quota	Announced the intention of the Ministry of Agriculture, Forestry and Fisheries (MAFF) to double the import quota volume for non-fat dry milk powder to 27 000 MT, while the quota volume for butter remained unchanged.
	Feb-18	Dairy products	Domestic measures	Approved new funding support in response to the Japan-European Union Economic Partnership Agreement and the Comprehensive and Progressive Trans-Pacific Partnership (CPTPP). Measures for the dairy sector included: funding of 15 billion Japanese Yen (USD 141 million) to support domestic production of consumer-oriented natural cheese; and additional 9 billion Japanese yen (USD 84.5 million) to enhance profitability of livestock and dairy farming.

COUNTRY	DATE	PRODUCT	POLICY CATEGORY/INSTRUMENT	DESCRIPTION
Morocco	Dec-17	Dairy products	Tariff rate quota	Established new tariff-rate quotas for skim milk powder and whole milk powder, an MFN (most favoured nation) in-quota rate of 2.5 percent for limited volumes, in order to support industrial manufacturers in the biscuit, chocolate, and confectionery sectors, imposing preferential tariffs for the United States.
	May-18	Dairy products	Export subsidies	Expanded the scope and duration of agricultural export subsidies for dairy products, namely cream, milk fat, yoghurt, fermented or acidified milk, fermented or acidified cream, whole milk powder, skim milk powder, concentrated milk, UHT milk and cheese. Under the scheme, subject to certain conditions, 1 metric tonne (MT) of exports of the designated products will qualify for a subsidy of 500 Moroccan dirhams (53 USD/MT).
Multilateral	Mar-18	Dairy products	Multilateral trade agreement	Signed on 8 March 2018 the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) by 11 members of the original Trans-Pacific Partnership Agreement (TPP), namely Australia, Brunei Darussalam, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Viet Nam. The CPTPP will provide tariff reductions and quota for exporting dairy products including cheese, milk powder, butter, milk protein concentrates and yoghurt, as specified by each signatory to the agreement.
Russian Federation	Oct-17	Dairy products	Import ban extended	Extended the ban in place on imports of milk and milk products from countries that have applied sanctions against the Russian Federation, through 31 December 2018.
Turkey	Mar-18	Dairy products	Market regulation	Announced a simplified procedure for importing livestock genetic materials, which includes use of the exporter country's top list of genetics and extension of the period allowed between signature and shipment from 2 days to the period of certificate validity, thus easing the logistics of trade and facilitating access to better quality genetics for farmers.
Zambia	Mar-18	Dairy products	Import ban	Widened its ban on imports of meat to include dairy products from South Africa, in the wake of a listeria outbreak.

* A collection of major dairy policy developments starting in January 2012 is available at: <http://www.fao.org/economic/est/est-commodities/policy-archives/en/?group=ANDcommodity=Milk.%20Dairy%20products>

Statistical appendix tables

Appendix Table 1 (a) & (b) Cereal statistics	114-115
Appendix Table 2 (a) & (b) Wheat statistics	116-117
Appendix Table 3 (a) & (b) Coarse grains statistics	118-119
Appendix Table 4 (a) & (b) Maize statistics	120-121
Appendix Table 5 (a) & (b) Barley statistics	122-123
Appendix Table 6 (a) & (b) Sorghum statistics	124-125
Appendix Table 7 (a) & (b) Other Coarse grains statistics	124-125
Appendix Table 8 (a) & (b) Rice statistics	126-127
Appendix Table 9 Cereal supply and utilization in main exporting countries	128
Appendix Table 10 Total oilcrops statistics	129
Appendix Table 11 Total oils and fats statistics	130
Appendix Table 12 Total meals and cakes statistics	131
Appendix Table 13 Sugar statistics	132
Appendix Table 14 Total meat statistics	133
Appendix Table 15 Bovine meat statistics	134
Appendix Table 16 Ovine meat statistics	135
Appendix Table 17 Pigmear statistics	136
Appendix Table 18 Poultry meat statistics	137
Appendix Table 19 Milk and milk products statistics	138
Appendix Table 20 Fish and fishery products statistics	139
Appendix Table 21 Selected international prices for wheat and coarse grains	140
Appendix Table 22 Wheat and maize futures prices	140
Appendix Table 23 Selected international prices for rice and price indices	141
Appendix Table 24 Selected international prices for oilcrop products and price indices	142
Appendix Table 25 Selected international prices for sugar and sugar price index	143
Appendix Table 26 Selected international prices for milk products and dairy price indices	144
Appendix Table 27 Selected international meat prices	145
Appendix Table 28 Selected international meat prices and FAO meat price index	146
Appendix Table 29 Fish price indices	147
Appendix Table 30 Selected international commodity prices	148

NOTES

General

- FAO estimates and forecasts are based on official and unofficial sources.
- Unless otherwise stated, all charts and tables refer to FAO data as source.
- Estimates of world imports and exports may not always match, mainly because shipments and deliveries do not necessarily occur in the same marketing year.
- Tonnes refer to metric tonnes.
- All totals are computed from unrounded data.
- Regional totals may include estimates for countries not listed. The countries shown in the tables were chosen based on their importance of either production or trade in each region. The totals shown for Central America include countries in the Caribbean.
- Estimates for China also include those for the Taiwan Province, Hong Kong SAR and Macao SAR, unless otherwise stated.
- Up to 2012/13, the European Union includes 27 member states. From 2013/14, the European Union includes 28 member states.
- ‘-’ means nil or negligible.
- Cereals include wheat, rice and coarse grains. Coarse grains include maize, barley, sorghum, millet, rye, oats and NES (not elsewhere specified).

Production

- **Cereals:** Data refer to the calendar year in which the whole harvest or bulk of harvest takes place.

Utilization

- **Cereals:** Data are on individual country's marketing year basis.
- **Sugar:** Figures refer to centrifugal sugar derived from sugarcane or beet, expressed in raw equivalents. Data relate to the October/September season.

Trade

- Trade between **European Union** member states is excluded, unless otherwise stated.
- **Wheat:** Trade data include wheat flour in wheat grain equivalent. The time reference period is July/June, unless otherwise stated.
- **Coarse grains:** The time reference period is July/June, unless otherwise stated.
- **Rice, dairy and meat products:** The time reference period is January/December.
- **Oilseeds, oils and fats and meals:** The time reference period is October/September, unless otherwise stated.

Stocks

- **Cereals:** Data refer to carry-overs at the close of national crop seasons ending in the year shown.

Price indices

- The FAO price indices are calculated using the Laspeyres formula; the weights used are based on the average export value of each commodity for the 2002-2004 period.

COUNTRY CLASSIFICATION

In the presentation of statistical material, countries are subdivided

according to geographical location as well as into the following two main economic groupings: “developed countries” (including the developed market economies and the transition markets) and “developing countries” (including the developing market economies and the Asia centrally planned countries). The designation “Developed” and “Developing” economies is intended for statistical convenience and does not necessarily express a judgement about the stage reached by a particular country or area in the development process.

References are also made to special country groupings: Low-Income Food-Deficit Countries (LIFDCs), Least Developed Countries (LDCs). The LIFDCs include 54 countries that are net importers of basic foodstuffs with per caput income below the level used by the World Bank to determine eligibility for International Development Aid (IDA) assistance (i.e. USD 1 945 in 2011). The LDCs group currently includes 48 countries with low income as well as weak human resources and low level of economic diversification. The list is reviewed every three years by the Economic and Social Council of the United Nations.

DISCLAIMER

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.

APPENDIX TABLE 1(A): CEREAL STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	1 124.1	1 150.1	1 146.8	201.4	211.1	211.5	56.0	61.3	60.7
Bangladesh	38.4	38.1	39.8	6.3	8.8	7.7	0.1	-	-
China	501.4	500.0	493.0	35.3	33.7	34.0	1.0	1.7	1.8
India	240.1	254.8	256.9	2.5	1.7	1.7	13.3	13.1	13.6
Indonesia	64.9	70.7	71.2	12.1	14.8	14.0	0.2	0.2	0.2
Iran, Islamic Republic of	17.0	18.5	19.1	12.6	11.4	12.9	-	0.3	0.1
Iraq	4.8	4.8	4.2	3.5	4.2	4.7	-	-	-
Japan	8.8	8.6	8.6	23.3	23.7	23.5	0.3	0.2	0.3
Kazakhstan	18.1	19.7	19.1	0.3	0.1	0.1	7.7	9.7	9.5
Korea, Republic of	4.5	4.2	4.2	14.6	15.0	15.5	0.1	0.1	0.1
Myanmar	19.3	20.2	20.8	0.3	0.5	0.5	2.6	3.9	4.0
Pakistan	38.4	40.3	39.5	0.5	0.2	0.2	4.6	5.2	5.2
Philippines	19.5	20.6	20.9	7.1	7.6	7.7	-	-	-
Saudi Arabia	0.5	0.3	0.6	17.4	17.0	16.9	-	-	-
Thailand	25.0	27.3	27.9	4.4	3.7	3.6	10.9	10.2	9.9
Turkey	35.2	35.8	35.7	6.7	10.1	8.3	4.3	4.6	4.6
Viet Nam	34.1	33.0	33.5	11.6	13.4	14.9	7.1	7.3	6.8
AFRICA	174.4	186.6	179.4	89.8	90.3	92.4	7.9	8.1	7.9
Algeria	3.5	3.4	3.7	13.4	13.0	13.3	-	-	-
Egypt	22.4	21.2	21.6	20.1	21.5	22.3	0.3	0.2	0.1
Ethiopia	24.8	25.1	25.1	1.6	1.7	1.8	1.8	1.6	1.5
Morocco	7.4	9.8	10.1	7.4	7.0	7.3	0.2	0.1	0.1
Nigeria	22.6	23.2	22.4	7.4	8.4	8.8	0.7	0.7	0.7
South Africa	13.5	19.5	15.9	4.3	3.0	3.0	1.3	2.4	2.3
Sudan	6.9	5.2	6.0	2.9	2.8	2.7	0.5	0.2	0.4
CENTRAL AMERICA	42.0	44.6	43.6	31.3	33.8	35.0	2.5	2.6	2.4
Mexico	36.0	37.9	36.7	19.3	22.3	23.6	2.3	2.5	2.3
SOUTH AMERICA	180.4	216.7	196.7	30.7	31.3	32.6	63.4	80.3	77.4
Argentina	59.0	75.8	69.0	0.1	0.1	0.1	32.2	42.5	40.9
Brazil	93.1	115.2	100.9	9.4	8.8	9.7	25.0	33.0	31.2
Chile	3.5	3.3	3.3	2.8	3.4	3.7	0.1	0.1	0.1
Colombia	3.1	3.4	3.2	7.3	7.7	7.9	0.2	0.1	0.1
Peru	4.2	4.2	4.4	5.3	5.7	5.8	0.1	0.1	-
Venezuela	2.3	1.8	1.7	3.6	3.4	3.3	-	-	-
NORTH AMERICA	502.1	493.9	484.5	9.3	10.4	9.5	114.8	112.7	115.5
Canada	54.5	56.3	58.1	1.9	2.1	1.7	26.6	27.1	27.0
United States of America	447.5	437.6	426.3	7.4	8.3	7.9	88.2	85.6	88.5
EUROPE	510.7	524.3	499.6	24.6	30.3	29.2	121.3	121.9	125.5
European Union	314.8	310.3	302.8	20.6	26.0	24.6	43.9	28.5	37.3
Russian Federation	107.4	130.8	114.2	0.9	1.1	1.1	33.8	50.5	47.3
Serbia	9.9	6.8	8.9	0.1	0.1	0.1	3.2	1.8	1.8
Ukraine	63.0	60.8	57.8	0.2	0.2	0.2	39.7	40.2	38.2
OCEANIA	41.9	34.5	35.8	1.7	1.8	1.8	25.9	23.9	22.6
Australia	40.8	33.5	34.7	0.2	0.2	0.2	25.9	23.9	22.6
WORLD	2 575.6	2 650.8	2 586.2	388.7	408.9	412.1	391.8	410.9	412.1
Developing countries	1 464.0	1 533.9	1 508.0	315.0	329.1	334.3	119.7	139.2	135.6
Developed countries	1 111.6	1 116.9	1 078.3	73.7	79.8	77.7	272.1	271.8	276.6
LIFDC	470.3	489.9	487.6	61.5	65.1	65.4	24.3	24.1	24.6
LDC	173.8	179.1	177.8	36.2	39.0	38.6	9.5	10.6	10.7

APPENDIX TABLE 1(B): CEREAL STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 estim.	2018/19 f'cast	2015-2017 average	2018 estim.	2019 f'cast	14/15-16/17 average	2017/18 estim.	2018/19 f'cast
	(..... million tonnes))						(..... Kg/year))		
ASIA	1 245.8	1 292.1	1 310.0	472.5	497.4	484.5	155.9	155.9	156.3
Bangladesh	43.8	46.6	48.2	8.3	10.3	10.1	209.0	210.8	212.0
China	504.7	525.7	537.6	320.1	356.2	343.7	147.6	148.2	148.6
India	233.3	238.0	240.7	41.8	40.3	44.3	147.6	147.2	147.3
Indonesia	78.1	82.3	84.9	9.5	10.2	10.6	188.6	188.3	189.5
Iran, Islamic Republic of	29.2	32.1	31.8	9.6	5.7	5.2	202.5	203.0	203.7
Iraq	9.0	8.9	9.0	1.4	0.6	0.5	189.7	186.9	188.7
Japan	32.0	32.4	31.6	7.1	7.1	7.2	93.6	92.7	92.5
Kazakhstan	10.4	10.3	10.1	2.9	3.0	2.5	156.8	156.5	155.1
Korea, Republic of	19.1	19.9	19.3	4.0	2.9	2.9	127.9	125.1	122.7
Myanmar	17.4	17.1	17.2	2.9	2.6	2.7	211.2	210.9	211.1
Pakistan	34.1	36.2	36.0	5.5	4.3	2.8	147.2	147.3	147.8
Philippines	26.5	27.2	28.3	4.0	4.5	4.8	156.5	157.1	158.9
Saudi Arabia	17.9	17.9	17.4	7.0	6.0	6.1	146.8	138.6	140.9
Thailand	21.7	22.3	21.9	13.8	8.2	7.8	118.4	119.8	120.1
Turkey	38.5	39.9	40.6	5.6	6.4	5.7	239.3	239.0	239.0
Viet Nam	37.4	40.6	41.0	4.9	5.0	5.1	176.8	176.1	175.4
AFRICA	252.5	264.8	265.4	54.0	56.0	53.0	148.2	148.7	147.2
Algeria	16.5	16.8	17.4	5.4	5.2	4.7	230.1	229.0	230.1
Egypt	42.1	42.7	43.7	6.7	6.4	6.4	268.4	269.8	269.8
Ethiopia	23.9	25.5	25.5	3.9	4.1	4.0	183.2	189.5	184.5
Morocco	14.4	16.1	16.6	6.7	6.7	7.4	248.6	251.0	252.1
Nigeria	28.9	30.9	30.0	3.3	2.3	2.1	125.0	125.7	125.7
South Africa	16.1	17.0	16.4	3.0	4.8	4.7	164.7	165.2	163.6
Sudan	8.5	8.5	8.6	3.1	2.8	2.1	183.4	175.2	173.7
CENTRAL AMERICA	69.5	74.7	78.3	10.1	13.4	11.0	158.7	160.2	161.5
Mexico	52.2	56.8	60.0	4.9	7.6	5.4	186.8	187.7	188.0
SOUTH AMERICA	146.3	152.2	156.4	40.0	54.3	47.7	119.2	119.2	120.9
Argentina	26.5	29.3	31.6	9.2	13.7	10.7	134.9	135.3	135.7
Brazil	78.7	81.6	82.2	13.3	18.2	13.2	112.5	113.6	114.3
Chile	5.7	6.0	6.1	3.3	4.4	5.0	145.4	147.1	147.6
Colombia	10.4	10.5	11.0	1.9	2.5	2.5	101.8	102.8	112.7
Peru	8.3	8.9	9.4	4.2	6.2	6.9	150.6	153.1	154.0
Venezuela	6.5	5.1	5.1	1.3	0.2	0.2	132.6	117.8	117.0
NORTH AMERICA	384.2	395.8	396.0	91.2	97.1	79.7	110.0	110.2	110.2
Canada	31.0	32.7	32.4	11.0	10.6	10.5	95.8	96.3	96.3
United States of America	353.2	363.1	363.5	80.3	86.5	69.3	111.6	111.8	111.8
EUROPE	410.5	419.9	419.5	69.5	81.4	65.0	133.4	133.7	133.6
European Union	291.2	300.8	299.3	36.6	40.0	30.7	133.9	134.6	134.5
Russian Federation	70.8	74.9	74.9	14.1	24.8	17.9	126.7	126.2	125.5
Serbia	6.7	5.4	7.3	0.9	0.8	0.6	161.5	162.5	163.0
Ukraine	24.9	22.0	21.1	9.6	5.8	4.4	144.9	143.2	144.2
OCEANIA	16.5	15.4	15.7	8.4	8.4	8.0	91.2	92.0	91.8
Australia	14.0	12.9	13.0	7.9	7.9	7.5	99.9	100.9	101.0
WORLD	2 525.2	2 614.9	2 641.4	745.7	807.9	748.9	147.8	148.1	148.2
Developing countries	1 630.2	1 698.1	1 726.6	555.6	597.4	573.7	152.9	153.1	153.2
Developed countries	895.1	916.8	914.8	190.1	210.5	175.2	126.2	126.4	126.2
LIFDC	507.9	526.4	528.8	98.5	98.8	97.3	146.6	146.7	146.0
LDC	198.6	208.0	209.4	42.3	43.9	40.4	153.5	154.1	152.2

APPENDIX TABLE 2(A): WHEAT STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	319.5	329.8	323.6	82.3	88.1	88.7	15.1	17.2	16.6
Bangladesh	1.3	1.4	1.5	4.6	6.2	6.0	-	-	-
China	128.4	129.8	126.7	5.0	5.6	5.4	0.2	0.2	0.2
of which Taiwan Prov.	-	-	-	1.3	1.4	1.4	-	-	-
India	91.5	98.5	98.6	2.2	1.5	1.5	1.0	0.4	0.4
Indonesia	-	-	-	8.9	12.0	12.0	0.1	0.1	0.1
Iran, Islamic Republic of	11.1	12.5	13.4	3.3	0.1	1.5	-	0.3	0.1
Iraq	3.6	3.5	3.0	2.3	2.9	3.2	-	-	-
Japan	0.9	0.9	0.9	5.6	6.0	5.8	0.2	0.2	0.2
Kazakhstan	13.9	14.8	14.0	0.3	0.1	0.1	6.9	8.3	8.0
Korea, Republic of	-	-	-	4.2	4.5	4.6	-	-	-
Pakistan	25.5	26.4	25.4	0.7	-	-	0.7	1.1	1.0
Philippines	-	-	-	5.2	5.5	5.5	-	-	-
Saudi Arabia	0.5	-	0.3	3.5	3.5	3.8	-	-	-
Thailand	-	-	-	4.0	3.2	3.2	-	-	-
Turkey	20.7	21.5	21.0	4.8	6.5	5.0	4.2	4.5	4.5
AFRICA	26.1	26.8	27.5	48.3	48.5	48.4	1.0	0.9	0.9
Algeria	2.5	2.4	2.6	8.2	8.0	7.7	-	-	-
Egypt	9.3	8.8	9.1	11.5	12.0	12.5	-	-	-
Ethiopia	4.4	4.5	4.5	1.2	1.3	1.3	-	-	-
Morocco	5.3	7.1	7.2	4.6	3.8	4.0	0.2	0.1	0.1
Nigeria	0.1	0.1	0.1	4.7	5.1	5.1	0.4	0.4	0.4
South Africa	1.7	1.5	1.5	1.8	1.9	1.8	0.2	0.1	0.1
Tunisia	1.1	1.1	1.0	1.9	1.9	2.0	0.1	-	-
CENTRAL AMERICA	3.8	3.5	2.9	8.7	9.0	9.3	1.3	1.2	1.4
Cuba	-	-	-	0.8	0.8	0.8	-	-	-
Mexico	3.8	3.5	2.9	4.7	5.0	5.2	1.2	1.1	1.3
SOUTH AMERICA	25.2	25.7	28.3	14.1	14.7	15.6	10.8	14.3	12.9
Argentina	14.8	18.5	20.0	-	-	-	8.2	13.4	12.0
Brazil	6.2	4.2	4.9	6.5	6.5	7.5	1.2	0.6	0.4
Chile	1.5	1.3	1.5	1.0	1.4	1.4	-	-	-
Colombia	-	-	-	1.9	2.0	2.0	-	-	-
Peru	0.2	0.2	0.2	1.9	1.9	1.9	-	-	-
Venezuela	-	-	-	1.4	1.4	1.4	-	-	-
NORTH AMERICA	87.8	77.4	81.0	3.2	4.3	3.8	46.7	44.8	47.2
Canada	29.7	30.0	31.3	0.1	0.1	0.1	22.0	21.8	22.2
United States of America	58.0	47.4	49.7	3.0	4.2	3.7	24.6	23.0	25.0
EUROPE	252.6	271.9	250.5	8.2	8.1	8.3	73.7	79.2	81.0
European Union	154.0	152.0	147.0	5.8	5.5	5.5	31.7	21.0	27.5
Russian Federation	64.9	85.9	72.0	0.5	0.7	0.7	25.0	39.0	37.0
Ukraine	25.6	26.2	23.4	-	0.1	-	15.6	17.7	15.0
OCEANIA	26.4	21.6	22.3	0.9	0.9	0.9	18.2	16.0	15.1
Australia	25.9	21.2	21.9	-	-	-	18.2	16.0	15.1
WORLD	741.3	756.8	736.1	165.8	173.6	175.0	166.7	173.5	175.0
Developing countries	345.9	356.8	355.1	138.0	144.4	146.2	20.1	24.1	22.5
Developed countries	395.4	400.0	381.1	27.8	29.1	28.8	146.6	149.4	152.5
LIFDC	142.0	148.5	145.8	37.1	39.1	39.2	3.0	2.7	2.6
LDC	14.0	13.3	12.5	21.2	23.3	23.0	0.2	0.1	0.1

APPENDIX TABLE 2(B): WHEAT STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 estim.	2018/19 f'cast	2015-2017 average	2018 estim.	2019 f'cast	14/15-16/17 average	2017/18 estim.	2018/19 f'cast
	(..... million tonnes.....)						(..... Kg/year.....)		
ASIA	376.5	384.7	387.4	134.1	160.1	166.7	64.7	65.0	65.2
Bangladesh	5.4	6.8	7.4	1.3	2.8	2.8	25.3	27.0	27.9
China	121.8	122.2	122.6	73.6	102.3	111.2	62.4	62.3	62.4
of which Taiwan Prov.	1.4	1.4	1.4	0.4	0.4	0.4	45.7	45.7	45.6
India	94.5	95.3	96.2	18.8	18.0	21.0	59.6	59.8	59.8
Indonesia	8.8	11.1	11.4	1.0	1.4	1.4	25.1	26.1	26.8
Iran, Islamic Republic of	14.4	14.8	14.6	7.2	3.4	3.0	166.4	166.3	166.4
Iraq	6.4	6.3	6.4	1.2	0.5	0.3	149.3	149.6	150.0
Japan	6.4	6.3	6.3	1.6	1.8	1.9	40.6	40.4	40.4
Kazakhstan	7.1	6.8	6.7	2.5	2.4	1.8	142.5	142.0	140.5
Korea, Republic of	4.2	4.5	4.4	0.7	1.0	1.0	47.7	47.9	47.7
Pakistan	25.1	26.0	25.6	3.2	2.3	1.2	124.4	124.4	124.5
Philippines	5.1	5.3	5.5	0.7	1.0	1.0	23.1	23.4	23.5
Saudi Arabia	3.6	3.5	3.9	2.9	2.9	3.1	100.8	96.7	101.8
Thailand	3.6	3.0	3.3	1.3	1.8	1.7	16.6	18.3	18.4
Turkey	22.0	22.4	22.7	3.4	4.3	3.6	210.2	209.9	210.0
AFRICA	71.6	74.6	75.2	21.1	19.4	18.3	50.4	50.1	49.5
Algeria	10.3	10.8	10.8	3.7	3.6	3.1	208.8	208.1	209.5
Egypt	20.7	21.2	21.6	4.5	3.9	3.9	185.4	186.1	186.2
Ethiopia	5.6	5.8	6.0	0.8	0.9	0.8	44.4	44.8	44.6
Morocco	9.5	10.5	10.8	5.1	5.4	5.7	208.8	211.2	212.8
Nigeria	4.0	4.1	4.1	0.2	0.2	0.2	20.3	20.2	19.9
South Africa	3.2	3.3	3.3	0.6	0.3	0.3	57.0	57.0	56.4
Tunisia	3.0	2.8	3.0	0.5	0.6	0.6	210.7	199.4	214.4
CENTRAL AMERICA	11.0	11.5	11.4	2.2	2.6	2.4	44.1	44.4	44.6
Cuba	0.8	0.8	0.8	0.1	0.1	0.1	57.0	60.0	60.0
Mexico	7.1	7.5	7.4	0.9	1.2	1.0	48.5	48.8	48.9
SOUTH AMERICA	27.1	27.7	28.1	8.5	8.1	9.6	58.8	59.1	59.6
Argentina	5.8	5.8	5.9	3.4	2.5	3.7	117.5	117.6	117.7
Brazil	11.3	11.6	11.8	1.7	1.4	1.6	52.5	53.3	54.1
Chile	2.4	2.5	2.5	0.6	1.0	1.4	108.7	108.9	108.8
Colombia	1.6	1.6	1.6	0.7	1.0	0.9	29.3	29.3	29.3
Peru	2.1	2.1	2.1	0.7	0.8	0.7	59.2	60.8	61.0
Venezuela	1.4	1.3	1.4	0.1	0.1	0.1	46.8	40.7	41.1
NORTH AMERICA	40.7	38.7	40.1	32.7	35.6	32.1	82.6	82.7	82.7
Canada	9.1	8.9	8.9	6.4	6.2	6.4	80.7	81.2	81.2
United States of America	31.7	29.8	31.2	26.4	29.4	25.7	82.8	82.9	82.9
EUROPE	183.4	192.4	190.2	32.3	42.2	29.8	107.4	107.8	107.8
European Union	127.0	131.1	131.0	15.5	20.0	14.0	109.1	109.6	109.6
Russian Federation	37.5	43.9	42.2	9.8	16.7	10.2	100.1	100.0	99.9
Ukraine	10.7	9.2	8.7	3.5	1.5	1.2	112.1	111.8	112.3
OCEANIA	8.7	8.5	8.6	5.7	5.4	5.3	67.3	67.5	67.4
Australia	7.4	7.2	7.3	5.4	5.0	5.0	79.8	80.2	80.3
WORLD	719.0	738.2	741.1	236.7	273.4	264.2	66.7	66.7	66.7
Developing countries	450.3	462.9	466.6	156.5	180.8	189.4	60.0	60.1	60.1
Developed countries	268.7	275.3	274.5	80.2	92.5	74.8	95.2	95.3	95.2
LIFDC	176.4	180.6	181.4	38.3	36.7	36.2	52.9	52.9	52.6
LDC	34.0	36.3	36.5	10.3	10.3	9.0	29.3	29.8	29.3

APPENDIX TABLE 3(A): COARSE GRAIN STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	357.3	364.0	361.3	97.5	99.8	101.5	3.9	4.4	4.4
China	229.8	226.0	223.7	23.6	21.6	22.1	0.1	0.1	0.1
of which Taiwan Prov.	0.2	0.2	0.2	4.3	4.6	5.2	-	-	-
India	42.1	44.8	44.8	0.4	0.2	0.2	1.1	0.8	0.8
Indonesia	19.7	24.3	24.5	2.2	1.3	1.3	0.2	-	-
Iran, Islamic Republic of	4.3	4.0	3.7	8.0	10.0	10.0	-	-	-
Japan	0.2	0.2	0.2	17.0	17.0	17.0	-	-	-
Korea, D.P.R.	2.6	2.5	2.5	0.2	0.3	0.3	-	-	-
Korea, Republic of	0.2	0.2	0.2	10.0	10.1	10.4	-	-	-
Malaysia	0.1	0.1	0.1	3.6	4.0	4.0	-	-	-
Pakistan	6.0	6.5	6.5	0.2	0.2	0.2	-	-	-
Philippines	7.5	7.9	8.0	0.6	0.6	0.6	-	-	-
Saudi Arabia	0.3	0.3	0.3	12.6	12.4	12.0	-	-	-
Thailand	4.8	5.0	5.1	0.2	0.2	0.2	0.5	0.3	0.3
Turkey	13.9	13.7	14.1	1.6	3.3	3.0	0.1	0.1	0.1
Viet Nam	5.3	5.1	4.8	7.4	8.3	9.6	0.1	-	-
AFRICA	128.1	139.0	130.3	26.3	25.7	26.3	6.2	6.7	6.6
Algeria	1.0	1.0	1.1	5.1	4.8	5.4	-	-	-
Egypt	8.9	8.0	8.3	8.5	9.5	9.7	-	-	-
Ethiopia	20.2	20.4	20.4	0.1	-	-	1.8	1.6	1.5
Morocco	2.1	2.7	2.9	2.7	3.2	3.3	-	-	-
Nigeria	18.8	19.0	18.0	0.4	0.4	0.4	0.2	0.2	0.2
South Africa	11.8	18.1	14.3	1.6	0.2	0.2	1.2	2.3	2.2
Sudan	6.3	4.7	5.5	0.3	0.3	0.2	0.5	0.2	0.4
Tanzania, United Rep. of	7.3	7.1	7.2	-	-	-	0.4	0.3	0.3
CENTRAL AMERICA	36.5	39.2	38.7	20.2	22.5	23.3	1.1	1.4	1.0
Mexico	32.1	34.2	33.5	13.9	16.6	17.7	1.1	1.4	1.0
SOUTH AMERICA	138.6	174.1	151.9	14.8	14.7	15.4	49.5	62.6	61.4
Argentina	43.1	56.4	48.1	0.1	0.1	0.1	23.6	28.7	28.6
Brazil	79.0	102.5	88.1	2.4	1.6	1.6	23.1	31.5	30.0
Chile	1.9	1.9	1.8	1.6	1.8	2.1	0.1	0.1	0.1
Colombia	1.6	1.5	1.4	5.2	5.5	5.8	0.2	0.1	0.1
Peru	1.9	2.0	2.0	3.0	3.5	3.6	-	-	-
Venezuela	1.8	1.6	1.6	1.9	1.6	1.6	-	-	-
NORTH AMERICA	407.5	410.9	397.0	5.0	4.8	4.5	64.8	64.8	65.0
Canada	24.8	26.3	26.8	1.5	1.6	1.1	4.6	5.3	4.8
United States of America	382.7	384.6	370.1	3.6	3.2	3.3	60.2	59.5	60.2
EUROPE	255.6	250.0	246.6	14.0	19.7	18.4	47.1	42.2	44.0
European Union	159.0	156.6	154.1	12.9	18.5	17.1	11.8	7.1	9.5
Russian Federation	41.8	44.3	41.5	0.2	0.2	0.2	8.6	11.3	10.1
Serbia	7.4	4.5	6.4	-	-	-	2.3	0.8	0.8
Ukraine	37.4	34.6	34.3	0.1	0.1	0.1	24.0	22.5	23.2
OCEANIA	15.1	12.3	13.0	0.3	0.3	0.3	7.5	7.7	7.2
Australia	14.4	11.7	12.4	-	-	-	7.5	7.7	7.2
WORLD	1 338.6	1 389.4	1 338.7	178.0	187.5	189.6	180.1	189.7	189.6
Developing countries	640.4	689.3	659.0	137.9	143.0	146.9	58.8	71.3	69.8
Developed countries	698.2	700.1	679.7	40.2	44.5	42.7	121.3	118.3	119.8
LIFDC	158.6	166.3	162.0	7.8	7.8	7.9	5.8	4.9	5.0
LDC	85.0	90.3	86.7	3.8	4.0	4.2	5.4	5.2	5.3

APPENDIX TABLE 3(B): COARSE GRAIN STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	2015-2017 average	2018 <i>estim.</i>	2019 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	million tonnes						Kg/year		
ASIA	438.3	469.2	481.1	179.9	176.0	153.5	13.8	13.7	13.7
China	240.1	258.7	269.2	153.1	150.6	127.6	9.3	9.4	9.3
of which Taiwan Prov.	4.5	4.7	5.2	0.2	0.4	0.5	7.0	7.0	7.0
India	41.6	43.9	44.3	2.9	1.9	2.0	19.4	19.1	19.1
Indonesia	22.8	24.1	25.7	1.9	2.5	2.5	29.2	29.1	28.8
Iran, Islamic Republic of	11.8	14.0	13.8	1.8	1.6	1.5	1.3	1.3	1.2
Japan	17.2	17.8	17.1	2.1	1.9	2.0	3.3	3.3	3.3
Korea, D.P.R.	2.7	2.6	2.6	0.2	0.4	0.6	84.6	84.1	83.7
Korea, Republic of	10.4	10.6	10.6	1.7	0.9	0.9	4.3	4.3	4.3
Malaysia	3.7	3.9	3.9	0.1	0.2	0.4	1.6	1.7	1.7
Pakistan	6.0	7.0	7.1	1.6	1.2	0.8	10.3	10.2	10.0
Philippines	8.2	8.1	8.6	0.7	1.1	1.2	18.4	18.6	18.5
Saudi Arabia	13.0	13.1	12.3	3.8	2.9	2.9	3.0	2.9	2.9
Thailand	4.4	4.9	5.0	0.7	0.6	0.6	2.7	2.7	2.7
Turkey	15.7	16.7	17.1	2.1	2.1	2.1	19.9	19.7	19.7
Viet Nam	12.3	13.9	14.2	1.4	1.2	1.3	6.3	6.7	6.9
AFRICA	146.6	153.1	151.4	27.9	31.7	30.1	72.7	72.7	71.0
Algeria	6.1	5.8	6.5	1.7	1.6	1.6	18.6	17.9	17.6
Egypt	17.4	17.2	17.8	1.6	1.8	1.9	45.1	45.1	44.2
Ethiopia	17.9	19.2	19.0	3.1	3.1	3.1	135.3	140.2	135.0
Morocco	4.8	5.6	5.7	1.5	1.3	1.7	38.9	38.6	38.1
Nigeria	18.4	19.9	18.5	2.4	1.6	1.2	74.0	74.7	73.5
South Africa	11.9	12.7	12.2	2.3	4.4	4.2	92.0	92.3	91.2
Sudan	5.9	5.6	5.7	1.2	1.0	0.8	116.6	105.4	103.2
Tanzania, United Rep. of	6.8	6.9	7.1	1.6	1.4	1.2	87.4	87.4	87.5
CENTRAL AMERICA	54.5	59.0	62.6	7.4	10.2	7.9	97.0	97.6	98.6
Mexico	44.2	48.4	51.7	4.0	6.3	4.3	132.0	132.2	132.3
SOUTH AMERICA	104.1	109.0	113.0	29.4	44.1	36.3	28.1	28.1	29.2
Argentina	20.2	23.0	25.2	5.5	10.9	6.9	7.3	7.3	7.3
Brazil	59.5	61.8	62.4	11.1	16.3	11.3	25.1	25.2	25.3
Chile	3.2	3.2	3.3	2.7	3.3	3.6	24.7	25.0	25.2
Colombia	7.2	7.0	7.5	0.9	1.0	1.1	41.2	39.7	49.1
Peru	4.0	4.5	4.8	3.2	5.0	5.8	26.5	27.1	27.4
Venezuela	4.1	3.2	3.2	1.0	0.1	0.1	61.1	60.5	60.7
NORTH AMERICA	339.0	352.9	351.6	57.0	60.3	46.3	18.0	18.1	18.0
Canada	21.6	23.4	23.1	4.5	4.4	4.0	4.7	4.7	4.6
United States of America	317.4	329.5	328.4	52.4	55.9	42.2	19.5	19.6	19.5
EUROPE	222.7	223.0	224.9	36.5	38.3	34.4	20.9	20.6	20.5
European Union	161.0	166.3	165.0	20.6	19.4	16.0	19.3	19.3	19.3
Russian Federation	32.6	30.3	32.0	4.2	8.0	7.6	21.8	21.3	20.6
Serbia	5.1	3.7	5.6	0.5	0.5	0.5	22.8	22.9	23.0
Ukraine	14.0	12.7	12.3	6.1	4.3	3.1	30.1	28.7	29.1
OCEANIA	7.2	6.2	6.4	2.4	2.7	2.4	8.1	8.1	7.9
Australia	6.2	5.4	5.4	2.3	2.6	2.3	9.7	9.6	9.5
WORLD	1 312.4	1 372.4	1 390.8	340.5	363.5	311.0	27.4	27.6	27.5
Developing countries	705.4	750.2	769.9	236.8	251.3	216.6	29.2	29.4	29.3
Developed countries	607.0	622.3	620.9	103.7	112.1	94.4	19.9	19.9	19.8
LIFDC	159.3	168.6	166.6	27.8	28.8	27.2	38.3	38.4	37.9
LDC	83.2	88.0	87.6	16.9	18.0	15.9	58.2	58.7	57.3

APPENDIX TABLE 4(A): MAIZE STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	309.2	314.2	311.9	63.8	69.9	71.2	2.8	2.8	2.8
China	220.1	216.0	213.9	7.5	8.6	8.3	-	-	-
of which Taiwan Prov.	0.2	0.2	0.2	4.2	4.5	5.0	-	-	-
India	24.2	26.9	26.8	0.2	0.1	0.1	0.9	0.6	0.6
Indonesia	19.7	24.3	24.5	2.2	1.2	1.2	0.2	-	-
Iran, Islamic Republic of	1.3	0.9	0.9	6.4	7.5	7.5	-	-	-
Japan	-	-	-	15.0	15.2	15.0	-	-	-
Korea, D.P.R.	2.5	2.4	2.4	0.2	0.3	0.3	-	-	-
Korea, Republic of	0.1	0.1	0.1	9.9	10.0	10.3	-	-	-
Malaysia	0.1	0.1	0.1	3.6	4.0	4.0	-	-	-
Pakistan	5.4	6.0	6.0	-	-	-	-	-	-
Philippines	7.5	7.9	8.0	0.6	0.6	0.6	-	-	-
Thailand	4.6	4.9	4.9	0.1	0.2	0.2	0.5	0.3	0.3
Turkey	6.3	5.9	6.0	1.2	2.8	2.5	0.1	0.1	0.1
Viet Nam	5.2	5.1	4.8	7.4	8.2	9.5	0.1	-	-
AFRICA	74.9	86.5	77.3	22.1	21.5	22.4	3.8	4.8	4.5
Algeria	-	-	-	4.3	4.1	4.6	-	-	-
Egypt	8.0	7.1	7.3	8.5	9.4	9.6	-	-	-
Ethiopia	7.6	7.7	7.7	-	-	-	0.8	0.7	0.6
Kenya	3.5	3.0	3.2	1.0	1.3	1.2	-	-	-
Morocco	0.1	0.1	0.1	2.1	2.5	2.6	-	-	-
Nigeria	10.4	11.1	10.1	0.4	0.4	0.4	0.2	0.2	0.2
South Africa	11.2	17.6	13.8	1.5	-	-	1.1	2.3	2.2
Tanzania, United Rep. of	6.2	6.0	6.1	-	-	-	0.4	0.3	0.3
CENTRAL AMERICA	29.4	32.8	32.0	19.2	21.6	22.4	1.1	1.4	1.0
Mexico	25.4	28.1	27.2	12.9	15.8	16.7	1.1	1.4	1.0
SOUTH AMERICA	125.4	161.1	139.4	12.9	13.0	13.6	46.2	59.8	58.6
Argentina	35.5	49.5	42.0	-	-	-	20.4	26.0	26.0
Brazil	76.2	99.4	85.0	1.5	0.8	0.8	23.1	31.5	30.0
Chile	1.3	1.1	1.0	1.4	1.7	2.0	-	-	-
Colombia	1.5	1.5	1.4	4.7	4.9	5.2	0.2	0.1	0.1
Peru	1.6	1.7	1.8	2.9	3.4	3.5	-	-	-
Venezuela	1.7	1.5	1.5	1.9	1.6	1.6	-	-	-
NORTH AMERICA	376.8	385.1	371.4	2.6	2.5	2.2	53.0	54.4	55.4
Canada	13.0	14.1	14.8	1.3	1.4	1.0	1.3	1.4	1.4
United States of America	363.8	371.0	356.6	1.3	1.1	1.2	51.7	53.0	54.0
EUROPE	116.0	110.8	112.0	12.8	17.8	16.8	28.6	25.7	26.3
European Union	65.9	65.0	63.0	12.1	17.0	16.0	2.8	1.3	1.5
Russian Federation	13.3	13.2	13.9	-	0.1	0.1	4.3	5.5	5.0
Serbia	6.9	4.0	5.8	-	-	-	2.3	0.8	0.8
Ukraine	26.6	24.7	25.5	-	-	-	19.0	17.8	18.7
OCEANIA	0.6	0.6	0.6	0.2	0.2	0.2	0.1	0.1	0.1
WORLD	1 032.5	1 091.0	1 044.7	133.5	146.4	148.7	135.6	149.0	148.7
Developing countries	525.1	574.6	544.4	99.9	109.0	112.8	52.8	66.4	64.7
Developed countries	507.3	516.4	500.3	33.6	37.4	35.9	82.8	82.5	84.0
LIFDC	89.4	98.0	93.8	6.0	5.9	6.3	3.3	2.9	2.8
LDC	45.5	51.7	47.7	3.2	3.2	3.7	3.2	3.5	3.3

APPENDIX TABLE 4(B): MAIZE STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 estim.	2018/19 f'cast	2015-2017 average	2018 estim.	2019 f'cast	14/15-16/17 average	2017/18 estim.	2018/19 f'cast
	(..... million tonnes))						(..... Kg/year))		
ASIA	357.6	390.2	403.4	166.2	164.4	140.9	8.3	8.3	8.2
China	215.0	235.2	245.7	149.0	146.8	122.9	6.0	6.1	6.0
of which Taiwan Prov.	4.4	4.6	5.1	0.2	0.4	0.5	5.5	5.5	5.5
India	23.7	25.9	26.1	1.4	1.5	1.6	6.9	6.8	6.7
Indonesia	22.7	24.0	25.7	1.9	2.5	2.5	28.8	28.8	28.5
Iran, Islamic Republic of	7.2	8.2	8.4	1.1	1.0	1.0	0.9	0.9	0.9
Japan	14.8	15.7	15.0	1.8	1.6	1.7	0.8	0.8	0.8
Korea, D.P.R.	2.6	2.5	2.5	0.2	0.4	0.6	81.6	81.6	81.2
Korea, Republic of	10.1	10.3	10.3	1.7	0.9	0.8	1.9	2.0	2.0
Malaysia	3.7	3.9	3.9	0.1	0.2	0.4	1.6	1.7	1.7
Pakistan	5.4	6.4	6.4	1.6	1.2	0.8	8.2	8.1	8.0
Philippines	8.1	8.0	8.5	0.7	1.1	1.2	18.3	18.6	18.5
Thailand	4.2	4.7	4.8	0.7	0.6	0.6	1.2	1.2	1.2
Turkey	7.5	8.4	8.4	1.0	1.0	1.0	16.2	16.1	16.1
Viet Nam	12.1	13.8	14.1	1.4	1.2	1.3	6.2	6.7	6.8
AFRICA	91.5	96.4	96.0	15.8	21.7	20.6	39.6	39.8	39.4
Algeria	4.1	4.1	4.6	1.3	1.2	1.2	3.5	3.4	3.3
Egypt	16.4	16.3	16.8	1.5	1.7	1.8	41.9	42.0	41.3
Ethiopia	6.8	7.0	7.1	0.6	0.7	0.7	43.9	44.3	44.4
Kenya	4.3	4.4	4.5	0.5	0.5	0.4	80.9	81.1	81.3
Morocco	2.2	2.4	2.5	0.7	0.9	1.1	10.1	10.5	10.4
Nigeria	10.3	11.6	10.4	1.0	0.7	0.6	34.9	36.1	35.5
South Africa	11.2	12.1	11.5	2.0	4.1	4.0	88.0	88.2	87.1
Tanzania, United Rep. of	5.6	5.8	6.0	1.4	1.2	1.0	69.5	70.0	70.4
CENTRAL AMERICA	46.4	51.5	54.8	7.0	9.8	7.5	95.5	96.0	97.1
Mexico	36.5	41.3	44.2	3.7	6.0	4.0	130.6	130.8	131.0
SOUTH AMERICA	92.1	96.3	100.5	25.7	40.4	32.7	26.6	26.5	27.7
Argentina	15.5	18.5	21.0	4.3	10.0	6.0	7.1	7.1	7.1
Brazil	55.9	57.8	58.5	10.6	16.0	11.0	24.0	24.1	24.2
Chile	2.5	2.6	2.6	2.2	2.6	2.8	21.1	21.3	21.4
Colombia	6.2	5.9	6.4	0.9	1.0	1.1	39.7	38.2	47.6
Peru	3.6	4.1	4.4	3.2	5.0	5.8	20.1	20.7	20.9
Venezuela	4.0	3.1	3.1	1.3	-	-	60.7	60.0	60.2
NORTH AMERICA	317.6	332.7	332.0	50.8	55.6	42.2	14.8	14.8	14.8
Canada	12.8	14.1	14.2	2.0	2.2	2.2	3.2	3.2	3.2
United States of America	304.8	318.5	317.9	48.8	53.4	40.1	16.1	16.2	16.1
EUROPE	100.5	101.2	104.0	18.8	17.8	16.3	8.3	8.4	8.4
European Union	75.3	79.2	78.5	9.8	9.5	8.5	9.8	9.9	9.9
Russian Federation	8.7	7.4	9.2	0.7	1.3	1.0	1.4	1.4	1.4
Serbia	4.6	3.2	5.1	0.5	0.5	0.5	21.1	21.2	21.3
Ukraine	8.3	7.8	7.5	4.4	2.4	1.8	11.1	11.2	11.3
OCEANIA	0.7	0.7	0.7	0.1	0.1	0.1	2.3	2.3	2.3
WORLD	1 006.5	1 069.0	1 091.5	284.3	309.9	260.3	17.2	17.4	17.5
Developing countries	557.8	602.6	624.4	208.7	227.9	193.0	18.4	18.6	18.7
Developed countries	448.7	466.4	467.0	75.7	82.0	67.4	11.9	12.0	12.0
LIFDC	90.9	98.5	98.1	15.0	18.5	17.6	18.3	18.4	18.4
LDC	45.3	48.7	49.5	8.0	10.4	8.8	27.7	28.0	28.1

APPENDIX TABLE 5(A): BARLEY STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	20.3	21.8	21.6	23.9	23.1	23.3	0.8	1.3	1.3
China	1.8	2.0	1.8	7.8	7.6	8.2	-	-	-
India	1.6	1.8	1.8	0.4	0.2	0.2	0.2	-	-
Iran, Islamic Republic of	3.0	3.1	2.8	1.7	2.5	2.5	-	-	-
Iraq	0.8	0.8	0.7	-	-	-	-	-	-
Japan	0.2	0.2	0.2	1.2	1.1	1.2	-	-	-
Kazakhstan	2.8	3.3	3.5	-	-	-	0.7	1.2	1.3
Saudi Arabia	-	-	-	9.2	8.0	7.5	-	-	-
Syrian Arab Republic	0.5	0.8	0.6	0.4	0.4	0.4	-	-	-
Turkey	7.0	7.1	7.4	0.4	0.5	0.5	-	-	-
AFRICA	6.0	6.5	6.7	3.1	3.0	3.0	-	-	-
Algeria	0.9	0.9	1.0	0.8	0.7	0.8	-	-	-
Ethiopia	2.0	2.0	2.0	-	-	-	-	-	-
Libya	0.1	0.1	0.1	1.1	1.0	1.0	-	-	-
Morocco	1.9	2.5	2.7	0.6	0.6	0.6	-	-	-
Tunisia	0.5	0.5	0.4	0.6	0.6	0.4	-	-	-
CENTRAL AMERICA	0.8	1.0	1.0	0.2	0.2	0.2	-	-	-
Mexico	0.8	1.0	1.0	0.2	0.2	0.2	-	-	-
SOUTH AMERICA	4.8	4.9	5.1	1.2	1.0	1.1	2.4	2.2	2.2
Argentina	3.7	3.7	3.7	-	-	-	2.4	2.1	2.2
NORTH AMERICA	12.4	11.0	11.2	0.5	0.4	0.6	1.6	2.1	1.6
Canada	8.0	7.9	8.0	0.1	0.2	0.1	1.4	2.0	1.5
United States of America	4.4	3.1	3.2	0.4	0.2	0.4	0.2	0.1	0.1
EUROPE	91.3	90.9	86.6	0.5	0.8	0.6	17.7	15.7	17.0
Belarus	1.7	1.4	1.7	-	-	-	-	-	-
European Union	60.5	59.0	59.0	0.3	0.5	0.3	8.7	5.5	7.6
Russian Federation	18.6	20.6	17.2	0.2	0.1	0.1	4.1	5.7	5.0
Ukraine	8.9	8.3	7.1	-	-	-	4.8	4.5	4.3
OCEANIA	10.8	9.3	9.6	-	-	-	6.4	7.2	6.5
Australia	10.4	8.9	9.2	-	-	-	6.4	7.2	6.5
WORLD	146.4	145.3	141.8	29.4	28.5	28.7	28.9	28.5	28.7
Developing countries	26.9	28.4	28.5	26.6	25.6	25.7	2.6	2.2	2.3
Developed countries	119.5	116.9	113.3	2.8	2.9	3.0	26.4	26.3	26.4
LIFDC	5.5	6.1	5.9	0.8	0.8	0.8	0.2	-	-
LDC	2.6	2.5	2.6	-	-	-	-	-	-

APPENDIX TABLE 5(B): BARLEY STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	2015-2017 average	2018 <i>estim.</i>	2019 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	(<i>..... million tonnes</i>)						(<i>..... Kg/year</i>)		
ASIA	43.1	44.2	42.3	9.7	9.0	10.3	0.7	0.7	0.7
China	9.2	9.8	9.1	2.3	2.2	3.1	0.2	0.2	0.2
India	1.5	1.9	1.9	-	-	-	1.0	1.3	1.3
Iran, Islamic Republic of	4.5	5.8	5.4	0.7	0.6	0.5	0.3	0.3	0.3
Iraq	0.8	0.8	0.8	0.1	-	-	3.6	3.4	3.3
Japan	1.4	1.4	1.4	0.2	0.2	0.2	2.3	2.4	2.4
Kazakhstan	2.1	2.0	2.0	0.2	0.4	0.6	1.1	1.1	1.1
Saudi Arabia	9.3	8.5	7.5	3.5	2.6	2.6	0.9	0.9	0.8
Syrian Arab Republic	1.1	1.0	1.0	0.3	0.4	0.5	14.9	15.3	15.3
Turkey	7.6	7.5	7.9	1.0	1.0	1.0	1.0	1.0	1.0
AFRICA	9.4	9.5	9.5	2.0	1.4	1.7	3.0	2.9	2.8
Algeria	1.9	1.6	1.8	0.5	0.4	0.4	15.0	14.5	14.3
Ethiopia	2.0	2.1	2.0	0.1	-	-	17.2	17.2	16.2
Libya	1.1	1.1	1.1	-	-	-	13.5	13.5	13.3
Morocco	2.5	3.1	3.1	0.8	0.4	0.6	28.7	28.0	27.6
Tunisia	1.1	1.0	0.8	0.4	0.4	0.4	8.0	7.8	7.7
CENTRAL AMERICA	1.0	1.2	1.2	0.1	0.1	0.1	-	-	-
Mexico	1.0	1.2	1.2	0.1	0.1	0.1	-	-	-
SOUTH AMERICA	3.7	3.8	4.3	0.5	0.7	0.8	0.5	0.6	0.6
Argentina	1.5	1.5	1.8	0.4	0.6	0.8	-	-	-
NORTH AMERICA	11.1	11.1	10.8	3.7	2.5	1.8	0.5	0.5	0.5
Canada	6.7	7.1	6.8	1.6	1.0	0.8	0.3	0.3	0.3
United States of America	4.3	4.1	3.9	2.1	1.4	1.0	0.6	0.6	0.6
EUROPE	74.3	75.0	74.0	10.9	11.5	7.6	1.2	1.1	1.0
Belarus	1.6	1.6	1.6	0.5	0.1	0.1	-	-	-
European Union	52.5	54.5	53.7	7.2	6.0	4.0	0.8	0.7	0.7
Russian Federation	14.4	13.8	13.7	1.8	3.7	2.3	1.8	1.8	1.2
Ukraine	4.2	3.5	3.4	1.2	1.4	0.8	3.0	2.6	2.6
OCEANIA	3.9	3.2	3.2	1.2	1.3	1.2	0.2	0.1	0.1
Australia	3.4	2.8	2.8	1.1	1.3	1.2	0.3	0.2	0.2
WORLD	146.3	148.0	145.3	28.1	26.5	23.5	1.1	1.1	1.1
Developing countries	51.0	52.4	51.1	10.7	9.2	10.4	1.1	1.1	1.1
Developed countries	95.3	95.5	94.2	17.3	17.3	13.1	1.0	1.0	0.9
LIFDC	6.1	6.6	6.4	1.0	1.2	1.5	1.3	1.4	1.4
LDC	2.6	2.6	2.5	0.3	0.1	0.2	1.9	1.9	1.8

APPENDIX TABLE 6(A): SORGHUM STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	9.1	8.8	8.9	9.0	5.8	6.2	0.1	0.1	0.1
China	2.9	3.3	3.1	8.1	5.1	5.5	-	-	-
India	5.0	4.6	4.7	-	-	-	0.1	-	-
Japan	-	-	-	0.8	0.6	0.6	-	-	-
AFRICA	28.1	26.5	26.8	1.0	1.1	0.8	1.0	0.7	0.9
Burkina Faso	1.6	1.6	1.7	-	-	-	-	-	-
Ethiopia	4.6	4.7	4.7	-	-	-	0.4	0.3	0.3
Nigeria	6.9	6.3	6.5	-	-	-	-	-	-
Sudan	5.2	3.7	4.5	0.2	0.2	0.1	0.5	0.2	0.4
CENTRAL AMERICA	6.1	5.3	5.6	0.6	0.3	0.4	-	-	-
Mexico	5.7	5.0	5.2	0.6	0.3	0.4	-	-	-
SOUTH AMERICA	6.4	5.8	5.0	0.3	0.3	0.4	0.9	0.6	0.4
Argentina	3.2	2.5	1.7	-	-	-	0.8	0.6	0.4
Brazil	1.9	1.9	1.9	-	-	-	-	-	-
Venezuela	0.1	0.1	0.1	-	-	-	-	-	-
NORTH AMERICA	12.8	9.2	8.7	0.1	0.1	-	8.1	6.2	6.0
United States of America	12.8	9.2	8.7	0.1	0.1	-	8.1	6.2	6.0
EUROPE	1.2	1.1	1.1	0.1	0.4	0.2	0.1	0.1	0.1
European Union	0.7	0.8	0.8	0.1	0.4	0.2	-	-	-
OCEANIA	1.8	1.0	1.4	0.1	-	-	1.0	0.4	0.6
Australia	1.8	1.0	1.4	-	-	-	1.0	0.4	0.6
WORLD	65.3	57.7	57.5	11.0	8.0	8.0	11.2	8.0	8.0
Developing countries	49.4	46.2	46.1	9.9	6.8	7.1	2.0	1.3	1.4
Developed countries	16.0	11.5	11.4	1.0	1.2	0.9	9.2	6.7	6.6
LIFDC	32.8	30.5	31.2	0.8	0.9	0.7	1.1	0.7	0.9
LDC	19.5	18.4	18.7	0.6	0.7	0.4	0.9	0.6	0.8

APPENDIX TABLE 7(A): OTHER COARSE GRAIN STATISTICS: MILLET, RYE, OATS AND OTHER GRAINS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	14/15-16/17 average	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	<i>million tonnes</i>								
ASIA	18.8	19.2	18.9	0.8	1.0	0.8	0.2	0.2	0.2
AFRICA	19.1	19.5	19.5	0.1	0.1	0.1	1.3	1.2	1.2
CENTRAL AMERICA	0.1	0.1	0.1	0.3	0.4	0.3	-	-	-
SOUTH AMERICA	2.0	2.3	2.4	0.4	0.4	0.3	0.1	-	0.2
NORTH AMERICA	5.5	5.6	5.7	1.9	1.8	1.7	2.1	2.1	2.0
EUROPE	47.1	47.2	46.9	0.5	0.7	0.8	0.7	0.7	0.6
OCEANIA	1.9	1.4	1.4	-	0.1	0.1	-	-	-
WORLD	94.4	95.4	94.7	4.2	4.6	4.2	4.3	4.2	4.2

APPENDIX TABLE 6(B): SORGHUM STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 estim.	2018/19 f'cast	2015-2017 average	2018 estim.	2019 f'cast	14/15-16/17 average	2017/18 estim.	2018/19 f'cast
	million tonnes						Kg/year		
ASIA	17.8	14.8	15.6	1.7	1.3	1.2	1.4	1.3	1.3
China	10.6	8.4	9.2	1.1	1.0	1.0	0.5	0.5	0.5
India	5.0	4.5	4.7	0.3	-	-	3.6	3.3	3.4
Japan	0.8	0.6	0.6	0.1	0.1	0.1	-	-	-
AFRICA	28.0	28.0	27.1	4.9	3.6	3.2	18.2	17.9	17.0
Burkina Faso	1.7	1.6	1.6	0.6	0.4	0.4	76.9	77.9	77.5
Ethiopia	4.1	4.4	4.4	0.5	0.6	0.6	31.2	32.7	31.6
Nigeria	6.8	6.8	6.6	1.0	0.4	0.3	33.1	32.5	31.9
Sudan	4.9	4.5	4.5	0.9	0.6	0.4	97.4	89.1	87.2
CENTRAL AMERICA	6.5	5.8	6.1	0.3	0.3	0.3	0.7	0.7	0.7
Mexico	6.2	5.4	5.7	0.2	0.2	0.2	-	-	-
SOUTH AMERICA	6.2	6.4	5.7	2.6	2.2	1.9	0.1	0.1	0.1
Argentina	2.3	2.3	1.6	0.7	0.3	0.1	-	-	-
Brazil	1.9	1.9	1.9	0.3	0.2	0.2	-	-	-
Venezuela	0.1	0.1	0.1	-	-	-	-	-	-
NORTH AMERICA	5.0	3.6	3.3	0.8	0.7	0.7	0.1	0.1	0.1
United States of America	5.0	3.6	3.3	0.7	0.7	0.7	0.1	0.1	0.1
EUROPE	1.3	1.3	1.2	0.4	0.4	0.3	0.2	0.2	0.2
European Union	0.9	1.0	1.0	0.2	0.2	0.2	0.3	0.3	0.3
OCEANIA	0.8	0.8	0.8	0.8	0.7	0.7	0.2	0.2	0.2
Australia	0.8	0.8	0.8	0.8	0.7	0.6	-	-	-
WORLD	65.5	60.7	59.9	11.4	9.2	8.4	3.8	3.8	3.7
Developing countries	57.4	54.2	53.7	9.3	7.2	6.6	4.6	4.6	4.5
Developed countries	8.1	6.5	6.2	2.1	2.0	1.8	0.2	0.3	0.3
LIFDC	32.5	32.0	31.3	5.2	3.6	3.3	9.6	9.4	9.1
LDC	19.2	19.3	18.6	3.8	3.0	2.7	14.9	14.8	13.8

APPENDIX TABLE 7(B): OTHER COARSE GRAIN STATISTICS: MILLET, RYE, OATS AND OTHER GRAINS

	Total Utilization			Stocks ending in			Per caput food use		
	14/15-16/17 average	2017/18 estim.	2018/19 f'cast	2015-2017 average	2018 estim.	2019 f'cast	14/15-16/17 average	2017/18 estim.	2018/19 f'cast
	million tonnes						Kg/year		
ASIA	19.8	20.0	19.8	2.4	1.3	1.1	3.5	3.4	3.5
AFRICA	17.7	19.2	18.8	5.2	5.0	4.6	11.9	12.1	11.8
CENTRAL AMERICA	0.6	0.5	0.5	-	-	-	0.8	0.9	0.8
SOUTH AMERICA	2.2	2.5	2.5	0.5	0.8	0.9	0.9	0.9	0.8
NORTH AMERICA	5.3	5.5	5.5	1.7	1.5	1.6	2.6	2.7	2.6
EUROPE	46.6	45.5	45.7	6.4	8.6	10.2	11.2	10.9	10.9
OCEANIA	1.8	1.5	1.7	0.3	0.6	0.4	5.4	5.5	5.3
WORLD	94.1	94.7	94.1	16.7	17.9	18.8	5.3	5.3	5.2

APPENDIX TABLE 8(A): RICE STATISTICS

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	2014-2016 average	2017 <i>f'cast</i>	2018 <i>f'cast</i>	2014-2016 average	2017 <i>f'cast</i>	2018 <i>f'cast</i>
	<i>million tonnes, milled equivalent</i>								
ASIA	447.4	456.3	461.9	21.8	22.3	23.2	36.2	40.3	39.8
Bangladesh	34.7	33.9	35.3	0.8	2.4	1.8	-	-	-
China	143.2	144.1	142.6	6.6	6.4	6.4	0.4	1.2	1.4
of which Taiwan Prov.	1.2	1.3	1.3	0.1	0.1	0.1	0.1	-	-
India	106.5	111.5	113.5	-	-	-	10.9	12.5	12.0
Indonesia	45.2	46.3	46.7	1.2	0.3	1.5	-	-	-
Iran, Islamic Republic of	1.6	2.0	1.9	1.2	1.4	1.3	-	-	-
Iraq	0.1	0.2	0.2	1.0	1.0	1.1	-	-	-
Japan	7.7	7.5	7.5	0.7	0.7	0.7	0.1	-	-
Korea DPR	1.6	1.6	1.6	0.1	-	-	-	-	-
Korea, Republic of	4.2	4.0	3.9	0.4	0.4	0.4	-	-	0.1
Malaysia	1.8	1.8	1.8	1.0	0.9	1.0	0.1	-	-
Myanmar	16.9	17.7	18.2	-	-	-	1.6	3.1	3.2
Pakistan	6.9	7.4	7.6	-	-	-	4.0	3.7	4.1
Philippines	12.0	12.7	12.9	1.5	1.0	1.5	-	-	-
Saudi Arabia	-	-	-	1.4	1.1	1.2	-	-	-
Sri Lanka	2.9	1.6	2.4	0.5	0.7	0.5	-	-	-
Thailand	20.2	22.3	22.8	0.2	0.3	0.3	10.2	11.6	9.9
Viet Nam	28.9	27.8	28.7	0.5	0.7	0.8	7.5	6.3	7.2
AFRICA	20.1	20.8	21.6	14.5	17.1	16.1	0.7	0.6	0.5
Cote D'ivoire	0.5	0.5	0.5	1.3	1.6	1.5	-	-	-
Egypt	4.2	4.4	4.2	0.1	0.1	-	0.4	0.2	0.2
Madagascar	2.6	2.1	2.4	0.3	0.6	0.5	-	-	-
Nigeria	3.8	4.2	4.3	2.6	2.7	2.9	-	-	-
Senegal	0.6	0.7	0.7	1.3	1.6	1.2	-	-	-
South Africa	-	-	-	0.8	0.9	0.9	-	-	-
Tanzania, United Rep. of	1.9	1.6	2.0	0.2	0.2	0.2	0.2	0.2	0.2
CENTRAL AMERICA	1.8	1.9	2.0	2.2	2.5	2.4	0.1	0.1	0.1
Cuba	0.3	0.3	0.4	0.5	0.5	0.5	-	-	-
Mexico	0.2	0.2	0.2	0.7	0.9	0.7	-	0.1	-
SOUTH AMERICA	16.6	16.9	16.5	1.6	1.9	1.8	3.1	3.1	3.4
Argentina	1.1	0.9	0.9	-	-	-	0.4	0.4	0.4
Brazil	8.0	8.4	8.0	0.5	0.8	0.7	0.8	0.6	0.9
Peru	2.1	2.1	2.2	0.2	0.4	0.3	0.1	0.1	0.1
Uruguay	0.9	1.0	0.9	-	-	-	0.8	1.0	0.8
NORTH AMERICA	6.8	5.7	6.5	1.1	1.2	1.2	3.3	3.4	3.2
Canada	-	-	-	0.4	0.4	0.4	-	-	-
United States of America	6.8	5.7	6.5	0.8	0.8	0.9	3.3	3.4	3.2
EUROPE	2.6	2.4	2.4	2.3	2.5	2.5	0.5	0.5	0.6
European Union	1.8	1.7	1.7	1.7	2.0	2.0	0.3	0.4	0.4
Russian Federation	0.7	0.7	0.6	0.2	0.2	0.2	0.2	0.2	0.2
OCEANIA	0.4	0.5	0.4	0.5	0.5	0.6	0.3	0.2	0.3
Australia	0.4	0.5	0.4	0.2	0.2	0.2	0.3	0.2	0.3
WORLD	495.7	504.6	511.4	44.0	48.1	47.8	44.0	48.1	47.8
Developing countries	477.7	487.8	493.9	38.4	42.1	41.7	39.9	43.9	43.7
Developed countries	18.0	16.8	17.5	5.6	6.0	6.1	4.1	4.3	4.1
LIFDC	169.6	175.1	179.8	15.6	19.9	18.1	15.2	16.6	16.5
LDC	74.8	75.4	78.5	10.1	13.5	11.8	3.3	5.1	5.2

APPENDIX TABLE 8(B): RICE STATISTICS

	Total Utilization			Stocks ending in			Per caput food use		
	13/14-15/16 average	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	13/14-15/16 average	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>
	<i>(..... million tonnes, milled equivalent</i>						<i>) (..... Kg/year</i>		
ASIA	427.8	433.5	438.2	157.9	158.9	161.3	77.5	77.1	77.2
Bangladesh	35.2	35.8	36.2	6.9	6.0	7.2	179.9	180.7	180.8
China	141.4	143.7	144.8	86.9	99.0	103.3	75.9	76.0	76.5
of which Taiwan Prov.	1.3	1.3	1.3	0.2	0.2	0.3	48.1	48.4	49.2
India	96.5	97.5	98.7	22.1	19.5	20.4	68.8	68.2	68.3
Indonesia	46.1	46.7	47.2	6.6	6.8	6.3	134.6	133.8	133.1
Iran, Islamic Republic of	3.0	3.2	3.2	0.7	0.7	0.7	34.4	35.4	35.5
Iraq	1.3	1.2	1.2	0.3	-	0.1	37.1	31.3	31.5
Japan	8.5	8.4	8.2	3.5	3.4	3.3	50.3	49.3	49.1
Korea DPR	1.7	1.6	1.7	0.2	0.2	0.1	57.9	55.1	58.4
Korea, Republic of	4.5	4.8	4.9	1.4	1.5	1.0	77.4	74.9	72.9
Malaysia	2.7	2.8	2.8	0.4	0.3	0.3	81.0	80.9	80.8
Myanmar	15.4	14.8	14.8	2.9	2.4	2.4	193.3	191.5	191.8
Pakistan	2.9	3.0	3.2	0.6	0.7	0.8	12.5	12.5	12.7
Philippines	13.3	13.5	13.8	2.4	2.3	2.4	115.7	114.5	115.2
Saudi Arabia	1.4	1.4	1.3	0.3	0.4	0.2	43.2	42.0	39.0
Sri Lanka	3.0	3.2	2.7	0.5	0.6	0.2	122.7	123.6	122.6
Thailand	13.9	13.5	14.4	15.6	8.2	5.8	99.1	99.1	98.9
Viet Nam	21.4	22.1	22.3	2.9	3.2	3.0	155.9	154.7	153.4
AFRICA	33.0	35.9	37.1	4.8	5.0	4.8	24.8	25.4	25.9
Cote D'ivoire	1.8	2.0	2.0	0.3	0.4	0.4	74.2	78.9	79.0
Egypt	3.9	4.0	4.2	0.6	0.7	0.7	37.9	38.1	38.7
Madagascar	2.9	2.8	2.8	0.4	0.2	0.2	102.4	100.3	98.4
Nigeria	6.4	6.5	6.9	0.8	0.4	0.5	31.1	29.6	30.8
Senegal	1.7	2.0	2.1	0.3	0.5	0.3	108.9	118.8	119.4
South Africa	1.0	0.9	0.9	0.2	0.1	0.1	16.8	15.6	15.8
Tanzania, United Rep. of	1.7	2.2	1.9	0.3	0.5	0.3	26.0	27.2	27.4
CENTRAL AMERICA	3.9	4.1	4.2	0.5	0.6	0.6	17.4	17.9	18.2
Cuba	0.8	0.8	0.8	0.1	0.1	0.1	66.3	68.2	68.4
Mexico	0.8	0.8	0.9	0.1	0.1	0.1	6.4	6.4	6.7
SOUTH AMERICA	15.3	15.0	15.4	2.0	2.0	2.1	32.9	31.9	32.0
Argentina	0.5	0.5	0.6	0.2	0.2	0.2	9.9	10.3	10.5
Brazil	8.2	7.8	8.2	0.7	0.3	0.5	36.3	34.3	35.0
Peru	2.2	2.3	2.4	0.4	0.4	0.4	64.7	65.0	65.2
Uruguay	0.1	0.1	0.1	0.2	0.1	-	7.9	8.3	8.0
NORTH AMERICA	4.4	4.6	4.2	1.4	1.5	1.2	9.3	9.5	9.4
Canada	0.4	0.4	0.4	0.1	-	-	10.6	10.3	10.4
United States of America	4.0	4.2	3.8	1.4	1.5	1.2	9.1	9.4	9.3
EUROPE	4.3	4.3	4.5	0.7	0.8	0.8	5.1	5.1	5.3
European Union	3.2	3.2	3.4	0.5	0.6	0.6	5.4	5.4	5.6
Russian Federation	0.7	0.8	0.8	0.1	0.1	0.1	4.9	4.9	4.9
OCEANIA	0.7	0.7	0.7	0.2	0.2	0.3	15.5	15.9	16.4
Australia	0.3	0.3	0.3	0.2	0.2	0.3	10.1	10.6	11.1
WORLD	489.4	498.1	504.3	167.5	169.0	171.1	53.8	53.6	53.8
Developing countries	470.0	478.5	485.0	161.4	162.9	165.2	64.0	63.5	63.6
Developed countries	19.4	19.5	19.3	6.2	6.1	5.8	11.2	11.1	11.2
LIFDC	169.7	174.3	177.1	34.4	31.2	33.2	55.5	55.2	55.3
LDC	80.1	82.7	83.7	15.2	14.6	15.6	66.1	65.9	65.6

Note: Totals and percentage change computed from unrounded data.

APPENDIX TABLE 9: CEREAL SUPPLY AND UTILIZATION IN SELECTED EXPORTERS (million tonnes)

	Wheat ¹			Coarse Grains ²			Rice (milled basis)		
	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>	2016/17	2017/18 <i>estim.</i>	2018/19 <i>f'cast</i>
	UNITED STATES (June/May)			UNITED STATES			UNITED STATES (Aug/July)		
Opening Stocks	26.6	32.1	29.4	48.1	62.2	55.9	1.5	1.5	1.2
Production	62.8	47.4	49.7	403.0	384.6	370.1	7.1	5.7	6.5
Imports	3.2	4.2	3.7	3.5	3.2	3.6	0.7	0.9	0.9
Total Supply	92.6	83.7	82.8	454.6	450.0	429.6	9.3	8.1	8.6
Domestic use	31.8	29.8	31.2	327.8	329.5	328.4	4.2	3.8	3.9
Exports	28.7	24.5	25.9	64.6	64.5	59.0	3.7	3.0	3.3
Closing stocks	32.1	29.4	25.7	62.2	55.9	42.2	1.5	1.2	1.3
	CANADA (August/July)			CANADA			THAILAND (Aug/July)		
Opening Stocks	5.2	6.9	6.2	4.8	5.5	4.4	10.9	8.2	5.8
Production	32.1	30.0	31.3	26.7	26.3	26.8	21.5	22.3	22.8
Imports	0.1	0.1	0.1	1.0	1.6	0.9	0.2	0.4	0.2
Total Supply	37.4	37.0	37.6	32.5	33.4	32.1	32.6	30.9	28.8
Domestic use	10.4	8.9	8.9	22.2	23.4	23.1	13.5	14.4	13.6
Exports	20.2	21.9	22.3	4.8	5.7	5.0	10.8	10.6	9.7
Closing stocks	6.9	6.2	6.4	5.5	4.4	4.0	8.2	5.8	5.5
	ARGENTINA (Dec./Nov.)			ARGENTINA			INDIA (Oct./Sept.)		
Opening Stocks	2.1	2.3	2.5	5.1	5.8	10.9	18.9	19.5	20.4
Production	18.6	18.5	20.0	47.0	56.4	48.1	109.7	111.5	113.5
Imports	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Supply	20.7	20.8	22.5	52.2	62.3	59.1	128.6	131.0	133.9
Domestic use	5.8	5.8	5.9	22.0	23.0	25.2	97.5	98.7	100.2
Exports	12.5	12.5	13.0	24.4	28.4	27.1	11.7	11.8	12.4
Closing stocks	2.3	2.5	3.7	5.8	10.9	6.9	19.5	20.4	21.3
	AUSTRALIA (Oct./Sept.)			AUSTRALIA			PAKISTAN (Sept./Aug.)		
Opening Stocks	4.5	6.0	5.0	1.8	3.1	2.6	0.5	0.7	0.8
Production	31.8	21.2	21.9	18.3	11.7	12.4	6.8	7.4	7.6
Imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Supply	36.3	27.2	26.9	20.1	14.8	15.0	7.3	8.1	8.4
Domestic use	7.8	7.2	7.3	6.8	5.4	5.4	3.0	3.2	3.3
Exports	22.6	15.0	14.7	10.2	6.9	7.3	3.7	4.2	4.2
Closing stocks	6.0	5.0	5.0	3.1	2.6	2.3	0.7	0.8	0.8
	EU (July/June)			EU			VIET NAM (Jan./Dec.)		
Opening Stocks	17.5	14.8	20.0	18.4	17.8	19.4	2.8	3.2	3.0
Production	144.5	152.0	147.0	153.2	156.6	154.1	28.1	27.8	28.7
Imports	5.0	5.5	5.5	15.2	18.5	17.1	0.6	0.7	0.8
Total Supply	167.0	172.3	172.5	186.8	192.9	190.6	31.5	31.7	32.5
Domestic use	125.4	131.1	131.0	160.9	166.3	165.0	22.1	22.3	22.2
Exports	26.8	21.2	27.5	8.2	7.1	9.5	6.1	6.3	7.2
Closing stocks	14.8	20.0	14.0	17.8	19.4	16.0	3.2	3.0	3.1
	TOTAL OF ABOVE			TOTAL OF ABOVE			TOTAL OF ABOVE		
Opening Stocks	55.9	62.1	63.1	78.2	94.4	93.2	34.6	33.1	31.2
Production	289.8	269.1	269.9	648.2	635.6	611.5	173.2	174.7	179.1
Imports	8.3	9.8	9.3	19.8	23.4	21.7	1.5	2.0	1.9
Total Supply	354.0	341.0	342.3	746.2	753.4	726.4	209.3	209.8	212.2
Domestic use	181.2	182.8	184.3	539.7	547.6	547.1	140.3	142.4	143.2
Exports	110.8	95.1	103.4	112.2	112.6	107.9	36.0	35.9	36.8
Closing stocks	62.1	63.1	54.8	94.4	93.2	71.4	33.1	31.2	32.0

¹ Trade data include wheat flour in wheat grain equivalent. For the EU semolina is also included

² **Argentina** (December/November) for rye, barley and oats, (March/February) for maize and sorghum. **Australia** (November/October) for rye, barley and oats, (March/February) for maize and sorghum. **Canada** (August/July), **EU** (July/June), **United States** (June/May) for rye, barley and oats, (September/August) for maize and sorghum

APPENDIX TABLE 10: TOTAL OILCROPS STATISTICS (million tonnes)

	Production ¹			Imports			Exports		
	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>
ASIA	132.9	137.6	140.5	111.0	132.6	134.2	3.4	4.1	4.4
China	58.8	58.8	61.8	85.0	101.5	104.0	1.1	1.1	1.2
of which Taiwan Prov.	0.1	0.1	0.1	2.5	2.6	2.7	-	-	-
India	36.8	41.4	39.1	0.3	0.3	0.3	1.0	1.4	1.5
Indonesia	11.2	11.3	12.2	2.5	2.8	2.7	0.1	0.1	0.1
Iran, Islamic Republic of	0.7	0.7	0.7	1.3	2.2	2.1	0.1	0.1	0.1
Japan	0.3	0.3	0.3	5.8	6.0	6.1	-	-	-
Korea, Republic of	0.2	0.1	0.2	1.6	1.5	1.7	-	-	-
Malaysia	4.8	5.1	5.3	0.8	0.9	0.9	0.1	0.1	0.1
Pakistan	4.8	4.3	4.4	1.8	3.0	3.3	-	-	-
Thailand	0.8	1.1	1.1	2.4	3.0	3.0	-	-	-
Turkey	3.2	3.2	3.6	3.0	3.2	2.6	0.1	0.2	0.1
AFRICA	19.9	20.2	20.8	3.8	4.9	4.6	0.8	0.8	0.8
Nigeria	4.7	4.7	4.6	0.1	0.1	0.1	0.1	0.1	0.1
CENTRAL AMERICA	1.8	2.1	2.0	6.5	6.9	6.9	0.2	0.2	0.2
Mexico	1.3	1.5	1.5	5.7	6.2	6.1	-	-	-
SOUTH AMERICA	174.6	195.1	179.2	2.2	3.8	5.8	69.6	80.3	86.1
Argentina	61.9	60.1	40.9	0.2	1.8	3.8	10.4	7.9	3.7
Brazil	96.1	117.3	122.4	0.4	0.3	0.3	50.8	63.4	74.1
Paraguay	9.3	10.3	10.1	-	-	-	5.0	5.5	6.0
Uruguay	3.3	3.6	2.1	-	-	-	3.0	3.2	2.1
NORTH AMERICA	136.1	154.8	161.7	3.0	2.3	2.4	65.5	77.6	75.0
Canada	25.2	27.3	30.2	0.6	0.7	0.7	14.4	16.5	17.1
United States of America	110.9	127.5	131.6	2.4	1.7	1.8	51.1	61.1	57.8
EUROPE	66.5	70.8	74.3	21.3	23.5	22.8	6.1	6.8	7.1
European Union	33.7	32.0	35.7	18.5	20.7	19.9	1.1	1.0	1.0
Russian Federation	13.4	16.1	16.5	2.1	2.0	2.3	0.5	1.0	1.1
Ukraine	17.0	20.8	19.7	-	-	-	3.9	4.3	4.5
OCEANIA	4.9	6.2	5.8	-	-	-	2.8	3.9	3.3
Australia	4.5	5.8	5.3	-	-	-	2.7	3.8	3.2
WORLD	536.7	586.8	584.3	147.8	174.1	176.8	148.4	173.5	176.8
Developing countries	329.4	355.2	342.6	117.7	142.2	145.3	74.1	85.4	91.5
Developed countries	207.3	231.6	241.7	30.1	31.9	31.5	74.3	88.1	85.2
LIFDC	62.2	66.5	64.5	4.0	5.6	5.8	1.8	2.3	2.4
LDC	13.3	13.6	13.8	1.1	1.5	1.6	0.6	0.6	0.6

¹ The split years bring together northern hemisphere annual crops harvested in the latter part of the first year shown, with southern hemisphere annual crops harvested in the early part of the second year shown; for tree crops which are produced throughout the year, calendar year production for the second year shown is used.

APPENDIX TABLE 11: TOTAL OILS AND FATS STATISTICS ¹ (million tonnes)

	Imports			Exports			Utilization		
	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>
ASIA	44.7	48.4	48.6	49.6	51.9	53.0	106.0	117.4	120.6
Bangladesh	1.9	2.4	2.5	-	-	-	2.3	2.8	2.9
China	10.3	9.5	9.8	0.6	0.6	0.6	37.9	41.1	41.7
of which Taiwan Prov.	0.5	0.5	0.5	-	-	-	0.9	1.0	1.0
India	13.8	15.7	15.9	0.3	0.2	0.2	23.2	25.5	26.3
Indonesia	0.1	0.1	0.1	26.4	30.0	29.8	10.5	11.8	12.7
Iran, Islamic Republic of	1.3	1.5	1.3	0.2	0.1	0.1	1.8	2.0	2.1
Japan	1.3	1.4	1.4	-	-	-	3.2	3.3	3.4
Korea, Republic of	1.1	1.2	1.3	-	-	-	1.4	1.6	1.7
Malaysia	1.4	1.4	1.3	18.5	17.6	19.0	4.6	5.2	5.5
Pakistan	3.0	3.3	3.3	0.1	0.1	0.1	4.6	5.2	5.3
Philippines	0.9	1.3	1.2	0.8	0.8	0.9	1.7	2.2	2.1
Singapore	0.8	0.8	0.9	0.2	0.2	0.2	0.7	0.7	0.7
Turkey	1.8	2.0	1.8	0.7	0.7	0.7	3.0	3.2	3.2
AFRICA	11.1	11.9	11.9	2.0	1.8	1.9	17.9	19.2	19.2
Algeria	0.8	0.9	0.9	0.1	0.1	0.1	1.0	1.0	1.0
Egypt	2.0	2.2	2.2	0.3	0.2	0.2	2.3	2.7	2.6
Nigeria	1.5	1.6	1.6	0.2	0.1	0.1	3.2	3.4	3.3
South Africa	0.9	0.9	0.8	0.1	-	-	1.3	1.5	1.5
CENTRAL AMERICA	2.6	2.6	2.7	1.2	1.5	1.5	5.1	5.3	5.4
Mexico	1.5	1.6	1.6	0.1	-	-	3.4	3.7	3.6
SOUTH AMERICA	3.2	3.1	3.2	9.8	10.2	10.2	17.5	17.9	19.0
Argentina	0.1	0.1	0.1	5.8	6.3	5.9	4.0	3.9	4.0
Brazil	0.6	0.6	0.6	1.8	1.6	1.7	8.7	9.1	10.1
Paraguay	-	-	-	0.7	0.6	0.7	0.1	0.1	0.1
Uruguay	0.1	0.1	0.1	-	-	-	0.1	0.1	0.2
NORTH AMERICA	5.1	5.5	6.0	6.6	7.3	7.3	20.4	21.3	22.3
Canada	0.5	0.5	0.5	3.3	3.8	3.8	1.5	1.5	1.6
United States of America	4.7	5.1	5.5	3.4	3.5	3.5	18.9	19.7	20.7
EUROPE	14.3	15.2	14.9	10.5	12.6	12.0	38.6	40.4	41.1
European Union	11.7	12.4	12.1	3.3	3.2	3.1	31.9	33.4	33.6
Russian Federation	1.3	1.3	1.5	2.3	2.9	2.9	4.5	4.7	4.8
Ukraine	0.3	0.3	0.3	4.5	6.1	5.5	1.0	0.9	1.2
OCEANIA	0.6	0.7	0.7	1.9	2.0	2.0	1.2	1.2	1.3
Australia	0.5	0.5	0.6	0.7	0.7	0.7	0.8	0.9	0.9
WORLD	81.6	87.4	88.0	81.6	87.3	88.0	206.7	222.7	228.8
Developing countries	60.3	64.6	65.0	63.2	66.2	67.5	143.4	156.6	160.9
Developed countries	21.3	22.8	23.0	18.4	21.2	20.5	63.2	66.1	67.9
LIFDC	26.4	29.6	30.0	2.3	2.2	2.3	43.7	47.8	48.8
LDC	7.2	8.1	8.3	0.6	0.7	0.7	10.7	11.7	12.0

¹ Includes oils and fats of vegetable, marine and animal origin.

APPENDIX TABLE 12: TOTAL MEALS AND CAKES STATISTICS ¹ (million tonnes)

	Imports			Exports			Utilization		
	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>	13/14-15/16 average	2016/17	2017/18 <i>f'cast</i>
ASIA	35.2	37.7	38.5	14.2	14.0	15.0	151.9	170.8	178.4
China	2.9	3.6	3.5	2.3	1.9	2.4	83.3	95.3	101.4
of which Taiwan Prov.	0.5	0.5	0.5	-	-	-	2.5	2.5	2.6
India	0.2	0.4	0.5	2.6	2.8	2.6	14.3	15.4	16.3
Indonesia	4.2	4.5	4.7	4.3	4.6	4.9	4.8	4.9	5.1
Iran, Islamic Republic of	2.1	2.0	1.6	0.1	0.1	0.1	3.4	3.8	3.7
Japan	2.3	2.1	2.1	-	-	-	6.4	6.4	6.4
Korea, Republic of	3.9	3.5	3.6	0.2	0.1	0.1	5.0	4.8	4.9
Malaysia	1.3	1.5	1.5	2.6	2.6	2.8	2.0	2.3	2.4
Pakistan	0.8	0.7	0.7	0.2	0.1	0.1	3.7	4.5	4.7
Philippines	2.5	2.8	2.9	0.5	0.4	0.4	3.0	3.4	3.6
Saudi Arabia	1.0	1.5	1.6	0.1	0.1	0.1	1.4	1.9	1.9
Thailand	3.2	3.3	3.4	0.2	0.2	0.2	5.7	6.4	6.3
Turkey	1.9	2.2	2.3	0.1	0.1	0.1	5.0	5.7	5.8
Viet Nam	4.7	5.6	5.7	0.3	0.3	0.3	6.0	7.3	7.3
AFRICA	5.8	5.8	5.9	1.1	1.1	1.1	13.5	14.6	14.8
Egypt	1.6	1.5	1.3	-	-	-	3.0	3.3	3.3
South Africa	1.0	0.8	0.9	0.1	0.1	0.1	2.1	2.2	2.2
CENTRAL AMERICA	4.0	4.3	4.3	0.2	0.2	0.2	9.2	10.2	10.2
Mexico	2.2	2.4	2.4	0.1	0.1	0.1	6.7	7.6	7.6
SOUTH AMERICA	5.5	5.2	5.4	49.1	51.5	51.8	28.4	30.6	31.4
Argentina	-	-	-	29.2	32.6	29.5	4.1	5.0	4.9
Bolivia	-	-	-	1.8	1.5	1.6	0.2	0.4	0.4
Brazil	-	-	-	14.3	13.8	16.8	16.6	17.7	18.3
Chile	1.2	1.1	1.2	0.2	0.2	0.2	1.6	1.6	1.6
Paraguay	-	-	-	2.6	2.3	2.5	0.4	0.5	0.5
Peru	1.0	1.2	1.3	0.8	1.0	1.0	1.3	1.6	1.7
Uruguay	0.2	0.2	0.2	-	-	-	0.2	0.2	0.2
Venezuela	1.2	0.7	0.7	-	-	-	1.4	1.0	0.9
NORTH AMERICA	5.1	5.1	5.3	16.3	16.4	17.8	37.1	39.0	41.6
Canada	1.0	0.9	1.0	4.8	5.5	5.5	2.2	2.3	3.1
United States of America	4.1	4.2	4.3	11.5	11.0	12.3	34.9	36.7	38.5
EUROPE	30.3	30.4	31.4	7.9	8.9	8.7	67.3	70.0	72.5
European Union	27.6	27.6	29.0	1.3	1.4	1.4	57.3	58.6	60.7
Russian Federation	0.6	0.5	0.2	2.2	2.0	2.0	5.6	6.8	6.9
Ukraine	-	-	-	3.9	5.1	4.8	1.7	1.7	2.0
OCEANIA	3.3	3.7	3.9	0.3	0.2	0.2	4.0	4.4	4.8
Australia	1.1	1.2	1.2	0.1	0.1	0.1	1.8	1.9	2.0
WORLD	89.1	92.2	94.8	89.2	92.4	94.8	311.5	339.8	353.6
Developing countries	48.2	50.9	52.0	64.8	66.9	68.2	196.7	220.0	228.4
Developed countries	40.9	41.3	42.8	24.4	25.5	26.6	114.8	119.7	125.2
LIFDC	3.2	3.5	3.6	3.9	3.8	3.7	26.2	28.9	30.3
LDC	0.8	1.0	0.9	0.6	0.6	0.6	5.2	5.8	5.8

¹ Expressed in product weight; includes meals and cakes derived from oilcrops as well as fish meal and other meals from animal origin.

APPENDIX TABLE 13: SUGAR STATISTICS

(million tonnes, raw value)

	Production		Imports		Exports		Utilization	
	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>	2016/17 <i>estim.</i>	2017/18 <i>f'cast</i>
ASIA	58.3	75.1	33.9	33.3	11.9	12.8	81.4	83.4
China	9.3	10.5	6.0	5.7	0.1	0.1	16.1	16.6
India	20.5	31.0	2.0	1.5	1.5	2.0	24.6	25.0
Indonesia	2.2	2.2	4.4	4.6	-	-	6.6	6.9
Japan	0.7	0.7	1.4	1.4	-	-	2.1	2.1
Korea, Republic of	-	-	2.0	2.0	0.4	0.4	1.6	1.6
Malaysia	-	-	2.0	1.9	0.3	0.1	1.8	1.9
Pakistan	7.1	8.0	-	-	0.4	0.7	5.1	5.2
Philippines	2.2	2.3	0.2	0.2	0.2	0.2	2.2	2.3
Thailand	9.9	13.7	-	-	6.8	7.2	3.0	3.0
Turkey	2.4	2.4	-	-	-	-	2.4	2.4
Viet Nam	1.4	1.6	0.2	0.1	0.1	0.1	1.6	1.6
AFRICA	11.0	11.8	13.4	13.0	3.8	3.4	19.9	20.5
Algeria	-	-	1.9	1.9	0.5	0.4	1.4	1.5
Egypt	2.5	2.7	1.2	1.1	0.2	0.2	3.5	3.6
Eswatini	0.7	0.7	-	-	0.6	0.6	0.1	0.1
Ethiopia	0.4	0.5	0.2	-	-	-	0.5	0.5
Kenya	0.4	0.5	0.6	0.5	-	-	1.0	1.0
Mauritius	0.4	0.4	-	-	0.5	0.4	-	-
Morocco	0.6	0.6	0.9	0.9	0.3	0.2	1.3	1.3
Mozambique	0.4	0.5	-	-	0.2	0.2	0.2	0.2
South Africa	1.8	1.9	0.3	0.2	0.2	0.2	1.9	1.9
Sudan	0.7	0.7	1.3	1.4	0.4	0.4	1.6	1.7
Tanzania, United Rep, of	0.3	0.3	0.3	0.3	-	-	0.6	0.6
Zambia	0.4	0.4	-	-	0.2	0.2	0.2	0.2
CENTRAL AMERICA	13.9	13.9	0.4	0.4	6.4	6.2	8.0	8.1
Cuba	1.8	1.6	-	-	1.2	1.0	0.6	0.6
Dominican Republic	0.6	0.6	-	-	0.3	0.2	0.3	0.4
Guatemala	2.8	2.8	-	-	2.0	1.9	0.8	0.8
Mexico	6.0	6.0	-	-	1.5	1.5	4.5	4.5
SOUTH AMERICA	47.3	43.4	1.5	1.7	28.8	24.6	18.6	19.3
Argentina	2.1	2.1	-	-	0.5	0.4	1.7	1.7
Brazil	40.0	36.0	-	-	27.5	23.5	10.9	11.5
Colombia	2.2	2.2	0.1	0.1	0.4	0.4	1.9	1.9
Peru	1.1	1.2	0.3	0.2	0.1	-	1.3	1.3
Venezuela	0.3	0.3	0.6	0.8	-	-	0.9	0.9
NORTH AMERICA	8.2	8.5	3.8	3.9	0.1	0.1	11.4	11.6
Canada	0.1	0.1	1.1	1.1	-	-	1.2	1.2
United States of America	8.1	8.4	2.7	2.8	0.1	0.1	10.2	10.4
EUROPE	24.9	29.5	4.7	2.4	2.9	4.3	26.1	26.2
European Union	15.9	20.0	3.6	1.6	1.4	3.0	17.5	17.5
Russian Federation	6.1	6.4	0.2	0.2	0.5	0.6	5.7	5.8
Ukraine	2.0	2.0	-	-	0.7	0.4	1.6	1.6
OCEANIA	5.3	5.4	0.4	0.4	3.9	4.1	1.5	1.5
Australia	4.8	4.7	0.1	0.1	3.8	3.9	1.2	1.2
Fiji	0.2	0.2	-	-	0.2	0.2	-	-
WORLD	168.9	187.6	58.1	55.2	57.9	55.5	166.8	170.6
Developing countries	139.6	154.0	47.4	46.6	53.5	49.2	132.7	136.3
Developed countries	29.2	33.6	10.6	8.6	5.3	7.0	34.1	34.3
LIFDC	32.9	44.8	13.6	12.8	3.9	4.3	44.5	45.1
LDC	3.7	3.9	9.0	8.2	2.2	1.3	10.4	10.4

APPENDIX TABLE 14: TOTAL MEAT STATISTICS¹
(thousand tonnes, carcass weight equivalent)

	Production		Imports		Exports		Utilization	
	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>
ASIA	139 219	141 642	17 644	18 079	4 424	4 590	152 433	155 160
China	85 812	87 329	5 423	5 579	590	599	90 655	92 330
India	7 348	7 539	1	1	1 736	1 821	5 614	5 719
Indonesia	3 638	3 695	164	192	5	5	3 798	3 883
Iran, Islamic Republic of	3 165	3 213	167	169	53	54	3 280	3 328
Japan	4 123	4 138	3 635	3 789	18	19	7 724	7 931
Korea, Republic of	2 417	2 483	1 317	1 360	13	22	3 729	3 813
Malaysia	1 963	1 985	332	348	64	65	2 231	2 267
Pakistan	3 484	3 515	33	32	76	81	3 441	3 465
Philippines	3 472	3 577	542	578	9	8	4 005	4 147
Saudi Arabia	865	871	970	894	75	72	1 760	1 693
Singapore	120	122	386	393	39	39	467	477
Thailand	2 997	3 062	21	22	1 113	1 172	1 897	1 906
Turkey	3 523	3 685	20	23	477	492	3 066	3 217
Viet Nam	5 064	5 168	1 667	1 736	39	27	6 693	6 877
AFRICA	18 053	18 170	2 966	3 059	252	253	20 766	20 977
Algeria	742	747	65	61	1	1	805	807
Angola	293	297	505	587	-	-	798	884
Egypt	2 289	2 298	474	435	8	8	2 756	2 724
Nigeria	1 385	1 391	3	3	1	1	1 388	1 393
South Africa	3 327	3 401	623	624	172	174	3 779	3 852
CENTRAL AMERICA	9 834	10 065	3 418	3 592	692	728	12 560	12 929
Cuba	364	377	332	342	-	-	695	719
Mexico	6 801	6 970	2 167	2 298	443	469	8 524	8 798
SOUTH AMERICA	43 011	43 653	1 100	1 113	8 683	8 598	35 428	36 168
Argentina	5 582	5 730	55	52	554	640	5 083	5 142
Brazil	27 079	27 479	64	68	7 023	6 828	20 121	20 720
Chile	1 474	1 512	535	544	304	322	1 705	1 734
Colombia	2 724	2 786	205	220	23	26	2 905	2 981
Uruguay	683	662	58	64	412	398	329	328
Venezuela	1 130	1 073	57	32	0	0	1 187	1 105
NORTH AMERICA	50 592	52 298	2 969	2 982	9 615	9 940	43 932	45 305
Canada	4 750	4 886	762	780	1 897	1 937	3 609	3 724
United States of America	45 841	47 411	2 195	2 190	7 718	8 003	40 311	41 569
EUROPE	62 927	63 573	3 226	3 031	6 148	6 283	59 985	60 321
Belarus	1 184	1 203	55	55	438	462	801	795
European Union	47 883	48 184	1 286	1 346	4 983	5 077	44 185	44 453
Russian Federation	9 812	10 099	1 290	1 011	303	278	10 778	10 833
Ukraine	2 263	2 281	133	152	330	364	2 067	2 068
OCEANIA	6 740	6 755	442	446	2 899	2 912	4 287	4 284
Australia	4 774	4 822	200	203	1 905	1 949	3 074	3 071
New Zealand	1 449	1 415	79	79	991	959	537	534
WORLD	330 376	336 156	31 764	32 302	32 714	33 303	329 391	335 143
Developing countries	206 511	209 911	21 654	22 218	14 036	14 153	214 140	217 981
Developed countries	123 865	126 245	10 109	10 084	18 677	19 150	115 251	117 162
LIFDC	24 450	24 683	1 253	1 293	1 984	2 078	23 719	23 897
LDC	11 187	11 228	1 427	1 516	23	22	12 591	12 721

¹ including "other meat"

APPENDIX TABLE 15: BOVINE MEAT STATISTICS (thousand tonnes, carcass weight equivalent)

	Production		Imports		Exports		Utilization	
	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>
ASIA	19 417	19 626	5 572	5 916	1 980	2 057	23 021	23 518
China	7 638	7 708	1 596	1 776	41	36	9 203	9 468
India	2 553	2 583	0	0	1 708	1 792	845	791
Indonesia	565	569	149	177	0	0	714	746
Iran, Islamic Republic of	602	632	150	154	5	5	746	781
Japan	469	470	824	839	4	4	1 284	1 321
Korea, Republic of	281	275	488	514	4	3	771	783
Malaysia	50	51	197	201	11	11	236	241
Pakistan	1 846	1 867	4	4	65	70	1 786	1 801
Philippines	302	302	160	172	3	3	459	471
AFRICA	6 360	6 411	605	699	102	104	6 864	7 006
Algeria	147	149	58	56	-	-	205	205
Angola	104	106	131	159	-	-	235	265
Egypt	846	848	250	320	3	3	1 093	1 165
South Africa	984	1 027	22	22	69	72	937	977
CENTRAL AMERICA	2 655	2 719	482	503	453	477	2 685	2 745
Mexico	1 924	1 958	249	260	255	269	1 918	1 950
SOUTH AMERICA	15 579	15 991	396	402	2 945	3 151	13 030	13 242
Argentina	2 824	2 909	0	0	311	381	2 513	2 528
Brazil	9 553	9 907	53	57	1 858	1 988	7 748	7 975
Chile	200	203	264	277	10	9	454	471
Colombia	793	795	22	23	22	25	793	793
Uruguay	562	540	9	12	390	376	181	176
Venezuela	382	349	30	13	-	-	412	362
NORTH AMERICA	13 116	13 794	1 605	1 632	1 933	2 023	12 836	13 377
Canada	1 178	1 193	288	295	445	455	1 021	1 024
United States of America	11 938	12 601	1 314	1 334	1 487	1 568	11 813	12 351
EUROPE	10 555	10 454	1 092	983	874	873	10 773	10 563
European Union	7 889	7 818	305	311	489	499	7 704	7 630
Russian Federation	1 595	1 577	623	510	71	68	2 147	2 019
Ukraine	356	336	3	3	49	45	309	294
OCEANIA	3 080	3 071	56	54	1 900	1 898	1 236	1 227
Australia	2 387	2 411	16	15	1 357	1 385	1 046	1 040
New Zealand	679	646	14	13	540	510	153	149
WORLD	70 763	72 065	9 808	10 189	10 185	10 582	70 445	71 680
Developing countries	43 557	44 291	6 258	6 708	5 478	5 787	44 354	45 229
Developed countries	27 206	27 774	3 550	3 481	4 708	4 795	26 092	26 450
LIFDC	10 026	10 076	104	104	1 908	2 002	8 221	8 178
LDC	3 820	3 829	192	219	4	4	4 008	4 044

APPENDIX TABLE 16: OVINE MEAT STATISTICS (thousand tonnes, carcass weight equivalent)

	Production		Imports		Exports		Utilization	
	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>
ASIA	9 064	9 128	585	597	38	40	9 611	9 686
Bangladesh	215	216	0	0	-	-	215	216
China	4 691	4 748	279	293	1	1	4 969	5 041
India	741	742	0	0	23	24	718	718
Iran, Islamic Republic of	395	397	14	11	-	-	409	408
Pakistan	469	473	-	-	6	6	463	467
Saudi Arabia	125	126	45	44	3	3	168	167
Turkey	425	427	1	1	-	-	426	428
AFRICA	2 825	2 832	29	28	32	32	2 822	2 828
Algeria	289	291	4	3	-	-	293	294
Nigeria	388	388	0	0	-	-	388	388
South Africa	195	197	7	6	1	1	200	202
Sudan	358	355	0	0	6	6	353	350
CENTRAL AMERICA	128	129	20	19	0	0	148	148
Mexico	101	102	10	9	0	0	111	111
SOUTH AMERICA	303	305	7	8	19	20	291	293
Brazil	125	126	7	8	-	-	131	134
NORTH AMERICA	84	83	148	145	4	4	228	224
United States of America	69	68	122	121	4	4	187	185
EUROPE	1 236	1 246	151	155	38	39	1 349	1 362
European Union	893	902	140	144	30	31	1 003	1 015
Russian Federation	215	215	3	3	-	-	218	218
OCEANIA	1 199	1 197	25	26	850	860	374	362
Australia	727	729	0	1	454	466	274	264
New Zealand	471	467	2	3	396	394	78	76
WORLD	14 840	14 920	964	978	981	995	14 823	14 903
Developing countries	12 321	12 394	640	653	89	92	12 872	12 956
Developed countries	2 519	2 526	324	325	891	903	1 951	1 947
LIFDC	4 122	4 125	22	23	57	58	4 087	4 090
LDC	1 603	1 606	7	7	16	16	1 594	1 597

APPENDIX TABLE 17: PIGMEAT STATISTICS (thousand tonnes, carcass weight equivalent)

	Production		Imports		Exports		Utilization	
	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>
ASIA	66 130	67 540	4 746	4 691	205	203	70 663	72 025
China	54 335	55 582	2 115	2 010	107	117	56 342	57 475
India	315	313	1	1	0	0	316	314
Indonesia	784	785	5	5	0	0	789	790
Japan	1 282	1 280	1 481	1 506	4	4	2 748	2 784
Korea, D.P.R.	95	94	4	4	-	-	99	98
Korea, Republic of	1 280	1 312	654	663	2	2	1 935	1 968
Malaysia	218	219	28	27	4	4	242	242
Philippines	1 817	1 861	135	150	2	2	1 950	2 009
Thailand	948	950	1	1	21	21	928	930
Viet Nam	3 720	3 801	33	30	39	27	3 714	3 804
AFRICA	1 478	1 497	279	296	29	31	1 727	1 762
Madagascar	63	62	0	0	-	-	63	62
Nigeria	280	282	0	0	-	-	280	282
South Africa	249	259	37	36	26	27	260	268
Uganda	128	129	1	1	0	0	128	129
CENTRAL AMERICA	2 007	2 059	1 148	1 262	199	210	2 955	3 111
Cuba	235	248	20	19	-	-	255	267
Mexico	1 440	1 479	916	1 017	177	188	2 178	2 308
SOUTH AMERICA	5 980	5 995	340	352	1 026	748	5 294	5 599
Argentina	566	605	45	44	3	5	608	645
Brazil	3 725	3 675	2	2	856	563	2 871	3 114
Chile	489	500	123	121	162	176	449	445
Colombia	352	362	98	111	-	-	450	473
Venezuela	152	148	5	4	-	-	157	152
NORTH AMERICA	13 752	14 357	869	849	3 713	3 852	10 878	11 339
Canada	2 142	2 191	251	260	1 273	1 302	1 111	1 159
United States of America	11 610	12 166	613	585	2 440	2 550	9 763	10 175
EUROPE	28 774	29 070	557	406	2 992	3 046	26 339	26 430
Belarus	392	400	7	7	47	72	352	335
European Union	23 429	23 616	15	16	2 845	2 896	20 599	20 737
Russian Federation	3 473	3 577	401	238	58	32	3 816	3 783
Serbia	355	365	44	46	22	26	377	385
Ukraine	631	612	8	15	6	5	632	622
OCEANIA	556	571	252	256	40	42	772	780
Australia	408	420	168	172	39	41	541	546
Papua New Guinea	80	81	8	8	-	-	88	89
WORLD	118 676	121 089	8 190	8 112	8 204	8 131	118 629	121 046
Developing countries	74 414	75 913	5 053	5 116	1 455	1 187	78 015	79 837
Developed countries	44 263	45 176	3 137	2 996	6 749	6 944	40 614	41 208
LIFDC	1 651	1 657	139	141	3	3	1 787	1 795
LDC	1 976	1 989	169	183	1	1	2 144	2 171

APPENDIX TABLE 18: POULTRY MEAT STATISTICS (thousand tonnes, carcass weight equivalent)

	Production		Imports		Exports		Utilization	
	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>	2017 <i>estim.</i>	2018 <i>f'cast</i>
ASIA	42 652	43 391	6 690	6 824	2 177	2 265	47 157	47 949
China	17 665	17 807	1 427	1 495	426	430	18 666	18 872
India	3 591	3 752	0	0	4	4	3 587	3 749
Indonesia	2 173	2 225	4	4	-	-	2 177	2 229
Iran, Islamic Republic of	2 152	2 167	-	-	45	47	2 107	2 120
Japan	2 359	2 376	1 291	1 406	10	10	3 640	3 776
Korea, Republic of	845	884	150	158	7	17	987	1 025
Kuwait	59	63	139	135	0	0	198	198
Malaysia	1 690	1 710	68	80	49	50	1 709	1 740
Saudi Arabia	638	643	725	648	47	46	1 316	1 245
Singapore	102	104	158	160	19	20	241	244
Thailand	1 903	1 967	2	2	1 051	1 111	846	853
Turkey	2 175	2 290	0	0	437	451	1 738	1 840
Yemen	162	162	77	75	0	0	239	237
AFRICA	5 947	5 989	2 019	2 003	81	78	7 886	7 914
Angola	40	40	281	321	-	-	321	361
South Africa	1 876	1 895	557	560	70	67	2 364	2 388
CENTRAL AMERICA	4 924	5 037	1 749	1 790	39	40	6 635	6 787
Cuba	30	30	284	298	-	-	314	328
Mexico	3 234	3 328	978	998	10	11	4 202	4 315
SOUTH AMERICA	20 942	21 156	356	349	4 627	4 614	16 671	16 891
Argentina	2 003	2 027	9	7	208	222	1 804	1 812
Brazil	13 645	13 740	3	2	4 284	4 252	9 364	9 490
Chile	756	780	148	146	122	128	782	798
Venezuela	590	570	21	15	-	-	611	585
NORTH AMERICA	23 414	23 837	339	347	3 947	4 043	19 773	20 148
Canada	1 416	1 486	198	201	179	180	1 437	1 502
United States of America	21 998	22 350	137	142	3 769	3 863	18 332	18 641
EUROPE	21 168	21 610	1 259	1 320	2 160	2 240	20 248	20 690
European Union	14 630	14 806	726	775	1 537	1 569	13 819	14 012
Russian Federation	4 440	4 640	215	213	174	177	4 460	4 676
Ukraine	1 234	1 289	121	133	274	314	1 081	1 108
OCEANIA	1 474	1 485	104	105	68	70	1 510	1 520
Australia	1 230	1 240	15	15	42	44	1 203	1 211
New Zealand	209	210	1	1	26	26	184	185
WORLD	120 520	122 505	12 517	12 739	13 098	13 350	119 878	121 899
Developing countries	72 140	73 233	9 612	9 650	6 913	6 987	74 832	75 890
Developed countries	48 380	49 272	2 905	3 089	6 185	6 363	45 047	46 010
LIFDC	6 947	7 121	959	996	11	11	7 895	8 105
LDC	3 105	3 120	1 032	1 080	2	2	4 135	4 198

APPENDIX TABLE 19: MILK AND MILK PRODUCTS STATISTICS (thousand tonnes, milk equivalent)

	Production			Imports			Exports		
	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>	2014-2016 average	2017 <i>estim.</i>	2018 <i>f'cast</i>
ASIA	314 197	323 470	333 153	40 650	42 327	43 938	6 528	6 203	6 029
China	42 294	41 289	42 306	11 981	13 311	14 140	95	75	74
India ¹	153 872	165 612	172 899	104	162	181	401	244	251
Indonesia	1 453	1 510	1 530	2 639	2 738	2 777	75	37	35
Iran, Islamic Republic of	7 330	6 855	6 980	431	355	359	519	772	662
Japan	7 371	7 281	7 245	1 911	2 171	2 274	7	9	10
Korea, Republic of	2 159	2 087	2 098	975	1 101	1 162	23	24	24
Malaysia	73	53	54	2 183	2 173	2 125	683	640	657
Pakistan	40 509	40 167	40 569	571	649	665	48	33	33
Philippines	16	15	17	1 919	2 164	2 156	151	50	56
Saudi Arabia	2 531	2 740	2 720	3 258	3 142	3 241	1 276	1 115	1 086
Singapore	-	-	-	1 714	1 580	1 609	597	470	463
Thailand	1 089	1 120	1 135	1 521	1 612	1 667	212	246	246
Turkey	18 467	17 917	18 670	204	124	120	683	861	883
AFRICA	45 759	45 080	45 516	10 380	9 836	10 407	1 275	1 190	1 189
Algeria	4 161	4 201	4 290	2 997	3 555	4 024	2	-	-
Egypt	4 976	4 670	4 686	1 799	957	992	561	552	559
Kenya	4 769	4 620	4 945	68	167	226	12	8	8
South Africa	3 464	3 624	3 633	264	333	338	375	388	384
Sudan	4 425	4 300	4 240	244	262	279	-	-	-
Tunisia	1 385	1 488	1 510	91	91	94	36	29	29
CENTRAL AMERICA	17 189	17 556	17 710	5 349	6 111	6 368	763	1 440	1 450
Costa Rica	1 105	1 144	1 152	60	68	66	161	125	123
Mexico	11 593	11 968	12 100	3 303	3 958	4 210	236	926	937
SOUTH AMERICA	63 459	63 473	64 824	3 202	3 199	3 026	4 262	3 259	3 332
Argentina	10 739	9 845	10 436	27	32	28	1 993	1 342	1 445
Brazil	34 699	35 257	35 750	1 097	1 133	1 030	322	98	82
Colombia	6 666	7 190	7 280	288	343	315	23	15	14
Uruguay	2 152	2 148	2 225	28	34	36	1 328	1 268	1 261
Venezuela	2 069	1 840	1 835	837	493	433	-	-	-
NORTH AMERICA	103 581	107 182	109 193	2 629	2 604	2 543	10 511	11 779	12 462
Canada	8 764	9 450	9 800	679	579	579	569	1 126	1 216
United States of America	94 816	97 730	99 392	1 933	2 007	1 946	9 940	10 652	11 245
EUROPE	220 514	224 400	227 089	6 849	6 320	5 694	24 478	26 251	26 842
Belarus	6 964	7 322	7 447	206	61	60	3 776	3 710	3 720
European Union	161 867	165 400	167 400	1 412	1 210	1 140	18 307	20 111	20 744
Russian Federation	30 776	31 112	31 765	4 338	4 110	3 541	293	248	234
Ukraine	10 710	10 324	10 210	80	61	76	661	816	798
OCEANIA	31 516	30 710	31 040	1 230	1 521	1 570	22 541	21 622	22 244
Australia ²	9 855	9 301	9 599	791	1 127	1 126	3 343	3 051	3 230
New Zealand ³	21 593	21 341	21 373	246	221	271	19 195	18 568	19 011
WORLD	796 215	811 870	828 524	70 289	71 918	73 546	70 359	71 744	73 549
Developing countries	407 042	416 363	427 989	56 585	58 039	60 082	12 361	11 602	11 513
Developed countries	389 173	395 507	400 535	13 703	13 879	13 464	57 998	60 142	62 036
LIFDC	242 020	252 019	260 030	6 095	6 152	6 389	1 063	848	856
LDC	31 120	30 622	30 617	4 081	4 147	4 235	168	136	137

¹ For production, the annual dairy cycle starting in April is applied

² For production, the annual dairy cycle starting in July is applied

³ For production, the annual dairy cycle starting in June is applied

Note: Trade values that refer to milk equivalents were derived by applying the following weights: butter (6.60), cheese (4.40), skim/whole milk powder (7.60), skim condensed/evaporated milk (1.90), whole condensed/evaporated milk (2.10), yoghurt (1.0), cream (3.60), casein (7.40), skim milk (0.70), liquid milk (1.0), whey dry (7.6). The conversion factors cited refer to the solids content method. Refer to IDF Bulletin No. 390 (March 2004)

APPENDIX TABLE 20: FISH AND FISHERY PRODUCTS STATISTICS ¹

	Capture fisheries production		Aquaculture fisheries production		Exports			Imports		
	2015	2016	2015	2016	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>	2016	2017 <i>estim.</i>	2018 <i>f'cast</i>
	<i>Million tonnes (live weight equivalent)</i>				<i>USD billion</i>			<i>USD billion</i>		
ASIA²	50.7	50.2	67.9	71.5	54.5	57.8	62.5	43.8	48.3	52.3
China	18.7	18.5	47.4	49.5	22.6	23.1	24.6	14.0	15.9	17.1
of which: Hong Kong SAR	0.1	0.1	-	-	0.8	0.7	0.7	3.8	3.6	3.9
Taiwan Prov.	1.0	0.8	0.3	0.3	1.7	1.9	2.1	1.3	1.4	1.5
India	4.8	5.1	5.3	5.7	5.5	7.2	8.1	0.1	0.1	0.1
Indonesia	6.7	6.5	4.3	5.0	3.9	4.2	4.8	0.4	0.4	0.4
Japan	3.5	3.2	0.7	0.7	2.0	2.0	2.3	13.9	15.0	16.1
Korea, Republic of	1.6	1.4	0.5	0.5	1.7	1.7	1.9	4.6	5.1	5.5
Philippines	2.2	2.0	0.8	0.8	0.7	0.9	1.0	0.4	0.6	0.7
Thailand	1.5	1.5	0.9	1.0	5.9	5.9	6.4	3.1	3.6	4.3
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	6.7	7.2	4.9	5.1	5.4
Egypt	0.3	0.3	1.2	1.4	-	-	-	0.7	0.6	0.7
Morocco	1.4	1.4	-	-	2.1	2.2	2.4	0.2	0.2	0.2
Namibia	0.5	0.5	-	-	0.6	0.7	0.7	0.1	-	0.1
Nigeria	0.7	0.7	0.3	0.3	0.1	0.1	0.1	0.7	0.8	0.8
Senegal	0.4	0.5	-	-	0.4	0.4	0.5	-	-	-
South Africa	0.6	0.6	-	-	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	2.0
Mexico	1.5	1.5	0.2	0.2	1.0	1.3	1.5	0.8	0.9	1.0
Panama	0.1	0.1	-	-	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	17.7	2.6	2.9	2.9
Argentina	0.8	0.8	-	-	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	0.2	1.2	1.4	1.3
Chile	1.8	1.5	1.0	1.0	5.1	6.0	6.6	0.3	0.4	0.4
Ecuador	0.6	0.7	0.4	0.5	3.9	4.6	5.2	0.1	0.1	0.1
Peru	4.8	3.8	0.1	0.1	2.2	2.8	2.8	0.2	0.3	0.4
NORTH AMERICA	6.2	6.1	0.6	0.6	11.3	12.3	12.9	23.4	24.6	26.4
Canada	0.9	0.9	0.2	0.2	5.0	5.3	5.6	2.8	2.9	3.3
United States of America	5.0	4.9	0.4	0.4	5.8	6.4	6.7	20.5	21.6	23.1
EUROPE	14.1	13.7	2.9	2.9	50.8	53.7	58.9	56.9	61.0	67.0
European Union ²	5.3	5.2	1.3	1.3	32.8	34.8	38.4	52.0	55.8	61.0
of which extra-EU	-	-	-	-	5.5	6.0	6.5	27.2	29.0	31.2
Iceland	1.3	1.1	-	-	2.0	2.0	2.2	0.1	0.1	0.1
Norway	2.3	2.0	1.4	1.3	10.8	11.3	12.5	1.2	1.2	1.3
Russian Federation	4.5	4.8	0.2	0.2	3.9	3.8	4.0	1.7	2.0	2.3
OCEANIA	1.4	1.4	0.2	0.2	3.1	3.3	3.5	1.8	2.0	2.1
Australia	0.2	0.2	0.1	0.1	1.0	1.1	1.2	1.5	1.6	1.7
New Zealand	0.4	0.4	0.1	0.1	1.2	1.2	1.3	0.2	0.2	0.2
WORLD³	92.7	90.9	76.1	80.0	142.5	153.1	165.8	135.0	145.9	158.1
Excl. intra-EU	-	-	-	-	115.3	124.3	133.9	110.2	119.1	128.3
Developing countries	68.3	67.4	71.6	75.5	76.0	82.6	89.0	38.7	42.7	45.9
Developed countries	24.4	23.6	4.5	4.5	66.5	70.4	77.6	96.4	103.2	114.8
LIFDC	12.7	13.4	8.2	8.8	9.0	10.9	12.0	2.7	2.9	3.0
LDC	8.7	9.2	3.5	3.7	3.1	3.2	3.3	1.1	1.2	1.2
NFIDC	16.4	17.8	5.0	5.1	9.9	10.1	11.9	4.1	4.4	4.4

¹ Production and trade data exclude whales, seals, other aquatic mammals and aquatic plants. Trade data include fishmeal 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 includes 39 006 tonnes in 2015 and 5 229 tonnes in 2016 from non-identified countries; these data are not included in any other aggregates. Totals may not match due to rounding

APPENDIX TABLE 21: SELECTED INTERNATIONAL PRICES FOR WHEAT AND COARSE GRAINS

Period	Wheat			Maize		Barley		Sorghum
	US No. 2 Hard Red Winter Ord. Prot. ¹	US Soft Red Winter No. 2 ²	Argentina Trigo Pan ³	US No. 2 Yellow ²	Argentina ³	France feed Rouen	Australia feed Southern States	US No. 2 Yellow ²
..... (USD per tonne)								
Annual (July/June)								
2007/08	361	311	322	200	192	319	300	206
2008/09	270	201	234	188	180	178	179	170
2009/10	209	185	224	160	168	146	154	165
2010/11	316	289	311	254	260	266	248	248
2011/12	300	259	264	281	269	270	249	264
2012/13	348	310	336	311	277	260	266	281
2013/14	318	265	335	216	219	202	217	218
2014/15	266	221	246	173	177	202	217	210
2015/16	211	194	208	166	170	202	217	173
2016/17	197	170	190	156	172	202	217	151
2017/18	230	188	203	159	165	174	217	174
2017 - June	226	182	190	158	155	198	229	164
2017 - July	240	206	193	159	150	195	225	173
2017 - August	201	173	190	148	149	191	205	170
2017 - September	215	176	181	147	149	189	200	169
2017 - October	214	177	182	148	149	198	206	171
2017 - November	220	176	179	148	150	195	207	167
2017 - December	219	171	178	149	148	198	205	174
2018 - January	229	178	178	156	164	215	223	178
2018 - February	240	191	189	164	177	214	223	188
2018 - March	245	198	211	171	188	212	223	181
2018 - April	240	198	229	175	189	215	226	180
2018 - May	250	211	261	179	192	207	229	165
2018 - June	242	205	268	166	170	198	229	167

¹ Delivered United States f.o.b Gulf; ² Delivered United States Gulf; ³ Up River f.o.b.
Sources: International Grain Council and USDA.

APPENDIX TABLE 22: TOTAL WHEAT AND MAIZE FUTURES PRICES

	July		September		December		March	
	July 2018	July 2017	Sept. 2018	Sept. 2017	Dec. 2018	Dec. 2017	March 2019	March 2018
..... (USD per tonne)								
Wheat								
May 22	192	160	198	165	206	173	212	179
May 29	197	158	203	163	210	171	216	178
June 5	187	158	194	163	202	170	209	177
June 12	196	159	202	165	210	173	217	179
June 19	176	172	180	177	187	185	194	190
June 26	173	165	177	171	184	179	190	185
Maize								
May 22	159	148	163	151	167	155	170	158
May 29	157	144	161	148	165	152	168	156
June 5	151	147	155	150	159	154	162	158
June 12	149	149	152	152	157	156	160	159
June 19	139	148	143	151	148	155	152	158
June 26	139	141	142	145	147	148	151	152

Source: Chicago Board of Trade (CBOT)

APPENDIX TABLE 23: SELECTED INTERNATIONAL PRICES FOR RICE AND FAO PRICE INDICES

Period	International prices				FAO indices				
	Thai 100% B ¹	Thai broken ²	US long grain ³	Pakistan Basmati ⁴	Total	Indica		Japonica	Aromatic
	.....(USD per tonne) .....				..... (2002-2004=100)				
Annual (Jan/Dec)									
2011	565	464	577	1 060	242	232	250	258	220
2012	588	540	567	1 137	231	225	241	235	222
2013	534	483	628	1 372	233	219	226	230	268
2014	435	322	571	1 324	235	207	201	266	255
2015	395	327	490	849	211	184	184	263	176
2016	407	348	438	795	194	180	187	228	153
2017	415	334	456	1 131	206	183	195	232	204
Monthly									
2017 - June	469	337	445	1 205	209	194	204	224	205
2017 - July	432	337	454	1 195	210	188	204	231	208
2017 - August	410	339	491	1 125	212	186	200	241	209
2017 - September	414	337	516	1 100	212	188	197	238	215
2017 - October	411	328	516	1 169	216	188	195	250	216
2017 - November	424	330	516	1 155	219	191	196	256	213
2017 - December	432	338	518	1 136	220	192	197	254	216
2018 - January	462	352	526	1 087	224	200	207	254	219
2018 - February	463	363	537	1 095	227	200	211	257	227
2018 - March	453	376	539	1 072	227	199	212	258	226
2018 - April	478	385	543	1 053	229	210	219	255	221
2018 - May	477	388	550	1 043	228	212	222	249	218
2018 - June	456	378	550	1 042	232	209	219	262	219

¹ White rice, 100% second grade, f.o.b. Bangkok, indicative traded prices.

² A1 super, f.o.b. Bangkok, indicative traded prices.

³ US No.2, 4% broken f.o.b.

⁴ Up to May 2011: Basmati ordinary, f.o.b. Karachi; from June 2011 onwards: Super Kernel White Basmati Rice 2%.

Note: The FAO Rice Price Index is based on 16 rice export quotations. 'Quality' is defined by the percentage of broken kernels, with higher (lower) quality referring to rice with less (equal to or more) than 20 percent broken. The sub-index for Aromatic Rice follows movements in prices of Basmati and Fragrant rice.

Sources: FAO for indices. Rice prices: Livericeindex.com, Thai Department of Foreign Trade (DFT) and other public sources.

APPENDIX TABLE 24: SELECTED INTERNATIONAL PRICES FOR OILCROP PRODUCTS AND FAO PRICE INDICES

Period	International prices ¹					FAO indices ⁸		
	Soybeans ²	Soybean oil ³	Palm oil ⁴	Soybean cake ⁵	Rapeseed meal ⁶	Oilseeds	Vegetable oils	Oilcakes/meals
	..... (USD per tonne) .....					..... (2002-2004=100)		
Annual (Oct/Sept)								
2004/05	275	545	419	212	130	104	103	101
2005/06	259	572	451	202	130	100	107	96
2006/07	335	772	684	264	184	129	150	128
2007/08	549	1 325	1 050	445	296	216	246	214
2008/09	422	826	627	385	196	157	146	179
2009/10	429	924	806	388	220	162	177	183
2010/11	549	1 308	1 147	418	279	214	259	200
2011/12	562	1 235	1051	461	295	214	232	219
2012/13	563	1 099	835	539	345	213	193	255
2013/14	521	949	867	534	324	194	189	253
2014/15	407	777	658	406	270	155	153	194
2015/16	396	773	655	351	232	151	155	168
2016/17	404	806	729	336	225	154	160	171
Monthly								
2016 - October	404	853	712	340	214	153	168	161
2016 - November	409	875	755	343	218	155	176	163
2016 - December	420	902	783	344	211	159	183	163
2017 - January	425	879	806	355	216	161	186	168
2017 - February	428	838	779	357	241	162	179	170
2017 - March	408	809	735	346	238	155	168	164
2017 - April	389	788	693	331	240	149	161	158
2017 - May	392	827	732	329	239	150	169	157
2017 - June	379	821	681	313	238	144	162	150
2017 - July	409	836	665	326	220	154	160	155
2017 - August	391	854	678	318	216	149	164	152
2017 - September	395	879	729	329	209	151	172	156
2017 - October	397	869	721	331	207	151	170	157
2017 - November	401	885	719	333	204	153	172	158
2017 - December	397	863	666	348	219	151	163	165
2018 - January	404	865	679	361	239	153	163	171
2018 - February	416	846	660	400	265	157	158	190
2018 - March	432	830	684	427	294	162	157	203
2018 - April	441	824	663	447	302	164	155	213
2018 - May	432	787	659	443	282	161	151	211
2018 - June ⁷	393	786	637	394	265	148	146	187

¹ Spot prices for nearest forward shipment

² Soybeans: US, No.2 yellow, c.i.f. Rotterdam.

³ Soybean oil: Dutch, fob ex-mill.

⁴ Palm oil: Crude, c.i.f. Rotterdam.

⁵ Soybean cake: Pellets, 44/45 percent, Hamburg, f.o.b. ex-mill.

⁶ Rapeseed meal: 34 percent, Hamburg, f.o.b. ex-mill.

⁷ The international prices shown represent averages for the first three weeks of the month.

⁸ The FAO indices are based on the international prices of five selected seeds, ten selected oils and five selected cakes and meals. The indices are calculated using the Laspeyres formula; the weights used are the export values of each commodity for the 2002-2004 period.

Sources: FAO and Oil World.

APPENDIX TABLE 25: INTERNATIONAL RAW SUGAR PRICE AND FAO SUGAR PRICE INDEX

	I.S.A. average of daily prices ¹	FAO Sugar Price Index
	Raw sugar	
Annual (Jan/Dec)	.....(US Cents per lb) .....	.....(2002-2004=100)
2009	18.1	257.3
2010	21.3	302.0
2011	26.0	368.9
2012	21.5	305.7
2013	17.7	251.0
2014	17.0	241.2
2015	13.4	190.7
2016	18.0	256.0
2017	16.0	227.3
Monthly		
2016 - August	20.1	285.6
2016 - September	21.5	304.8
2016 - October	22.2	315.3
2016 - November	20.2	287.1
2016 - December	18.5	262.6
2017 - January	20.3	288.5
2017 - February	20.3	287.9
2017 - March	18.1	256.5
2017 - April	16.4	233.3
2017 - May	16.1	227.9
2017 - June	13.9	197.3
2017 - July	14.6	207.5
2017 - August	14.3	203.9
2017 - September	14.4	204.2
2017 - October	14.3	203.5
2017 - November	15.0	212.7
2017 - December	14.4	204.1
2018 - January	14.1	199.9
2018 - February	13.6	192.4
2018 - March	13.1	185.5
2018 - April	12.0	176.1
2018 - May	12.4	175.3
2018 - June	12.5	177.4

¹ International Sugar Agreement (ISA) prices: simple average of the closing quotes for the first three future positions of the New York Intercontinental Exchange (ICE), Sugar Contract no. 11.

Source: International Sugar Organization (ISO). FAO for the sugar index.

APPENDIX TABLE 26: SELECTED INTERNATIONAL PRICES FOR MILK PRODUCTS AND FAO DAIRY PRICE INDEX

Period	International prices				FAO Dairy Price Index
	Butter ¹	Skim milk powder ²	Whole milk powder ³	Cheddar cheese ⁴	
Annual (Jan/Dec)	..... (USD per tonne) .....				... (2002-2004=100) ...
2008	3 701	3 251	3 891	4 633	223
2009	2 736	2 332	2 556	2 957	150
2010	4 270	3 081	3 514	4 010	207
2011	4 876	3 556	4 018	4 310	230
2012	3 547	3 119	3 358	3 821	194
2013	4 484	4 293	4 745	4 402	243
2014	4 010	3 647	3 868	4 456	224
2015	3 212	2 113	2 509	3 340	160
2016	3 350	1 983	2 457	3 094	154
2017	5 573	2 025	3 179	3 848	202
Monthly					
2017 – June	5 938	2 156	3 273	3 900	209
2017 – July	6 438	2 085	3 296	4 031	217
2017 – August	6 724	2 031	3 417	4 008	220
2017 – September	6 950	1 951	3 372	4 151	224
2017 – October	6 306	1 856	3 198	4 125	215
2017 – November	5 732	1 763	2 985	4 044	204
2017 – December	4 969	1 723	2 886	3 594	184
2018 – January	4 843	1 740	2 977	3 413	180
2018 – February	5 129	1 864	3 127	3 644	191
2018 – March	5 588	1 784	3 228	3 700	197
2018 – April	5 961	1 813	3 301	3 788	204
2018 – May	6 245	1 941	3 289	4 094	215
2018 – June	6 271	2 018	3 290	3 981	213

¹ Butter, 82% butterfat, f.o.b. Oceania and EU; average indicative traded prices

² Skim Milk Powder, 26% butterfat, f.o.b. Oceania and EU, average indicative traded prices

³ Whole Milk Powder, 1.25% butterfat, f.o.b. Oceania and EU, average indicative traded prices

⁴ Cheddar Cheese, 39% max. moisture, f.o.b. Oceania, indicative traded prices

Note: The FAO Dairy Price Index is derived from a trade-weighted average of a selection of representative internationally-traded dairy products

Sources: FAO for indices. Product prices: Mid-point of price ranges reported by Dairy Market News (USDA)

APPENDIX TABLE 27: SELECTED INTERNATIONAL MEAT PRICES

Period	Bovine meat prices			Ovine meat price	Pig meat prices			Poultry meat prices	
	Australia	United States	Brazil	New Zealand	United States	Brazil	Germany	United States	Brazil
Annual (Jan/Dec)	..... (USD per tonne)								
2008	3 024	4 325	3 785	2 975	2 270	3 000	2 364	997	1 896
2009	2 562	3 897	3 118	3 495	2 202	2 223	2 035	989	1 552
2010	3 272	4 378	3 919	3 662	2 454	2 747	1 913	1 032	1 781
2011	3 944	4 516	4 816	5 370	2 648	3 023	2 169	1 147	2 083
2012	4 176	4 913	4 492	4 754	2 676	2 784	2 233	1 228	1 931
2013	4 009	5 535	4 326	4 130	2 717	2 872	2 311	1 229	2 014
2014	5 016	6 678	4 515	4 687	3 183	3 434	2 106	1 206	1 940
2015	4 638	6 201	4 130	3 641	2 576	2 499	1 582	1 003	1 642
2016	4 059	5 569	3 836	3 571	2 424	2 143	1 682	914	1 532
2017	4 378	5 871	4 047	4 486	2 529	2 482	1 871	999	1 653
Monthly									
2017 – June	4 681	5 582	4 083	4 709	2 534	2 628	2 086	1 075	1 647
2017 – July	4 645	5 772	4 101	4 898	2 606	2 537	2 035	1 057	1 578
2017 – August	4 209	5 975	4 073	4 933	2 638	2 437	2 064	1 057	1 642
2017 – September	4 251	6 030	4 089	5 113	2 591	2 413	1 993	1 070	1 625
2017 – October	4 344	6 152	4 084	5 015	2 510	2 454	1 800	1 052	1 697
2017 – November	4 391	6 314	4 105	4 975	2 538	2 422	1 750	1 019	1 689
2017 – December	4 212	6 270	4 196	4 880	2 614	2 323	1 717	983	1 607
2018 – January	4 289	6 225	4 167	4 982	2 559	2 155	1 671	972	1 554
2018 – February	4 458	6 411	3 870	4 974	2 580	2 160	1 844	979	1 572
2018 – March	4 441	6 422	3 854	5 140	2 568	2 105	1 869	1 024	1 549
2018 – April	4 175	6 557	3 913	5 149	2 543	2 110	1 806	1 063	1 573
2018 – May	4 178	6 570	4 037	5 071	2 533	2 039	1 722	1 089	1 536
2018 – June	4 113	6 580	4 064	5 341	2 530	2 020	1 747	1 095	1 520

Bovine meat prices:**Australia:** Cow 90CL export prices to the USA (FAS)**USA:** Frozen beef, export unit value**Brazil:** Frozen beef, export unit value**Ovine meat prices:****New Zealand:** Lamb 17.5kg cwt, export price**Pig meat prices:****USA:** Frozen pigmeat, export unit value**Brazil:** Frozen pigmeat, export unit value**Germany:** Monthly market price for pig carcass grade E**Poultry meat prices:****USA:** Broiler cuts, export unit value**Brazil:** Export unit value for chicken (f.o.b.)

Prices for the two most recent months may be estimates and subject to revision.

APPENDIX TABLE 28: FAO MEAT PRICE INDICES

Period	Total meat	Bovine meat	Ovine meat	Pig meat	Poultry meat
Annual (Jan/Dec)	..... (2002-2004=100)				
2008	161	158	128	152	184
2009	141	135	151	131	162
2010	158	165	158	138	179
2011	183	191	232	153	206
2012	182	195	205	153	201
2013	184	197	178	157	206
2014	198	231	202	164	200
2015	168	213	157	126	168
2016	156	191	154	123	156
2017	170	204	194	135	169
Monthly					
2017 – June	176	206	203	143	173
2017 – July	175	208	211	142	167
2017 – August	174	202	213	142	172
2017 – September	174	204	221	139	171
2017 – October	173	207	216	132	175
2017 – November	173	210	215	130	172
2017 – December	170	208	211	129	165
2018 – January	167	208	215	125	161
2018 – February	170	209	215	131	162
2018 – March	171	209	222	131	164
2018 – April	170	207	222	128	168
2018 – May	169	209	219	125	167
2018 – June	170	208	231	125	166

The FAO Meat Price Indices consist of 2 poultry meat product quotations (the average weighted by assumed fixed trade weights), 3 bovine meat product quotations (average weighted by assumed fixed trade weights), 3 pig meat product quotations (average weighted by assumed fixed trade weights), 1 ovine meat product quotation (average weighted by assumed fixed trade weights): the four meat group average prices are weighted by world average export trade shares for 2002/2004.

Prices for the two most recent months may be estimates and subject to revision.

APPENDIX TABLE 29: FISH PRICE INDICES

Period	Total	Aquaculture	Capture	White fish	Salmon	Shrimp	Pelagic excl. tuna	Tuna	Other fish
Annual (Jan/Dec)	..... (2002-2004=100)								
2007	124	115	132	139	147	102	130	135	126
2008	136	120	148	151	151	109	148	162	133
2009	126	119	131	132	159	98	140	147	128
2010	137	137	136	138	187	109	144	146	146
2011	154	149	157	151	195	124	173	175	166
2012	144	124	157	145	146	107	207	195	176
2013	148	141	151	134	157	126	215	190	175
2014	157	158	153	142	159	148	210	175	185
2015	142	137	146	141	134	129	216	150	196
2016	146	145	146	141	162	129	207	153	194
2017	154	152	155	143	177	136	226	168	208
Monthly									
2016 - January	140	136	141	137	141	126	189	142	193
2016 - February	142	140	142	140	144	123	201	150	191
2016 - March	144	144	143	140	151	124	204	148	188
2016 - April	143	144	142	143	157	122	209	146	183
2016 - May	142	147	139	144	162	117	169	150	192
2016 - June	147	149	145	145	170	125	201	150	197
2016 - July	145	144	145	142	172	125	232	152	194
2016 - August	147	143	151	142	162	129	228	166	197
2016 - September	150	144	154	140	160	134	215	174	196
2016 - October	152	149	152	139	170	141	228	155	200
2016 - November	151	149	148	139	173	143	204	150	194
2016 - December	151	152	146	137	182	138	197	149	201
2017 - January	151	154	147	138	190	131	228	153	205
2017 - February	149	150	146	133	180	129	227	161	187
2017 - March	150	152	147	136	176	131	242	159	188
2017 - April	150	151	148	138	179	133	241	154	191
2017 - May	151	154	148	140	185	131	202	159	204
2017 - June	154	155	152	147	185	132	198	167	210
2017 - July	156	153	155	148	185	136	213	167	219
2017 - August	157	151	162	146	174	141	230	175	225
2017 - September	157	150	162	146	174	140	254	179	207
2017 - October	156	151	159	144	173	142	237	173	207
2017 - November	159	149	164	144	163	146	213	182	226
2017 - December	160	149	169	150	164	143	222	184	223
2018 - January	162	153	170	152	174	140	243	189	220
2018 - February	160	151	167	153	176	134	274	188	211
2018 - March	165	159	168	153	193	132	299	183	225

Source: Norwegian Seafood Council (NSC).

Note: The FAO Fish Price Index is based on nominal import values expressed in CIF in the three major import markets; Japan, USA and EU. Separate indexes exist for products from aquaculture and from capture fisheries. Additional sub-indexes exist for the major commodity groups based on species.

APPENDIX TABLE 30: SELECTED INTERNATIONAL COMMODITY PRICES

	Currency and unit	Effective date	Latest quotation	One month ago	One year ago	Average 2013-2017
Sugar (ISA daily price)	US cents per lb	22-06-18	12.48	12.68	13.90	16.44
Coffee (ICO daily price)	US cents per lb	22-06-18	109.72	114.22	122.39	130.69
Cocoa (ICCO daily price)	US cents per lb	22-06-18	112.50	117.37	89.97	123.00
Tea (FAO Tea Composite Price)	USD per kg	31-05-18	3.06	2.92	3.26	2.77
Cotton (COTLOOK A index)	US cents per lb	31-05-18	94.48	92.24	88.64	80.34
Jute "BTD" (Fob Bangladesh Port)	USD per tonne	31-05-18	810.00	740.00	670.00	684.67

MARKET INDICATORS

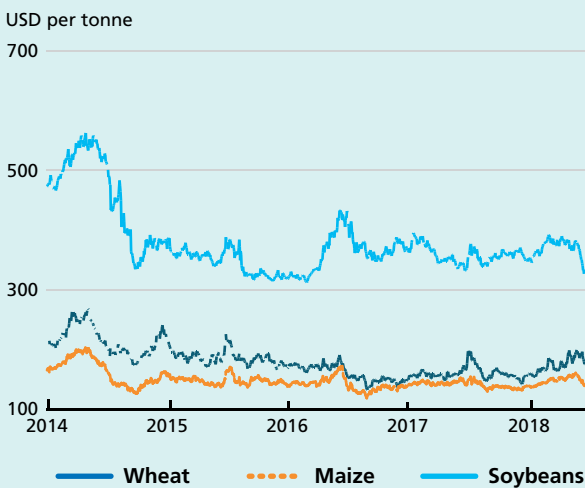
Futures markets

Contributed by Ann Berg (International Consultant)

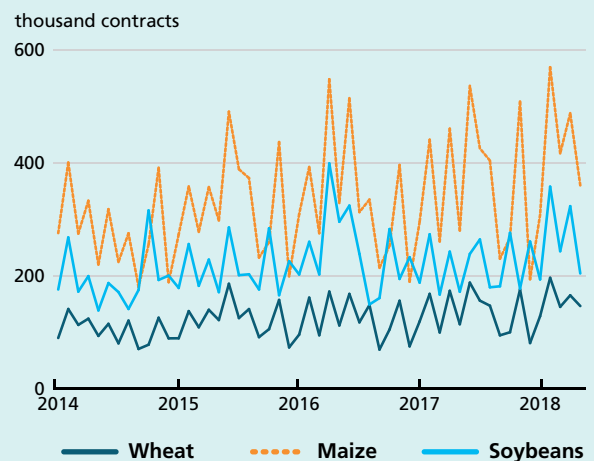
Futures prices for wheat, maize and soybeans trended higher between January and May – at levels mostly higher than the same period for the past two years. However, all three commodities reversed course in June, declining in price by varying degrees. Exceptional crop ratings for maize and soybeans reported by the United States Department of Agriculture (USDA) and mounting trade tensions between the US and several of its largest trade partners were the primary drivers of the mid-year sell-off. Soybeans fell to a ten-year price low at the end of June, reflecting in part a year-to-date 20 percent drop in US exports to China – the largest global soybean consumer. Export uncertainties

surrounding soybeans tended to overshadow record domestic crush levels and USDA projection of a 25 percent reduction in lower ending soybean stocks for 2018/19 versus 2017/18. Maize prices also dropped as the potential for a mid-summer drought in the primary US growing regions dissipated amid abundant rainfall, even as export and ethanol demand remained robust. Wheat prices, supported since the start of the year by declining global stocks and below average crop harvest ratings in the US, fell slightly in tandem with the other two commodities during June but remained 24 percent higher than the average December 2017 price and above same month

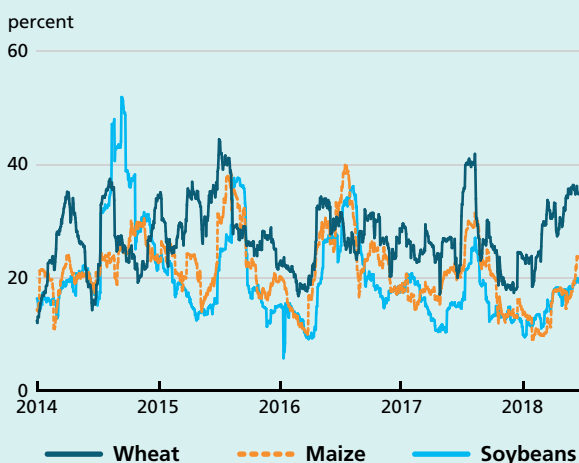
CME futures prices



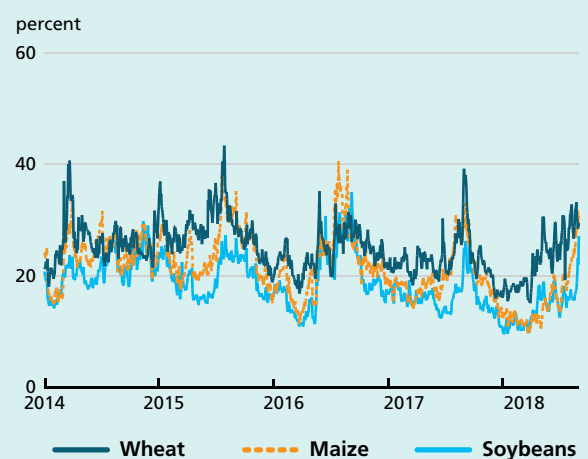
CME futures volumes



Historical volatility (30 days)



Implied volatility



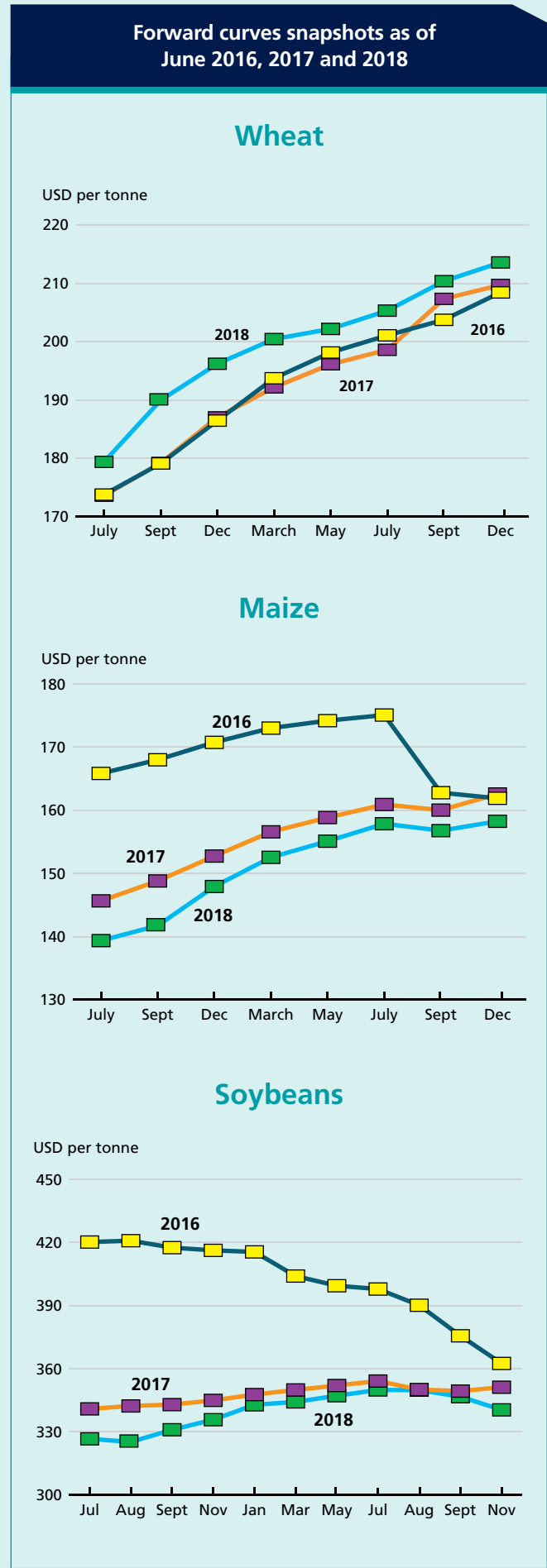
prices for the past two years. Exogenous markets such as foreign exchange and energy, normally strong influences on agricultural prices, took a subordinate role to the potential for escalating trade tensions. The price of West Texas Intermediate crude oil, for example, was 50 percent higher year-on-year, but had only a modest impact on maize prices, even though ethanol consumes about 40 percent of the US maize crop, compared with 14 percent of its exports. Overall, political uncertainty eclipsed the featureless complacency common to markets over the past few years.

FORWARD CURVES

Forward curves for wheat, maize and soybeans displayed mostly upward sloping (contango) price configurations extending until July 2019, fairly similar to 2017 forward curves at this point in the season. The curves indicate low interior basis levels, ample crop projections, and a small to negligible drawdown of ending stocks for 2018/19, approximating USDA's June estimates. The soybeans curve between July and November 2018, which inverted by USD 6 during April 2018, collapsed to about USD 8 contango. The lack of buying interest in the July 2018 soybean futures largely reflected China's switch in demand from US to Brazil, where export premiums soared to record levels. The 2018 curves are markedly different from two years ago, when South American weather concerns for maize and soybeans elevated 2016/17 values over the successive crop year.

VOLUMES

Trade volumes, which have mostly risen year-on-year since 2013, posted record numbers again for the 2018 January to June period. Low volatility markets – such as those persisting for the past four years – have increasingly forced traders to find more complex strategies than outright buying or selling for generating profits. Anecdotally, they have adopted more sophisticated tactics, such as spreading (simultaneously buying and selling two different contracts) or futures and options combinations, both of which have resulted in increased trade activity. In addition, the trend of greater algorithmic trading, which automatically seeks small anomalies across several markets, has continued unabated (more than 50 percent of volume according to the Chicago Mercantile Exchange). High Frequency Trading, another form of algorithmic trading that depends primarily on speed of execution and tends to be a volume generator, was recently absolved by the Commodity Futures Trading Commission's (CFTC) newly formed Markets Intelligence Branch from having any adverse impact on market volatility or sudden



price swings. Open interest (the number of outstanding contracts at a given point in time for a futures contract) has increased to record levels for all three commodities, reflecting higher spread positioning and significant increases in commercial participation. Total long and short commercial contracts in wheat, maize and soybeans showed an 87, 63 and 34 percent increase respectively year-on-year. Options open interest, when added to futures, reflected an additional rise of 24 to 30 percentage points to open interest totals.

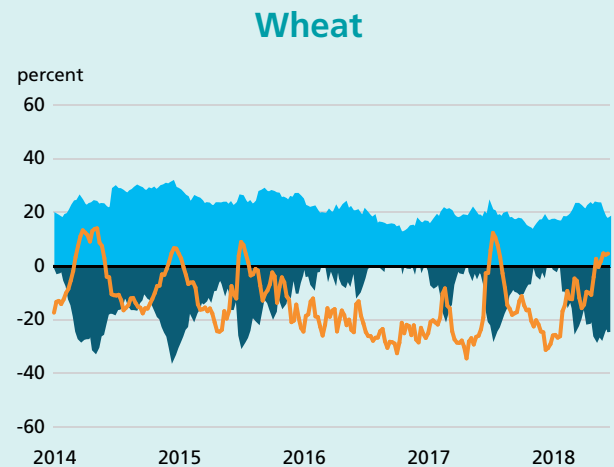
VOLATILITY

Volatility levels for wheat, maize and soybean prices tended to track typical seasonal movements, rising steadily through June, while starting from very low levels in January. Trade uncertainties in June surpassed weather as the standard cause of heightened volatility for the time period, precipitating price drops for all three commodities. Historical volatility (based on 30 days) for maize and soybeans ranged between the relatively low levels of 10 and 22 (monthly averages), while wheat ranged between 23 and 35 (monthly averages). Implied volatility (calculated by the level of option premiums on underlying futures contracts) exhibited variation across the three commodities, rising to a multi-year high for the month of June in wheat at 35, while attaining more subdued levels of 27 and 21 for maize and soybeans respectively. Other commodity volatility measures, such as the Crude Oil Volatility Index (OVX), have been unusually tame over the past year. Despite a considerable rise in crude oil prices, the OVX has remained in a narrow channel in the upper 20s.

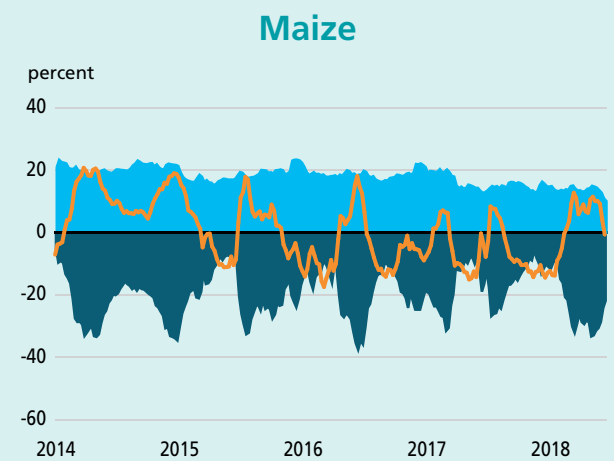
INVESTMENT FLOWS

Managed money appeared to take a new approach to positioning in agricultural markets, reducing its overall exposure to long or short strategies and increasing its spread activity. In contrast to 2017, when managed money accumulated a record combined net short position for wheat, maize and soybeans at the start of the May planting season, managed money held modest net long positions in end of June 2018, comprising only 4, 4 and 2 percent of the net long open interest in wheat, maize and soybeans respectively. Conversely, it increased outright spread positions by 46 percent for wheat and maize and 40 percent for soybeans year-on-year. A review of futures and options combined reveals that options spreading has also dramatically increased year-on-year, not just for managed money, but for swaps dealers (providers of index products that track commodity prices) and other reportables (typically speculators trading for

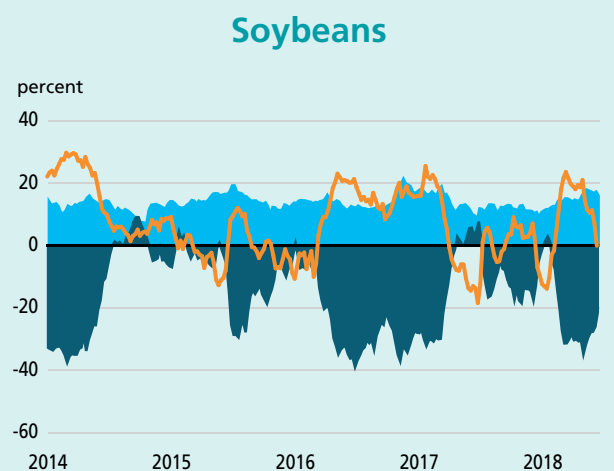
CME net-length as % of open interests
(Jan 2014 - June 2018)



Commercial Managed money Swap dealers



Commercial Managed money Swap dealers



Commercial Managed money Swap dealers

their own account). Although the CFTC does not include a spread category for commercials (only long and short positions), their spread activity has undoubtedly increased along with the other trader categories, given the overall growth in open interest totals held by commercials. Although it may be premature to infer that these tactical changes will continue, the situation warrants monitoring together with potential effects on market structure and volatility. Poor returns in commodities versus other asset classes have reportedly caused a decline in the number

of commodity hedge funds. Barclay Hedge, the primary hedge fund tracker, reported that agricultural traders managing fund monies showed a return of 1.72 percent year-to-date, compared with a gain of 2.49 percent in 2017. The Deutsche Bank Agricultural Index Fund, which tracks 10 agricultural futures markets including wheat, maize and soybeans, remained near its all-time low at USD 18.21, compared with its high level of USD 42 reached in 2008, testifying to the long cyclical nature of commodity prices.

Ocean freight rates

Contributed by the International Grains Council (IGC)

www.igc.int

OCEAN FREIGHT MARKET (JULY 2017- JULY 2018)

The dry bulk freight market continued to recover from all-time lows of February 2016, as the Baltic Dry Index (BDI) – a composite measure of freight costs across major segments – posted moderate advances over the past six months. However, trends among constituent sectors were mixed, with those for larger-sized vessels remaining typically volatile. After reaching a near four-year high in mid-December 2017, the Index retreated to an eight-month low by early April 2018, mainly on a downturn in

Summary of dry bulk freight markets

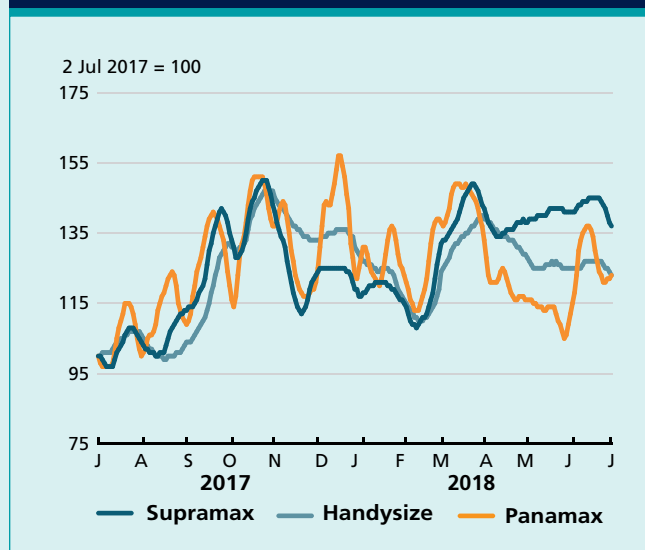
	2 July 2018	Changes	
		6 months	y/y
%			
Baltic Dry Index (BDI)*	1 422	16	58
<i>Sub-indices:</i>			
Capesize	2 304	1	112
Panamax	1 338	-0	23
Supramax	1 034	15	37
<i>Baltic: Handysize Index (BHSI)**</i>	575	-6	23

Source: Baltic Exchange, * 4 January 1985 = 1000 ** 23 May 2006 = 1000.
Note: Baltic Handysize sub-Index excluded from the BDI from 1 March 2018.

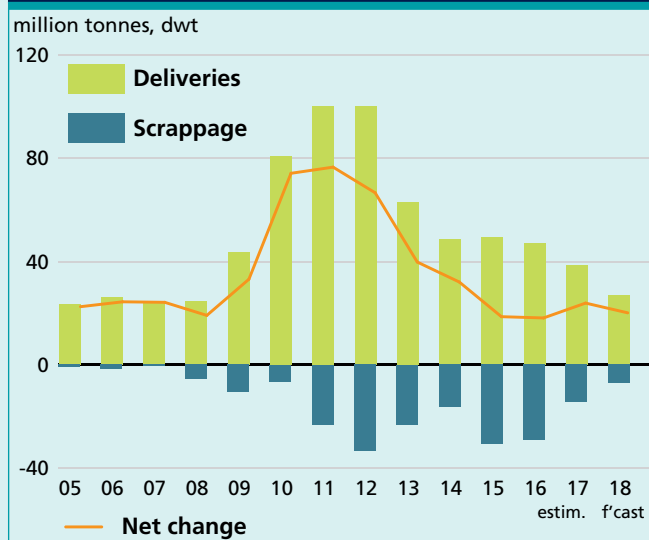
Baltic Capesize sub-Index (2 July 2017 - 2 July 2018)



Grains and oilseeds carrying sectors: Panamax & Supramax sub-Indices and Handysize Index (2 July 2017 - 2 July 2018)



Dry bulk freight markets: Deliveries vs. scrappage (2005-2018)



* Source: Clarksons Research (historical data) and Bulk Shipping Analysis forecasts for 2018; refers to vessels above 10,000t deadweight, including Handysize, Supramax, Panamax, Capesize and larger carriers.

resulted in a number of failed deals. The downward trend was reversed in mid-February, as trading in the latter area and in South America intensified. Inquiries in the Pacific were also evident, notably for coal and mineral deliveries out of Southeast Asia and Australia. While reduced demand and a build-up of tonnage in the Atlantic pressured in late spring, the Pacific area remained supportive, with recent gains also linked to improved rates for transatlantic trips and voyages from South America to Asia. Recent grains and oilseeds fixtures included a 60,000t delivery from Brazil (Paranagua) to China at US\$36/t, for July shipment, and a 65,000t cargo from the US Gulf to the EU (Rotterdam) at US\$23/t, June.

Values for smaller **Supramax** and **Handysize** ships posted mixed results since the turn of the year. Tracking the broader market sentiment, markets improved in the first quarter, amid strong grains-related demand at the US Gulf and in the Black Sea region, especially for Pacific-bound dispatches. While scrap and fertilizer trade in Europe expanded during that period, with fresh cement and clinker business also noted in the Mediterranean, icy conditions limited activity in the Baltic. Trends for the two markets diverged in April as the Supramax Baltic sub-Index rose on stronger Pacific sentiment and a good volume of inter-Atlantic fixtures out of South America, while the Handysize market eased steadily in generally light activity, weighed by a slowdown in grains shipments from the Black Sea region and a softer tone in Europe, including for deliveries to North Africa.

Summary of freight rates on selected routes

USD/t	2 July 2018	Changes	
		6 months	y/y
US (Gulf) to:			
		%	
EU (ARAH)	23	-15	-8
China (Dalian)	44	-2	16
Japan	43	-2	16
Canada (St. Lawrence) to:			
EU (ARAH)	22	-19	-8
China (Dalian)	47	2	9
Japan	46	5	12
Argentina to:			
EU (ARAH)	24	0	33
Algeria	33	10	27
Brazil to:			
EU (ARAH)	30	11	25
China (Dalian)	36	9	50
EU (France, Rouen) to:			
Algeria	30	-6	15
Black sea to:			
Egypt (Alexandria)	20	-17	18
Tunisia	24	-11	20
Australia (East Coast) to:			
China (Dalian)	21	17	62

EU (ARAH) refers to Antwerp, Rotterdam, Hamburg

Supply-side developments

Excess vessel availability has been weighing on the dry bulk freight market for nearly a decade, with rates still remaining under pressure despite prospects for a further expansion of global trade.

According to private industry forecasts, 2018 newbuilding deliveries are projected in the range of 26.0-28.0m deadweight tonnes (dwt) – the figure largely based on order book schedules. Amid generally more attractive freight rates compared to the previous year, scrapping is predicted at a significantly lower level of around 6.0-8.0m dwt (14.6m last year). However, the forecast is subject to ever changing perceptions of ship owners. So far this season, scrapping has been unexpectedly low, even despite relatively attractive prices at demolition yards, which in part reflects expectations for a sustained market recovery over the coming years. Overall, 2018 net fleet growth is projected at around 20.0m dwt, a 3.0m decline from the year before.

Food import bills

World food import bill set to rise in 2018

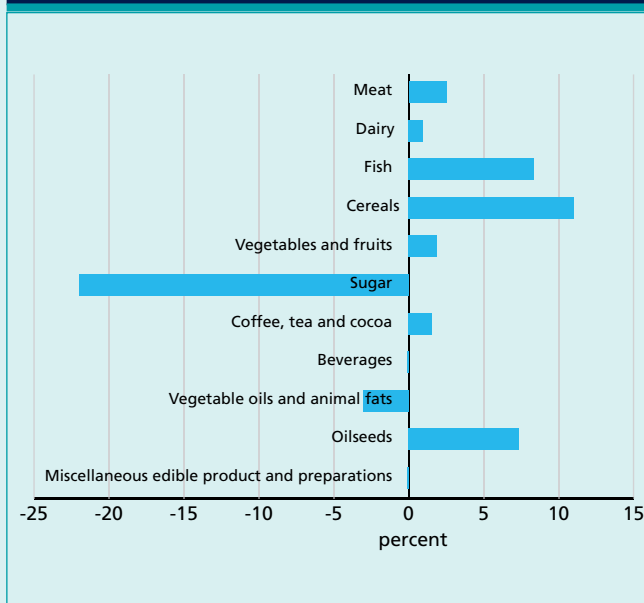
At USD 1.472 trillion, the provisional forecast for the global food import bill in 2018 points to a nearly 3 percent increase from 2017, just USD 46 billion short of the record high in 2014. The predicted year-on-year increase in the world food import bill is largely a reflection of higher international prices for bulk commodities, especially cereals and oilseeds, but also for fish, which together are expected to offset a large fall in the cost of global sugar imports.

Since the turn of the decade, the world food import bill has fluctuated between a somewhat narrow, but high, range of USD 1.4-1.5 trillion dollars. An important factor underpinning this strength has been the cost of freight. While exhibiting exceptional volatility since 2010, the benchmark indicator of international freight rates – the Baltic Dry Index – continues to surpass the 1 000 threshold in 2018, and in early July of this year was being quoted at 1 422 points.

Turning to developments at the commodity level, the import bill predicted to experience the largest absolute increase in 2018 is the one of cereals. The USD 27 billion year-on-year anticipated rise in the cereals import bill is on account of significantly higher grain quotations in 2018 compared with last year, with maize prices leading the way. But the volume of cereal purchases on the global marketplace is expected to undergo only a small rise of 1 percent from 2017. The global import bill for fish is expected to rise by 8 percent (USD 11 billion) to reach a record USD 145 billion in 2018, again mostly on the back of higher benchmark price quotations, and again with a negligible increase in volumes. A record import bill of USD 96 billion is also anticipated for oilseeds in 2018, up 7 percent (USD 7 billion) from the previous year, in which an expected rise in imported volumes (2 percent) is more marked but still overshadowed by a significant increase in oilseed price quotations.

Notable exceptions to the trend of rising import bills are sugar and vegetable oils. International demand for sugar in 2018 is anticipated to slump, to the tune of 5 percent, mostly on account of buoyant production prospects in key import destinations, especially the EU, where production quotas were abolished late last year. Furthermore, the abundance of sugar supplies has had a drastic effect on international quotations of the commodity, which have fallen by 18 percent from last year, to a ten-year low. This suggests that the world sugar bill could decline by a record USD 12 billion (22 percent) to USD 43 billion. Expected

Forecast changes in global food import bills by type (2018 over 2017)



lower world prices for vegetable oils – though import volumes are anticipated to hold firm – could result in their import bill falling by USD 3 billion, or 3 percent, from 2017.

The food import bills of low-income food deficit countries (LIFDCs) and those situated in sub-Saharan Africa (SSA) are forecast to rise by less than the global average, and in the case of LDCs (the most economically disadvantaged countries), could fall slightly from 2017. While seemingly a positive outcome, the steep share of imported cereals in the entire food import bill, as much as 39 percent for LDCs and 37 percent for the SSA region, is of concern given the large hike in cereal unit costs. For instance, the cereals import bill of LDCs could reach USD 16 billion in 2018, and would be 11 percent higher than the figure they paid in 2017, but in volume terms, they are only receiving 1 percent more of the grain. This development comes at a time when cereal production in LDCs is expected to fall in 2018. The predicted rise in the cereal import bill is expected to curb the savings anticipated to be made from lower import bills of sugar and vegetable oils.

Contact:

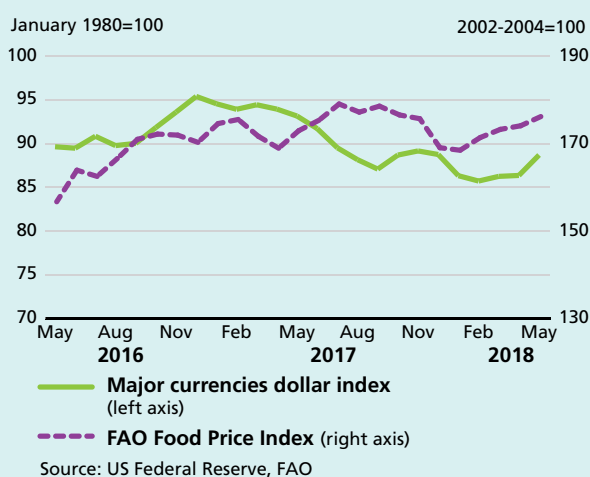
Adam.Prakash@fao.org

Import bills of total food and major foodstuffs (USD billion)

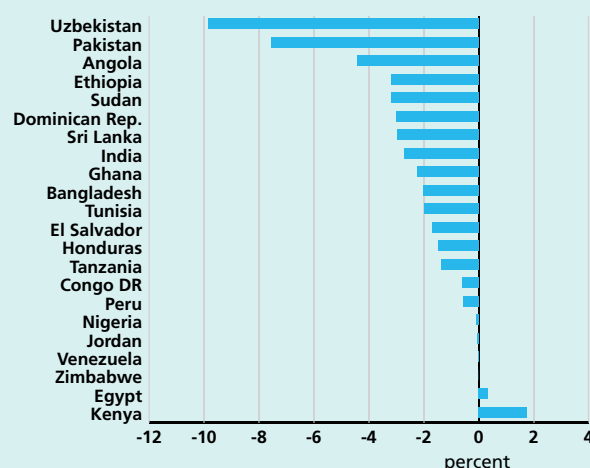
	World		Developed		Developing		LDC		LIFDC		Sub-Saharan Africa	
	2017	2018 f'cast	2017	2018 f'cast	2017	2018 f'cast	2017	2018 f'cast	2017	2018 f'cast	2017	2018 f'cast
TOTAL FOOD	1 430.5	1 472.1	831.0	848.2	599.5	623.9	41.8	41.1	85.9	87.4	47.2	48.1
Meat	164.0	168.2	92.9	94.5	71.2	73.6	2.7	2.9	2.5	2.6	3.8	4.1
Dairy	89.0	89.8	54.6	54.7	34.4	35.1	1.8	1.9	2.9	2.9	2.2	2.2
Fish	133.4	144.6	95.1	103.3	38.3	41.2	1.0	1.0	2.5	2.6	3.5	3.6
Cereals	248.0	275.4	115.6	127.2	132.4	148.2	14.5	16.0	22.5	25.2	15.4	17.6
Vegetables and fruit	264.8	269.9	181.2	179.3	83.7	90.5	3.8	3.2	13.0	15.0	3.3	4.2
Sugar	55.6	43.3	24.7	20.4	30.8	22.9	5.2	4.3	7.8	6.5	5.1	4.0
Coffee, tea and cocoa	111.8	113.5	83.0	84.3	28.8	29.2	1.3	1.3	3.6	3.7	1.5	1.5
Beverages	96.7	96.6	25.8	27.2	25.7	25.6	1.1	1.1	1.7	1.7	2.1	2.1
Vegetables oils and animal fats	95.7	92.8	42.4	41.4	53.3	51.3	6.6	5.6	22.5	20.2	6.4	5.1
Oilseeds	89.0	95.6	25.8	27.2	63.2	68.3	0.7	0.8	2.4	2.6	0.2	0.1
Miscellaneous edible products and preparations	82.6	82.5	44.8	44.8	37.8	37.8	3.1	3.1	4.4	4.4	3.7	3.7

Exchange rates and food prices

Against the trend - food prices climb with the US dollar (May 2016 - May 2018)



% changes in real terms in the currencies of selected LIFDCs against the USD (June 2017 - June 2018)



Having reached a three-and-a-half year low in February 2018, the US dollar has begun to rise relative to major currencies, with the nominal index climbing to 89 points. More significantly, the traditional strong negative relationship between the FAO Food Price Index (FPI) and the currency index has begun to reverse in recent months. With the US dollar being the main currency in international trade, typically, a weak (strong) US dollar provides a gain (loss) to domestic purchasing power, but both the US dollar and the FPI have begun to rise in tandem. To the consternation of major food importing LIFDCs that import more than USD 1 billion worth of food annually, from June 2017 to June 2018, many have seen their currency fall against the US dollar in real terms.

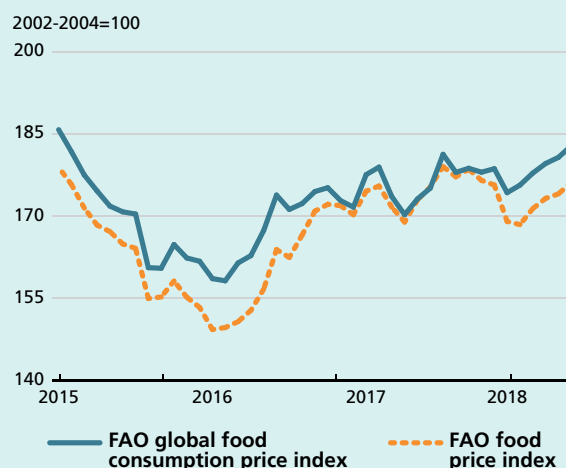
FAO price indices¹

FAO food price indicators gain significant upward momentum

The **FAO Global Food Consumption Price Index**² tracks changes in the cost of the global food basket as depicted by the latest FAO world food balance sheet (see <http://faostat3.fao.org/download/FB/FBS/E>).

After exhibiting substantial variability throughout much of 2017, the index has begun to climb uninterrupted, gaining almost 8 points since January 2018, and reaching a 3-and-half year high in June. While the index still exhibits concordance with the trade-weighted FAO Food Price Index (FPI) in terms of trend, the FAO Global Food Consumption Price Index now carries a margin of around 7 points over the FPI. This is because international prices of foodstuffs that carry a much larger weight in the Consumption index, namely cereals (59%), have climbed considerably since the beginning of the year.

The FAO Global Food Consumption and Food Price Indices (Oct 2015 - June 2018)



FAO Food Price Index slips in June largely on heightened trade tensions³

The **FAO Food Price Index** (FFPI) averaged 173.7 points in June 2018, down 2.4 points (1.3 percent) from its level in May, representing the first month-on-month decline since the beginning of this year. Most markets have generally taken on a weaker tone recently largely because of rising tensions in international trade relations.

The **FAO Cereal Price Index** averaged 166.2 points in June, down 6.4 points (3.7 percent) from May but still nearly 8 percent higher than its level in the corresponding period last year. The decline in June was driven by relatively sharp falls in maize and wheat quotations, while rice prices rose. Despite overall worsening production prospects, wheat and maize prices fell in June, following similar trends observed across most commodities arising from heightened trade tensions. By contrast, international rice prices increased, as supply tightness underpinned higher quotations of Japonica and fragrant rice, outweighing declines in Indica prices.

The **FAO Vegetable Oil Price Index** averaged 146.1 points in June, down 4.5 points (3 percent) from May, marking its fifth consecutive fall and 29-month low. The drop was driven by lower quotations for palm, soybean and sunflower oils. The continued slide in palm oil prices reflects lacklustre global demand as well as spill-over weakness from the soybean complex fuelled by the recent trade tensions. As for soy oil, further stock accumulations in several countries also weighed on prices, whereas sunflower oil quotations declined on higher than expected production, notably in the EU and Ukraine.

The **FAO Dairy Price Index** averaged 213.2 points in June, down 2 points (0.9 percent) from May but still 2 percent higher than the corresponding month last year. The decline in June was driven by lower price quotations for cheese, more than offsetting a rise in Skim Milk Powder (SMP) prices, while those of butter and Whole Milk Powder (WMP) remained steady. Increased export availabilities in the United States and the EU weighed on price quotations for cheese, whereas persistent import demand provided support to the prices of SMP. Butter and WMP quotations rose in Europe, but fell slightly in Oceania.

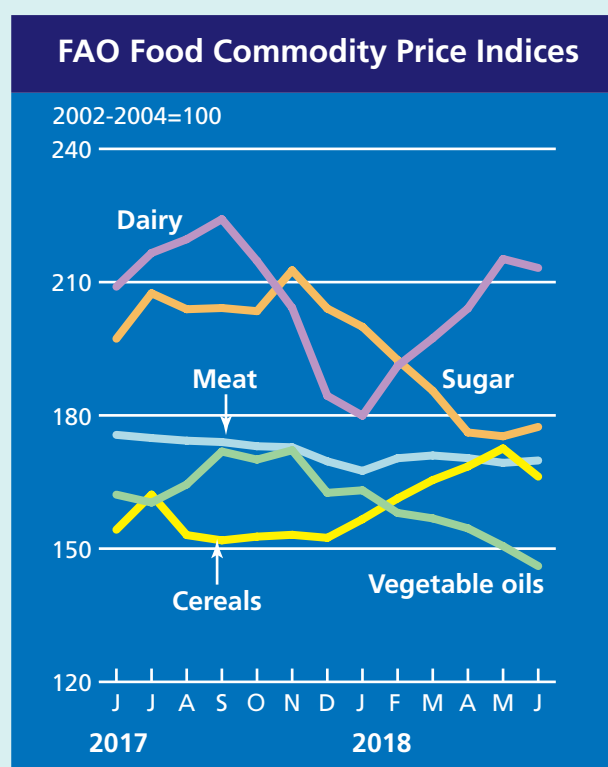
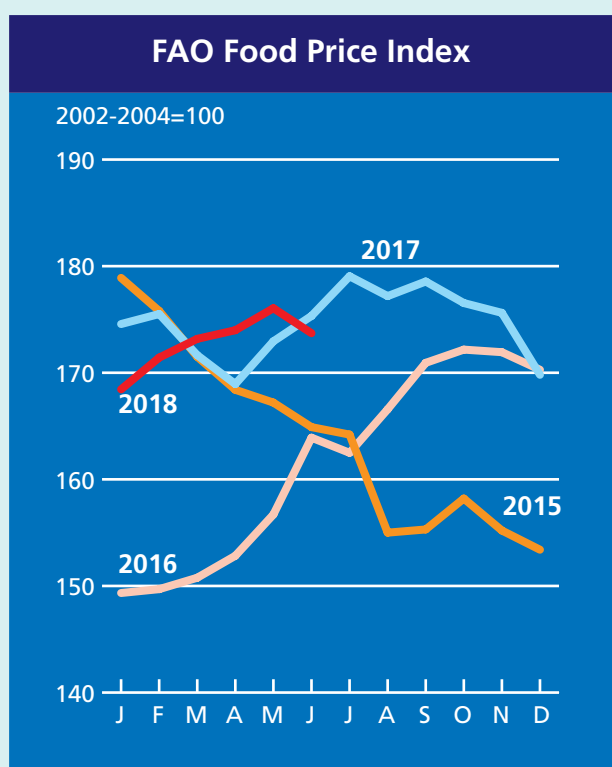
¹ All changes referred to in this section, in absolute or percentage terms, are calculated based on unrounded figures.

² The FAO Global Food Consumption Price Index is published twice a year in *Food Outlook*.

³ The FAO food price indices are updated on a monthly basis and are available on: <http://www.fao.org/worldfoodsituation>

The **FAO Meat Price Index**⁴ averaged 169.8 points in June, up marginally (0.3 percent) from May but still down 3.3 percent from June 2017. The small month-on-month increase was largely driven by an upswing in ovine meat values as well as a small rise in pig meat prices, while bovine and poultry price quotations fell slightly. Solid import demand, amid weak offerings from Oceania, led to higher ovine meat prices, while firm demand, especially in Europe, supported higher pigmeat prices. Large export supplies from Australia underpinned the decrease in bovine prices, whereas ample export availabilities, especially from Brazil,

amid weak import demand, pushed down poultry prices. The **FAO Sugar Price Index** averaged 177.4 points in June, up 2.1 points (1.2 percent) from May, marking the first increase after six months of consecutive declines. The rise in international sugar prices was mostly due to worries over sugar production prospects in Brazil, the world's largest sugar producing and exporting country, as dry weather conditions continued to negatively affect sugarcane yields. Reports indicating higher use of sugarcane for the production of fuel ethanol in Brazil had also lent support to international sugar prices.



⁴ Unlike for other commodity groups, most prices utilized in the calculation of the FAO Meat Price Index are not available when the FAO Food Price Index is computed and published; therefore, the value of the Meat Price Index for the most recent months is derived from a mixture of projected and observed prices. This can, at times, require significant revisions in the final value of the FAO Meat Price Index which could in turn influence the value of the FAO Food Price Index.

FAO Food Price Index

	Food Price Index ¹	Meat ²	Dairy ³	Cereals ⁴	Vegetable Oils ⁵	Sugar ⁶	
2000	91.1	96.5	95.3	85.8	69.5	116.1	
2001	94.6	100.1	105.5	86.8	67.2	122.6	
2002	89.6	89.9	80.9	93.7	87.4	97.8	
2003	97.7	95.9	95.6	99.2	100.6	100.6	
2004	112.7	114.2	123.5	107.1	111.9	101.7	
2005	118.0	123.7	135.2	101.3	102.7	140.3	
2006	127.2	120.9	129.7	118.9	112.7	209.6	
2007	161.4	130.8	219.1	163.4	172.0	143.0	
2008	201.4	160.7	223.1	232.1	227.1	181.6	
2009	160.3	141.3	148.6	170.2	152.8	257.3	
2010	188.0	158.3	206.6	179.2	197.4	302.0	
2011	229.9	183.3	229.5	240.9	254.5	368.9	
2012	213.3	182.0	193.6	236.1	223.9	305.7	
2013	209.8	184.1	242.7	219.3	193.0	251.0	
2014	201.8	198.3	224.1	191.9	181.1	241.2	
2015	164.0	168.1	160.3	162.4	147.0	190.7	
2016	161.5	156.2	153.8	146.9	163.8	256.0	
2017	174.6	170.1	202.2	151.6	168.8	227.3	
2017	June	175.3	175.6	209.0	154.3	162.1	197.3
	July	179.0	174.9	216.6	162.2	160.4	207.5
	August	177.2	174.3	219.7	153.0	164.4	203.9
	September	178.6	174.0	224.2	151.9	171.9	204.2
	October	176.5	173.1	214.8	152.7	170.0	203.5
	November	175.7	172.8	204.2	153.1	172.2	212.7
	December	169.1	169.7	184.4	152.4	162.6	204.1
2018	January	168.4	167.5	179.9	156.6	163.1	199.9
	February	171.4	170.3	191.1	161.3	158.0	192.4
	March	173.2	171.0	197.4	165.4	156.8	185.5
	April	174.0	170.4	204.1	168.5	154.6	176.1
	May	176.1	169.3	215.2	172.6	150.6	175.3
	June	173.7	169.8	213.2	166.2	146.1	177.4

1 Food Price Index: Consists of the average of five commodity group price indices mentioned above, weighted with the average export share of each of the groups for 2002-2004. In total 73 price quotations considered by FAO commodity specialists as representing the international prices of the food commodities are included in the overall index. Each sub-index is a weighted average of the prices of the commodities included in the group, with the base period price consisting of the averages for the years 2002-2004.

2 Meat Price Index: Computed from average prices of four types of meat, weighted by world average export trade shares for 2002-2004. Commodities include two poultry products, three bovine meat products, three pig meat products, and one ovine meat product. There are 27 price quotations in total used in the calculation of the index. Where more than one quotation exists for a given meat type, a simple average is used. Prices for the two most recent months may be estimates and subject to revision.

3 Dairy Price Index: Consists of butter, SMP, WMP, and cheese price quotations; the average is weighted by world average export trade shares for 2002-2004.

4 Cereals Price Index: This index is compiled using the International Grains Council (IGC) wheat price index, itself an average of ten different wheat price quotations, 1 maize export quotation and 16 rice quotations. The rice quotations are combined into three groups consisting of Indica, Japonica and Aromatic rice varieties. Within each variety, a simple average of the relative prices of appropriate quotations is calculated; then the average relative prices of each of the three varieties are combined by weighting them with their assumed (fixed) trade shares. Subsequently, the IGC wheat price index, after converting it to base 2002-2004, the relative prices of maize and the average relative prices calculated for the rice group as a whole are combined by weighting each commodity with its average export trade share for 2002-2004.

5 Vegetable Oils Price Index: Consists of an average of ten different oils weighted with average export trade shares of each oil product for 2002-2004.

6 Sugar Price Index: Index form of the International Sugar Agreement prices with 2002-2004 as base.

NEW RELEASE!

The purpose of this compendium is to offer, in a single document, an overview of salient policy changes and related private sector measures concerning global and national markets for oilseed, oils/fats and meals in a particular year – in this case **2017**.

The compendium reproduces, in tabular form, all the policy and industry news items published throughout 2017 in the FAO Oilcrops Monthly Price and Policy Update (MPPU). The main purpose is to facilitate the work of policy makers, market experts, analysts and other stakeholders by providing a short, concise overview of policy developments relevant to the oilcrops industry at the global, regional and national level.

The news items are presented in two major groups: 1) policy changes implemented (or under consideration) by national governments; and 2) voluntary industry initiatives, which include measures taken by private companies, sector associations, civil society groups and research and financial institutions.

Although every care has been taken to cover the most salient and relevant developments, the list of items presented is not exhaustive.



Published: March 2018

The report is available at:
<http://www.fao.org/economic/est/est-commodities/oilcrops/oilcrop-policies/en/>

Food Outlook is published by the Trade and Markets Division of FAO under the Global Information and Early Warning System (GIEWS). It is a biannual publication focusing on developments affecting global food and feed markets. Each report provides comprehensive assessments and short term forecasts for production, utilization, trade, stocks and prices on a commodity by commodity basis and includes feature articles on topical issues. Food Outlook maintains a close synergy with another major GIEWS publication, Crop Prospects and Food Situation, especially with regard to the coverage of cereals. Food Outlook is available in English. The summary section is also available in Arabic, Chinese, French, Russian and Spanish.

Food Outlook and other GIEWS reports are available on the internet as part of the FAO world wide web (<http://www.fao.org/>) at the following URL address: <http://www.fao.org/giews/>. Other relevant studies on markets and the global food situation can be found at <http://www.fao.org/worldfoodsituation>.

Upcoming issue in November 2018.

For enquiries or further information contact:

Abdolreza Abbassian
Trade and Markets Division
Food and Agriculture Organization of the United Nations
Viale delle Terme di Caracalla
00153 Rome - Italy

Telephone: 0039-06-5705-3264

Facsimile: 0039-06-5705-4495

E-mail: Abdolreza.Abbassian@fao.org or giews1@fao.org

ISBN 978-92-5-130768-7 ISSN 0251-1959



9 7 8 9 2 5 1 3 0 7 6 8 7

CA0239EN/1/07.18