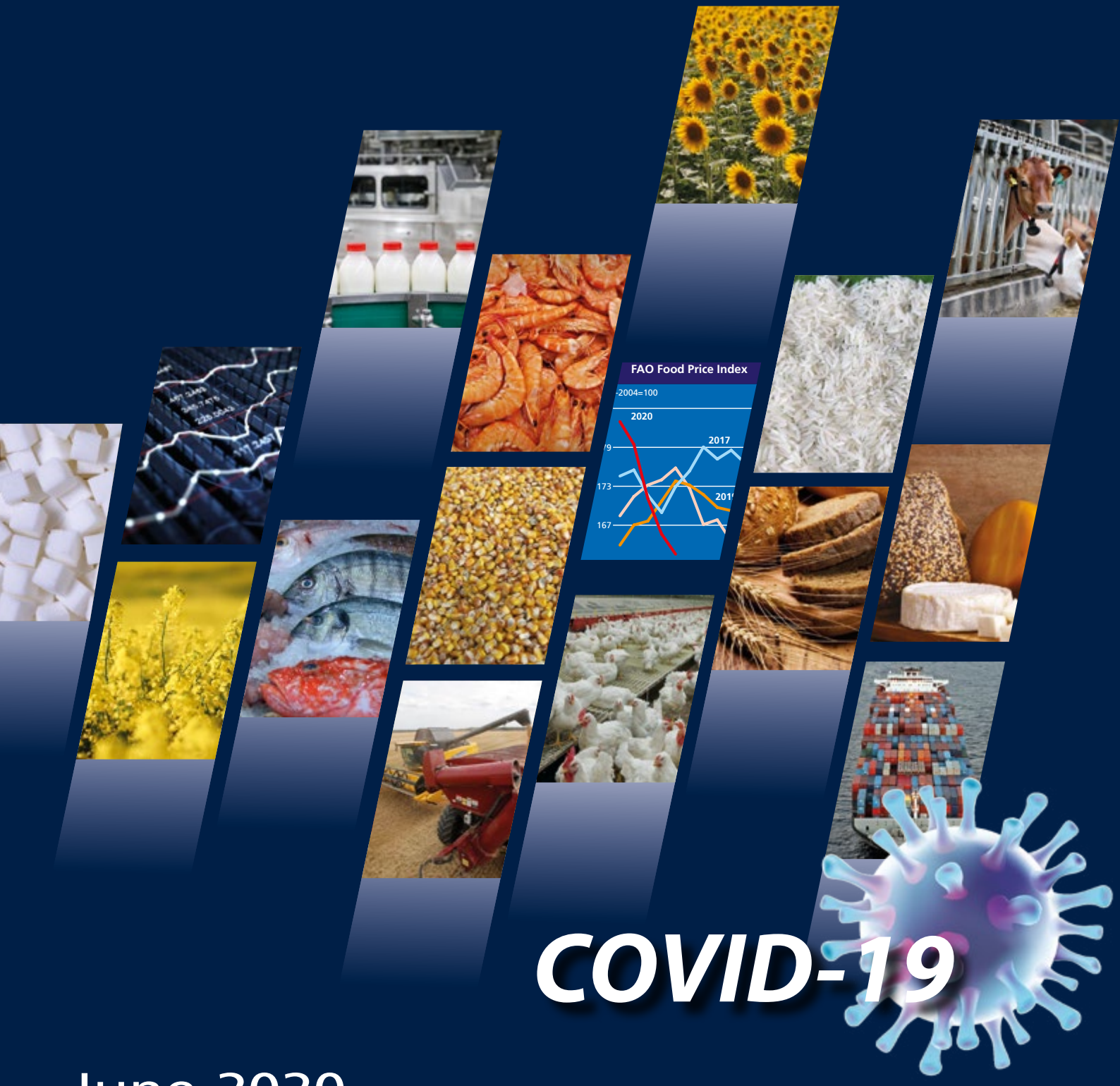
Food and Agriculture Organization of the United Nations

Food Outlook

BIANNUAL REPORT ON GLOBAL FOOD MARKETS



COVID-19

June 2020

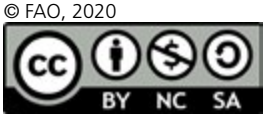
ACKNOWLEDGEMENTS

The Food Outlook report is a product of the FAO Trade and Markets Division. This report was prepared under the overall guidance of Boubaker Ben-Belhassen, Director. 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, Harout Dekermendjian, Alice Fortuna, Marco A. Artavia Oreamuno, Grace Maria Karumathy, Lavinia Lucarelli, Emanuele Marocco, Marco Milo and the fisheries statistical team.

Special thanks go to David Bedford and Lavinia Lucarelli 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.

Required citation:
FAO. 2020 *Food Outlook - Biannual Report on Global Food Markets: June 2020.* Food Outlook, 1. Rome. https://doi.org/10.4060/ca9509en

ISBN 978-92-5-132848-4



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HIGHLIGHTS

Food markets will face many more months of uncertainty related to the COVID-19 pandemic. However, while most markets are braced for a major global economic downturn, the agri-food sector is likely to display more resilience to the crisis than other sectors.

WHEAT

Global wheat production in 2020 is forecast to fall slightly below the 2019 level, while the dampening effect of the COVID-19 pandemic on demand could still push up global inventories. The prospect of a modest gain in 2020/21 world trade, amid tighter export availability, could support international wheat prices.

COARSE GRAINS

Following a significant demand slowdown in early 2020, total utilization of coarse grains is forecast to regain momentum in 2020/21 but remain below global production for a second consecutive season, leading to higher stock levels and keeping international prices under downward pressure.

RICE

World rice production is set to recover in 2020, boosting rice utilization and keeping carry-overs at their third highest level on record. While economic constraints and firm prices may curb trade growth in 2020, a more robust trade expansion is projected for 2021.

MEAT

World total meat production is forecast to contract in 2020, depressed by animal diseases, COVID-19-related market disruptions, and the lingering effects of droughts. International meat trade is likely to register a moderate growth, largely sustained by high imports from China.

SUGAR

World production of sugar in 2019/20 is forecast to drop for the second consecutive year and fall below the estimated level of global consumption. Trade is foreseen to expand moderately, sustained by low prices and stock rebuilding in some traditional importing countries.

OILCROPS

Despite subdued demand prospects, FAO's latest 2019/20 forecasts for oilseeds and derived products point towards a tightening supply-demand situation, triggered by a marked contraction in production. Tentative forecasts for 2020/21 suggest that supplies could remain tight relative to demand.

DAIRY

Notwithstanding market disruptions caused by the COVID-19 pandemic, world milk production is showing resilience, possibly growing slightly in 2020. However, world dairy exports are heading towards a contraction, amid faltering import demand.

FISHERIES

The COVID-19 pandemic will continue to inflict heavy damage on seafood markets, particularly for fresh products and popular restaurant species. On the supply side, fishing fleets are laying idle and the deteriorating outlook has seen aquaculture producers drastically reduce stocking targets.

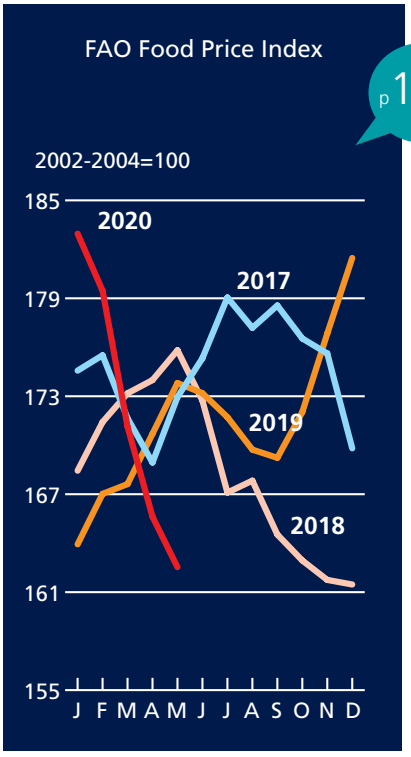
SPECIAL FEATURES

COVID-19: From a global health crisis to a global food crisis?

Comparing the current crisis, the "Great Lockdown" with the last major crisis, the "Great Recession", this feature article identifies differences and communalities across countries and commodities. It provides an informative benchmark on how to return market functioning to normality, even if contagion rates remain unchecked.

Revisions to the FAO food price indices

From July 2020, the FAO Food Price Index and Global Food Consumption Price Indices will be re-based to the period of 2014-16, with improvements made to both their price coverage and representativeness. This feature article describes the main revisions and how they affect the movements of the indices.



MARKET SUMMARIES

CEREALS

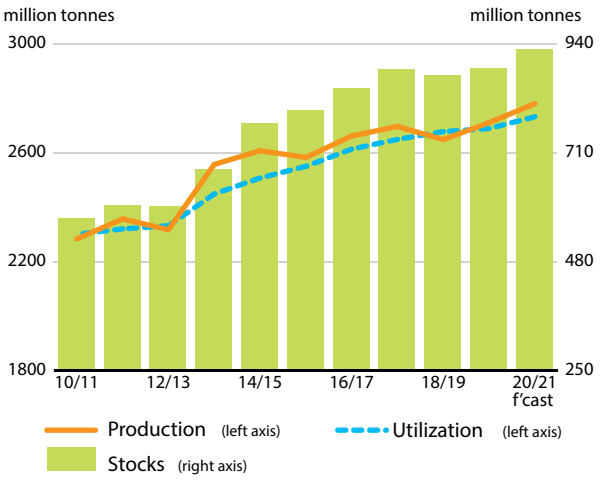
In spite of uncertainties posed by the pandemic, FAO's first forecasts for the 2020/21 season point to a comfortable cereal supply and demand situation. Early prospects suggest global cereal production in 2020 surpassing the previous year's record by 2.6 percent. Based on conditions of crops already in the ground, planting expectations for those still to be sown, and assuming normal weather for the remainder of the season, world cereal output is forecast at 2 780 million tonnes (including rice in milled equivalent), nearly 70 million tonnes higher than in 2019, setting a new record high.

After stagnating in 2019/20, world cereal utilization in 2020/21 is tentatively forecast to expand by 1.6 percent (43 million tonnes) year-on-year to reach an all-time high of 2 732 million tonnes. The projected growth would mainly mirror a more robust expansion foreseen in feed use relative to 2019/20, although both food and industrial uses are also forecast to increase.

Based on FAO's first forecasts for production in 2020 and consumption in 2020/21, world cereal inventories by the end of national marketing seasons in 2021 are forecast to reach a new record of 927 million tonnes, an increase of 5.0 percent (44 million tonnes) from their already high opening levels. The expected increase in cereal stocks would result in a slight rise in the global cereal stock-to-use ratio, from 32.5 percent in 2019/20 to 32.9 percent in 2020/21, indicating a generally comfortable supply situation when compared to the 21.2 percent low registered in 2007/08. Of the total cereal stocks, as much as 47 percent are expected to be held in China, where national stocks could increase for the second consecutive season and reach a new high of at least 439 million tonnes.

FAO's first forecast for world cereal trade in 2020/21 stands at 433 million tonnes, up 2.2 percent (9.4 million tonnes) from 2019/20 and setting a new record, boosted by expected expansions in trade of all major cereals. The FAO Cereal Price Index averaged 162.2 points in May, down 1.6 points (1.0 percent) from April and very close to its level in the corresponding month last year.

CEREAL GRAIN PRODUCTION, UTILIZATION AND STOCKS



WORLD CEREAL MARKET AT A GLANCE

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes			%
WORLD BALANCE				
Production	**2 648.7**	**2 710.9**	**2 780.5**	**2.6**
Trade[1]	**410.4**	**423.7**	**433.0**	**2.2**
Total utilization	**2 677.8**	**2 689.4**	**2 732.4**	**1.6**
Food	1 141.1	1 154.0	1 167.8	1.2
Feed	960.3	976.8	998.7	2.2
Other uses	576.4	558.6	565.9	1.3
Ending stocks[2]	**871.9**	**882.7**	**926.8**	**5.0**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	149.6	149.6	149.8	0.1
LIFDC (kg/yr)	151.8	152.2	153.3	0.7
World stocks-to-use ratio (%)	*32.4*	*32.5*	*32.9*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*18.9*	*19.1*	*20.3*	

FAO CEREAL PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	165	164	165	0.4

[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) and total utilization due to differences in individual country marketing years.
[3] Major exporters include Argentina, Australia, Brazil, Canada, EU, Russian Federation, Ukraine and the United States of America.
[4] Low-Income Food-Deficit countries.

WHEAT

Global production of wheat in 2020 is forecast to fall slightly below the previous year's good out-turn. The latest prospects largely pertain to expectations of production downturns in the European Union (EU), Ukraine and the United States of America (USA) more than offsetting increases in Australia, Canada, the Russian Federation and several countries in Asia. While the dampening impact of the COVID-19 pandemic on demand could push up global inventories despite a decline in production, the prospect of a modest increase in world trade in 2020/21, amid tighter export availabilities among major exporters, is expected to provide support to international wheat prices, especially during the second half of the marketing season.

Total wheat utilization in 2020/21 is likely to remain close to the 2019/20 estimated level, as projected growth in food consumption is expected to almost offset a foreseen fall in feed utilization and a contraction in industrial use. However, at the current projected level, total wheat utilization would be 1.2 percent below the 10-year trend, marking the first time that global utilization falls below the trend in six years. Notwithstanding uncertainties regarding the impact on food consumption of the COVID-19 pandemic, feed use of wheat is expected to decline due to ample supplies of coarse grains, in particular maize, which is likely to erode wheat's price competitiveness in feed rations.

By the close of crop seasons in 2021, world wheat stocks are forecast to increase slightly above their already high opening levels, but would still stay below the 2017/18 record. The bulk of the anticipated year-on-year expansion is set to occur in China (mainland), where expectations of a large production and a slower growth in domestic utilization could raise the country's wheat inventories to an all-time high. By contrast, ending stocks in major exporting countries are likely to remain close to their opening levels, except for the USA, where they could decline to a six-year low. Consequently, while the world wheat stocks-to-use ratio in 2020/21 may register a small rise, the ratio of major wheat exporters' closing stocks to their total disappearance is likely to drop to an eight-year low.

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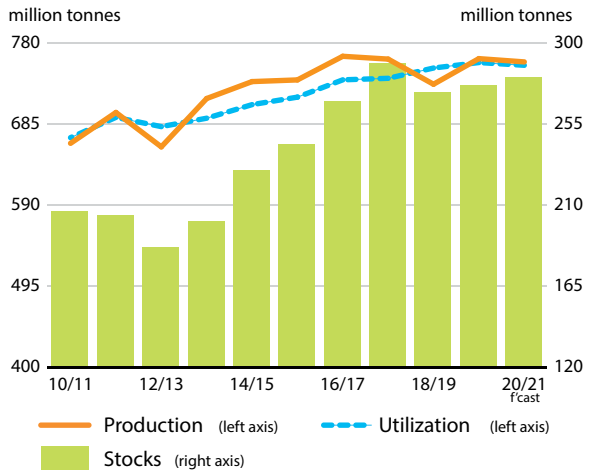
WHEAT PRODUCTION, UTILIZATION AND STOCKS



WORLD WHEAT MARKET AT A GLANCE

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes			*%*
WORLD BALANCE				
Production	**732.1**	**762.2**	**758.3**	**-0.5**
Trade[1]	**168.2**	**175.1**	**177.5**	**1.4**
Total utilization	**751.1**	**757.5**	**754.3**	**-0.4**
Food	514.9	521.1	525.4	0.8
Feed	142.0	142.5	138.7	-2.6
Other uses	94.2	93.9	90.2	-3.9
Ending stocks[2]	**271.9**	**276.2**	**280.3**	**1.5**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	67.5	67.6	67.4	-0.2
LIFDC (kg/yr)	49.6	49.6	49.6	-0.1
World stocks-to-use ratio (%)	*35.9*	*36.6*	*36.3*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*18.1*	*16.1*	*15.7*	

FAO WHEAT PRICE INDEX[4] **(2002-2004=100)**	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	148	143	148	0.9

[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) and total utilization due to differences in individual country marketing years.
[3] Major exporters include Argentina, Australia, Canada, EU, Kazakhstan, Russian Federation, Ukraine and the United States.
[4] Derived from the International Grains Council (IGC) wheat index.

COARSE GRAINS

Following a significant demand slowdown caused by COVID-19 in early 2020, total utilization of coarse grains is forecast to regain momentum in 2020/21, but would still remain below global production for a second consecutive season, leading to higher stock levels and keeping international prices under downward pressure.

FAO's first forecast for world coarse grains production in 2020 is pegged at a record 1 513 million tonnes, an increase of 65 million tonnes (4.5 percent) from 2019, almost exclusively due to higher maize production. Forecast to reach an all-time high, global maize production is boosted by expected record harvests in the United States of America (USA), Canada, and Ukraine, and near-record harvests in Argentina and Brazil. By contrast, world production of barley is likely to decline, largely on reduced output in the Russian Federation.

After stagnating in 2019/20, world total utilization of coarse grains is forecast to increase in 2020/21 by 2.7 percent. The bulk of the growth comes from anticipated higher feed use, but also a rebound in industrial use on expectation of some recovery in maize-based ethanol production, as well as higher demand for starch production. These expansions mostly concern maize and stem from expected increases of feed and industrial uses in China (mainland), the USA, Brazil and Argentina. However, with utilization foreseen to remain below production for a second consecutive year, world coarse grain inventories could increase by nearly 10 percent, with most of the anticipated growth corresponding to a larger build-up of maize inventories in the USA. The projected increase in global coarse grain inventories would push the world stocks-to-use ratio up to its highest level in 21 years.

Ample supplies and price advantages, particularly relative to wheat, are expected to boost global trade in coarse grains in 2020/21 above the 2019/20 level. Increased maize and sorghum import demand from China (mainland) is anticipated to be an important driver behind the expected expansion in global trade, while foreseen greater barley imports by Saudi Arabia and the Islamic Republic of Iran would also add support. On the export side, bigger shipments of both maize and sorghum are forecast from the USA while increases in barley exports are expected from Australia.

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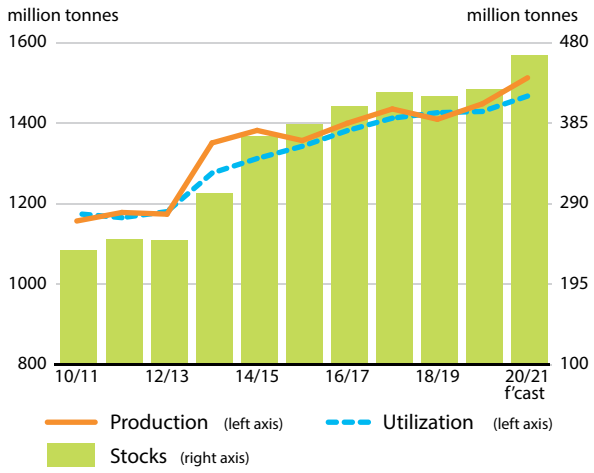
COARSE GRAIN PRODUCTION, UTILIZATION AND STOCKS



WORLD COARSE GRAIN MARKET AT A GLANCE

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes			%
WORLD BALANCE				
Production	**1 410.3**	**1 448.1**	**1 513.5**	**4.5**
Trade[1]	**198.1**	**203.7**	**207.9**	**2.1**
Total utilization	**1 426.8**	**1 429.8**	**1 468.0**	**2.7**
Food	218.1	219.5	222.4	1.3
Feed	801.1	818.0	843.7	3.1
Other uses	407.5	392.3	401.9	2.4
Ending stocks[2]	**415.4**	**423.1**	**464.6**	**9.8**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	28.6	28.5	28.5	0.3
LIFDC (kg/yr)	38.0	37.7	38.0	0.8
World stocks-to-use ratio (%)	*29.1*	*28.8*	*30.5*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*16.1*	*15.9*	*20.1*	

FAO COARSE GRAIN PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	156	161	150	-5.1

[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) and total utilization due to differences in individual country marketing years.
[3] Major exporters include Argentina, Australia, Brazil, Canada, EU, Russian Federation, Ukraine and the United States.

RICE

World rice production is set to recover in 2020, boosting rice utilization and keeping carry-overs at their third highest level on record. While economic constraints and firm prices may curb trade growth in 2020, a more robust trade expansion is projected for 2021.

After El Niño-influenced weather patterns negatively affected the outcome of the 2019 season, the return to more normal growing conditions could facilitate a 1.6 percent annual expansion in world rice production in 2020 to a new high of 508.7 million tonnes. Anticipated increases in Asia are seen to sustain much of the forecast growth, although a strong output recovery is also set to take place in the United States of America (USA), with further production inroads anticipated for Africa. However, prospects are more subdued for other regions, on a combination of tight producer margins and insufficient supplies of water for irrigation.

Stagnating African imports and scattered Asian demand may limit the increase in global rice trade in 2020 to 800 000 tonnes, resulting in world rice flows of 44.9 million tonnes. World trade in rice is tentatively forecast to expand more vigorously in 2021, as ample exportable availabilities and more attractive prices rekindle African demand, while sustaining continued import growth in all other regions except Asia.

World rice utilization is forecast to expand by 1.6 percent in 2020/21 to a fresh peak of 510.0 million tonnes. This level would surpass anticipated production, requiring reserves to be drawn down by some 0.8 percent over the season. Still, at 182.0 million tonnes, global stockpiles at the close of 2020/21 marketing years are forecast to stand at their third highest level on record, thanks to still large stockpiles in China (mainland) and continued carry-over expansions in the major rice exporting countries.

International prices of rice have risen steadily since the start of the year, resulting in the May 2020 value of the FAO All Rice Price Index exceeding its December 2019 level by 12.7 percent. Indica prices underpinned much of this increase, reacting to weather-related supply constraints in some exporting countries, which were exacerbated between March and April by spikes in domestic demand, the imposition of temporary export restrictions, and logistical constraints.

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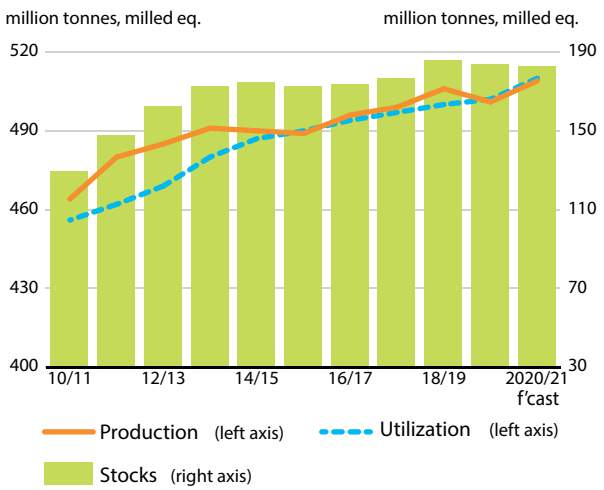
RICE PRODUCTION, UTILIZATION AND STOCKS



WORLD RICE MARKET AT A GLANCE

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes, milled equivalent			*%*
WORLD BALANCE				
Production	**506.3**	**500.6**	**508.7**	**1.6**
Trade[1]	**44.1**	**44.9**	**47.6**	**6.2**
Total utilization	**499.9**	**502.0**	**510.0**	**1.6**
Food	408.2	413.3	420.0	1.6
Ending stocks[2]	**184.6**	**183.4**	**182.0**	**-0.8**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	53.5	53.6	53.9	0.6
LIFDC (kg/yr)	64.2	64.9	65.7	1.3
World stocks-to-use ratio (%)	*36.8*	*36.0*	*35.3*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*22.6*	*25.1*	*25.1*	

FAO RICE PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	224	224	237	6.6

[1] Calendar year exports (second year shown).
[2] May not equal the difference between supply (defined as production plus carryover stocks) and total utilization due to differences in individual country marketing years.
[3] Major exporters include India, Pakistan, Thailand, the United States of America and Viet Nam.

OILCROPS

Despite subdued demand prospects linked, *inter alia*, to the ongoing COVID-19 pandemic, FAO's latest 2019/20 forecasts for oilseeds and derived products point towards a tightening supply-demand situation, triggered by a marked contraction in production. Tentative forecasts for 2020/21 suggest that supplies could remain tight relative to demand.

In 2019/20, oilcrop production is expected to decline from the previous season's record level, with pronounced drops in soybean and rapeseed outweighing gains in the other crops. In the United States of America (USA), adverse weather conditions led to sharply lower soybean plantings and yields, while global rapeseed output was affected by further area contractions in the European Union (EU) and Canada.

While poor harvests, notably of soybeans, are expected to drive down global supplies of meals/cakes, consumption is seen to keep expanding, albeit at a below-average rate, linked in part to temporary lockdowns imposed in numerous countries to halt the spread of COVID-19. Consequently, global end-of-season stocks of meals/cakes are anticipated to fall to multi-year lows, leading to a marked drop in stocks-to-use ratios.

Global output of oils/fats is also set to fall, as likely modest gains in palm and sunflower oils would not be sufficient to offset reductions in other oils. At the same time, growth in global oils/fats utilization is expected to come to a halt, as both demand for food and uptake by the biofuel sector are seen slowing down in the aftermath of the COVID-19 pandemic, while demand from biodiesel producers is also hurt by the recent plunge in mineral oil prices. With total oils/fats production poised to fall short of utilization, global inventories are anticipated to decrease, causing a further slide in global stocks-to-use ratios for oils/fats.

As for 2020/21, early crop forecasts point to a recovery in both meal and oil production. Assuming resumed growth in global oils/fats utilization and continued modest expansion in world meal consumption, some additional drawdowns in oils/fats inventories could occur, whereas meals/cakes stocks could see modest replenishments. The outlook remains subject to major uncertainties, notably concerning the evolving effects of the COVID-19 pandemic, implementation of the United States-China 'Phase One' trade agreement, and potential changes in national biodiesel policies.

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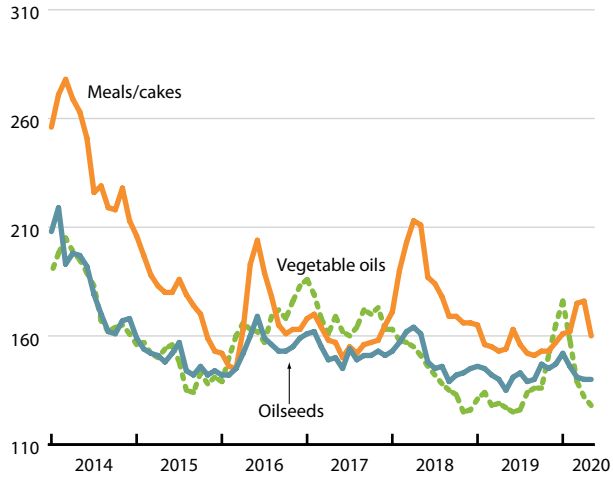
FAO MONTHLY INTERNATIONAL PRICE INDICES FOR OILSEEDS, VEGETABLE OILS AND MEALS/CAKES (2002-2004=100)



WORLD OILCROP AND PRODUCT MARKET AT A GLANCE

	2017/18	2018/19 *estim.*	2019/20 *f'cast*	Change: 2019/20 over 2018/19
	million tonnes			%
TOTAL OILCROPS				
Production	593.1	612.3	584.3	-4.6
OILS AND FATS				
Production	236.3	241.0	235.4	-2.3
Supply	273.4	281.3	274.3	-2.5
Utilization	229.5	242.2	240.9	-0.6
Trade	126.3	132.0	131.1	-0.7
Global stocks-to-use ratio (%)	*17.6*	*16.1*	*14.1*	
Major exporters stocks-to-disappearance ratio (%)	*12.0*	*12.4*	*10.8*	
MEALS AND CAKES				
Production	153.1	158.7	149.2	-6.0
Supply	184.1	189.0	181.9	-3.8
Utilization	151.5	153.9	155.3	0.9
Trade	98.1	98.7	100.0	1.2
Global stocks-to-use ratio (%)	*20.0*	*21.2*	*17.6*	
Major exporters stocks-to-disappearance ratio (%)	*12.4*	*15.4*	*11.9*	

FAO PRICE INDICES (Jan-Dec) (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
Oilseeds	150	143	144	1.5
Meals/cakes	184	156	167	6.3
Vegetable oils	144	135	147	13.1

Note: Refer to footnote 1 on page 30 and to table 2 on page 33 for explanations regarding definitions and coverage.

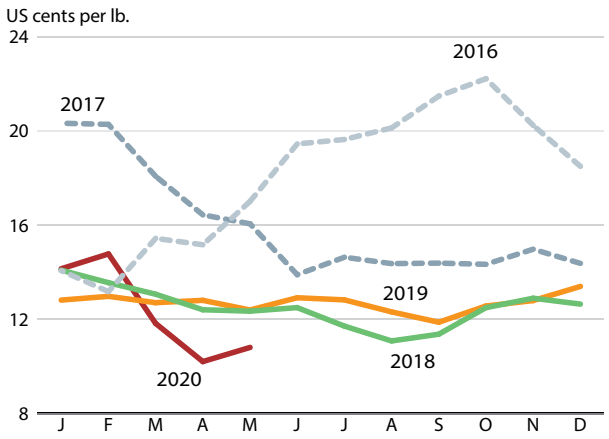
SUGAR

FAO foresees world sugar production to decline in 2019/20 (October/September), and to fall below consumption for the first time in three years. The global shortfall is now set to hover around 6 million tonnes. Expected decreases in sugar output in the European Union (EU), India, Pakistan and Thailand will likely offset anticipated expansions in Brazil, China and the Russian Federation. On the demand side, growth in world sugar consumption is expected to be subdued, reflecting the negative impact on sugar intake resulting from the COVID-19 lockdown and confinement measures.

Depressed international sugar prices and the need to rebuild sugar inventories in some traditional importing markets should lead to a moderate expansion in global import demand relative to the last marketing season. However, the implementation of import restriction measures in some major markets could limit the expansion. Exports by Brazil, the world's largest sugar exporter, are set to increase, while those by Thailand, the second largest sugar exporter, are likely to decline following a production setback. A key feature in the current season is the extent to which the COVID-19 pandemic would influence sugar trade, by, for example, creating new trade routes or diverting existing ones.

International sugar prices have followed a declining trend for most of 2019, extending the steady price fall that has characterized the market since mid-2017. The price slide had mainly been associated with prospects of ample sugar availabilities, following large accumulated inventories in both importing and exporting countries. Policy measures to curb imports, or boost exports, as well as the strength of the US dollar against the currencies of key sugar exporting countries, have further exacerbated the price weakness. However, prices initiated a recovery during the fourth quarter of 2019, before falling drastically with the onset of the new coronavirus pandemic in early 2020. So far, the expectation of a global production deficit for 2019/20 season has done little to support prices.

INTERNATIONAL SUGAR PRICES*



* as measured by the International Sugar Agreement (ISA)

WORLD SUGAR MARKET AT A GLANCE

	2017/18	2018/19 *estim.*	2019/20 *f'cast*	Change: 2019/20 over 2018/19
		million tonnes		%
WORLD BALANCE				
Production	**181.1**	**174.6**	**169.6**	**-2.9**
Trade*	**61.6**	**55.8**	**58.7**	**5.3**
Total utilization	**171.1**	**173.9**	**175.7**	**1.0**
Ending stocks	**93.1**	**93.9**	**87.8**	**-6.6**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	22.7	22.8	22.8	0.0
LIFDC (kg/yr)	16.7	16.7	16.7	0.1
World stocks-to-use ratio (%)	**54.4**	**54.0**	**49.9**	**-7.5**

ISA DAILY PRICE AVERAGE (US cents/lb)	2018	2019	2020 *Jan-May*	Change: Jan-May 2020 over Jan-May 2019 %
	12.52	12.70	12.36	-3.0

* Trade figures refer to exports

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MEAT AND MEAT PRODUCTS

World total meat production in 2020 is forecast to fall to 333 million tonnes (carcass weight equivalent), 1.7 percent lower than in 2019, marking the second year of consecutive decline. Much of the contraction is again expected to reflect a sharp drop in global production of pig meat, largely concentrated in Asian countries affected by the African swine fever (ASF) viral disease, but also of bovine meat, especially in the United States of America (USA) and Australia. By contrast, global production of poultry meat is forecast to expand, albeit at half the rate recorded last year. Modest output growth is also predicted for ovine meat. The pace of expansion of all the meat sectors has been negatively affected by COVID-19 market disruptions, aggravating the effects of animal diseases.

International meat trade is forecast to grow to 37 million tonnes in 2020, up 2.4 percent year-on-year, but considerably slower than the 6.8 percent registered in 2019, in large part reflecting a possible reduction in world meat consumption, consistent with expectations of widespread economic downturns. Logistical bottlenecks, limitations in shipping and port backlogs are also likely to restrain growth in world meat trade. China is anticipated to provide much of the trade momentum, as imports are seen rising by 24 percent year-on-year. The expected global rise in demand for meat imports is forecast to be met mainly through increased exports by Brazil, the USA, the European Union 27 member countries (EU) and the United Kingdom of Great Britain and Northern Ireland (the UK).

The combination of COVID-19-related economic hardships, logistical bottlenecks and a steep decline in demand from the food services sector due to lockdowns has led to a global slump in import demand, causing international meat prices, measured by the FAO Meat Price Index, to fall, with the sharpest drop registered for ovine meat, followed by poultry, pig and bovine meats. Plummeting food service sales have resulted in meat stock accumulation, especially premium categories, and in bulk packaging, enlarging export availabilities and weighing on international meat prices, despite a decline in meat output caused by labour shortages in slaughterhouses, processing and packing due to the pandemic.

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

WORLD MEAT MARKET AT A GLANCE

	2018	2019 *estim.*	2020 *f'cast*	Change: 2020 over 2019
	million tonnes (carcass weight equivalent)			%
WORLD BALANCE				
Production	**342.2**	**338.9**	**333.0**	**-1.7**
Bovine meat	71.5	72.6	72.0	-0.8
Poultry meat	127.3	133.6	136.8	2.4
Pigmeat	120.9	109.8	101.0	-8.0
Ovine meat	15.8	16.0	16.2	0.9
Trade	**33.8**	**36.1**	**37.0**	**2.4**
Bovine meat	10.5	11.2	11.1	-1.0
Poultry meat	13.5	13.9	13.8	-0.3
Pigmeat	8.4	9.5	10.6	11.2
Ovine meat	1.0	1.0	1.0	-2.9
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	44.6	43.6	42.4	-2.8
Trade - share of prod. (%)	*9.9*	*10.7*	*11.1*	*4.2*

FAO MEAT PRICE INDEX (2002-2004=100)	2018	2019	2020 *Jan-May*	Change: Jan-May 2020 over Jan-May 2019 %
	166	176	174	4.5

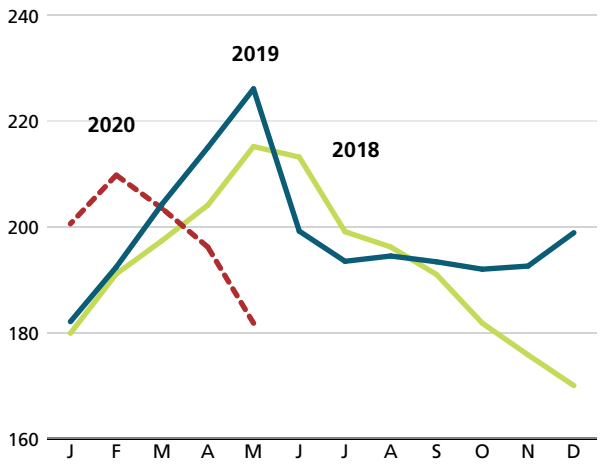
MILK AND MILK PRODUCTS

World milk production in 2020 is forecast to grow by 0.8 percent to 859 million tonnes, mostly owing to expectations of production expansions in Asia and North America, with moderate increases in Central America and the Caribbean, Oceania and Africa, partially offset by slight declines anticipated in Europe and South America. Continuing farm modernization in China and mobilization of village cooperatives in India are sustaining milk output growth in Asia. Yield growth is anticipated in the United States of America (USA), aiding a moderate output expansion, despite constraints in the dairy supply chains, while Mexico's milk output is expanding on the back of robust consumer and industrial demand. In Australia, an output rebound is foreseen, whereas in New Zealand, dry weather-induced contraction is likely. In the 27 member countries of the European Union (EU) and the United Kingdom of Great Britain and Northern Ireland (UK), a smaller dairy herd is behind the slight contraction expected in aggregate output, despite yield improvements. Largely driven by modern dairy farms, milk output is increasing in the Russian Federation. An output recovery is also expected in Argentina, while dry weather may constrain production growth elsewhere in South America.

World exports of dairy products in 2020 are forecast to contract by 4 percent to 74 million tonnes (in milk equivalent), which, if confirmed, would mark the sharpest year-on-year decline in three decades. This negative outlook rests on likely declines in imports mainly by China, Algeria, Saudi Arabia and United Arab Emirates, attributable to the COVID-19 lockdowns and physical distancing measures, but also to widespread economic slowdowns and low petroleum prices. The depressed global demand for dairy products is likely to curb exports from the EU and the UK, New Zealand, United Arab Emirates and Uruguay, while shipments from the USA and Argentina may rise somewhat.

The contraction in global dairy imports, together with the accumulation of unsold supplies in major exporting countries, explain the dairy price weakness observed so far this year. Given the economic hardships that many countries are facing, demand is likely to remain subdued in the coming months, which would likely keep international prices of dairy products under pressure.

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



WORLD DAIRY MARKET AT A GLANCE

	2018	2019 *estim.*	2020 *f'cast*	Change: 2020 over 2019
	million tonnes, milk equiv.			%
WORLD BALANCE				
Total milk production	**840.5**	**851.8**	**858.9**	**0.8**
Total trade	**75.9**	**76.7**	**73.6**	**-4.1**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	111.4	111.6	111.4	-0.3
Trade - share of prod. (%)	*9.0*	*9.0*	*8.6*	*-4.9*

FAO DAIRY PRICE INDEX (2002-2004=100)	2018	2019	2020 *Jan-May*	Change: Jan-May 2020 over Jan-May 2019 %
	193	199	198	-2.8

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FISH AND FISHERY PRODUCTS

In 2019, global fish production dropped by some 1 percent. Seafood trade also contracted as trade conflicts and related uncertainties dragged on economic growth and impacted business revenues.[1] The previous improved forecast for 2020 has now been completely upended by the emergence of the COVID-19 pandemic.

Governments around the world seeking to contain the virus have introduced isolation directives, limitations on business opening hours, and travel restrictions. Food-service demand has been sharply reduced as restaurants have closed, although retail sales of non-perishable products, such as canned tuna, have seen a boost as households changed their purchasing behaviour.

On the supply side, shortages of labour and other business challenges appear likely to continue exerting a negative impact on seafood production across the world, alongside the poor demand outlook. Aquaculture harvests are being delayed and stocking targets drastically reduced, affecting production of heavily traded commodities such as shrimp, salmon, pangasius, tilapia, seabass and seabream. Reduced aquaculture activity also translates into a subdued market for fishmeal. Meanwhile, entire fishing fleets are laying idle due to a combination of poor demand and restrictions on crews and vessel movements. Logistics have also become costly and slow due to closed or restricted road borders, health inspection delays, and the large-scale cancellation of flights.

The general outlook is still overwhelmingly dominated by uncertainty and the focus is on damage mitigation. Permanent changes in the market landscape, particularly in terms of marketing and distribution, can be expected. While China and some other countries have been able to restore some degree of normality, the process is likely to be slower in the European Union (EU) and the United States of America (USA). For other large seafood markets where the virus is yet to peak, such as Brazil and the Russian Federation, the scale of the damage is yet to become clear. Prolonged market downturn can be expected even after current restrictions are lifted or relaxed. High-end products and popular restaurant items will be the most heavily affected, including lobster, fresh salmon, cephalopods and bivalves. Most seafood trade events will continue to be postponed or cancelled for some time to come.

[1] Unless otherwise specified, the terms 'fish' and 'seafood' indicates fish, crustaceans, molluscs and other aquatic animals from farmed and wild origin, but excludes aquatic mammals, reptiles, seaweeds and other aquatic plants.

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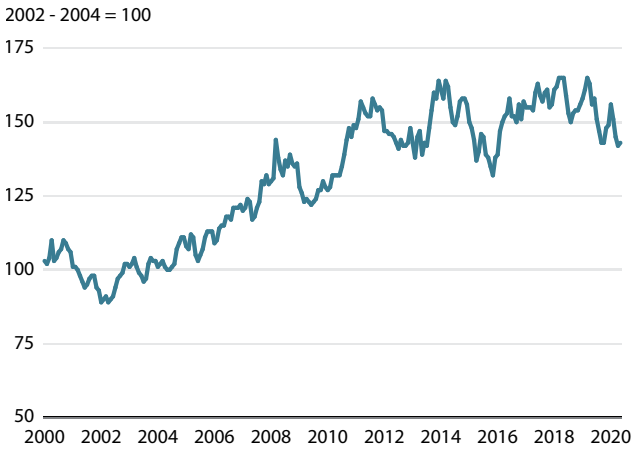
FAO FISH PRICE INDEX (2002-2004 = 100)



Source of the raw data for the FAO Fish Price Index: EUMOFA, INFOFISH, INFOPESCA, INFOYU, Statistics Norway

WORLD FISH MARKET AT A GLANCE

	2018	2019 *estim.*	2020 *f'cast*	Change: 2020 over 2019
	million tonnes (live weight)			*%*
WORLD BALANCE				
Production	**178.5**	**175.9**	**172.9**	**-1.7**
Capture fisheries	96.4	91.8	89.9	-2.0
Aquaculture	82.1	84.1	82.9	-1.4
Trade value (exports USD billion)	**164.1**	**159.6**	**150.4**	**-5.8**
Trade volume (live weight)	**67.1**	**65.3**	**63.2**	**-3.2**
Total utilization	**178.5**	**175.9**	**172.9**	**-1.7**
Food	156.4	156.4	154.2	-1.4
Feed	18.2	15.5	15.0	-3.5
Other uses	4.0	4.0	3.7	-7.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
Food fish (kg/yr)	20.5	20.3	19.8	-2.4
From capture fisheries (kg/year)	9.7	9.4	9.1	-2.4
From aquaculture (kg/year)	10.8	10.9	10.6	-2.4

FAO FISH PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	158	154	147	-8.3

Source of the raw data for the FAO Fish Price Index: EUMOFA, INFOFISH, INFOPESCA, INFOYU, Statistics Norway

MARKET ASSESSMENTS

WHEAT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PRICES

International wheat prices firmer than last year

International wheat prices started the year on a firm tone, underpinned by brisk trade and reports of weather risks affecting plantings for the new 2020/21 marketing season. A faster sales pace by several major exporting countries supported the trend, along with tightening supplies in Argentina coupled with logistical problems in France and reports of a sharp drawdown of US soft red wheat stocks. On the other hand, worries over the rapid spread of COVID-19 and spillover effects from developments in other markets, including equity and energy markets, combined with a strengthening of the US dollar, prevented any significant increases in export prices during the earlier months of the year. However, the imposition of export restriction measures, albeit temporary, by the Black Sea suppliers maintained the upward price momentum. In addition, a series of sizeable purchases by some of the world's largest importers, along with reports of continued dryness across a number of important regions, underpinned prices in recent weeks.

Figure 1. IGC Wheat Price Index

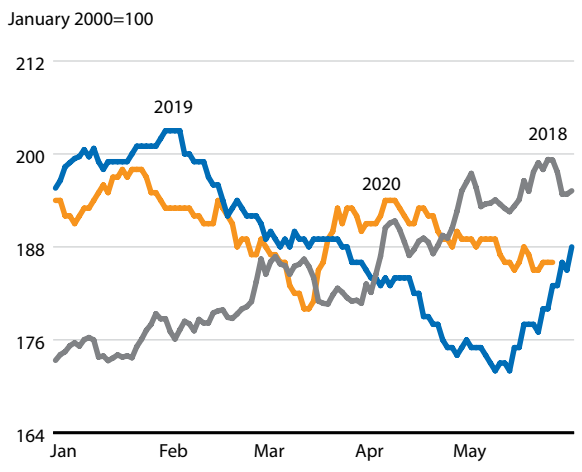
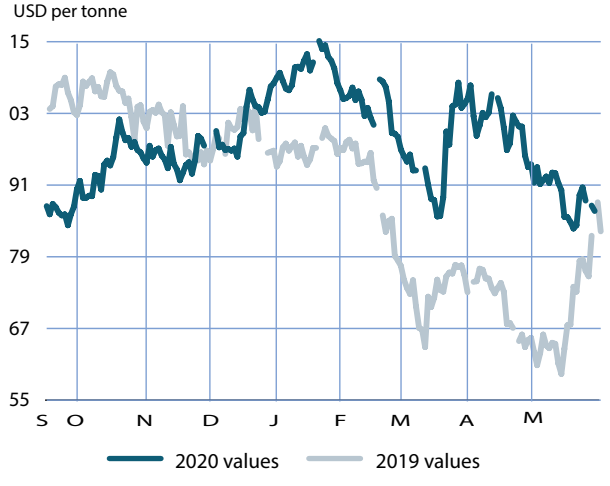


Figure 2. CBOT wheat futures for September



Overall, international wheat prices remained well above their corresponding levels of last year, as captured by the movements of the **International Grains Council (IGC) Wheat Index**, a trade-weighted price measure of ten major export quotations, which averaged 191.5 points in May 2020, some 14 points above the same month last year. The benchmark **United States wheat, No.2 Hard Red Winter, f.o.b. Gulf** averaged USD 223 per tonne in May, some 8 percent below its level at the start of the year, but 5 percent higher than in May 2019. Similarly, wheat futures trended lower, reflecting not only good overall supply prospects, but also demand uncertainties arising from concerns over the longer-term impact of the pandemic. More recently, however, a sharp downgrading of production prospects in the EU and the Russian Federation lifted the futures. Overall, **Chicago soft red winter (SRW) wheat**, the most liquid wheat futures contract, averaged USD 188.3 per tonne in May for the September 2020 delivery, still down by over 10 percent from the start of the year, but 10 percent above the corresponding period last year. More detailed analysis of the futures markets can be found in the Market Indicators section of this report.

PRODUCTION

Wheat production in 2020 down from 2019 but still above average

Global production of wheat is forecast to reach 758.3 million tonnes in 2020, down slightly (0.5 percent) from the previous year's good out-turn and still the fourth highest on record. While, overall, COVID-19 is not expected to have any significant impact on this year's wheat production outcome, weather related downturns in the **EU**, **Ukraine** and the **United States of America (USA)** are expected to more than offset good prospects in **Australia**, **Canada**, the **Russian Federation** and several countries in Asia.

Aggregate wheat production in *Europe* is forecast to fall in 2020, underpinned by reduced prospects in the **European Union** (EU-27 excluding the United Kingdom of Great Britain and Northern Ireland), where total wheat output is anticipated to decline to 131 million tonnes. The expected decrease is based on reduced acreage, particularly in **France**, the largest producer in the EU, due to excessive rainfall during the planting period. Lower yield prospects, due to adverse weather in key-producing countries, have further dampened production expectations. By contrast, wheat output in the **Russian Federation** is forecast to increase to 77 million tonnes, despite a cutback to the earlier production forecasts due to persistent dry

Table 1. World wheat market at a glance

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
		million tonnes		%
WORLD BALANCE				
Production	**732.2**	**762.2**	**758.3**	**-0.5**
Trade[1]	**168.2**	**175.1**	**177.5**	**1.4**
Total utilization	**751.1**	**757.5**	**754.3**	**-0.4**
Food	514.9	521.1	525.4	0.8
Feed	142.0	142.5	138.7	-2.6
Other uses	94.2	93.9	90.2	-3.9
Ending stocks[2]	**271.9**	**276.2**	**280.3**	**1.5**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	67.5	67.6	67.4	-0.2
LIFDC (kg/yr)	49.6	49.6	49.6	-0.1
World stocks-to-use ratio (%)	*35.9*	*36.6*	*36.3*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*18.1*	*16.1*	*15.7*	
FAO WHEAT PRICE INDEX[4] **(2002-2004=100)**	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May2019 %**
	148	143	148	0.9

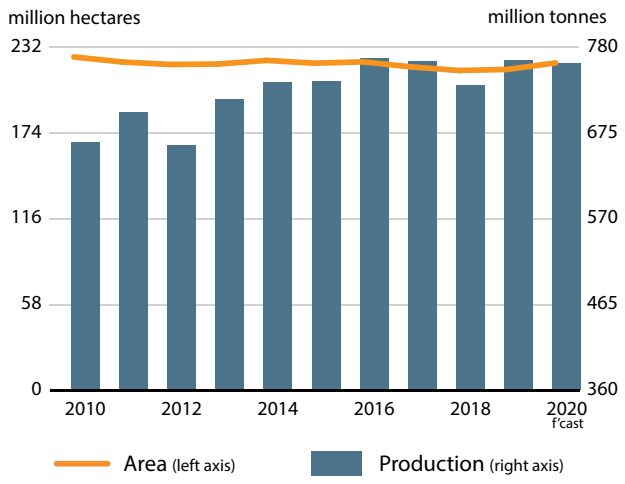
[1] Trade refers to exports based on a common July/June marketing season.
[2] May not equal the difference between supply (defined as production plus carryover stocks) and total utilization due to differences in individual country marketing years.
[3] Major exporters include Argentina, Australia, Canada, EU, Kazakhstan, Russian Federation, Ukraine and the United States.
[4] Derived from the International Grains Council (IGC) wheat index.

Table 2. Wheat production: leading producers*

	2018	2019 *estim.*	2020 *f'cast*	Change: 2020 over 2019
		million tonnes		%
European Union	138.1	155.6	131.0	-15.8
China (mainland)	131.4	133.6	134.0	0.3
India	99.9	103.6	105.0	1.4
Russian Federation	72.1	74.5	77.0	3.4
United States of America	51.3	52.3	50.8	-2.8
Canada	32.2	32.3	33.9	4.8
Ukraine	24.6	28.3	25.0	-11.7
Pakistan	25.1	25.2	26.0	3.2
Argentina	19.5	19.8	20.3	2.8
Turkey	20.0	19.0	20.0	5.3
Australia	17.3	15.2	21.4	40.8
Iran (Islamic Republic of)	14.5	14.5	14.0	-3.4
Kazakhstan	13.9	11.5	13.0	13.5
Other countries	72.2	76.9	87.0	13.1
World	732.2	762.2	758.3	-0.5

* Countries listed according to their position in global production (average 2018-2020)

Figure 3. Global wheat production and area



weather conditions in March and April that curtailed yield prospects. At this level, the 2020 production would mark a second consecutive annual increase, mostly driven by a price-induced expansion in plantings to an all-time high level. In **Ukraine**, wheat production in 2020 is expected to reach 25 million tonnes, down 3.3 million tonnes from 2019 as a result of a reduction in the planted area and dry conditions in some parts.

In *North America*, adverse weather in the **USA**, including freezing temperatures and rainfall deficits, are seen to cause a reduction in wheat yields that will drive an overall yearly production decline in 2020. Forecast at 50.8 million tonnes, which incorporates a projection for the spring harvest, the aggregate wheat output would be 2.8 percent lower year-on-year, with reduced winter sowings, due to lower crop prices in 2019, further contributing to the expected downturn. In **Canada**, a price-induced expansion in winter plantings is foreseen to push up production to an above-average level of almost 34 million tonnes, assuming unchanged yields and area sown with the spring crop.

In *Asia*, wheat production in **India** in 2020 is forecast at a record-high level of 105 million tonnes, primarily due to increased acreage driven by remunerative support prices. Earlier prospects pointed to a larger output, but unseasonal precipitation in April led to a modest trimming of the production forecast. In **Pakistan**, conducive weather conditions and adequate supplies of agricultural inputs are expected to lead to a near-average harvest of just over 26 million tonnes, while in **China (mainland)**, a small rise in wheat production is expected.

In the *Near East*, overall prospects are similarly favourable. In **Turkey**, the largest producer in the region, wheat production is likely to increase to 20 million tonnes, up 5.3 percent on a yearly basis, resting on conducive weather conditions. Outputs in neighbouring countries are foreseen to remain mostly unchanged compared with the previous year's good harvests. However, in *North Africa*, reduced moisture levels in early 2020, coupled with above-average temperatures, have cut production expectations in **Morocco**, where harvest is forecast at a four-year low, and, to a lesser extent, in **Algeria** and **Tunisia**, compared with the previous year's good levels.

In the *Southern Hemisphere* countries, planting of the 2020 wheat crop is underway. In **Australia**, production is forecast to rebound strongly after two consecutive years of drought-reduced harvests, and could reach 21.4 million tonnes, up 41 percent on a yearly basis. The optimistic outlook is based on recent widespread and beneficial rains that replenished soil moisture reserves, a factor that is likely to support an expansion in plantings. Additionally, forecasts of favourable rainfall have increased the likelihood of higher yields in 2020. In *South America*, plantings are forecast at an all-time high in **Argentina**, as conducive early-seasonal rains and robust export demand, fostered by a weaker currency, encouraged an expansion in acreage. Accordingly, wheat production in 2020 is preliminarily forecast at a record level of 20.3 million tonnes, assuming average yields. Larger plantings in **Brazil** are also expected to support a small uptick in production in 2020.

TRADE

Modest growth in wheat trade foreseen in 2020/21

World wheat trade (including wheat flour in wheat equivalent) in 2020/21 (July/June) is likely to reach a record level of 177.5 million tonnes, up 1.4 percent (2.4 million tonnes) from 2019/20. Larger imports into Europe, in part reflecting the inclusion of trade flows between the EU-27 and the UK from 2020/21, account for most of the apparent growth in world wheat trade. Stronger import demand by several countries in Asia and North Africa are also seen to contribute to the expansion. With concerns over possible extension of wheat export restrictions mostly receded, the early outlook for 2020/21 assumes no new COVID-related hurdles affecting trade flows.

In *Europe*, total wheat imports in 2020/21 are projected to reach almost 9 million tonnes, up 2.5 million tonnes (38 percent) from 2019/20. However, all of this expansion is associated with larger imports by the **EU-27**, up 1 million tonnes from 2019/20 due to a likely decrease in this year's

Table 3. Top 10 wheat importers*

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
Egypt	12.6	13.0	3.2
Indonesia	11.0	11.0	0.0
Turkey	7.3	7.5	2.7
Brazil	7.0	7.3	4.8
Philippines	6.7	7.2	6.9
Bangladesh	5.9	6.1	3.8
Algeria	7.4	5.5	-25.9
Japan	5.5	5.5	0.0
Morocco	4.3	5.5	29.4
Mexico	5.2	5.4	3.7

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

Table 4. Top 10 wheat exporters*

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
Russian Federation	36.3	33.0	-9.2
European Union	26.0	28.0	7.9
United States of America	25.4	26.5	4.3
Canada	22.6	25.0	10.8
Ukraine	18.0	16.5	-8.1
Australia	11.2	14.0	25.0
Argentina	13.2	13.7	3.7
Kazakhstan	7.9	7.5	-4.7
Turkey	4.6	4.5	-1.7
India	0.6	1.0	78.5

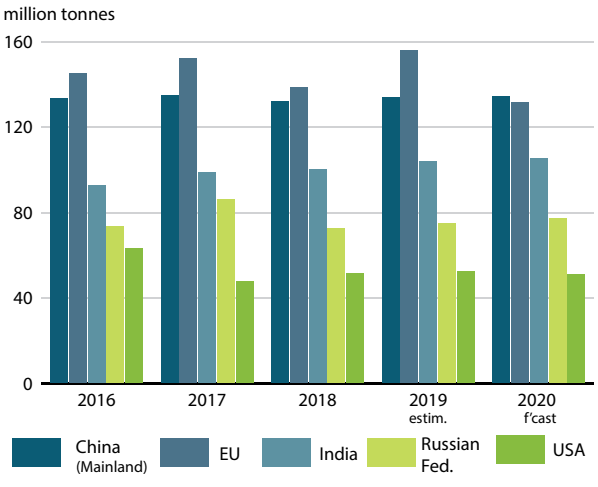
* Exports are based on a common July/June marketing season

aggregate production, and the expected wheat imports of 2 million tonnes by the **UK**, which from 2020/21 are excluded from EU total imports and, thus, include purchases from EU countries.

In *Africa*, total wheat imports in 2020/21 are forecast at 49.5 million tonnes, nearly unchanged from the estimated level for 2019/20. Shortfalls in wheat production in **Morocco**, and to a lesser extent in **Algeria** and **Tunisia**, are expected to drive up imports by these North African countries. The largest increase is forecast for Morocco, where imports could reach a record level of 5.5 million tonnes, up 500 000 from 2019/20. Wheat imports by **Egypt**, the world's largest wheat importer, are projected at 13 million tonnes, similar to 2019/20 despite a good domestic harvest, given the Government's recently announced intention to increase reserves in response to the threats posed to global supplies by COVID-19. Wheat imports by **Nigeria**, the most populous country in Africa and the continent's third largest importer (after Egypt and Morocco), could reach 4.8 million tonnes, similar to the 2019/20 estimated level. However, the sharp depreciation of the national currency and falling foreign exchange reserves due to the collapse in oil prices pose significant challenges to the country's ability to maintain its import capacity. Despite the Government's efforts to boost domestic production and curb imports, wheat imports by Nigeria remain high due to its limited land suitability for wheat cultivation, coupled with a fast growing population and strong demand for wheat flour-based products.

In *Asia*, aggregate wheat imports in 2020/21 are pegged at 89.3 million tonnes, down marginally from 2019/20. While larger imports are forecast for several countries, including **Afghanistan**, **China (mainland)** and the **Islamic Republic of Iran**, wheat purchases by a number of other countries, in particular **Turkey, Iraq** and the **Philippines**, are expected to decline. Despite good production prospects, imports by the Islamic Republic of Iran could increase to 2 million tonnes, as the country seeks to boost its reserves, given the national strategic importance of wheat. By contrast, imports by **Turkey,** a net wheat exporting country, could fall by 2 million tonnes from the previous season's exceptionally high level to 7.5 million tonnes, due mostly to the anticipated rebound in this year's domestic production and more stable domestic price prospects. Ample supplies of more competitively priced feed grains are seen to result in smaller feed wheat imports by the **Philippines** as well as the **Republic of Korea**. Wheat purchases by **Indonesia**,

Figure 4. Wheat production in major wheat producers



the largest importer in Asia, are likely to remain steady at 11 million tonnes on continued strong demand for high-quality wheat.

In *Latin America and the Caribbean*, total wheat imports in 2020/21 are forecast to reach 24.5 million tonnes, up slightly from 2019/20. Strong demand in **Brazil**, the region's leading wheat importer, could push up the county's wheat imports to 7.3 million tonnes, marginally higher than 2019/20, despite stronger domestic production. Similarly, imports by **Mexico**, the region's second largest wheat importer, could also rise marginally, to 5.3 million tonnes, supported by continued strong demand for high-quality wheat and the likelihood of a small reduction in production.

Regarding exports, while the second half of the 2019/20 marketing season was marked by some uncertainties in global wheat markets following the imposition of restrictive trade policies by a number of exporting countries; measures that have been gradually abandoned, a development that is reassuring for importers in 2020/21. Against this backdrop, the **Russian Federation** is forecast to regain its position as the world's largest wheat exporter with sales very likely reaching 33.0 million tonnes, up 500 000 tonnes from 2019/20, though still 19 percent short of its record exports in 2017/18. The strong anticipated rebound in production of wheat in **Australia** is also expected to boost the country's shipments by 69 percent to 14 million tonnes. Likewise, the likely rebound in wheat production is expected to push up **Canada's** exports by as much as 16.3 percent to 25 million tonnes in 2020/21. By contrast, exports by **Ukraine** and the **EU-27** are set to decline significantly while slightly smaller sales are also anticipated from the **USA**. Among other major exporters, due to a strong anticipated rebound in this year's production, wheat shipments from **Kazakhstan** could reach 7.5 million tonnes – up 1 million tonnes (15.4 percent) from the reduced shipments in 2019/20, while 2020/21 (July/June) sales by **Argentina** are likely to match the 2017/18 record volume of 13.7 million tonnes, on expectation of ample domestic supplies.

UTILIZATION

Utilization to decline slightly despite record food consumption

At around 754 million tonnes, total wheat utilization in 2020/21 is forecast to fall marginally (0.4 percent) below the 2019/20 estimated, with the projected growth in food consumption not sufficient to offset the expected fall in utilization for animal feed and a likely contraction in industrial use. At the current projected level, total wheat utilization in 2020/21 would be 1.2 percent below the 10-year trend, marking the first time that total utilization drops below this trend in six years. Utilization of wheat for **direct human consumption** in 2020/21 is forecast to reach a record level of around 525 million tonnes, up 0.8 percent from 2019/20, representing almost 70 percent of the expected total wheat utilization. At this level, world per capita wheat consumption would stand at 67.4 kg per annum, down slightly from 67.6 kg per annum in 2019/20, with consumption in developing countries remaining stable at 62.4 kg per annum but declining slightly in developed countries, to 92.7 kg per annum. However, these early forecasts are largely based on the expectations that, at least in the short term, the prevailing economic difficulties resulting from the COVID-19 pandemic would not have any significant bearing on household consumption of such

Figure 5. Wheat exports from the Black Sea

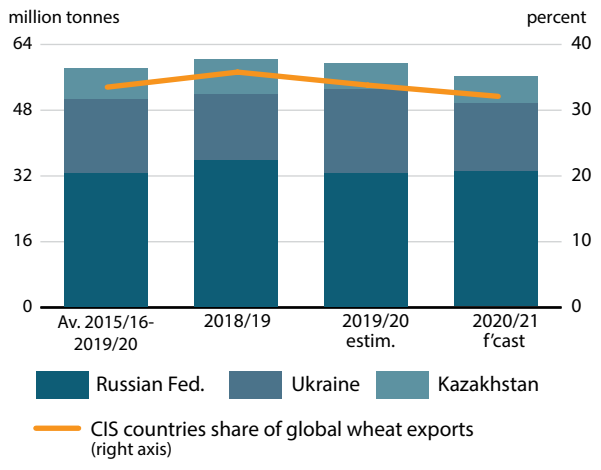


Figure 6. Global wheat utilization

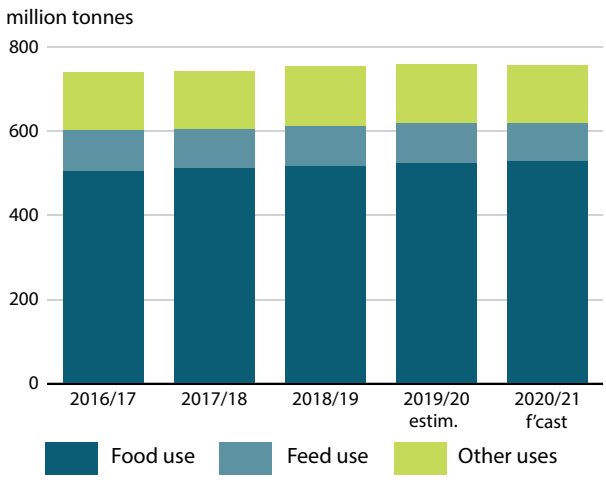
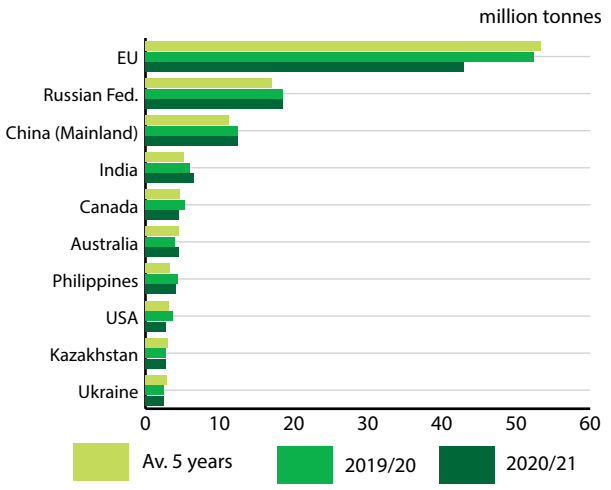


Figure 7. Top 10 feed consumers



an essential food staple as wheat, particularly in view of good supply prospects in 2020/21. In Asia and Africa, total food consumption of wheat is expected to increase by 1.1 percent and 1.6 percent, respectively, while in Central America it is seen to rise by 1.7 percent.

By contrast to food, total feed use of wheat is likely to decline by 2.6 percent (3.7 million tonnes) in 2020/21, to reach 138.7 million tonnes. Given the prospects for large supplies of coarse grains, in particular maize, wheat is likely to lose competitiveness in feed rations, especially in North America and the EU, where the year-on-year decline in feed use of wheat is likely to be most pronounced. Given the likelihood of continued slow economic activity and low energy prices, at least throughout the first half of the 2020/21 season, the **industrial use** of wheat could stagnate, with some decreases in production of ethanol, especially in the EU, offset by a slow uptake in demand for production of starch.

STOCKS

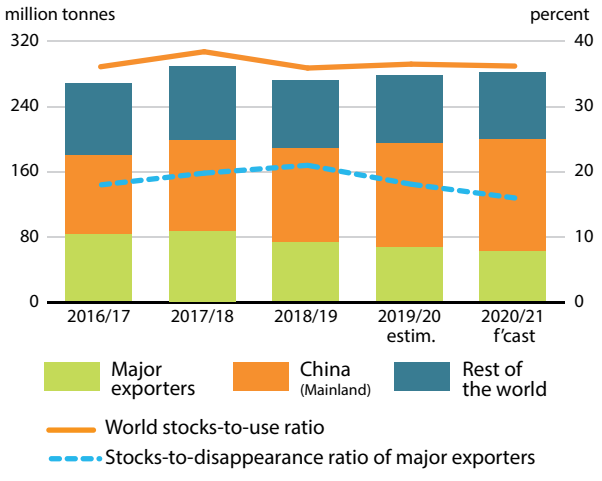
Inventories to increase slightly but remain well below the 2017/18 record

World wheat stocks are forecast to reach 280 million tonnes by the close of crop seasons in 2021, representing an increase of 1.4 percent, or 4.0 million tonnes, from the already high opening levels; but down 8 million tonnes from the record level in 2017/18. The forecast has been raised significantly (by 5.7 million tonnes) since FAO's last monthly report (see the Cereal Supply and Demand Brief, May 2020), mostly reflecting upward revisions in China (mainland) and Australia.

At the current forecast levels, the world **wheat stocks-to-use ratio** in 2020/21 would reach 36.3 percent, almost unchanged from 2019/20 and well above the historic low of 23.3 percent registered in 2008/09, but below its peak of nearly 40 percent exactly two decades ago, in 2000/01. However, the ratio of **major wheat exporters' closing stocks to their total disappearance** (defined as domestic utilization plus exports) is likely to decline to an 8-year low of 15.7 percent in 2020/21, compared to 16.1 percent in 2019/2020. This indicator, which does not include China (mainland) as it is not a major wheat exporter, is regarded as a good gauge for evaluating global supply prospect, since not all countries with large stocks may make them available to world markets.

In spite of the expected sharp increase in global stocks in 2020/21, the projected drop in the exporters' ratio, from 16.1 percent to 15.7 percent, points to somewhat tighter wheat markets than in 2019/20. Ending stocks in major exporting countries are likely to remain close to their opening levels, except for the USA, where they could decline to a 6-year low of 24 million tonnes in view of the expected decline in this year's production. By contrast, the bulk of the anticipated year-on-year expansion in world wheat inventories is expected to occur in China (mainland), where large production and a slower growth in domestic utilization could push up the country's wheat inventories to an all-time high of 137.5 million tonnes, almost 11 million tonnes (8.5 percent) above their opening level.

Figure 8. Wheat stocks and ratios



COARSE GRAINS*

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

PRICES

International prices of major coarse grains remain under downward pressure

Coarse grain prices started the 2019/20 (July/June) season at a 5-year high and are likely to end it at a 15-year low. While abundant supplies caused prices to fall in 2019, prices took a second drastic downturn in early 2020 when COVID-19 containment measures abruptly froze industrial demand, dampened economic growth and introduced unprecedented uncertainty to markets.

Maize prices bore the brunt of the damage from COVID-19 demand effects. In the USA, maize prices were hit by COVID-19 movement restrictions that precipitously halved fuel and ethanol production, causing oil prices to plunge to negative levels and, in tandem, US maize prices to fall to their lowest levels since 2006. Uncertainty regarding the impact on feed use of maize with the closure

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

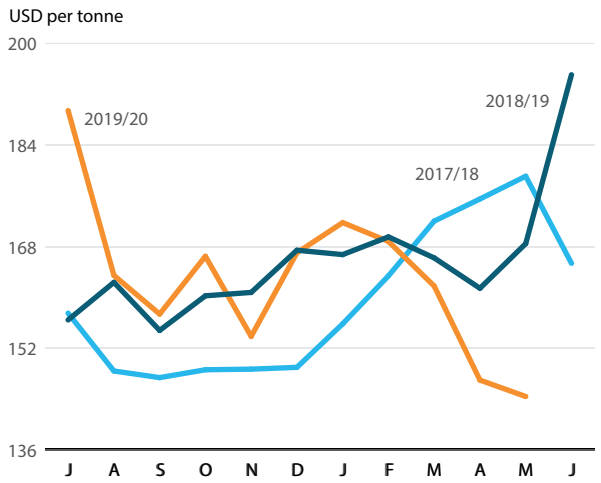
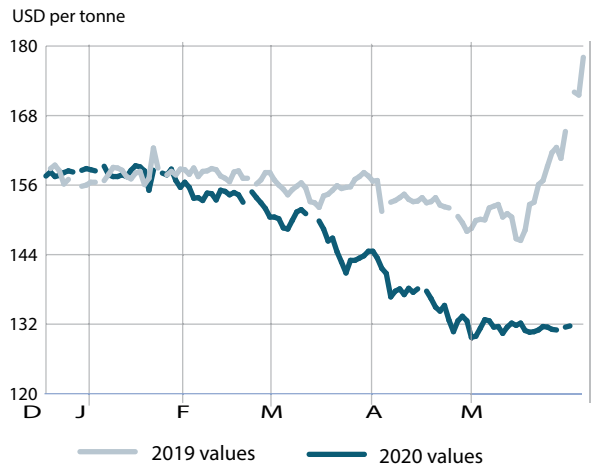


Figure 2. CBOT maize December futures



of several slaughterhouses in response to COVID-19 outbreaks also exacerbated the drop in maize prices. In May 2020, the benchmark **US maize prices (yellow, No. 2, f.o.b.)** averaged USD 144.1 per tonne, down by 16.3 percent from May 2019, and 17.2 percent below the last 5-year average for the month of May. In South America, substantial supplies and depreciating currencies kept maize quotations relatively low throughout 2019/20, but prices plummeted even further in early 2020 as COVID-19 disrupted ports and value chain operations. In May, **Argentinian and Brazilian maize prices** (up River and Paranagua, respectively, f.o.b) were almost 12 and 7 percent below last year levels, respectively.

International prices of barley were also generally below last year, but sorghum prices exceeded their May 2019 levels by 7.5 percent (United States, Gulf no.2 Yellow, f.o.b.).

Large supply prospects also kept the futures under downward pressure, with **the Chicago Board of Trade (CBOT) maize futures** for delivery in December 2020, which is the benchmark delivery month for the new crop in the USA, averaging USD 131.4 per tonne in May, down nearly 16 percent from the previous year's level. More detailed analysis of the futures markets can be found in the Market Indicators section of this report.

PRODUCTION

Record production of coarse grains in 2020

Global production of coarse grains in 2020 is forecast at a record high level of 1 513 million tonnes, a significant increase of 65 million tonnes (4.5 percent) from the previous year. Most of the expected growth is associated with a foreseen upturn in maize production, more than offsetting a likely drop in barley output.

World maize production in 2020 is forecast at an all-time high of 1 207 million tonnes, 5.6 percent (64.5 million tonnes) higher than the previous peak registered in 2019. The bulk of the increase rests on an expected record output in the USA, while buoyant prospects in South America and Southern Africa have further reinforced the optimistic global outlook.

In the **United States of America (USA),** maize production is set to reach a new peak of 406.3 million tonnes in 2020, 17 percent (59.2 million tonnes) higher than the 2019 harvest. The projected growth largely pertains to an expected 8 percent expansion in plantings, officially forecast in March at 39.3 million hectares, which would be the highest level since 2012. However, an uptick in the soybean-to-maize price ratio since April could result in a smaller upturn in sowings than initially forecast, as farmers opt to increase soybean acreage at the expense of maize. Notwithstanding this possibility, production is still set to rise sharply in 2020, given a likely return to trend yields compared with the low levels in 2019. In **Canada**, production is forecast to increase moderately in 2020, as a predicted rise in yields would more than compensate for a reduction in the area sown, with good price prospects limiting a larger contraction in plantings.

In *Europe*, maize production in the **European Union (EU)** is pegged at 71.0 million tonnes in 2020, broadly stable on a yearly basis and above the 5-year average. This reflects expected planting reductions in Hungary and Italy, among others, that were offset by estimated acreage increases in the main producing countries of France and Romania, as farmers utilized land not sown to wheat due to adverse weather at planting. Analogously, production in the **Russian Federation** is expected to remain unchanged and above average. In **Ukraine**, good price prospects are behind expectations that a record area will be planted to maize, further supported by conducive weather conditions. As a result, production is anticipated to increase by 3 percent to 37.0 million tonnes in 2020, which, if realized, would be an all-time high. Production of maize in **Serbia** will likely fall by 16 percent to 6.2 million tonnes, down from the high of 2019, based on a likely return to average yields.

In *Asia*, amid concerns about the impact of COVID-19 on grain supplies, the Government of **China** enacted several policies to maintain the area planted to maize, marking a reversal of previous measures. As a result, the country's production in 2020 is forecast at 261.0 million tonnes, broadly unchanged on a yearly basis. In **India**, following record yields in 2019, a return

Figure 3. Major maize producers

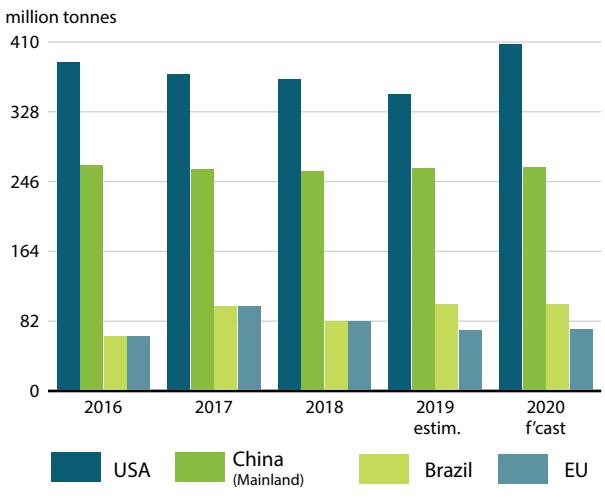


Table 1. World coarse grain market at a glance

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes			%
WORLD BALANCE				
Production	**1 410.3**	**1 448.1**	**1 513.5**	**4.5**
Trade[1]	**198.1**	**203.7**	**207.9**	**2.1**
Total utilization	**1 426.8**	**1 429.8**	**1 468.0**	**2.7**
Food	218.1	219.5	222.4	1.3
Feed	801.1	818.0	843.7	3.1
Other uses	407.5	392.3	401.9	2.4
Ending stocks[2]	**415.4**	**423.1**	**464.6**	**9.8**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	28.6	28.5	28.5	0.3
LIFDC[4] (kg/yr)	38.0	37.7	38.0	0.8
World stocks-to-use ratio (%)	*29.1*	*28.8*	*30.5*	
Major exporters stocks-to-disappearance ratio[3] (%)	*16.1*	*15.9*	*20.1*	

FAO COARSE GRAIN PRICE INDEX (2002-2004=100)	2018	2019	2020 *Jan-May*	Change: Jan-May 2020 over Jan-May 2019 %
	156	161	150	-5.1

[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) and total utilization due to differences in individual country marketing years.
[3] Major exporters include Argentina, Australia, Brazil, Canada, EU, Russian Federation, Ukraine and the United States.
[4] Low-Income Food-Deficit countries.

Table 2. Coarse grain production: leading producers*

	2018	2019 *estim.*	2020 *f'cast*	Change: 2020 over 2019
	million tonnes			%
United States of America	378.3	360.8	420.9	16.6
China (mainland)	266.2	269.7	270.2	0.2
European Union	154.4	166.5	157.9	-5.2
Brazil	84.1	103.5	103.7	0.2
Argentina	50.8	63.2	62.2	-1.6
Ukraine	44.6	46.4	47.1	1.6
India	45.9	44.3	45.9	3.6
Russian Federation	36.6	42.3	42.2	-0.2
Mexico	32.8	32.3	33.0	2.2
Canada	26.3	28.6	29.3	2.5
Indonesia	25.7	26.3	26.5	0.8
Ethiopia	22.8	24.2	24.1	-0.5
Nigeria	21.4	21.4	19.2	-10.1
South Africa	13.7	12.3	16.7	35.2
Turkey	13.4	14.3	14.0	-1.9
Other countries	193.3	192.1	200.5	4.4
World	**1 410.3**	**1 448.1**	**1 513.5**	**4.5**

* Countries listed according to their position in global production (average 2018-2020)

to normal crop productivity levels is expected to result in a small decline in maize production, currently forecast at 28.0 million tonnes.

In *South America*, where harvesting of the 2020 maize crop has begun, prospects point to another bumper output in the region. In **Argentina**, robust export demand and high domestic prices, propelled by a weaker currency, have induced higher plantings in 2020. Coupled with mostly beneficial weather conditions that have boosted yield prospects, production is expected at an above-average level of 55.5 million tonnes, albeit slightly below the 2019 record. In **Brazil**, production is forecast on par with last year's record of 100 million tonnes. The buoyant outlook reflects favourable prospects for the main second season, based on a price-driven expansion in plantings. Production gains in this season are foreseen to more than recuperate the production losses incurred in the first season, when adverse weather sharply curtailed yields. In **Paraguay**, production is forecast to decrease year-on-year slightly due to weather-reduced yields.

In *Africa*, maize production is forecast to recover strongly in **South Africa**, following the poor harvest in 2019. Expected to reach 16.1 million tonnes, the 2020 output would be the second highest on record, driven by a price-induced expansion in plantings and higher yields underpinned by beneficial rains. Production in **Malawi** and **Zambia** is also foreseen to increase in 2020 on account of generally conducive weather conditions, while rainfall shortages have curbed harvest prospects in **Zimbabwe**, with a below-average harvest forecast for a second consecutive year. Planting of the 2020 maize crop is ongoing in *West Africa,* as well as in *East Africa*, where the widespread infestation of locusts poses risks to harvests in 2020.

The forecast for global barley production in 2020 is pegged at 152.2 million tonnes, a decline of nearly 4 million tonnes (2.4 percent) from the all-time high output registered in 2019. Global prospects this year have been weighed down by expected production declines in **Canada** and the **Russian Federation**, where lower prices are foreseen to spur a contraction in plantings.

World sorghum production in 2020 is forecast at 57.0 million tonnes, almost unchanged from the previous year and below average. A significant cut to **Australia's** output in 2020 due to drought conditions is likely to be compensated by production rebounds in **India**, **Mexico** and the **Sudan**.

Figure 4. Global trade of coarse grains by type

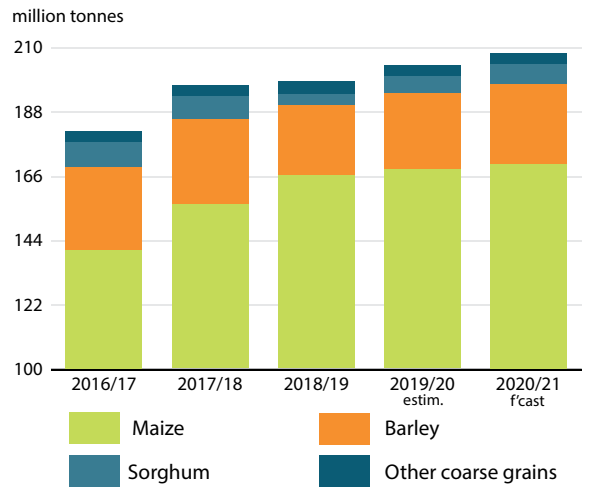
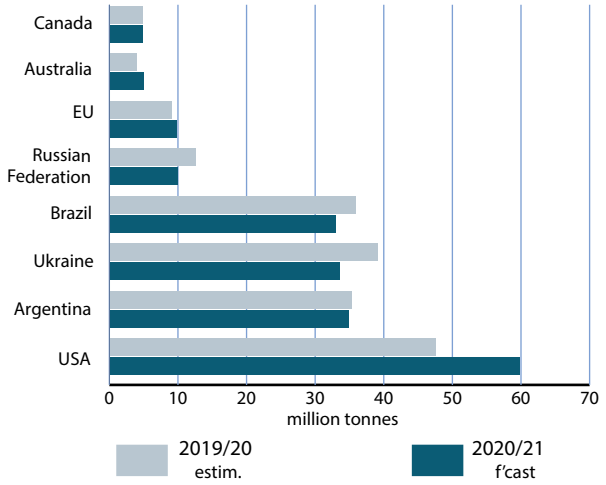


Figure 5. Coarse grain exports: major exporters



TRADE

Continued trade expansion of coarse grains likely in 2020/21

FAO's first forecast for world trade of coarse grains in 2020/21 (July/June) is pegged at just under 208 million tonnes, up 4.2 million tonnes (2.0 percent) from 2019/20, reflecting expectations of larger shipments of all major coarse grains (maize, barley and sorghum).

Global maize trade is forecast to have a second consecutive season of subdued growth in 2020/21 (July/June), reaching 170 million tonnes, up 2.0 million tonnes (1.2 percent) from 2019/20. The increase is mostly on account of anticipated rising feed demand. An important driver of global import demand, **China's (mainland)** purchases from world markets could rise by 3 million tonnes in 2020/21, to 7 million tonnes, amid relatively high domestic maize prices. Increased maize import demand in 2020/21 is expected to be met by larger shipments from the **USA**, supported by ample domestic supplies from a forecast record harvest in 2020 and low prices. The forecast 11-million tonne (25.6 percent) export recovery for the USA in 2020/21 would compensate for expected reduced shipments from **Argentina**, where higher export taxes were imposed on maize at the end of 2019, and **Brazil**, which is expected to divert more supply to domestic feed and industrial use in 2020/21.

Forecast at 27.3 million tonnes, global barley trade in 2020/21 (July/June) is expected to surpass the 2019/20 level by 1.0 million tonnes (3.9 percent). The biggest increase in imports stems from an 800 000-tonne addition to the **European Union (EU)** to account for the imports coming from the **United Kingdom of Great Britain and Northern Ireland (UK)**. Additionally, **Saudi Arabia**, the world's top barley importer, is also expected to increase imports, as are the **Islamic Republic of Iran**, **Morocco** and **Tunisia**, while notable import reductions are expected for **Turkey**, as well as **China (mainland)**, where greater maize and sorghum feed-driven imports are seen to displace barley. On the export side, **Australia** is also forecast to make larger shipments in 2020/21 than in 2019/20, after a recovery in production. However, this may be affected by the five-year import tariff recently imposed by **China**, a main destination for Australian barley. While the **EU** is seen to retain its position as the top exporter of barley in 2020/21, the **Russian Federation** is anticipated to increase its export share in the global market for barley.

Similar to barley trade, global trade in sorghum is expected to expand for a second consecutive season in 2020/21 (July/June), to reach 6.8 million tonnes, an increase of 1.3 million tonnes from 2019/20. The anticipated expansion is driven almost exclusively by foreseen higher imports by **China (mainland)**, which are expected to be most probably sourced from the **USA**, following China's implementation of a 1-year waiver of tariffs on imports of US sorghum as of March 2020.

UTILIZATION

Total utilization of coarse grains could recover after a slowdown in 2019/20

Following a year of an estimated significant slowdown in demand driven by COVID-19 and the consequential economic downturn, world utilization of coarse grains is forecast to rebound in 2020/21 to a new record of 1 468 million tonnes, up 38.2 million tonnes (2.7 percent)

Table 3. Top 10 maize importers

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
Mexico	16.7	17.5	4.6
Japan	16.0	16.5	3.4
European Union	20.6	16.5	-20.1
Viet Nam	8.9	12.1	35.9
Korea Rep. of	10.1	11.5	13.9
Egypt	10.2	11.0	8.1
Iran (Islamic Republic of)	9.4	10.0	6.0
China (mainland)	9.0	9.5	5.8
Colombia	4.3	7.0	64.3
Algeria	5.4	5.9	8.4

Table 4. Top 10 maize exporters

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
United States of America	53.4	54.0	1.1
Brazil	32.3	33.5	3.8
Ukraine	25.8	30.0	16.1
Argentina	29.0	30.0	3.4
Russian Federation	4.3	4.4	3.3
European Union	3.4	3.5	2.4
Paraguay	2.2	2.5	11.8
South Africa	1.9	2.2	16.8
Serbia	2.0	2.0	2.3
Myanmar	1.4	1.4	3.3

Table 5. Top 5 sorghum importers

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
China	2.9	4.0	39.9
Japan	0.5	0.6	10.3
Mexico	0.3	0.5	46.8
Sudan	0.2	0.3	25.0
European Union	0.5	0.3	-38.3

Table 6. Top 5 sorghum exporters

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
United States of America	4.0	5.5	36.2
Ethiopia	0.5	0.5	0.0
Argentina	0.3	0.3	4.2
Australia	0.3	0.1	-60.5
Sudan	0.1	0.1	0.0

Table 7. Top 10 barley importers

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
Saudi Arabia	7.0	7.0	-0.2
China	6.6	5.0	-24.0
Iran (Islamic Republic of)	2.9	3.5	18.8
European Union	0.4	1.5	253.8
Morocco	0.6	1.3	124.9
Japan	1.2	1.3	5.9
Libya	1.0	1.0	0.0
Jordan	0.8	0.8	0.0
Tunisia	0.5	0.7	20.7
Brazil	0.6	0.5	-4.7

Table 8. Top 10 barley exporters

	2017/18-2019/20 *average*	2020/21 *f'cast*	Change
	million tonnes		%
European Union	5.7	6.0	4.8
Russian Federation	5.1	5.0	-1.1
Australia	4.9	4.5	-7.6
Ukraine	4.3	4.5	5.0
Argentina	2.7	2.5	-6.9
Canada	2.2	1.7	-21.8
United Kingdom	-	1.5	-
Kazakhstan	1.5	1.3	-11.1
United States of America	0.1	0.1	-8.4
Uruguay	0.0	0.1	37.8

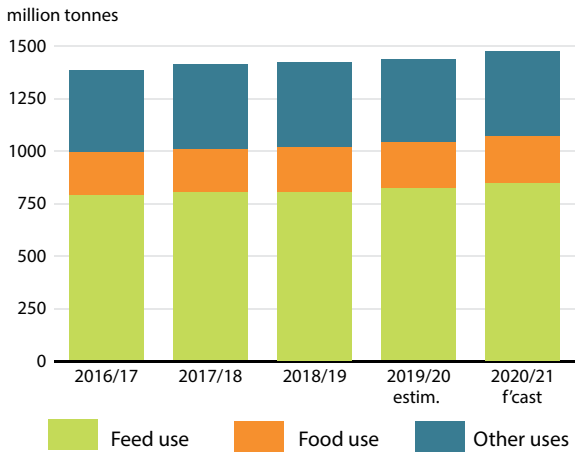
Source: FAO
Imports and exports are based on a common July/June marketing season

from 2019/20. The bulk of the expected rebound is likely to be the result of an increase in maize utilization. After falling in 2019/20 for the first time in more than two decades, driven by COVID-19-related cuts to ethanol demand and, to a lesser extent, feed demand, global maize utilization in 2020/21 is expected to rebound by 33.0 million tonnes (2.9 percent) from 2019/20, to 1 169 million tonnes in 2020/21. Total utilization of barley and sorghum is also expected to grow in 2020/21, to 149.7 million tonnes and 57.0 million tonnes, respectively.

Industrial use of coarse grains is forecast to rebound strongly in 2020/21, largely on expectations of a much higher use of maize after a 5 percent plunge in 2019/20. The bulk of the revival in industrial demand for maize in 2020/21 is expected to come from the USA, where COVID-19 containment-related driving restrictions nearly halved the demand for ethanol and fuel in the country. While the anticipated reopening of economic activity and relaxation of movement restrictions from mid-2020 are expected to help ethanol demand regain momentum, maize industrial use is still seen to only partially recover in the USA. However, if implemented, a recent proposal by the US Environmental Protection Agency to lift the national biofuel blend requirement in 2021 could contribute to the recovery. In Brazil, an expected boost in maize-based ethanol production following the increase in the biodiesel-blending volume mandate in early 2020 suggests a likely full recovery of industrial demand in 2020/21 from the fall in 2019/20. In China, despite the suspension of the national 10 percent ethanol-blend mandate, industrial demand is seen making a near full recovery in 2020/21, driven by efforts to boost maize-based starch production. Global barley industrial use is also forecast to increase in 2020/21, up by 0.7 million tonnes (1.8 percent) from 2019/20, on expectations of greater uses in the EU and the Russian Federation.

World **feed use** of coarse grains is forecast to increase to 844 million tonnes in 2020/21, up nearly 26 million tonnes (3.1 percent) from the 2019/20 level. Maize feed use accounts for the majority of this expected annual growth, forecast to rise by around 22 million tonnes (3.3 percent)

Figure 6. Coarse grains utilization



in 2020/21 to 685 million tonnes. China (mainland), the world's largest user of maize for feed, is foreseen to increase its maize feed utilization by 5 million tonnes (3.1 percent) in 2020/21, following two consecutive years of decreases as a result of significantly reduced swine herds due to the devastating impact of African Swine Fever (ASF). A sizeable annual growth of nearly 9 million tonnes (6.1 percent) in maize feed use is also expected in the USA in 2020/21, after the closure of several slaughterhouses in the country in early 2020 in response to the spread of COVID-19, which caused a temporary slowdown in meat production. Global feed use of barley and sorghum is also likely to increase in 2020/21. Forecast at just over 100 million tonnes, barley feed use is anticipated to rise by 1.7 million tonnes from 2019/20, mostly on account of stronger use in the EU. An anticipated increase in feed use of sorghum in China (mainland) is seen as the main driver behind the forecast 2.6 million tonne rise in global sorghum feed use in 2020/21, to just over 21 million tonnes.

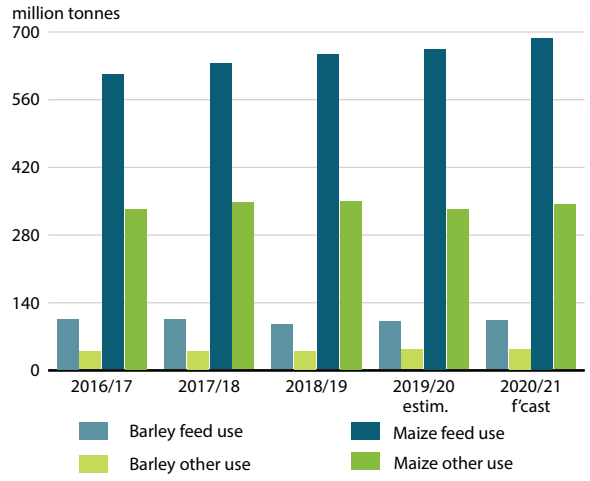
World **food consumption** of coarse grains in 2020/21 is predicted to grow by approximately 3 million tonnes (1.3 percent) from the previous season, reaching more than 222 million tonnes. A sizeable proportion of this

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

	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20 estim.	2020/21 f'cast
Maize production	273 192	351 316	361 136	345 506	384 778	371 096	364 262	347 048	406 292
Ethanol use	117 886	130 155	132 085	132 695	137 978	142 373	136 607	125 735	132 085
Yearly change (%)	1.1	10.4	1.5	0.5	4.0	3.2	-4.0	-8.0	5.1
As % of production	43.2	37.0	36.6	38.4	35.9	38.4	37.5	36.2	32.5

Source: WASDE-USDA 12 May 2020 and FAO estimates.

Figure 7. Global maize and barley consumption



increase is foreseen to come from Asia, which is expected to offset a likely contraction in coarse grains consumption in Africa. Making up the largest share of coarse grain food consumption, total maize food consumption is anticipated to nearly stagnate in 2020/21, reflected in an expected stable per capita consumption in all regions except Central America, where a small increase is foreseen, and Africa, where a slight decrease could occur. Global food consumption of sorghum is seen contracting slightly for a second consecutive season, based on a likely decrease in Africa.

STOCKS

Robust growth of world stocks of coarse grains seen in 2020/21

World stocks of coarse grains are expected to climb to more than 464 million tonnes by the end of seasons in 2021, up 41 million tonnes (9.8 percent) from their opening levels. This foreseen sizeable annual increase would push the expected 2020/21 **world-stocks-to-use ratio** of coarse grains up from 28.8 percent in 2019/20 to 30.5 percent in 2020/21, the highest level since 1999/2000. The ratio of **major exporters' closing stocks to their total disappearance** (defined as domestic utilization plus exports) is also set to increase, from 15.9 percent in 2019/20 to 20.1 percent in 2020/21, pointing to a substantial increase in global availabilities from a trade perspective.

The majority of the anticipated inventory increase hinges on a foreseen sharp rise of at least 34 million tonnes (9.5 percent) in global maize stocks in 2020/21, now forecast to reach 397 million tonnes. The expected global maize inventory expansion is largely driven by a likely record level of maize stocks in the USA, currently projected at 86 million tonnes. If realized, the expected 31 million tonne increase in maize stocks in thve USA would account for 90 percent of the forecast global maize inventory growth in 2020/21. Elsewhere, maize stocks are also expected to rise in Brazil and Argentina with forecast export declines, on top of near-record harvests. By contrast, some maize stock drawdowns are foreseen in China, with an expected increase in demand for industrial use as well as feed demand, given the prospect of a revival of the livestock sector with a gradual recovery from African Swine Fever (ASF). While global barley stocks are also forecast to rise, up 2.2 million tonnes (6.6 percent) year-on-year, sorghum inventories are seen to contract slightly, down 200 000 tonnes (2.4 percent) in 2020/21.

Figure 8. Coarse grain stocks and ratios

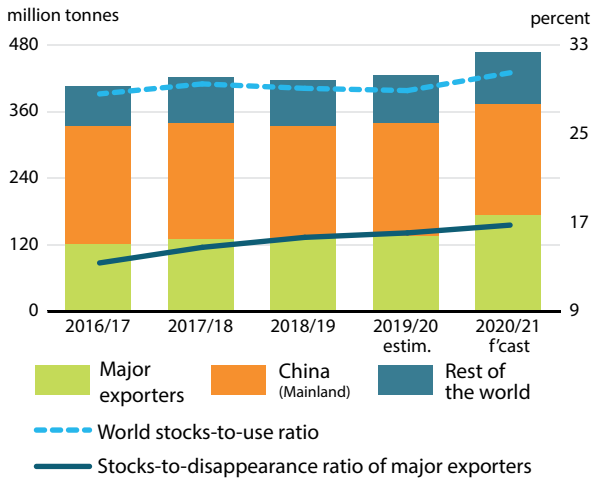
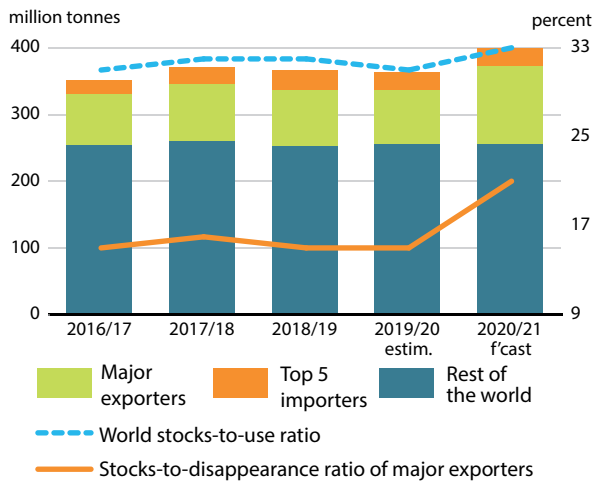


Figure 9. Maize stocks and ratios



RICE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PRICES

Domestic demand spikes and temporary export restrictions escalate Indica price rises in March and April

The price stability that characterized much of 2019 dissipated at the start of 2020, when international rice prices assumed a steady upward direction. Measured by the **FAO All Rice Price Index**, quotations rose by 12.7 percent in the first 5 months of 2020, placing the May value of the Index at 249.8 points. Prices of the most-widely traded Indica varieties drove the increase, rising by 18-21 percent over this period, while subdued Near Eastern demand and competition among exporters capped Japonica and Aromatic price increases at 5-9 percent. In the Indica segment, prospects of weather-diminished availabilities in some exporters, chiefly Thailand and the USA, lent initial support to prices. Sudden increases in domestic demand, as various suppliers entered COVID-19 lockdowns, compounded this strength in March, as did temporary export restrictions put in place by some exporting countries, most notably Viet Nam. As these measures coincided with

Figure 1. FAO all rice price index

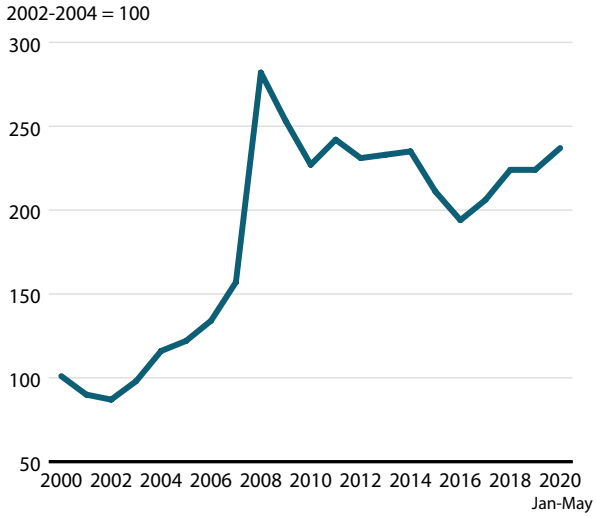
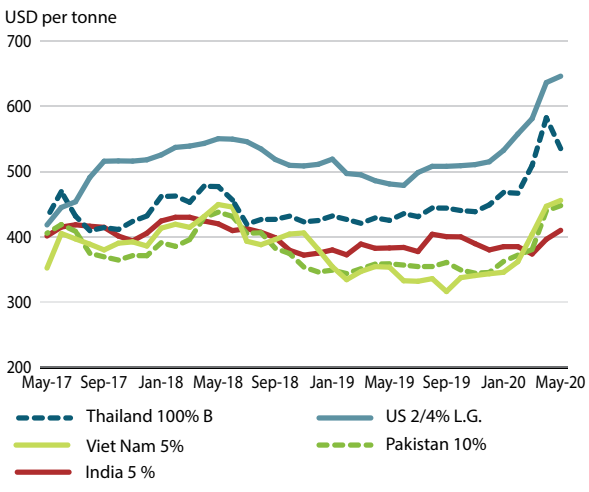


Figure 2. Export prices of higher-quality Indica rice



a considerable slowdown of Indian shipments caused by logistical bottlenecks, the supply concerns that they raised spurred a rapid advance in quotations. These export restrictions proved short-lived, nevertheless, being eased if not fully repealed by May. This has since precipitated sharp drops in Thai quotations, although lingering large price differentials with Thailand, as well as purchases by Filipino and Malaysian buyers, have rendered Indica quotations in India, Pakistan and Viet Nam more resilient to falls.

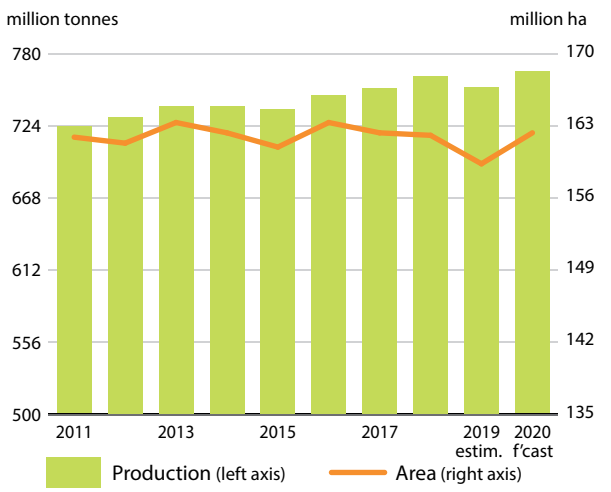
PRODUCTION

Asia to spearhead a 1.6 percent global production recovery

The 2020 season was well advanced along and south of the Equator when the COVID-19 outbreak was declared a pandemic in early March. At the time, main crops in these countries were about to enter or were already at the harvest stage, having endured a difficult climatic start of the season. Although no major disruptions to harvest operations have been reported as a result of the pandemic, the not-so conducive growing climate at planting time, combined with tight producer margins, have dampened prospects that 2020 production in the southern hemisphere would recover from the disappointing 2019 outcome.

However, much of the season's production success hinges on developments in the northern hemisphere, where close to 90 percent of world output originates and where the 2020 season is just beginning. Climatic forecasts predicting a more normal unfolding of the summer rains relative to last year's El Niño-influenced patterns tend to buoy prospects for this part of the world, which has also seen governments launch a series of measures to mitigate the adverse impacts that the pandemic could have on the sector. Combined, these factors are forecast to lift global rice production to 508.7 million tonnes (milled basis) in 2020, up 1.6 percent from the 2019 reduced level, and an all-time record high.

Figure 3. Global paddy production and area



Asia is predicted to spearhead the recovery in 2020 production, with a total harvest of 456.7 million tonnes, up 1.3 percent from 2019. Increases in **the Lao People's Democratic Republic**, **Myanmar**, **Pakistan** and **Thailand**, where crops were hindered by unconducive weather last year, would drive this rise, while prospects are also positive for **Cambodia**, the **Republic of Korea**, **Japan** and **Sri Lanka**. In **India,** expectations of a record 2020 harvest are bolstered by forecasts of a normal monsoon, which could facilitate a Kharif recovery in northeastern states impacted by suppressed rains last year. Moreover, enduring producer price support by the Government is likely to keep rice-planting incentives strong throughout the country. Steps have also been taken to attenuate the impact of potential labour shortages in northwestern states by advancing plantings or encouraging direct seeding and greater mechanization, which may mitigate potential shortfalls in these areas. In February, **China (mainland)** approved the first increase in government purchase prices of Indica paddy in six years, seeking to revive double-cropping and stabilize grain output. As the move is anticipated to boost production from the early and late crops, China (mainland) is predicted to see its first output expansion in three years this season. On the other hand, growth prospects in **Bangladesh**, the **Philippines** and **Viet Nam** are tempered by unattractive producer margins or, in the case of Viet Nam, by drought and saltwater intrusion. In all cases, however, output falls are expected to be averted by intensified state input assistance in response to the COVID-19 outbreak, and/or by increased secondary and tertiary crops stimulated by a rebound in producer prices. The outlook is more negative for **Indonesia**, which is forecast to see erratic rains and delayed plantings lower output below the already reduced 2019 level. Insufficient water supplies for irrigation are also behind expected production falls in **Afghanistan**, **Malaysia** and **Turkey**, while delays in fertilizer distribution cloud the outlook for **Nepal**.

Africa could raise output by 3.2 percent in 2020 to 24.8 million tonnes. The bulk of 2020 main crops have already been gathered in Southern and Eastern Africa, where generally more conducive rains than in 2019 aided crop development. Although flooding problems impacted crops in **Kenya** and **Rwanda** and are leading to somewhat lower output expectations for **Madagascar**, a sizeable

Table 1. World rice market at a glance

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes, milled equivalent			%
WORLD BALANCE				
Production	**506.3**	**500.6**	**508.7**	**1.6**
Trade [1]	**44.1**	**44.9**	**47.6**	**6.2**
Total utilization	**499.9**	**502.0**	**510.0**	**1.6**
Food	408.2	413.3	420.0	1.6
Ending stocks[2]	**184.6**	**183.4**	**182.0**	**-0.8**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	53.5	53.6	53.9	0.6
LIFDC (kg/yr)	64.2	64.9	65.7	1.3
World stocks-to-use ratio (%)	*36.8*	*36.0*	*35.3*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*22.6*	*25.1*	*25.1*	

FAO RICE PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	224	224	237	6.6

[1] Calendar year exports (second year shown).
[2] May not equal the difference between supply (defined as production plus carryover stocks) and total utilization 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*

	2018	2019	2020 *f.cast*	Change: 2020 over 2019
	million tonnes, milled equivalent			%
China (mainland)	145.3	143.6	144.2	0.4
India	116.5	117.9	119.2	1.1
Bangladesh	36.4	36.9	36.9	-0.2
Indonesia	37.9	35.0	34.6	-1.1
Viet Nam	28.6	28.2	28.3	0.3
Thailand	21.4	18.8	21.4	13.7
Myanmar	15.7	15.4	15.8	3.1
Philippines	12.2	12.3	12.4	0.9
Brazil	8.2	7.1	7.4	3.9
Pakistan	7.2	7.2	7.9	10.1
Japan	7.4	7.4	7.4	0.7
United States of America	7.1	5.9	6.9	17.1
Cambodia	6.5	6.5	6.6	1.5
Nigeria	5.0	5.1	5.1	1.0
Egypt	2.8	4.6	5.0	7.6
World	**506.3**	**500.6**	**508.7**	**1.6**

* Countries listed according to their position in global production (average of 2018-2020).

recovery is forecast for the **United Republic of Tanzania**, where production also benefited from state input subsidies and efforts to expand irrigation coverage. The outlook is also positive for **Egypt**, where the enduring profitability of rice compared with alternatives is expected to lead to area limits being exceeded again, while the adoption of water-conserving high-yield varieties should boost yields. In Western Africa, the bulk of the 2020 plantings begins in June, although the season started as early as March/April in a few producing countries, such as **Guinea**, **Liberia**, **Sierra Leone** and parts of **Nigeria**. In these areas, the planting window stretches into June if not July, providing scope for initial delays to be compensated where COVID-19 quarantines disrupted activities. Still, the adverse impact of planting delays and/or reduced input availability dampen overall yield expectations for West Africa, partly eclipsing gains from continued strong government support and firm prices. Within the subregion, **Cote d'Ivoire**, **Senegal** and **Sierra Leone** are forecast to raise output in 2020, but declines could take place in **Benin**, **Guinea** and **Mali**, while **Nigeria** may see little production progress for the third straight year.

After declining to a 9-year low in 2019, aggregate rice output in *Latin America and the Caribbean* is predicted to stage a partial recovery of 2.4 percent in 2020, to reach 17.9 million tonnes. High production costs caused South American plantings to contract once again this season, being compounded by rain-induced planting delays. Nevertheless, conducive temperatures and sunshine countered these falls, helping output to expand in **Argentina**, **Brazil** and **Paraguay**, while limiting shortfalls in **Uruguay. Cuba** and **Peru** are also envisaged to see some output upturns in 2020, although the recovery in Cuba may be limited by heightened shortages of basic inputs and machinery, while in Peru, low reservoir water levels in important producing regions could rule out a strong advance. On the other hand, attractive producer prices and/or more normal precipitation may drive expansions in **Ecuador**, **Colombia**, the **Dominican Republic**, **Guyana** and **Mexico**, compensating for anticipated reductions in **Bolivia (Plurinational State of)**, **Haiti**, **Chile** and **Venezuela**.

In the *other regions*, low water allocations and high water prices kept plantings in **Australia** close to 12-year lows, which combined with yield losses, is likely to translate into an 11.3 percent lower harvest relative to the 2019 dismal outcome of 40 600 tonnes. Little change is predicted for the 2020 harvest in Europe, as a somewhat larger **European Union (EU)** crop, underpinned by price-led expansions in Italy and Greece and a yield-recovery in Portugal, could be offset by a contraction in the **Russian**

Federation triggered by tight water availabilities for irrigation. By contrast, the **United States of America (USA)** production is seen rebounding by 17.1 percent to 6.9 million tonnes in 2020, on improved producer margins and fewer weather disruptions at planting time.

TRADE

A timid 2020 trade recovery to be followed by robust growth in 2021

International rice flows have progressed sluggishly so far this year, first held back by generally subdued Asian and African demand, then by a rapid increase in international prices and quarantine-related logistical constraints. Heading towards the third quarter of the year (a traditionally seasonally tight period that precedes the arrival of fresh northern hemisphere harvests), prospects of import pace regaining much momentum are dampened by the economic impacts that the pandemic and slide in petroleum prices could have on demand in price-sensitive markets. Where cross-border exchanges also play an important trade role, for instance in the Greater Mekong and Western and Eastern African subregions, border shutdowns, heightened surveillance and fear of contagion are also tempering trade expectations. As a result, a total of 44.9 million tonnes are forecast to be traded across the world over the full course of 2020 (January-December), implying an 800 000-tonne increase from the 2019 depressed level.

Among Asian and African buyers, **Cote d'Ivoire**, **Malaysia**, the **Philippines,** the **Republic of Korea**, **Saudi Arabia, Senegal, Turkey** and the **United Arab Emirates (UAE)** may raise their purchases in 2020, although **Indonesia** could witness the largest import increase, as greater market intervention needs by the Government, in the context of the COVID-19 outbreak and successive production contractions, could sway officials to recur to imports to reconstitute reserves. Most of these foreseen import gains are, however, expected to be offset by cuts in **China (mainland)**, **Egypt**, **Ghana**, the **Islamic Republic of Iran**, **Iraq** and **Viet Nam**, owing to good domestic harvests. Sizeable state stockpiles may also help meet expanded distribution requirements in **Bangladesh** and **Sri Lanka**, thereby limiting import needs by these countries. In the case of **Nigeria**, foreign exchange constraints, coupled with border closures instated last August and since extended, could result in a 16 percent slide in 2020 imports to 1.9 million tonnes.

Elsewhere, imports are expected to continue growing in 2020, partly aided by tariff cuts or suspensions. In Europe, this is the case in the **Russian Federation**, but also in the **EU** and the **United Kingdom of Great Britain and**

Figure 4. Rice imports by region

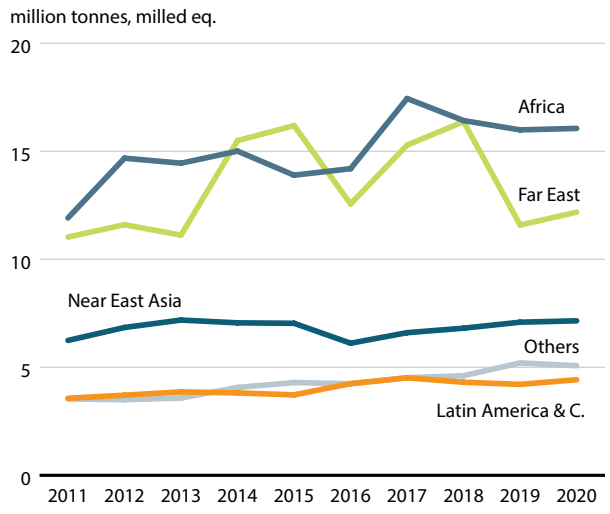


Figure 5. Rice exports by the major exporters

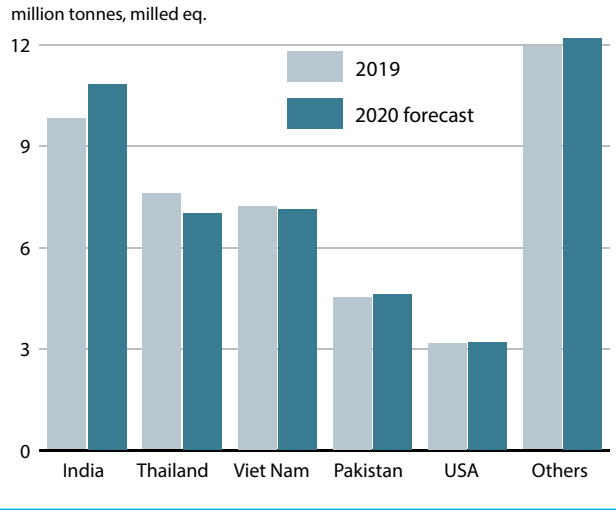
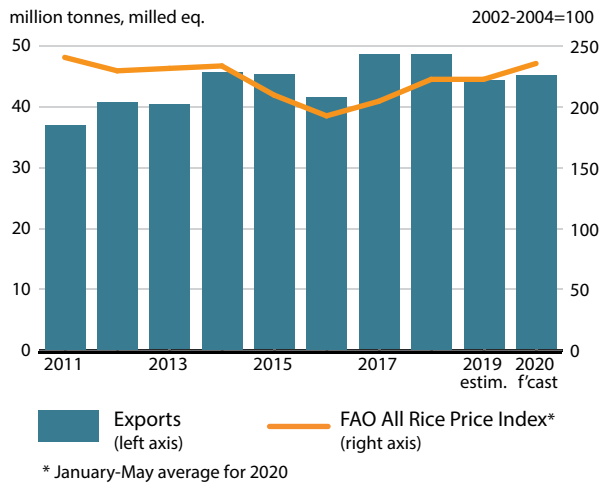


Figure 6. World rice trade and FAO all rice price index



Northern Ireland (UK).[1] In the latter two, strong demand for fragrant varieties, cuts to non-basmati husked rice tariffs, as well as scheduled reductions to safeguard duties on imports under the Everything-but-Arms Agreement, are all expected to underpin purchases. In the Americas, strong aromatic demand is likewise set to sustain record-breaking **US** imports, while **Bolivia (Plurinational State of)**, **Haiti**, **Mexico**, **Peru** and **Venezuela** are all anticipated to purchase more to compensate for production cuts or supply limitations. This would help to offset currency-led cuts anticipated in **Brazil**, as well as smaller deliveries to **Canada** and **Costa Rica**.

Among suppliers, the export outlook is most favourable for **India**, which may ship 10.8 million tonnes in 2020, up 10.5 percent from 2019, with its ample exportable availabilities permitting it to maintain a competitive edge over other origins. **China (mainland)** too is forecast to step up sales to some 3.2 million tonnes, consolidating its position as a net rice exporter and rivalling the US for the title of the fifth-largest global rice exporter. Indeed, despite strong demand from its traditional markets, a sharp production shortfall is set to curb **US** capacity to expand 2020 exports by a significant margin, much like **Pakistan** and **Uruguay**. However, supply tightness may be most detrimental to 2020 exports by **Thailand**, which could slide to a 7-year low of 7.0 million tonnes, due to lack of competitiveness. Shipments are also forecast to fall for **Australia**, **Brazil** and **Myanmar**, with deliveries by the latter kept in additional check by monthly quotas instituted in May. In the case of **Cambodia** and **Viet Nam**, given the swift repeal of export restrictions officially put in place earlier this year, expectations that their documented shipments will continue to grow remain unscathed. However, the export outlook is less positive on the unofficial cross-border front, due to heightened border controls and reduced demand from China (mainland) and the Lao People's Democratic Republic. This could keep overall Vietnamese shipments just under the 7.2 million tonne level of 2019, and those of Cambodia at 1.5 million tonnes.

Although subject to much uncertainty at this stage, global trade in rice in 2021 is preliminarily pegged at 47.6 million tonnes, up 6.2 percent from 2020. Anticipated ample exportable availabilities should support the predicted expansion, translating into more attractive international prices that could stimulate demand. In this context, aggregate African imports are seen expanding for the first time in four years in 2021, with purchases also forecast to increase in all other regions, except Asia. The rekindling of African demand could benefit the most exports by **Thailand** and **India**, although **Pakistan**, the **USA** and **Viet Nam** are all expected to expand their sales, while **Chinese** exports remain substantial.

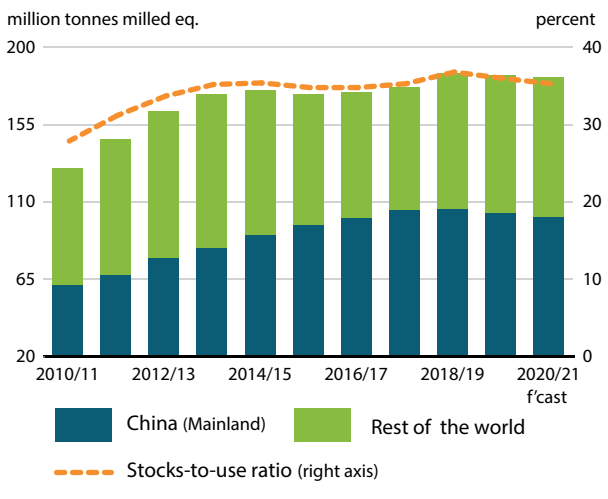
[1] Although the UK left the EU on 1 February 2020, a move reflected in the statistical tables, which list the UK separately from the EU as of 2020/21, the UK will continue to be part of the EU customs union, with EU/third-party trade agreements also applying to the UK, until 31 December 2020, the end of the transition period.

UTILIZATION

Rising Asian food intake to lift global rice use to a fresh peak in 2020/21

Underpinned by plentiful supplies, world rice utilization is forecast to expand by 1.6 percent in 2020/21 to a fresh peak of 510.0 million tonnes. **Food use** would account for much of this growth, increasing by 1.6 percent from 2019/20 to 420.0 million tonnes. This would put per capita food intake at 53.9 kg, up 0.6 percent year-on-year. As in 2019/20, Asia is envisaged to drive the food-use expansion, since in addition to population growth, the implementation of state assistance programmes geared towards enhancing access to rice by vulnerable consumers could further boost intake. This would especially be the case in countries such as Bangladesh, Indonesia and particularly India, where ample state reserves may encourage officials to extend the duration of expanded publicly-subsidized distribution schemes or open market sales launched in the context of the COVID-19 pandemic. Nevertheless, some production growth, complemented by greater imports, could also help intake in Africa to regain momentum, possibly surpassing population growth for the first time in three seasons. Little change in food-use patterns is expected for all

Figure 7. Global closing stocks and stocks-to-use ratio



other regions. On the other hand, **non-food uses**[2] could absorb 1.5 percent more than in 2019/20, for a total of 90.0 million tonnes, with this increase largely reflecting higher post-harvest losses in proportion to anticipated gains in global output.

STOCKS

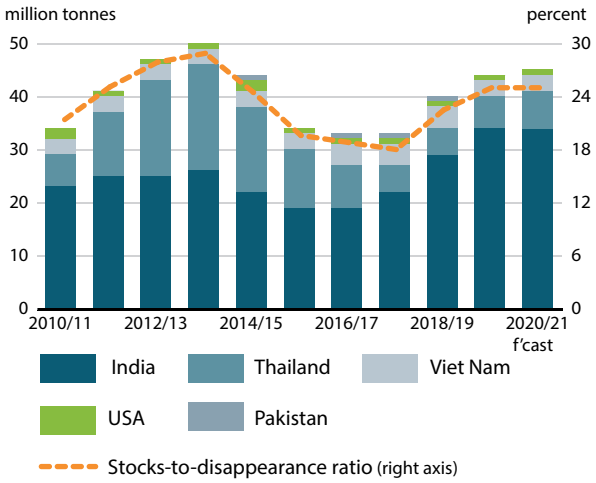
Sizeable Chinese reserves and continued build-ups in the major rice exporters to keep global stocks high

Global rice reserves at the close of 2020/21 marketing years are anticipated to edge down by 0.8 percent to 182.0 million tonnes. Yet, at this level, global carry-overs would stand at the third highest on record and be sufficient to cover more than four months of use. This would result in the **global stocks-to-use ratio** remaining at a lofty level of 35.3 percent in 2020/21, compared to 36.0 percent in 2019/20.

The relative abundant stock outlook hinges on expectations that reserves held by China (mainland) would remain over the 100 million-tonne mark for a fifth straight season, even if efforts to ease pressure on state granaries, namely through enhanced releases of state stocks, could trim these by 2.3 percent to 100.8 million tonnes. In addition to this, current prospects point to aggregate rice stocks in the rest of the world expanding for the third successive season to some 81.2 million tonnes. This growth would be primarily on account of an expected 4.2 percent increase in stockpiles held by the five major rice exporters,[3] as a group, to 46.0 million tonnes. If confirmed, this would mark a seven-year stock high for the group, notwithstanding expectations of disappearance[4] growing in the major exporters by an above-average rate of 4.6 percent in 2020/21. Within the group, Thailand is expected to see the largest stock increase, of close to 16.8 percent, to 6.6 million tonnes, due to a rebound in output and heightened competition for export markets. Under similar conditions, US stocks could stage a 37 percent annual upturn to 1.3 million tonnes, while large public local acquisitions raise reserves held by India to an all-time high of 34.3 million tonnes.

Elsewhere, Brazil, the Republic of Korea, Japan, the Philippines, Saudi Arabia, Sierra Leone, Sri Lanka and the United Arab Emirates are all predicted to close their respective seasons with greater rice reserves. By contrast, with little to no domestic production growth anticipated this season and limited imports, Bangladesh, Indonesia and Nigeria may need to recur to stock drawdowns to meet their consumption needs for a second successive year.

Figure 8. Stocks held by the five major rice exporters and stocks-to-disappearance ratio



[2] Encompassing feed, seed, post-harvest losses and industrial uses.
[3] India, Pakistan, Thailand, the USA and Viet Nam.
[4] Defined as the sum of domestic utilization and exports.

OILCROPS, OILS AND MEALS[1]

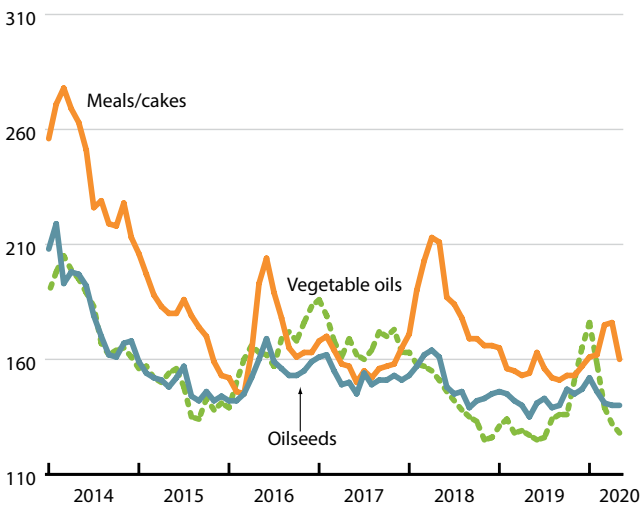
PRICES[2]

In 2019/20, prices of oilseeds and oilseed products retreat after initial gains

After lingering at multi-year lows during the 2018/19 season (October/September), international prices of oilseeds and derived products firmed in the first half of 2019/20. However, since February 2020, worldwide coronavirus (COVID-19) outbreaks generated considerable market uncertainty, prompting marked price retreats. Notwithstanding, in May 2020, FAO's price indices for oilseeds and oilmeals fared, respectively, 3.8 percent and 3.6 percent higher than their year-earlier levels, while the vegetable oils index stood only 0.5 percent above its value in the corresponding period of 2019.

The fresh gains in oilseeds prices at the beginning of the 2019/20 season primarily reflected protracted trade frictions between the USA and China, until the two countries signed the long-awaited 'Phase One' trade agreement in January 2020. Unfavourable weather conditions in pockets of South America and the EU also lent support to international prices, notably of soybeans and rapeseed. Entering into 2020, the worldwide outbreak of COVID-19 resulted in volatile market conditions. Temporary lockdowns imposed across the world to contain the spread of the disease cast doubts on global demand prospects, which, combined with uncertainties over China's future

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)

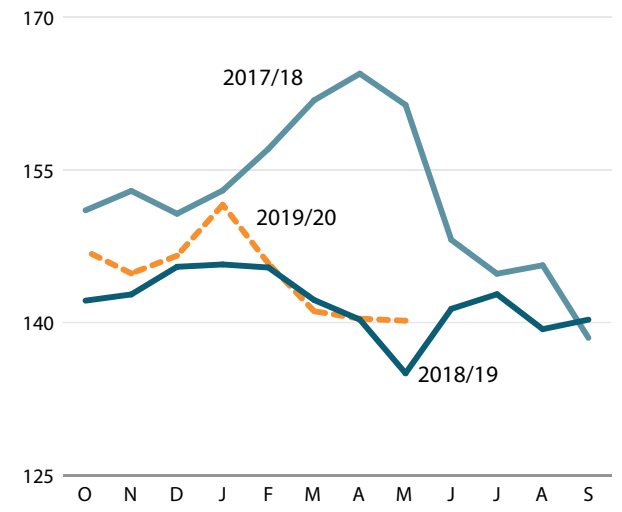


Figure 3. FAO monthly price index for oilmeals/ cakes (2002-2004=100)

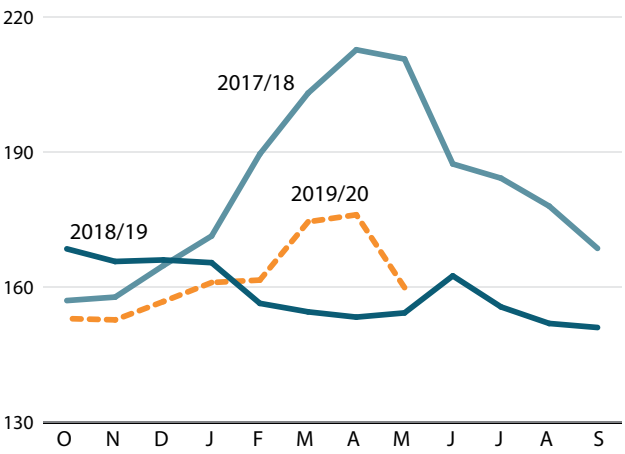
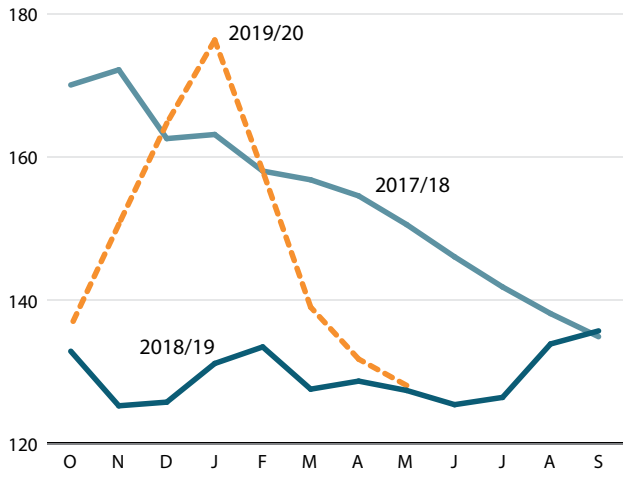


Figure 4. FAO monthly price index for vegetable oils (2002-2004=100)



purchases of US soybeans and reports of improved harvest conditions in South America, resulted in a contraction in international oilseed prices, led by soybean. Interestingly, FAO's price index for oilmeals showed prolonged strength relative to oilseeds, mainly tied to tightening supplies out of Argentina on COVID-19-related logistics constraints, as well as the prospect of rising feed demand in China, stemming from ongoing efforts to rebuild the country's hog herds. Eventually, however, during April 2020, world soymeal prices registered a pronounced contraction, caused by weakening feed demand in the USA, where a number of meat processing plants were forced to shut down to contain the spread of COVID-19.

With regard to prices of vegetable oils, international quotations appreciated considerably until January 2020, mainly reflecting firmer palm oil values. On the supply side, global palm oil production prospects were undermined by both low fertilizer applications and persistently dry conditions in key growing regions of Indonesia and Malaysia in 2019, while on the demand side, the implementation of higher blending mandates in Indonesia from January 2020 coincided with robust global import demand. However, vegetable oils quotations fell sharply from February 2020 onwards. Besides decreases in global food and non-food uses stemming from COVID-19 lockdowns, prices have also been impacted by plunging mineral oil values. The resulting changes in relative prices discouraged discretionary blending of vegetable oils into diesel fuel and affected the implementation of higher admixture mandates in Malaysia and Indonesia.

OILSEEDS

2019/20 oilseed production to decline from the preceding season's record

Falling short of the record-high output recorded in 2018/19, global oilseed production in 2019/20 is estimated at 584.3 million tonnes. The drop primarily reflects reduced yields as well as smaller harvested areas in several key producing countries following unfavourable weather conditions. Year-on-year declines concern, in particular, soybeans and rapeseed, whereas production gains are registered for sunflower seed and groundnut.

Global soybean production is pegged at 337.9 million tonnes, down markedly from last season's all-time high. In the northern hemisphere, production levels are set to fall across all major producing nations except **China**, where supportive policy measures continued to incentivize area expansion. The crop in the **USA** is reported at 96.8 million tonnes, marking the lowest level in the past six years. In addition to reduced plantings following

Table 1. World production of major oilcrops

	2017/18	2018/19 *est.*	2019/20 *f'cast*	Change 2019/20 over 2018/19
		million tonnes		%
Soybeans	345.1	365.6	337.9	-7.6
Rapeseed	75.9	73.1	69.2	-5.2
Cottonseed	44.6	43.4	42.6	-2.0
Groundnuts (unshelled)	42.3	40.7	42.4	4.1
Sunflower seed	50.3	53.6	56.7	5.8
Palm kernels	17.5	18.1	18.2	0.4
Copra	5.8	6.0	5.5	-8.2
Total	**581.5**	**600.5**	**572.5**	**-4.7**

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.

excessive wet weather during the sowing window, unfavourable growing conditions led to lower yield levels. In the case of **India**, soybean output fell on account reduced yields following untimely rainfall. In **Canada** and **Ukraine**, output dropped on both lower sowings and a return to average yield levels. In the southern hemisphere, **Brazil** is seen harvesting a record crop, as an increase in harvested area is expected to offset subdued yield levels. By contrast, production in **Argentina** is anticipated to decline, because of contractions in both area and yields.

With respect to rapeseed, global production is prone to decline for the second consecutive season to 69.2 million tonnes, led by the world's top two producers, the **EU** and **Canada**, where partial yield recoveries were insufficient to compensate for continued area contractions. On the other hand, outputs in **China** and **Ukraine** continue expanding, due to both area increases and better yields, while, in **Australia**, production could marginally recover amid productivity improvements.

Global sunflower-seed production is seen reaching a record high of 56.7 million tonnes on the back of continued output growth in **Ukraine** and the **Russian Federation**, where yields reached new highs, thanks to favourable weather conditions. In the **EU**, production remained close to last year's near-record level, as gains in harvested area were mostly offset by reduced productivity due to overly dry growing conditions. By contrast, crops in **China** and **Argentina** are estimated to decrease moderately, primarily tied to contractions in plantings.

As for groundnut, global output is anticipated to recover from last season's reduced level, setting a new record of 42.4 million tonnes. The year-on-year rebound mainly reflects a full recovery of production in **India**, where yield improvements more than offset a drop in area. Harvests in **China**, the world's top producer, continued to expand, while the crop in the **USA** stalled at last season's level.

OILS AND FATS[3]

World oils/fats production to contract in 2019/20

The above oilcrop forecasts are expected to translate into a modest year-on-year contraction in oils/fats production to 235.4 million tonnes, down 2.3 percent from the record level registered in 2018/19. With regard to individual oils, marked declines in soy, rapeseed and, to a lesser extent, copra, cottonseed, olive and fish oils are anticipated to outweigh gains in palm, sunflower-seed and groundnut oil output. As for palm oil, global output is forecast to rise only fractionally, tied to protracted dry conditions in the latter half of 2019 across the main growing regions of Southeast Asia and reduced fertilizer applications by producers. While production in **Indonesia** is anticipated to expand at a slower pace, output in **Malaysia** is seen declining year-on-year, as several large oil-palm plantations were forced to shut down temporarily to contain the spread of COVID-19, thereby disrupting harvesting activities in the world's second largest producer. In the case of soyoil, sizeable production drawdowns are expected in the **USA** and **Argentina**, mirroring their reduced soybean harvests.

Global oils/fats supplies, which comprise 2018/19 carry-out stocks, are forecast to decline by around 2.5 percent year-on-year. Lower domestic availabilities are expected in

[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 5. Global production and utilization of oils/fats

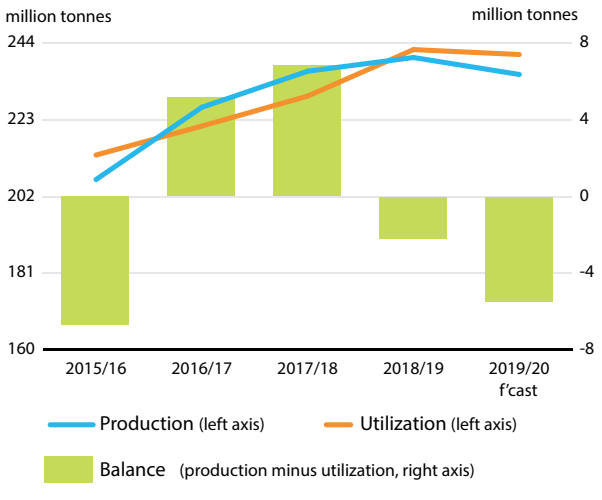


Table 2. World oilcrops and product market at a glance

	2017/18	2018/19 estim.	2019/20 f'cast	Change: 2019/20 over 2018/19
		million tonnes		%
TOTAL OILCROPS				
Production	593.1	612.3	584.3	-4.6
OILS AND FATS[1]				
Production	236.3	241.0	235.4	-2.3
Supply[2]	273.4	281.3	274.3	-2.5
Utilization[3]	229.5	242.2	240.9	-0.6
Trade[4]	126.3	132.0	131.1	-0.7
Global stocks-to-use ratio (%)	*17.6*	*16.1*	*14.1*	
Major exporters stocks-to-disappearance ratio (%)[5]	*12.0*	*12.4*	*10.8*	
MEALS AND CAKES[6]				
Production	153.1	158.7	149.2	-6.0
Supply[2]	184.1	189.0	181.9	-3.8
Utilization[3]	151.5	153.9	155.3	0.9
Trade[4]	98.1	98.7	100.0	1.2
Global stocks-to-use ratio (%)	*20.0*	*21.2*	*17.6*	
Major exporters stocks-to-disappearance ratio (%)[7]	*12.4*	*15.4*	*11.9*	

FAO PRICE INDICES (Oct-Sept) (2002-2004=100)	2018	2019	2020 Oct-May	Change: Oct-May 2020 over Oct-May 2019 %
Oilseeds	152	142	145	1.6
Oilmeals/cakes	182	159	162	0.9
Vegetable oils	154	130	148	14.8

Note: Refer to footnote 1 on page 30 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.

several producers, notably **China**, the **EU**, **Malaysia** and the **USA**, largely reflecting output reductions. By contrast, supplies in **Brazil** and **Indonesia** would increase marginally, with production gains more than offsetting drops in opening stocks.

Growth in oils/fats consumption seen stalling in 2019/20

Global consumption of oils/fats is forecast to stagnate in 2019/20, trailing just behind the record level registered in 2018/19. Contractions in uptake are expected for rapeseed oil and, to a lesser extent, palm and soybean oils, which would outweigh moderate increases in sunflower, palm kernel and groundnut oil utilization. It is important to note that the full impact of the COVID-19 pandemic on demand remains uncertain. More pronounced and protracted repercussions than currently anticipated cannot be excluded.

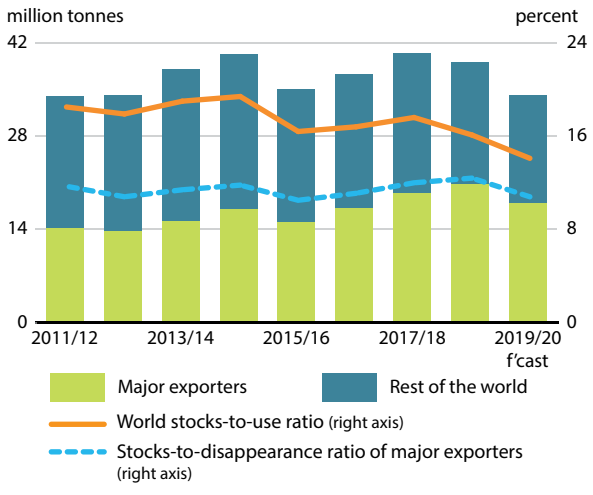
As a group, developing countries in Asia could see their oils/fats consumption stalling at last season's level, with year-on-year drops in **China**, **India** and **Malaysia** offset by modest growth in **Indonesia**. Elsewhere, decelerated growth is expected in **Brazil**, whereas oils/fats uptakes in the **EU** and **USA** are anticipated to decline.

Besides setbacks in food consumption and other traditional uses stemming from coronavirus-related economic impacts, demand from the biofuel sector is also expected to plunge. While temporary lockdowns across the world (to contain the spread of COVID-19) weighed on demand of all types of fuel, sharply lower mineral oil prices also took a toll on the use of oils/fats as fuel feedstock, as the change in relative prices discouraged discretionary blending. In the **EU**, eroding biodiesel demand is expected to dampen both consumption of locally produced rapeseed oil and imports of soyoil-based biodiesel from **Argentina**. Moreover, due to the reduced competitiveness of biodiesel, the Government of **Malaysia** recently decided to suspend the ongoing implementation of higher national blending mandates for palm oil-based diesel, while actual biodiesel admixture levels could also be affected in **Indonesia**.

Global inventories of oils/fats likely dropping to multi-year lows

Based on the foreseen modest shortfall of production relative to global utilization, world ending stocks (including the oil contained in stored oilseeds) in 2019/20 are forecast to fall to a 7-year low of 34 million tonnes.

Figure 6. World stocks and ratios of oils/fats (including the oil contained in seeds stored)



Commodity-wise, inventories of soy, palm and rapeseed oils are all expected to see a year-on-year drop, whereas sunflower oil reserves could climb to a record, due to fresh production gains.

Among the main stockholding countries, inventory drawdowns are forecast for the **USA**, **China**, the **EU** and, to a lesser extent, **Argentina**, **Canada** and **Malaysia**. Only **Indonesia** could see a marginal build-up of stocks, amid continued output growth and subdued export prospects.

Based on the above forecasts, the global stocks-to-use ratio for oils/fats would decline to a multi-year low in 2019/20, while the stocks-to-disappearance ratio for the major exporting countries[4] would remain within the range observed in recent years.

Expansion in global oils/fats trade could come to a halt

After growing steadily for the past couple of decades, international trade in oils/fats is forecast to contract slightly in 2019/20, amounting to 131.1 million tonnes (including the oil contained in traded oilseeds). The anticipated drop mostly reflects a likely decline in palm oil sales, tied to sluggish demand from major importing countries amid narrowing price spreads versus competing soft oils. Conversely, soy and sunflower oil transactions are expected to rise to new highs, while global trade in rapeseed oil is seen stalling at last season's level, due to the anticipated weakening of global demand, especially from biodiesel producers. As a result, the market share of palm oil is set to drop slightly, though palm oil would maintain its position as the leading traded oil.

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

Figure 7. Total oils/fats imports by region or major country (including the oil contained in seed imports)

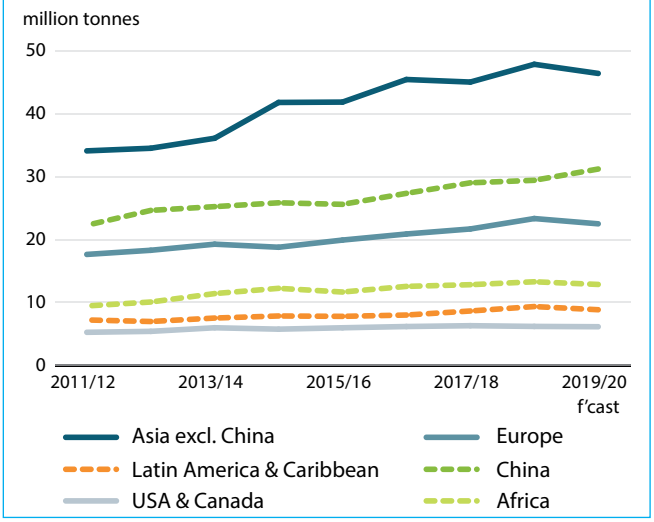
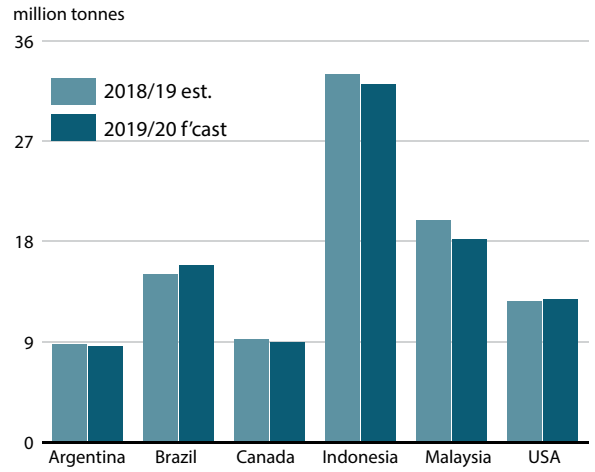


Figure 8. Oils/fats exports by major exporters (including the oil contained in seed exports)



On the import side, lacklustre demand is expected to dent purchases by the **EU** and **India**, the world's second and third largest oils/fats importers. By contrast, imports by **China**, the world's top buyer (including the oil contained in oilseed imports), are seen expanding in 2019/20, underpinned by a rebound in soybean purchases.

Regarding exports, forecasts of lower shipments from **Indonesia**, **Malaysia** and **Argentina** are forecast to outweigh sales increases by **Brazil**, the **USA** and, to a lesser extent, **Ukraine** and the **Russian Federation**. While Indonesia's and Malaysia's palm oil shipments are prone to trail behind last season's record levels due to deteriorating import demand, Argentina's exports are anticipated to shrink on reduced domestic availabilities. On the other hand, rising import demand for soyoil – thanks to the oil's improved price competitiveness relative to palm oil – should allow shipments from Brazil and the USA to rise, while deliveries by Ukraine and the Russian Federation are seen climbing to unprecedented levels, underpinned by abundant domestic supplies of competitively priced sunflower oil.

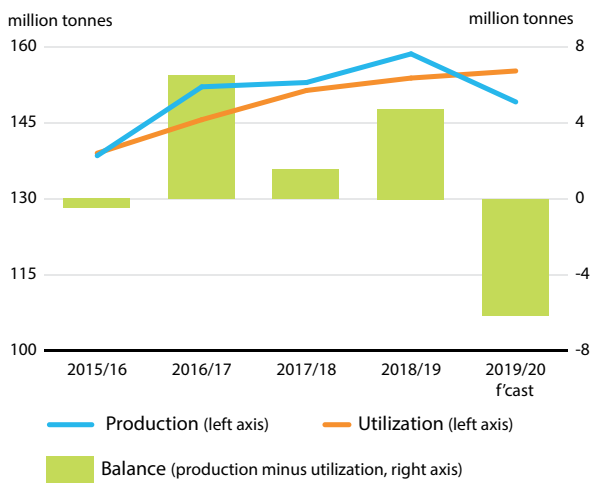
MEALS AND CAKES[5]

Global meals/cakes production to contract strongly in 2019/20

After rising three years in a row, global meals/cakes production in 2019/20 is expected to contract markedly to 348.9 million tonnes (expressed in product weight), down around 6 percent year-on-year. Soymeal would account

[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.

Figure 9. Global production and utilization of meals/cakes (in protein equivalent)



for most of the decline, primarily linked to sharply lower soybean production in the **USA**.

Conversely, global meal/cake supplies are forecast to decrease by only 3.7 percent, due to large carry-in stocks. Domestic availabilities are expected to contract in the **USA**, **China**, **Argentina** and, to a lesser extent, the **EU**, **Canada** and **India**, mostly as a result of reduced harvests – except for China, where supplies would fall on account of low opening stocks. By contrast, supplies in **Ukraine** and the **Russian Federation** are forecast to grow, supported by both production gains and sizeable carry-over inventories at the beginning of the season. In **Brazil**, multi-year low opening stocks are expected to limit supply growth.

Global meals/cakes consumption to continue growing at a below-average rate

After the slowdown in growth of meals/cakes consumption observed last season, expansion in global uptake is forecast to decelerate further in 2019/20, largely attributable to lower global supplies and repercussions from the worldwide spread of COVID-19.

In the **USA** and **Brazil**, utilization is set to grow at below-average rates, while modest contractions are expected in the **EU** and **Argentina**. In the USA, to contain the spread of COVID-19, several meat processing plants were forced to temporarily suspend their operations, which resulted in reduced feed demand. By contrast, a rebound in utilization is envisaged for **China**, where national hog herds are being rebuilt after the decimation caused by African swine fever. In addition, attractive feeding margins may prompt shifts towards feed rations with higher protein content, further stimulating demand for meals/cakes in China.

Global meals/cakes inventories could drop significantly in 2019/20

With meals/cakes consumption anticipated to surpasses global production, end-of-season stocks (including the meal contained in seed stocks) are forecast to drop substantially to about 62 million tonnes in 2019/20, marking the lowest level since 2013/14. Reserves of the world's leading protein meal – soymeal – are set to decline, while inventories of rapeseed, sunflower seed and other meals would also fall.

The most pronounced drawdown is envisaged in the **USA**, where a sharply lower soybean harvest, combined with firm consumption, is expected to result in a release of one-third of the country's inventories. Stock disposals are also likely in **Argentina**, **Brazil**, **Canada** and the **EU**, whereas **China** is seen replenishing its reserves, underpinned by rising meal production, following a rebound in soybean imports.

Based on the above forecasts, both the global stocks-to-use ratio and the stocks-to-disappearance ratio for the major exporters[6] would drop compared to last season, which explains the rise in international meal prices observed in the first half of the current season.

Global meals/cakes transactions set to expand at a subdued rate

International trade in meals/cakes (including the meal contained in traded oilseeds) is expected to continue expanding at a subdued rate in 2019/20. While trade transactions of soybean and rapeseed meal could recover somewhat from last year, the pace of expansion would

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

Figure 10. World stocks and ratios of meals/cakes (in protein equivalent and including the meal contained in seeds stored)

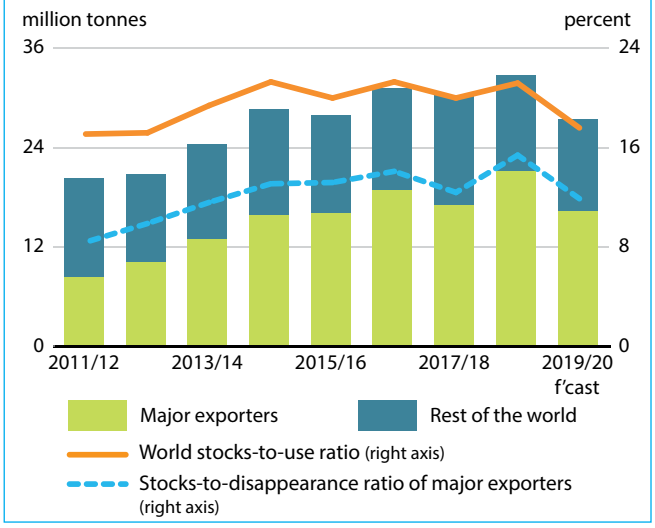


Figure 11. Total meal/cake imports by region or major country (in protein equivalent and including the meal contained in seed imports)

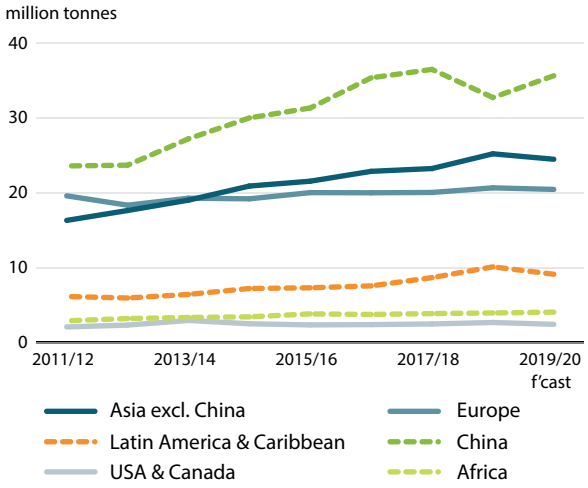
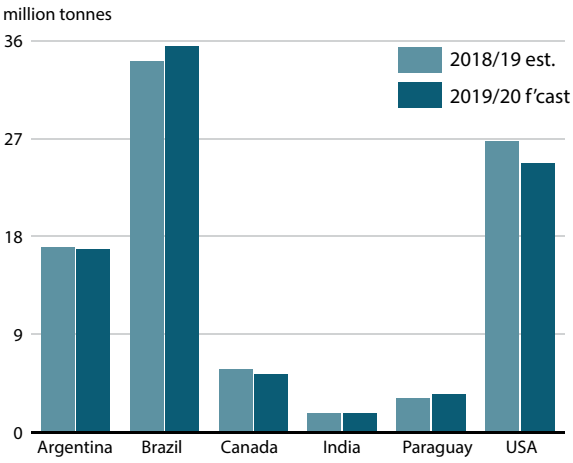


Figure 12. Meal/cake exports by major exporters (in protein equivalent and including the meal contained in seed exports)



still fall behind the levels recorded in recent years. Only transactions of sunflower-seed meal are forecast to see a sizeable increase, supported by abundant global supplies and firm import demand.

On the import side, meal purchases by **China**, by far the world's largest importer and consumer, are envisaged to rebound strongly (after last season's sharp drop), due to both the ongoing reconstitution of hog inventories and potential shifts towards high-protein animal feed formulas. On the other hand, in the **EU**, as well as in **Thailand**, **Viet Nam** and a few other Southeast Asian nations, purchases are seen stalling or contracting, largely tied to sluggish demand in the aftermath of COVID-19 outbreaks.

With regard to exports, shipments from **Brazil** are anticipated to climb to an all-time high in 2019/20, fueled by a pronounced depreciation of the national currency, further consolidating the country's position as the world's leading meal supplier (including the meal contained in seed exports). By contrast, deliveries from the **USA** and **Argentina** could contract on the back of reduced soybean crops. In the case of Argentina, exporters also faced temporary disruptions at ports due to COVID-19-related lockdown measures. Noticeably, consignments from **Ukraine** and the **Russian Federation** may raise to new highs, aided by large domestic sunflower-seed supplies amid robust global import demand.

2020/21 PRODUCTION OUTLOOK

With the 2019/20 season still ongoing, it is very early to make concrete world supply and demand projections for 2020/21. At present, only limited information is available regarding the new crops in northern hemisphere countries, where plantings are currently under way, while in the southern hemisphere, sowings will only commence in the last quarter of 2020. In view of somewhat higher oilseed prices, total plantings could see a modest expansion, which, assuming normal growing conditions, should lead to a rebound in global oilseed output in 2020/21, to possibly a new record.

With regard to individual crops, global soybean and rapeseed production may see a marked recovery from the current season's reduced level, whereas production of sunflower seed, groundnut, cottonseed, palm kernel and copra could climb to near record, if not record levels. The anticipated rise in global soybean production hinges on expectations of trend yields and a rebound in plantings in the **USA**. In **Brazil**, assuming average growing conditions, a further expansion in area sown based on improved profitability could result in another record output, while, in **Argentina**, production gains would mainly stem from a recovery in yields. **China**'s output could also expand, as plantings increase further amid continued crop support measures. As for rapeseed, global production is projected to rebound moderately. Despite limited yield potential due to prolonged dry conditions, aggregate output of the **EU**[7] and the **United Kingdom of Great Britain and Northern Ireland** (UK) could edge up, aided by higher plantings. Output in **Australia** could also continue rising, supported by gains in both area and yields, while **Canada**'s production could remain about unchanged. By contrast,

[7] Please note that – from the 2020/21 season onward – EU is defined as EU-27 (excl. UK) rather than EU-28.

production in **Ukraine** is forecast to decline, due to a retreat in sowings. In the case of sunflower seed, slight production drops in **Ukraine** and the **Russian Federation** amid a return to average yield levels could be more than offset by output gains in **Argentina** and **China** on higher plantings. While global groundnut production may see a marginal area-driven expansion, higher cottonseed, palm kernel and copra outputs would be facilitated primarily by yield improvements.

The above highly tentative crop production forecasts, together with a resumption in global palm oil production growth, would translate into sizeable year-on-year increases in the output of both meals/cakes and oils/fats. Growth in global oils/fats utilization is forecast to resume, while meals/cakes consumption is projected to continue expanding modestly. Global demand for oils/fats could again exceed production, possibly triggering additional drawdowns in inventories, whereas meals/cakes stocks could see modest replenishments. If this were to materialize, the resulting stock-to-use ratios would remain close to the current season's values and thus below the level observed in recent years. Of course, this outlook remains subject to a number of uncertainties, notably concerning the further evolvement of the COVID-19 pandemic and its impact on crop production and demand, as well as on individual countries' overall economic performance. Implementation of the US-China 'Phase One' trade agreement and national policies regarding mandatory biodiesel consumption represent additional sources of uncertainty.

SUGAR

PRICES

International sugar price tumble to multi-year lows

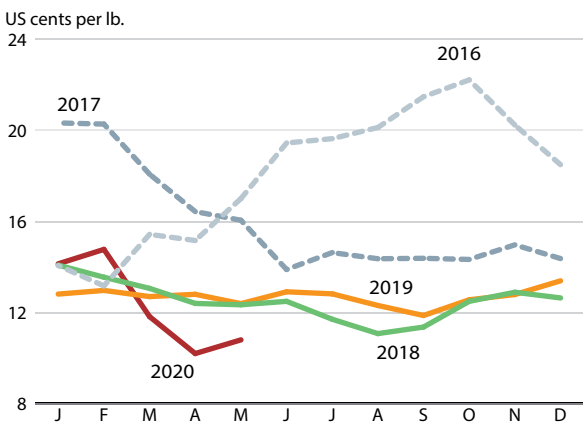
Since the release of the last issue of the Food Outlook report in November 2019, international sugar prices, as measured by the **International Sugar Agreement's daily prices** for raw sugar, have displayed rapid changes. Quotations increased from US 13.4 cents per pound (lb)[1] in December 2019 to reach US 14.78 cents per pound in February 2020, before drastically falling to US 11.83 cents per pound and US 10.91 cents per pound in March and May 2020, respectively.

The recent drops in international sugar prices can be attributed to four main factors. First, the confinement measures imposed by countries to contain the spread of COVID-19 reduced out-of-home demand for sugar and sugar-based products. Second, the dramatic fall in crude oil prices, which lost 63.5 percent between January and April 2020, resulted in sugar mills using more sugarcane for the production of sugar rather than ethanol. Third, the economic recession resulting from the current pandemic curbed demand for sugar, as the sector is sensitive to economic performance, given that the bulk of demand comes from the food and beverages industries. Finally, international sugar prices were largely influenced by movements in the Brazilian currency (*real*), which depreciated by 28 percent against the US dollar between January and April 2020. A weaker real encourages Brazilian producers to sell their product on the world market, increasing export supplies. The combined effect of these factors has had a negative impact on world sugar quotations, which were down by about 12 percent in May 2020 compared with the same month in 2019, and by 11 percent compared with May 2018.

At these current levels, international sugar prices are below production costs for the vast majority of world producers, including Brazil, where costs of production are estimated between US 13.5 cents and US 15 cents per pound. At the same time, the rate of consumption

[1] Equivalent to USD 280.2 per metric tonne.

Figure 1. International sugar prices*



* as measured by the International Sugar Agreement (ISA)

growth that could lift prices is not happening, as discussed previously. The supply side of the market would therefore have to adjust quite markedly for prices to return to more remunerative levels. Given the perennial nature of sugarcane crops, the shift in supply will take some time to materialize. Nonetheless, the expected production deficit for 2019/20 and preliminary forecasts for 2020/21 indicating another consecutive year of deficit should help to bring about a more balanced market, providing a base for prices to recover.

PRODUCTION[2]

World sugar production to decline for the second year in a row in 2019/20

World sugar production in 2019/20 is forecast by FAO at 169.6 million tonnes (October/September), a 3 percent, or 5.1 million tonnes, a decline from the 2018/19 crop, which was already lower with respect to 2017/18 record season. Unfavourable weather conditions have led to lower output in some of the key producing countries, the most notable cases being **India** and **Thailand**. The expected fall in world sugar output would result in the first marked global deficit, of around 6 million tonnes, since 2016/17. The bulk of the decline in world output is anticipated to occur in **India** and **Thailand**, where the combined production is forecast to retract by about 12 million tonnes.

In *South America*, the latest indications point that production could increase in 2019/20, amid slight increases in area planted and favourable conditions in Brazil, the world's largest producer and exporter of sugar. In **Brazil**, the low crude oil prices and the depreciation of the Brazilian *real* have strongly increased the attractiveness of sugar production, compared to ethanol. Brazil's production is estimated to rise to 35 million tonnes, up 6.6 million tonnes from 2018/19. About 40 to 45 percent of the sugarcane harvest is expected to be used to produce sugar – significantly higher than last season, when sugar mills converted about 35.4 percent of the crop into sugar. Brazil's sugar output is influenced by changes in the ethanol-sugar price ratio – the higher the ratio, the larger the cane harvest used to produce ethanol at the expense of sugar. Elsewhere in South America, sugar production is anticipated to increase in **Peru and Argentina**, while it is forecast to remain relatively stable in **Colombia**, the region's second largest producer.

In *Central America and the Caribbean*, 2019/20 sugar production in **Mexico** is forecast to decrease, following a drop in sugarcane yields and sugar extraction rates (-10 percent). In **Guatemala**, despite strong competition from alternative crops, notably bananas, which led to a reduction in area harvested in recent years, sugar output in 2019/20 could remain at about the same level as in the previous season, or increase marginally. In **Cuba**, sugar production is set to increase by 19 percent in 2019/20, compared to 2018/19, reaching 1.6 million tonnes, as the sugar subsector continues to benefit from support by the Government. Better sugar recovery rates, coupled with a larger harvested area, are behind the anticipated production increase in 2019/20, as the restructuring of the subsector has attracted new investments. However, reports of frequent input shortages could hamper plans for recovery.

[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

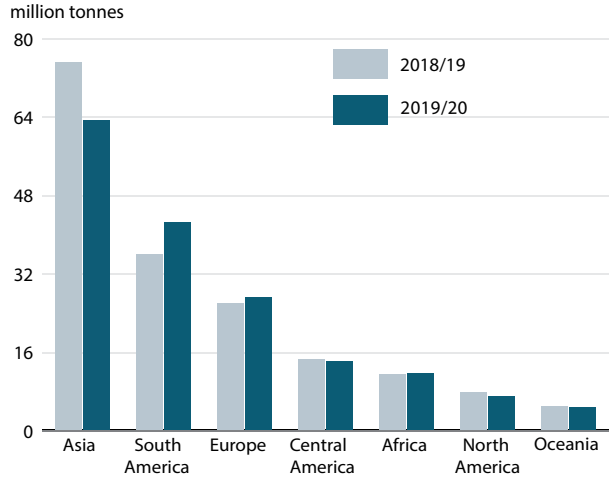


Figure 3. Sugar production in major producing countries

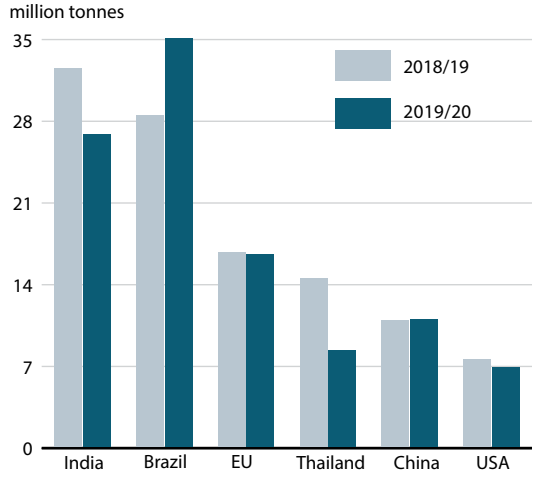


Table 1. World sugar market at a glance

	2017/18	2018/19 *estim.*	2019/20 *f'cast*	Change: 2019/20 over 2018/19
	million tonnes			%
WORLD BALANCE				
Production	**181.1**	**174.6**	**169.6**	**-2.9**
Trade	**61.6**	**55.8**	**58.7**	**5.3**
Total utilization	**171.1**	**173.9**	**175.7**	**1.0**
Ending stocks	**93.1**	**93.9**	**87.8**	**-6.6**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	22.7	22.8	22.8	0.0
LIFDC (kg/yr)	16.7	16.7	16.7	0.1
World stocks-to-use ratio (%)	**54.4**	**54.0**	**49.9**	**-7.5**

ISA DAILY PRICE AVERAGE (US cents/lb)	2018	2019	2020 *Jan-May*	Change: Jan-May 2020 over Jan-May 2019 %
	12.52	12.70	12.36	-3.0

In *Africa*, 2019/20 total sugar production is set to rise, prompted by continued area expansion and improved processing capacities. **Ethiopia, Eswatini, South Africa, Zimbabwe and Morocco** are among the countries that are anticipated to harvest larger crops. Production in the rest of Africa is expected to remain similar to the previous year's levels. The substantial expansion projects undertaken by the Government in **Ethiopia**, with a declared strategy of achieving self-sufficiency, underpin the sustained growth in the sector witnessed over the past five years. Sugar output in **South Africa** has recently been expanding, but at a moderate rate, as labour disputes and land reform challenges have limited a more significant increase.

In *Asia*, total sugar production is forecast to contract in the 2019/20 season. The anticipated cutbacks are attributed mainly to **Thailand** (-42 percent) and **India** (-17 percent), both due to unfavourable weather conditions. Output is also expected to decline in **Pakistan**. By contrast, production is set to expand slightly in **China**, **Indonesia** and **Turkey**. In **Thailand**, unfavourable weather conditions throughout the growing season are expected to lead to a strong reduction estimated at 6 million tonnes in the country's sugar output compared with the 2018/19 level. The decline is also underpinned by some shifts to other crops, notably rice, in the northeastern part of the country, in response to the low sugarcane prices. The temporary deregulation of the domestic sugar market, which calls for the elimination of domestic sugar price controls and sugar sales administration, and implemented by the Government on 15 January 2018, is not seen to have a negative impact on the sugar subsector. In **India**, currently the world's second largest sugar producer, after being the top producer in the previous two seasons, production is expected to fall by 5.6 million tonnes below last season's level as a result of acute drought conditions that affected important sugarcane producing regions, notably Maharashtra, Karnataka and Gujarat. Production is also foreseen to contract in **Pakistan**, amid reductions in planted area, as farmers shift to alternative crops such as cotton and maize, due to low cane prices and payment problems with the millers. By contrast, sugar production in **China** is anticipated to increase slightly in 2019/20, due to the ongoing expansion of the beet industry and a rebound in cane sugar production in the southern growing regions. **Indonesia's** sugar output is forecast to rise from the 2018/19 level, sustained by a buoyant demand, but this might be constrained by a lack of investment. In **Turkey**, the world's fifth largest sugar beet producer, output is forecast to increase based on an expected recovery in the planted area, following the drop in the previous season.

In *Europe*, FAO's latest estimates for the **EU** point to a further 1 percent cutback in sugar production in 2019/20, after a significant drop in 2018/19. The EU continues to deal with dry weather conditions, which have kept beet yields low, while the area planted has decreased slightly. With the elimination of production quotas, the EU is projected to become self-sufficient in sugar in the medium term, while the price gap between EU white sugar and world white sugar is anticipated to tighten, as witnessed in 2018/19 and so far into the 2019/20 season. Nevertheless, there are two main downside risks for the subsector. First, the significant decline in profitability at mill level has renewed expectations of consolidation in the sector, as economies of scale become critical. Already, there have been announcements of mill closures and strategic alliances to cope with the financial pressure on profit margins. Second, the ban on certain neonicotinoids is set to create significant challenges at farm level, as producers will have to look for alternatives to maintain remunerative yield levels. In the **Russian Federation,** production in 2019/20 is expected to increase by 28 percent year-on-year, reaching 7.7 million tonnes – an all-time high – on the back of conducive weather conditions and gains in productivity at mill level. By contrast, sugar production in **Ukraine** is set to decline for a second consecutive year, as planted area has shrunk further in reaction to low prices.

In the *rest of the world*, production in the **United States of America (USA)** is forecast to fall for the second year in a row, following lower beet and cane harvests,

which were affected by cold temperatures, reducing sugar extraction rates. In **Australia**, 2019/20 sugar production is anticipated to decrease, due to bad weather and a decline in planted area.

UTILIZATION

Growth in consumption remains subdued

Global sugar consumption is forecast to reach 175.7 million tonnes in 2019/20, up only 1.7 million tonnes, or 1 percent, from 2018/19 and below the past 10-year trend. Falling per capita income and COVID-19 related lockdown measures are expected to curtail growth in world sugar demand, while low prices should limit the extent of the decline. Under current prospects, world per capita sugar consumption is estimated at 22.8 kg, about the same level as in 2018/19. In developing countries, aggregate sugar use is anticipated to expand from 130.1 million tonnes to 131.5 million tonnes, equivalent to 76.3 percent of the world's total use, underpinned by expected expansions mainly in *Asia, Africa* and the *Caribbean*. In the generally saturated markets of the developed countries, both total and per capita consumption might grow but only moderately.

Three elements of uncertainty underpin the prospects for sugar consumption. First, should the economic outlook for 2020 deteriorate further, current forecasts for sugar consumption growth may turn out to be lower than anticipated. Weaker economic growth usually leads to reduced derived demand for sugar, as beverages and food processing sectors – which account for the bulk of aggregate sugar use – are negatively impacted by depressed economic conditions. Second, countries have introduced lockdown measures to contain the spread of COVID-19. At this point, the extent of the impact of these measures on consumer demand for beverages, and hence sugar, remains uncertain. Finally, movements in the value of currencies of the major sugar net importing countries vis-à-vis the US dollar can alter the cost of sugar imports (denominated in national currencies), and hence domestic prices and overall consumption.

TRADE

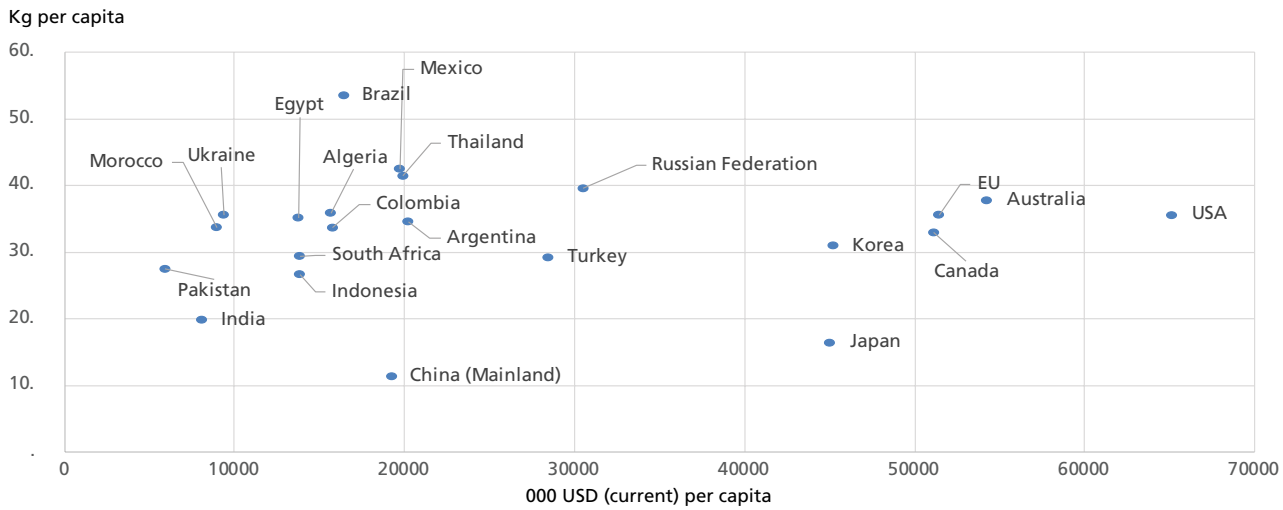
Sugar trade to increase slightly in 2019/20

The FAO forecast for world trade in sugar in 2019/20 (October/September) is currently pegged at 58.7 million tonnes, up by 5 percent from the previous season. The anticipated increase in trade is sustained by greater import prospects for a number of traditional large importers, including **Indonesia**, the **USA** and the **EU**. Nonetheless, the trade outlook remains tentative as the full impact of the current coronavirus pandemic is extremely uncertain at this stage.

Brazil's exports in 2019/20 are foreseen to rebound by 27 percent from the previous season's level, prompted by sizeable sugar supplies. The country is set to account for about 39 percent of world exports in 2019/20. The bulk of Brazilian sales is in raw form and shipped mainly to the markets of **Algeria**, **Bangladesh** and **Egypt**. However, the final volume of Brazilian exports will depend on the quantity of sugarcane processed into ethanol, especially given the tight relationship between gasoline and hydrous ethanol domestic prices. In addition, any further appreciation of the Brazilian *real* against the US dollar could limit the country's exports.

Despite a significant contraction in sugarcane harvest,

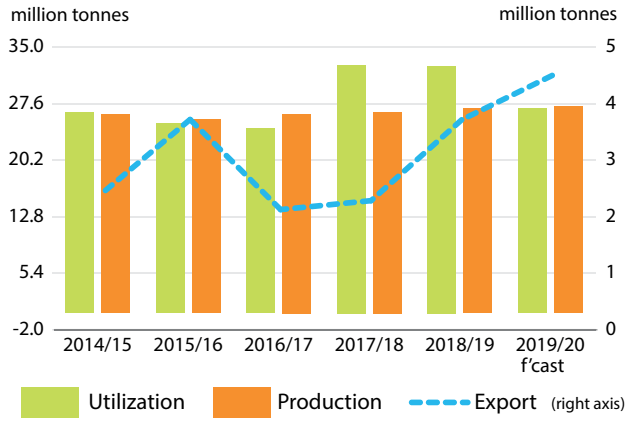
Figure 4. Sugar consumption and income per capita in selected countries, 2019



Thailand is set to maintain its rank as the world's second largest sugar exporter, with shipments forecast to reach 7.8 million tonnes in 2019/20. Large accumulated sugar inventories from last's season bumper crop should allow the country to respond to global import demand. Around 60 percent of Thailand's exports are expected to be shipped in raw form to neighbouring countries, including **Indonesia**, **Cambodia**, **China** and **Japan**. Thai exports to the Association of Southeast Asian Nations (ASEAN) countries benefit from duty-free access, with the exception of **Indonesia**, **Myanmar** and the **Philippines**, where an import tariff of 5 percent is charged.

Likewise, as a result of relatively elevated stocks, as well as recently approved measures to encourage exports, sales by **India** are foreseen to rise by 21 percent in 2019/20 to reach 4.5 million tonnes. The objective of the support measures, most notably a transport subsidy, is to provide sugar millers with additional cash flow through export revenues, which can help to address accumulating sugarcane arrears. India's exports are composed of raw sugar and geared towards markets in *Africa* and *Asia*. **Brazil** and **Australia** recently asked the World Trade Organization (WTO) to open a consultation with **India** regarding its subsidy programme, claiming that it distorts world sugar trade. Deliveries from **Australia**, the world's third largest raw sugar exporter, are forecast to decline to 3.6 million tonnes in 2019/20, down 8 percent from the previous 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** and **Indonesia** signed a similar agreement, which should provide new trade opportunities for the Australian sugar industry.

Figure 5. India: sugar production, export and utilization



After surging to 3.1 million tonnes in 2017/18, corresponding to a 136 percent increase from 2016/17, **EU** sugar exports are likely to retreat year-on-year by 36 percent in 2019/20, on the back of the anticipated decline in production and low world sugar prices. Likewise, sales by **Mexico** are expected to contract due to lower domestic production, with the exported quantities directed to the **USA** to meet the assigned maximum quota allotment of sugar. Exports by **Guatemala**, the second largest sugar exporter in *Central America and the Caribbean*, are foreseen to grow by 5 percent in 2019/20, supported by greater 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. Exports by **Cuba** are also forecast to increase, in view of the bumper crop expected in 2019/20, with the bulk of sales directed to **China**, as part of an export agreement between the two countries.

On the import side, purchases by *Asian* countries are forecast to increase by 2 percent in 2019/20, compared to 2018/19, sustained by imports by **Indonesia**, **Malaysia**, **India** and the **Philippines**. Imports by **China** are expected to fall slightly below their level of last year, on the back of larger domestic sugar crops in 2019/20. Imports do not account for informal trade, which can constitute a sizeable volume. Nevertheless, **China** is expected to retain its rank as the world's largest sugar importer, with purchases likely to increase beyond the current forecasts, as the planned reduction in the safeguard duty will probably stimulate additional demand. Likewise, sugar imports by **Indonesia** are foreseen to remain strong and expand by 4 percent, underpinned by robust domestic demand, especially from the beverage and food processing industries. Imports into **Indonesia** are regulated by the Government through the allocation of permits at the beginning of each year.

In *Europe*, imports by the **EU** are forecast to expand by 20 percent from the previous season, on the back of the expected reduction in domestic sugar production in 2019/20. With higher imports by the EU, duty-free preferential imports from Everything-but-Arms countries are expected to increase, while the WTO's CXL quotas[3] may also be used. In the **Russian Federation**, as a result of rising domestic production, imports are anticipated to

[3] CXL quotas result from a 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.

Figure 6. World sugar exports by region

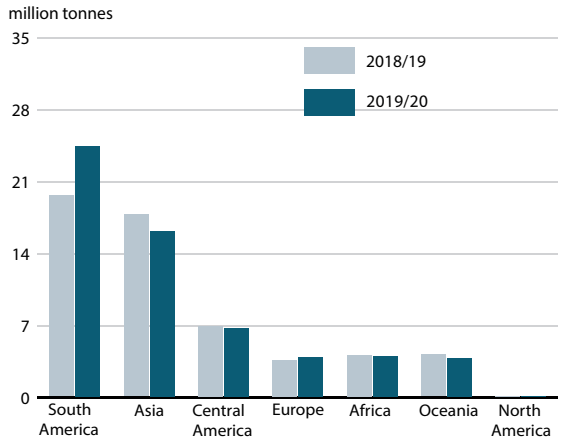
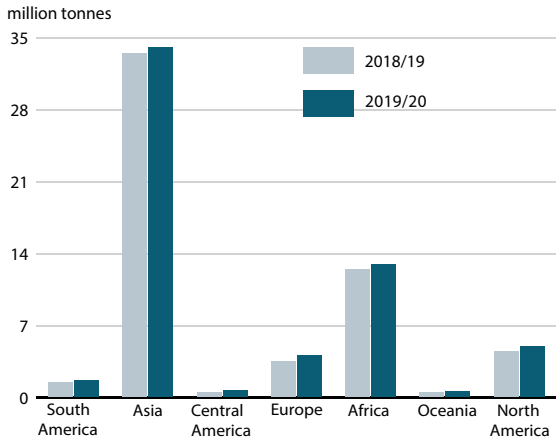


Figure 7. World sugar imports by region



remain dimmed in 2019/20. Any weakening of the Russian *ruble* against the US dollar (beyond current levels) could further limit purchases. **Belarus** and **Australia** are the main suppliers to the Russian Federation. Imports by **Algeria**, **Egypt**, **Eswatini** and **Kenya** are expected to increase, contrary to those by **Mozambique** and **Mauritius**, which are set to remain relatively unchanged. Consignments to **Viet Nam** are also anticipated to rise, sustained by shortages in domestic supplies amid relatively strong internal sugar demand. In the *rest of the world*, imports by the **USA** are set to increase significantly and reach 3.8 million tonnes, up 16 percent from last year, spurred by reduced domestic sugar production, while shipments into *African* countries are expected to continue to expand, driven by expectations of a robust internal demand, which, however, could be affected by the economic impacts due to the COVID-19 pandemic.

MEAT AND MEAT PRODUCTS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PRICES

Excess supplies and trade disruptions weigh on international meat prices

International meat prices in May, measured by the FAO Meat Price Index, were down by 16 points (8.6 percent) from January 2020, with ovine meat registering the sharpest fall (-23.5 percent), followed by poultry meat (-11.8 percent), pig meat (-9.2 percent) and bovine meat (-4.1 percent). Since the beginning of the year, imports by China – the world's largest meat importer – have eased, reflecting high stocks of meat in cold storage that resulted from imports made in preparation for the Lunar New Year celebrations, subsequently cancelled due to the emerging coronavirus crisis, which drastically reduced meat consumption.

In key exporting countries, COVID-19 lockdowns and restrictions on movement led to loss of food service sales and substantial volumes of unsold meat products. While some were diverted to retail sales, the bulk, especially premium meat products and meat in large packaging, ended up in cold storage, where such facilities were available. Logistical bottlenecks, including delays in ports, reduced airfreight and container availability, and increased surveillance hampered foreign sales, adding to accumulated stocks. Meanwhile, economic hardships further reduced internal demand for meat products, adding to export availabilities, especially in countries where a large proportion of meat production is consumed domestically, for example, in Brazil and the United States

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

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

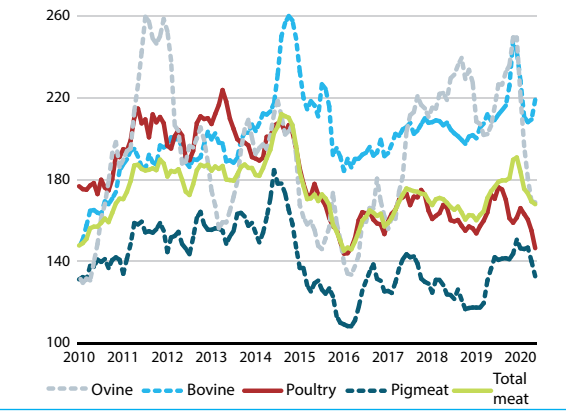


Table 1. World meat market at a glance

	2018	2019 estim.	2020 f'cast	Change: 2020 over 2019
	million tonnes (carcass weight equivalent)			%
WORLD BALANCE				
Production	**342.2**	**338.9**	**333.0**	**-1.7**
Bovine meat	71.5	72.6	72.0	-0.8
Poultry meat	127.3	133.6	136.8	2.4
Pig meat	120.9	109.8	101.0	-8.0
Ovine meat	15.8	16.0	16.2	0.9
Trade	**33.8**	**36.1**	**37.0**	**2.4**
Bovine meat	10.5	11.2	11.1	-1.0
Poultry meat	13.5	13.9	13.8	-0.3
Pig meat	8.4	9.5	10.6	11.2
Ovine meat	1.0	1.0	1.0	-2.9
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	44.6	43.6	42.4	-2.8
Trade - share of prod. (%)	*9.9*	*10.7*	*11.1*	*4.2*
FAO MEAT PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	166	176	174	4.5

Table 2. The distribution of 2020 meat production and trade data (forecast) between the EU-27 and the UK (thousand tonnes, carcass weight equivalent)

		EU	EU-27	UK
Meat Total	Production	48 357	44 165	4 192
	Imports	1 386	1 697	2 568
	Exports	6 266	8 551	1 081
Bovine Meat	Production	7 839	6 930	909
	Imports	318	421	495
	Exports	433	910	176
Ovine Meat	Production	973	669	304
	Imports	107	139	54
	Exports	34	47	97
Pig Meat	Production	24 081	23 108	972
	Imports	20	181	978
	Exports	3 987	4 984	360
Poultry Meat	Production	14 900	12 904	1 996
	Imports	701	727	981
	Exports	1 777	2 527	432

Source: FAO, based on EUROSTAT and the United Kingdom and Northern Ireland official sources
Note: Total meat includes 'other meat types'

of America (the USA). Uncertainty surrounding the tourism sector in importing countries also restrained demand. The outcome was unusually high export availabilities, largely exceeding import demand and ultimately resulting in lower international meat prices.

Some sector-specific factors were also important in the current global meat price weakness. In the case of ovine meat, producers in Oceania were reported to have offloaded animals to benefit from still high prices, in anticipation of market disruptions due to the lockdowns, but this intensified the price decreases as more meat was added to export availabilities. Ovine prices were also affected a rise in domestic production in China, which dampened import demand. In the pig meat sector, hog supplies in the USA, the world's second largest pig meat exporter, surged in anticipation of rising demand from China, mostly adding to export availabilities, as trade frictions and market disruptions prevented greater expansion of exports. Prices in the poultry sector were also negatively influenced by the closure of fast food outlets and outmigration of large numbers of people from cities, where a significant proportion of poultry meat is sold.

OVERALL PRODUCTION AND TRADE

World meat output likely to contract for a second year

For the second year in a row, world meat output[1] is forecast to fall in 2020 to 333 million tonnes (in carcass weight equivalent), 1.7 percent less than in 2019. Much of the contraction would again reflect a sharp drop in global production of pig meat, largely concentrated in Asian countries affected by African swine fever (ASF), but also of bovine meat, especially in the USA and Australia. By contrast, global production of poultry meat is forecast to expand, although at half the rate recorded last year. Modest output growth is also predicted for ovine meat. The pace of expansion for all the meat sectors has been negatively affected by COVID-19 market disruptions, adding to the effects of animal diseases, especially ASF and Highly Pathogenic Avian Influenza (HPAI).

While the effects of ASF and other animal diseases are confined to the countries affected, COVID-19 is having widespread impacts on all types of meat. Social distancing measures have resulted in labour shortages in slaughterhouses, meat processing and packing plants, forcing some to shut down, creating disruptions through the whole supply chain and causing farmgate prices to plummet. In some countries or subregions with good pasture conditions, such as **Brazil**, or those in the early stages of herd rebuilding, such as **Australia** and **New Zealand**, farmers were able to manage cattle sales better. In more intensive ruminant production systems, such as

[1] In this chapter, the European Union 27 member countries (**EU**) and the United Kingdom of Great Britain and Northern Ireland (**UK**) are considered as one unit. Interested readers are referred to Table 2 in this chapter for a distribution of meat statistics between the **EU** and the **UK**.

large-scale feedlots in the **USA** and Eastern Europe, the disruptions caused by the pandemic appear to be greater.

As for meat demand, COVID-19 lockdowns, physical distancing and market closures resulted in substantially reduced food service sales (for example in restaurants, airline catering services, trains, universities, schools and day care centres), leading to excess supplies of meat, only partially offset by increased retail sales. The loss of food service sales was particularly severe in urbanized countries with high out-of-home consumption levels and large service sectors, particularly tourism. Although the surge in retail sales, driven by panic buying, temporarily boosted consumer meat prices, the job losses and economic hardships associated with the health crisis are eventually likely to result in curtailed meat purchases and consumption, a further accumulation of stocks and excess export availabilities. Meanwhile, logistical bottlenecks and port backlogs have been reported to be hindering trade flows, causing international meat prices to fall sharply.

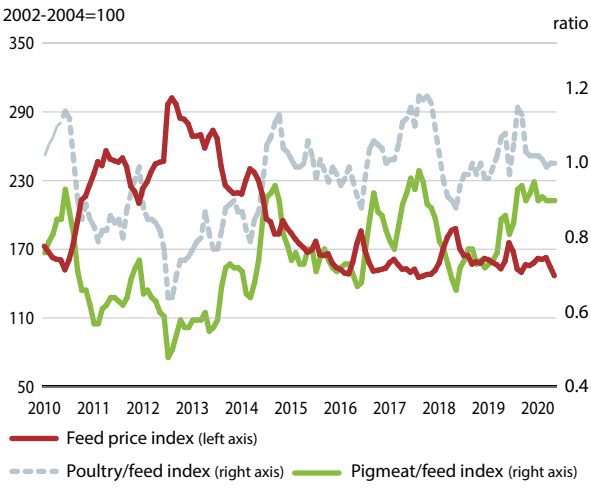
Declines in output are anticipated in key meat producing countries, including **China**, the **USA**, **Viet Nam**, **India, Australia**, the **Philippines** and **Turkey**, whereas moderate expansions are forecast in **Brazil**, the European Union 27 member countries (**EU**) and the United Kingdom of Great Britain and Northern Ireland (**UK**), the **Russian Federation** and **Mexico**.

China's imports remain the main driver of global meat trade in 2020

World trade in meat products is forecast to increase by 2.4 percent to 37 million tonnes in 2020, a significant slowdown from the 6.8 percent recorded in 2019. The increase would be entirely on account of pig meat, since trade in bovine, poultry and ovine meats are anticipated to stagnate or decline. **China** is again expected to be the principal engine of trade growth in 2020, with its imports surging by 24 percent. More modest increases are projected for **Canada**, **Japan**, **Singapore** and the **Philippines**, while the **USA**, the **Republic of Korea**, the **Russian Federation**, **South Africa**, **Viet Nam**, **Cuba** and **Saudi Arabia** are all anticipated to reduce their purchases. The expected global rise in import demand for meat is forecast to be met through increased exports by **Brazil**, the **USA**, the **EU** and the **UK**, **Canada**, **Mexico** and the **Russian Federation**.

In **Brazil**, meat sales to international markets are expected to grow by 6 percent this year, spurred by strong demand for bovine, pig and poultry meats from China and new accreditations of meat plants. Better compliance with strict Halal food requirements is likely to improve Brazil's access to meat markets in the Middle East. Sustained by a brisk pace of shipments during the first quarter and large meat availabilities, exports from both **Canada** and the **USA** are anticipated to reach record highs this year, although less than originally expected, as prospects have been dampened by the COVID-19 market disruptions. Meat exports by the **EU** and the **UK** are also projected to rise, sustained by increased demand for pig meat from China. Likewise, shipments from the **Russian Federation** are likely to be greater than last year, stimulated by demand from neighbouring Kazakhstan, Ukraine and China.

Figure 3. FAO meat and feed price indices



POULTRY MEAT

Moderate expansion of output still feasible

World poultry meat output is forecast to reach 137 million tonnes in 2020, 2.4 percent more than in 2019 or half the pace of growth recorded last year. Increases are expected in **China**, the **EU** and the **UK, Brazil** and **Mexico,** while production is seen falling in **India**, **Thailand**, **Turkey** and the **USA**.

In **China**, poultry meat output is projected to expand, albeit slowly, supported by relatively firm demand, amid lingering high pig meat prices. Although the detection at the beginning of the year of new cases of HPAI in several European countries led China to prohibit imports of live birds from those origins, the effect on domestic production is likely to be limited, as the measure coincided with the lifting of a 2015 ban on live bird imports from the USA. New investments in processing facilities are expected to boost poultry production in the **EU** and the **UK** by 1.2 percent. However, the positive outlook could turn negative if recent price drops linked to COVID-19 continue. Bird slaughtering in those countries where new cases of HPAI have been diagnosed could also hamper EU

production growth this year. In **Brazil**, poultry meat output is projected to rise in response to high import demand, especially from China, but also from other countries attracted by Brazil's status as an HPAI-free origin and improvements in the country's biosecurity standards. Poultry production is projected to rise in **South Africa** on high consumer demand, and in **Mexico**, on competitive feed costs and improved genetics.

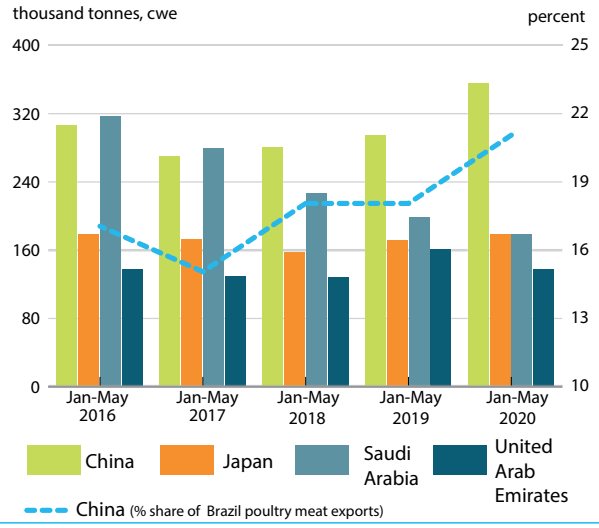
By contrast, poultry production in **India** is likely to fall as outmigration of the labour force from cities following the COVID-19 shutdown has reduced the availability of workers in the sector, also depressing consumer demand. Similarly, in **Thailand** a sharp drop in poultry meat demand by the food retail sector, including street foods, is behind an expected fall in production. However, the 2020 production outlook could turn positive if efforts being made by the Government to persuade Asian countries, especially China, Japan and the Republic of Korea, to import more poultry meat are successful. In the **USA**, tumbling food service sales and labour shortages have led the sector to scale down expansion plans and reduce the production share of large poultry birds preferred by food services. Requirements for maintaining workspace distances in processing plants are also reported to have reduced meat processing efficiency, contributing to a production decline.

Poultry meat trade likely to stagnate

World trade in poultry products is forecast to reach 14 million tonnes in 2020, slightly down (0.3 percent) from 2019, in contrast with the 2.9 percent growth registered in 2019. After four years of uninterrupted increases, this rather downbeat outlook would largely result from anticipated falling imports by major country buyers, including **South Africa**, **Cuba** and **Saudi Arabia**, virtually all compensated by expected larger purchases by **China**, **Mexico** and **Japan**. Imports by **China** are currently projected to grow by 17 percent in 2020, which compares with a 25 percent rise last year, on sustained consumer demand. **Mexico**'s purchases, mostly from the USA, are also likely to be stimulated by lively internal demand from consumers and the food processing industry, although falling crude oil revenues, economic slowdown and rising unemployment may keep import growth under check. Poultry deliveries to **Japan** are also predicted to end higher, despite the possible introduction of import limitations to protect the country's poultry flock from the HPAI virus.

The anticipated stagnation in global poultry meat imports is likely to have a negative effect on a number of traditional exporters, especially **Thailand**, **Turkey** and **Argentina**. On the other hand, the **USA**, **Brazil** and **Belarus** are likely to see their poultry meat exports grow.

Figure 4. Brazil's poultry meat exports by major destinations



BOVINE MEAT

Six among the major producers to face contractions

World bovine meat production is forecast to dip by 0.8 percent to 72 million tonnes in 2020, putting an end to five years of continuous growth. This rather frail outlook principally reflects projected contractions in six of the world's leading bovine meat producers, namely the **USA**, **Australia**, **India**, **South Africa**, the **EU** and the **UK** and **New Zealand**, which will outweigh projected expansions elsewhere, particularly in **China** and **Brazil**. Most of the countries facing negative production prospects have suffered important COVID-related market disruptions. Limited availability of cattle due to high demand for herd rebuilding, as in Oceania, is also expected to contribute to the declines.

In the **USA**, bovine meat output expanded in the first quarter of the year, but the country is predicted to conclude 2020 with a 5 percent overall contraction, as labour shortages in meat processing are disrupting upstream activities, including slaughtering. Although the newly approved farm assistance package, coupled with efforts to sustain meat processing activities, may limit the downfall, the measures are unlikely to be sufficient to counter the contraction in domestic and external meat demand and falling prices. Indeed, the economic slowdown is expected to curb direct meat purchases by consumers, while the lockdowns and physical distancing requirements are also causing food service sales to plunge. In the **EU** and the **UK**, the projected contraction in bovine meat output stems from the continued decline in herd numbers, only partly

compensated by higher carcass weights. Even though assistance to producers has been granted for storing meat in an attempt to stabilize prices, the COVID-related market disruptions are further depressing production. In particular, loss of retail sales has negatively affected the market for premium beef products and veal. In **Australia** and **New Zealand,** bovine meat outputs are forecast to fall, as cattle available for slaughter has been limited by large drought-induced offtakes last year, which brought herd numbers to historic lows. Moreover, good rains in recent months have fostered a retention of animals for restocking, which is likely to further limit cattle supplies in the months to come. Since demand for beef from foreign markets has contracted, incentives to slaughter may weaken further. In **India**, bovine output is set to fall due to the imposed lockdown, especially as the collection of animals usually takes the form of house-to-house visits. With much of the output destined for external markets, the economic slowdown in a large number of countries could further undermine the Indian bovine meat sector. **South Africa**'s cattle supplies have dwindled with the entry into a restocking period, which is constraining production.

By contrast, bovine meat output in **China** is projected to expand, underpinned by rising cattle herds, especially on large-scale farms, and robust internal demand aimed at compensating for the continuing pig meat shortfall. In **Brazil**, the projected expansion in bovine output reflects large cattle numbers and rising carcass weights sustained by favourable weather and pasture growth, along with competitive feed costs.

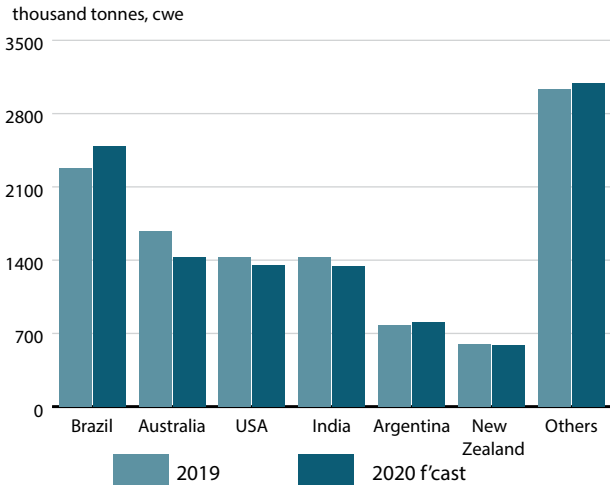
Limited supplies for export and low import demand for poor trade prospects

World bovine meat exports are forecast to hover around 11 million tonnes in 2020, 1 percent down from last year, in sharp contrast to the 7.3 percent growth registered in 2019. The global contraction is anticipated to be driven by lower imports by **Viet Nam**, the **USA**, the **Russian Federation**, **Mexico**, the **Philippines** and the **Republic of Korea**, more than outweighing foreseen increased purchases by **China** and **Japan**. Import growth is anticipated to weaken in almost all other bovine meat markets, as widespread economic downturn curtail consumption in middle- and low-income households, while lockdowns and physical distancing reduce restaurant turnovers, eroding demand for premium meat products.

In **China**, bovine meat imports have risen in recent years to compensate for the continued shortfall in local pig meat supplies. Importation has been facilitated by new accreditations granted to meat packing plants in Brazil, Argentina and Uruguay, and by new supply agreements reached with the EU and the UK, the Russian Federation, South Africa, Belarus, Namibia and Japan. The USA-China trade agreement may bolster imports too, but the pandemic may affect this. Beef purchases by **Japan** are also expected to grow to some extent.

On the export side, much of the expected contraction in world exports reflects anticipated smaller sales by **Australia**, **India**, the **USA** and **New Zealand**. In **Australia** and **New Zealand**. The decline would largely reflect limited exportable supplies, but also weaker demand from foreign markets. In **India**, exports may shrink by 6 percent, as production stalls. In the **USA,** despite a good performance in the first few months, beef bovine meat deliveries in 2020 are projected to fall from last year due to meat processing constraints. By contrast, **Brazil**, **Argentina** and **Canada** seem to be in a position to export more this year, as demand from their traditional trading partners remains sustained.

Figure 5. Bovine meat exports by major exporters



PIG MEAT

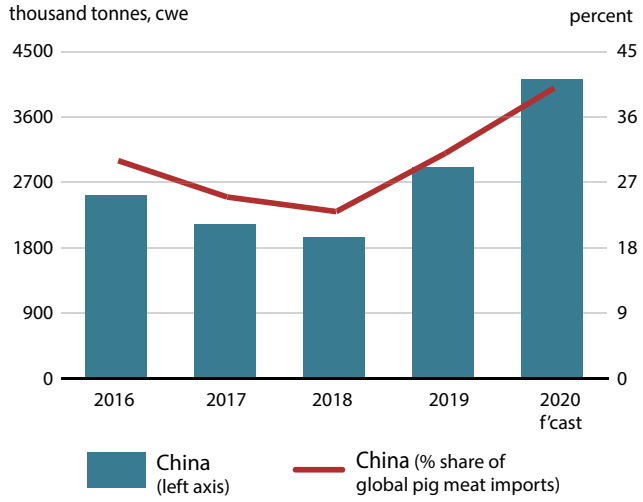
African swine fever to depress global pig meat production again this year

For the second year in a row, world pig meat output is forecast to record a sharp contraction, falling to 101 million tonnes in 2020, or 8.0 percent less than in the previous year. Much of the global decline would be on account of **China**, but also **Viet Nam**, the **Philippines** and the **USA**. In **China**, the spread of ASF is largely behind a predicted 20 percent fall in pig meat output to 35 million tonnes, following on from the 21 percent retreat already recorded in 2019. With a string of policies

launched by the Government to rescue the sector, pig farming enterprises are reported to have adopted advanced biosecurity measures. ASF outbreaks are also behind projected output falls in **Viet Nam** and the **Philippines,** whereas a smaller pig herd is forecast to bring output down in **Ukraine**. In the **USA,** the negative production outlook is mainly linked to COVID-19 market disruptions.

By contrast, moderate output increases are anticipated in the **EU** and the **UK**, **Brazil**, the **Russian Federation**, **Mexico** and **Canada**. In the **EU** and the **UK**, strong import demand, especially from China, is supporting an expansion of the sector. In **Brazil**, stable feed costs and large pig herd numbers are sustaining production, while in the **Russian Federation** output growth is underpinned by large-scale investments in new breeding and processing facilities.

Figure 6. China's pig meat imports



Trade continues to be fuelled by rising imports in Asia

World pig meat exports are forecast at 10.6 million tonnes in 2020, up 11.2 percent from last year, predominantly driven by larger anticipated imports by **China**, along with expected moderate increases in purchases by **Viet Nam**, the **Philippines**, **Chile** and **Ukraine**. In **China**, pig meat imports are expected to rise by 1.2 million tonnes or 42 percent in 2020, to reach 4.1 million tonnes, equivalent to 40 percent of the global volume of trade in pig meat. Likewise, imports by the **Philippines** and **Viet Nam** are projected to rise mainly to compensate for the production shortfalls caused by the ASF disease. Limited domestic supplies are also expected to increase imports by **Ukraine**. By contrast, the **Republic of Korea** is forecast to reduce its pig meat purchases due to a contraction in domestic food service sales.

Much of the expanded world pig meat imports in 2020 are anticipated to be met by the **USA,** the **EU** and the **UK, Brazil, Canada, Mexico** and **Chile.** Despite the anticipated small production contraction, the **USA** will likely see its exports surge by 13 percent, with the bulk directed to China, Mexico, Japan, Canada, the Republic of Korea and Australia. In the **EU** and the **UK**, increased availabilities have resulted from falling domestic pig meat consumption and rising production, which may lead to larger exports, especially to China, in the wake of newly signed agreements between China and key EU suppliers. **Brazil**'s pig meat exports could also rise, due to increased deliveries to China, although sales to other trading partners may fall.

OVINE MEAT

Production growth to concentrate in China

World ovine meat output is forecast to expand by nearly 1 percent in 2020, to 16 million tonnes. Most of the increase is anticipated to be concentrated in China, with some modest growth also foreseen in Africa. By contrast, output in Oceania, which accounts for 80 percent of global trade, is forecast to drop, possibly for a fifth year since 2013, due to limited animal supplies and high restock demand, amid favourable weather. In **China**, production is forecast to register a 2.3 percent increase, capitalizing on the previous year's expansion of sheep and goat flocks, when high prices attracted more herders into the sector. Following strong growth in 2019, ovine meat output in the **EU** and the **UK** is set to stagnate with limited availability of animals.

Trade likely to contract amid tight supplies

World trade in ovine meat is forecast to contract by nearly 3.0 percent in 2020, to just over 1 million tonnes, with more than 80 percent of exports coming from Australia and New Zealand. In Oceania, supply is anticipated to be tight, especially in the coming months, but the extent of export availabilities will be contingent on rainfall and other weather-related parameters, which determine the retention of animals. World import demand is likely to be robust, especially with continued meat deficit in **China** and preference for sheep meat supplies from Oceania, but the extent of growth is uncertain, especially as China is holding large volumes of ovine meat in cold storage, imported towards the end of 2019 in preparation for the Lunar New Year celebrations. With the loss of restaurant sales, much of those supplies remain unsold, possibly containing import demand in the rest of the year.

MILK AND MILK PRODUCTS

PRICES

Economic hardships and market disruptions weigh on international dairy prices

International dairy prices in May, measured by the FAO Dairy Price Index, were down by 18.8 points (9.4 percent) from January 2020, with skim milk powder (SMP) registering the sharpest fall (-24.5 percent), followed by whole milk powder (WMP) (-21.0 percent) and butter (-17.3 percent), while cheese prices rose (+1.5 percent). In the key dairy importing countries, COVID-19-related lockdowns and physical distancing measures reduced food-service sales in the first months of the year, especially of fresh milk and milk products, which were only partly offset by increased sales of dairy products with a longer shelf-life, such as UHT milk, packaged butter and cheese. As in other economic crises, the deterioration of income prospects weighed disproportionately on consumer demand for high-value food commodities, such as dairy products. Depressed retail milk sales resulted in larger volumes of milk being processed in industrial plants, where such facilities were operational. In dairy exporting countries, milk was mostly diverted to drying dairy plants, boosting production and availability of milk powders. Overall, the downgrading of economic prospects and market disruptions caused by the pandemic are anticipated to result in a fall in global dairy imports in 2020, which, amid adequate availabilities in key exporting countries, could keep international prices under pressure.

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

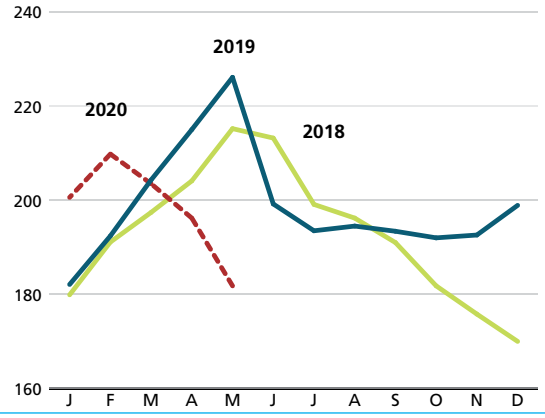


Figure 2. FAO monthly international price indices for butter, cheese, SMP and WMP (2002-2004=100)

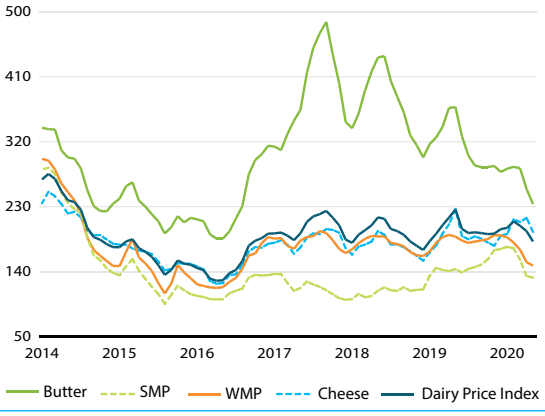


Table 1. World dairy market at a glance

	2018	2019 estim.	2020 f'cast	Change: 2020 over 2019
	million tonnes, milk equiv.			%
WORLD BALANCE				
Total milk production	**840.5**	**851.8**	**858.9**	**0.8**
Total trade	**75.9**	**76.7**	**73.6**	**-4.1**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	111.4	111.6	111.4	-0.3
Trade - share of prod. (%)	*9.0*	*9.0*	*8.6*	*-4.9*

FAO DAIRY PRICE INDEX (2002-2004=100)	2018	2019	2020 Jan-May	Change: Jan-May 2020 over Jan-May 2019 %
	193	199	198	-2.8

Table 2. The distribution of 2020 dairy production and trade data (forecast) between the EU-27 and the UK (thousand tonnes, Milk equivalent)

		EU	EU-27	UK
Total Milk Equivalent	Production	166 700	151 632	15 068
	Imports	977	3 803	4 199
	Exports	20 452	24 003	3 974
Butter	Imports	8	45	71
	Exports	191	263	67
Cheese	Imports	60	201	522
	Exports	885	1 358	210
SMP	Imports	5	51	24
	Exports	804	788	75
WMP	Imports	5	42	21
	Exports	276	293	66

Source: FAO, based on EUROSTAT and the United Kingdom and Northern Ireland official sources
Note: Total milk equivalent includes also whole condensed/evaporated milk, yoghurt, cream, casein, skim milk, liquid milk and whey dry

MILK PRODUCTION

Despite market disruptions, world milk production to grow

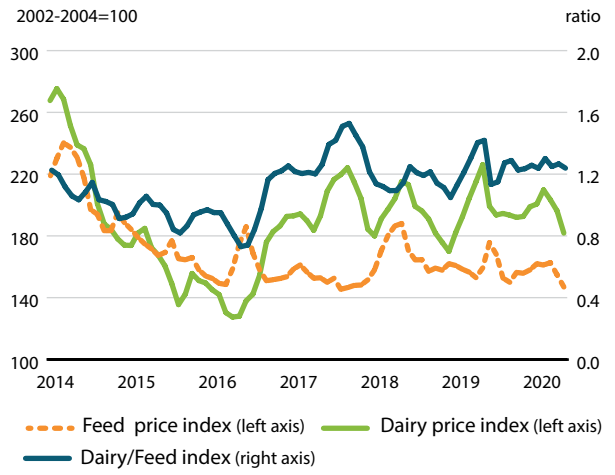
World milk production[1] in 2020 is forecast to grow by 0.8 percent to 859 million tonnes, mostly as a result of expected production expansions in Asia and North America, with moderate increases in Central America and the Caribbean, Oceania and Africa, partially offset by slight declines anticipated in Europe and South America.

In Asia, output is expected to increase by 2 percent to 367 million tonnes in 2020, underpinned by gains foreseen in **India**, **Pakistan** and **China**, while **Turkey** may witness a decline. In **India** – the world's largest milk producer – output is forecast to grow by 2.6 percent, or 5 million tonnes, compared to 4.5 percent growth recorded in 2019. This year's anticipated increase reflects the effort of a vast network of village cooperatives, which has been mobilized to sustain milk collection, despite the COVID-19 lockdown. Given the loss of food-service sales because of the pandemic, greater volumes of the milk were diverted for processing to drying plants, which were reported to be running at near-full capacity. **Pakistan**'s milk output, having sustained an average growth of more than 3 percent for a decade, is forecast to keep rising at close to that pace in 2020, underpinned by rising herd numbers. In **China**, where the sector has been recovering since 2018, milk output is forecast to expand by close to 3 percent in 2020, compared to less than 1 percent last year, amid continued farm consolidation and greater efficiency of large-scale dairy units. Government introduction of stringent food safety standards also increased the confidence of consumers in Chinese milk, which helped to sustain growth in domestic production. In **Japan**, milk output is forecast to grow, underpinned by the support measures offered to farmers in an effort to manage excess milk supplies and stabilize prices. This is despite the fall in milk consumption in the first months of the year, following the Government's declaration of a state of emergency and closure of schools amid fears of COVID-19.

In Europe, milk production is forecast to drop by a modest 0.3 percent, equivalent to 0.6 million tonnes, to 225.7 million tonnes. Most of the contraction would likely originate in the 27 member countries of the European Union (**EU**) and the United Kingdom of Great Britain and Northern Ireland (**UK**), **Ukraine** and **Switzerland**, while the current outlook points to an increase in the **Russian Federation**. In the **EU** and the **UK**, milk production in 2020 is forecast at 166.7 million tonnes, 0.5 percent less than last year. The sector has been negatively affected by the restrictive measures enforced to contain the spread of COVID-19, which hindered milk collection at the peak of the European spring milk flush. Limited availability of workers during the lockdown also constrained milk processing, especially of labour-intensive dairy products. Although retail sales rose during the containment phase, closures of food-service outlets and falling global import

[1] In this chapter, the European Union 27 member countries (EU) and the United Kingdom of Great Britain and Northern Ireland (UK) are considered as one unit. Interested readers are referred to Table 2 in this chapter for a distribution of milk and milk products statistics between the EU and the UK.

Figure 3. FAO dairy and feed price indices



demand, especially from China, depressed EU milk prices, discouraging milk collection. Production and deliveries may also be negatively affected by the European Commission regulation that authorizes dairy producers to deviate, for a six-month period, from normal competition rules and collectively plan production, so as to offset imbalances resulting from COVID-19 (for example, smaller deliveries due to contract cancellations and port congestion). Market disruptions may slow milk output growth in the **Russian Federation**, with small-scale farmers worst affected, although continued expansions are expected in large-scale farm enterprises, which use advanced dairy processing technologies and management and have benefited from increased demand for long shelf-life dairy products. By contrast, **Ukraine**'s milk output is projected to decline by nearly 2 percent from last year, mainly reflecting a weakening of import demand.

In Oceania, milk output is predicted to reach 31 million tonnes in 2020, an increase of 0.7 percent year-on-year, underpinned by an anticipated recovery in **Australia**, but partially offset by a slight decline in **New Zealand**. After four years of falling or stagnating output, good rainfall in **Australia** is forecast to help a production rebound in 2020, sustained by rising milk yields, partly aided by improved pasture conditions, efficient management and a recovery in fodder and grain production. In **New Zealand**, milk output is anticipated to decline by 0.5 percent to 21.7 million tonnes, reflecting the lingering impact of drought.

In Central America and the Caribbean, milk output is predicted to expand by 1.4 percent, driven by an expected increase in output in **Mexico**, where production continues to be boosted by firm demand from both consumers and the processing industry.

In Africa, milk production is foreseen to record a modest 0.3 percent growth and total 47 million tonnes in 2020, as anticipated expansions especially in **Kenya**, **Algeria** and **Morocco** would be largely offset by likely declines elsewhere in the continent.

In South America, milk output is forecast to fall by 1.1 percent to 61 million tonnes, with anticipated contractions in **Brazil**, **Uruguay** and **Colombia** to be partially offset by a slight increase expected in **Argentina**. In **Brazil**, the fall in output would stem from somewhat unstable weather, which caused heat stress in some parts of the country, lowering milk yields. The sector is also being negatively affected by low profitability of cattle farms and high prices of animal feed, especially concentrate, which are stimulating the slaughtering of dairy cattle. In **Uruguay** and **Colombia**, droughts and high temperatures are impairing pastures and animal feed availability and negatively affecting production. By contrast, in **Argentina,** more favourable weather is expected to support a recovery in output.

In North America, milk production is forecast at 109 million tonnes, 0.4 percent more than in 2019. Notwithstanding the crippling effect of the lockdown on the dairy supply chain, milk output in the **United States of America** (the **USA**) is anticipated to grow slightly, due mainly to milk yield growth. The programmes offered by the Government to protect the dairy industry during the crisis, such as the Dairy Margin Coverage programme, the Dairy Revenue Protection Programme, Federal Milk Marketing Order and the Purchases of Dairy Products programme, should assist the dairy sector to maintain operation and output.

WORLD TRADE IN DAIRY PRODUCTS

Global dairy trade heading towards the steepest contraction in three decades

World exports of dairy products (in milk equivalent) are forecast to fall by 4.1 percent (3 million tonnes) to 74 million tonnes in 2020, marking the sharpest year-on-year decline in three decades. Steep drops in dairy imports are forecast for **China**, **Algeria**, **Saudi Arabia**, **United Arab Emirates**, **Viet Nam** and **Mexico**, slightly offset by expected increases in **Canada**, **Indonesia** and the **Republic of Korea**. In **China**, a sizeable proportion of the dairy products imported towards the end of 2019 in preparation for the celebrations of the 2020 Lunar New Year was unsold due to the emergence of the COVID-19 health crisis. This, along with the anticipated surge in domestic milk production and the reduction in food-services sales, is anticipated to curb China's dairy product imports

Table 3. Trade in dairy products: Principal exporting countries

	Average 2016-18	2019 *prelim.*	2020 *f'cast*	Change 2020 over 2019
	thousand tonnes (product weight)			
WHOLE MILK POWDER				
World	**2 486**	**2 621**	**2 441**	**-6.9**
New Zealand	1352	1541	1416	-8.1
The EU and the UK*	370	298	276	-7.2
United Arab Emirates	112	167	155	-7.1
Uruguay	126	132	122	-7.1
SKIM MILK POWDER				
World	**2 386**	**2 539**	**2 336**	**-8.0**
The EU and the UK*	725	962	804	-16.4
United States of America	639	704	727	3.2
New Zealand	401	375	352	-6.0
Belarus	114	123	118	-4.1
BUTTER				
World	**914**	**964**	**908**	**-5.9**
New Zealand	464	464	458	-1.5
The EU and the UK*	179	216	191	-11.4
Belarus	84	78	72	-8.4
India	17	44	34	-23.2
United States of America	38	33	31	-4.7
CHEESE				
World	**2 478**	**2 647**	**2 659**	**0.5**
The EU and the UK*	821	880	885	0.5
United States of America	327	362	364	0.4
New Zealand	340	336	343	2.2
Belarus	202	244	258	6.0
Australia	170	160	166	4.0

* Excluding trade between the EU member countries.

by 8 percent, to 14 million tonnes in 2020. The decline would mostly affect milk powders, whereas butter and cheese purchases are expected to rise. Elsewhere, imports are anticipated to decline due to COVID-19-related market disruptions and widespread economic slowdowns. As in all economic crises, the loss or reduction of household incomes is likely to have a disproportionately strong negative influence on demand for high-value food items, such as dairy products, with a depressing effect on import demand.

The weakening of global import demand is forecast to curtail exports of dairy products from the **EU** and the **UK**, **New Zealand**, **United Arab Emirates** and **Uruguay**, while shipments from the **USA** and **Argentina** may rise somewhat. In the **EU** and the **UK**, overall dairy exports are predicted to fall by 7.4 percent, mostly reflecting reduced shipments, especially of milk powders to Middle Eastern countries, many of which have been affected by the current slump in oil prices. In **New Zealand**, lower sales of milk powders and butter, especially to Asian markets, are behind an anticipated 5.3 percent (or more than 1 million tonne) contraction in exports to 19 million tonnes. Deliveries from **United Arab Emirates** and **Oman** – two countries with substantial transhipment business – are also expected to decline, reflecting reduced demand from neighbouring countries. Exports from the **USA** may rise somewhat, underpinned by increased sales, in particular of skim milk powder, to the Philippines, Indonesia, Malaysia, Peru and Colombia. The production recovery in **Argentina,** coupled with firm butter and cheese demand, could also boost the country's dairy exports above last year's level.

Trade performance of key milk products

The predicted overall decline in global dairy trade conceals significant variations at the individual dairy product level. Under current market conditions, exports of milk powders and butter are forecast to decline most, while trade in cheese and most other dairy products may rise or remain stable. Consumer preferences, differences in the shelf-life and underlying production technologies of the various dairy products explain the divergent trade patterns. In 2020, world exports of WMP are projected to fall by almost 7 percent in 2020, reversing two years of expansion, while those of SMP and butter are currently foreseen to drop by 8 percent and 6 percent, respectively. In counter tendency, deliveries of cheese are forecast to hold firm and register a 0.5 percent growth.

Whole milk powder

Steep import contractions expected

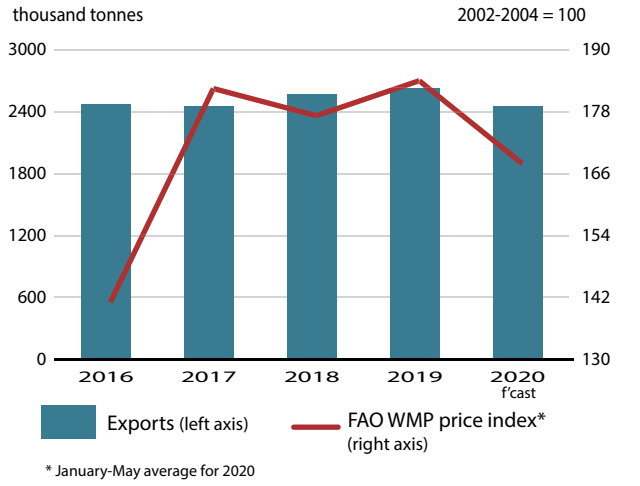
World exports of WMP in 2020 are forecast at 2.4 million tonnes, 6.9 percent lower than in 2019, reflecting likely reductions in purchases by most WMP importing countries. Particularly steep drops in imports are anticipated for **China**, **Algeria**, **United Arab Emirates** and **Saudi Arabia**, slightly offset by expected increases in **Cuba**, **Indonesia**, the **Philippines** and **Australia**. In **China**, large milk supplies were diverted for manufacturing WMP, adding to already substantial availabilities, which included a considerable proportion of the dairy products that had been imported for the Lunar New Year celebrations. As a result, Chinese WMP imports are set to decline by about 12 percent to 703 000 tonnes in 2020. **Algeria**, **United Arab Emirates** and **Saudi Arabia**, as well as several other countries in the Middle East and North Africa, are also projected to curtail their WMP purchases.

The current shortfall in global demand for WMP is causing key WMP exporters to scale down shipments. **New Zealand**'s WMP exports are forecast to fall by 8 percent (124 000 tonnes) to 1.4 million tonnes, which would likely lead to a stock build-up towards the end of the year.

In the **EU** and the **UK**, WMP exports are likely to hover around 276 000 tonnes, down 7 percent from last year, under anticipation of particularly large falls in deliveries to the Middle East. The projected decline in WMP exports by the **United Arab Emirates** and **Oman** reflects the impact of the current crisis on the transhipment and dairy reprocessing business.

In May 2020, the export price for WMP from Europe and Oceania averaged USD 2 582 per tonne, 21 percent lower than the USD 3 268 per tonne recorded in January. The decline was particularly pronounced in Europe, where prices plunged by 30 percent, reflecting the sharp fall in import demand from the Middle East, a key market for European WMP.

Figure 4. World WMP exports and FAO WMP price index



Skim milk powder

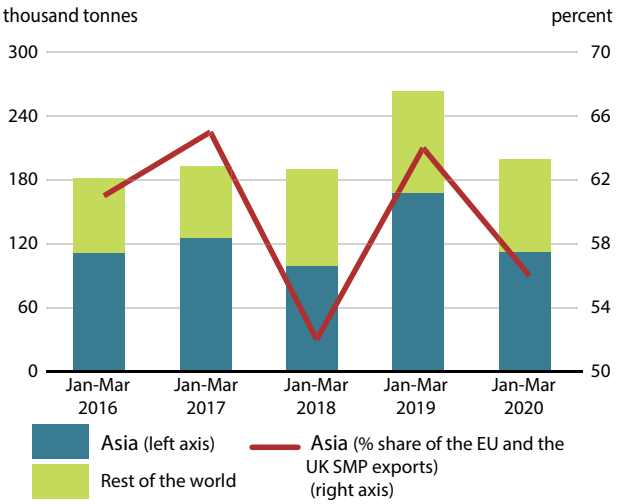
Exports to plunge amidst rising stocks

World SMP exports are forecast at 2.3 million tonnes, down 8 percent (203 000 tonnes) year-on-year, due to the weakening import demand, especially from **China**, **Algeria**, the **Philippines**, **Malaysia**, the **Russian Federation**, **Mexico** and **Viet Nam**. **China**'s SMP imports are set at 284 000 tonnes, down 24 percent (89 000 tonnes) year-on-year, reflecting high SMP stocks already held by the country, due to the high volumes imported earlier in the year, which remained unsold. Elsewhere, import curtailments are anticipated, reflecting COVID-19-related market disruptions and widespread economic slowdowns. The poor global demand is resulting in falling exports of SMP, especially from the **EU** and the **UK**, **New Zealand** and **Australia**, while the **USA** may record some increase. In the **EU** and the **UK**, SMP exports may reach 804 000 tonnes, 16 percent (158 000 tonnes) less than in 2019, mainly due to significant cuts in deliveries to eastern Asian markets.

This decline would result in a further accumulation of SMP stocks, which had already built up due to falling milk and dairy product sales in domestic markets. In **New Zealand**, SMP exports are projected to decline by 6 percent (22 600 tonnes) to 352 000 tonnes, which may lead to adjustments in the country's product mix, possibly in favour of WMP, the preferred product with more widespread outreach. **Australia**'s SMP exports are also predicted to drop to 116 000 tonnes, down 9 percent year-on-year, following an 18 percent fall witnessed last year. By contrast, the **USA** is anticipated to step up its SMP exports by more than 3 percent to 727 000 tonnes, recovering from the slight downturn experienced last year, with larger shipments directed to Asian markets.

In May, international SMP prices stood at USD 2 247 per tonne, 24.5 percent lower than the USD 2 977 per tonne registered in January.

Figure 5. The EU-27 and the UK SMP exports by destination



Butter

Loss of food-service sales cause global imports to drop

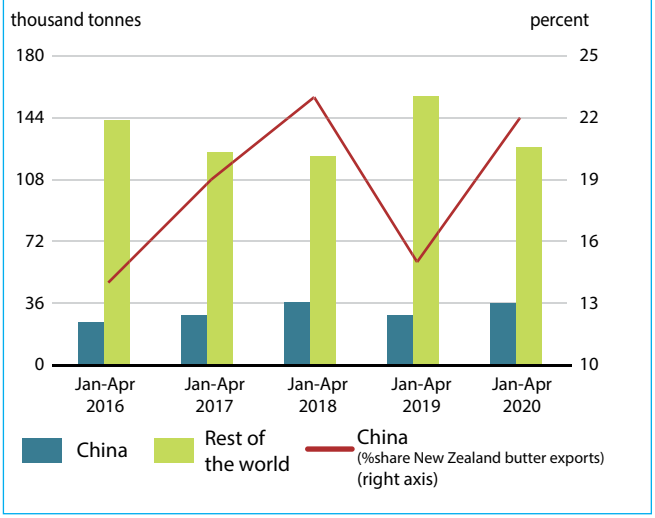
World butter exports are forecast at 908 000 tonnes in 2020, down 6 percent (56 000 tonnes) from 2019. This downturn is anticipated to arise from weaker global demand on the back of disruptions to food-service sales, which absorb a significant volume of the global butter output. Much of the decline in world imports is set to be concentrated in **Mexico**, the **Islamic Republic of Iran**, the **Russian Federation**, **Saudi Arabia**, the **USA** and **United Arab Emirates**, which would only be partially offset by likely upturns in imports by **China** and **Japan**.

The depressed global demand for butter is causing reduced sales by many leading exporters, most prominently the **EU** and the **UK**, **India**, **New Zealand** and **Belarus**. In the **EU** and the **UK**, exports are forecast to fall to

191 000 tonnes, down 11 percent (25 000 tonnes) year-on-year, which will likely lead to a butter stock build-up, especially if retail sales and demand from food industries fail to recover. Following a 47 percent surge in exports in 2019, **India**'s deliveries this year may fall by 23 percent, to 34 000 tonnes. In **New Zealand**, exports are predicted to amount to 457 500 tonnes, 1.5 percent (6 900 tonnes) less than last year. In **Belarus**, an anticipated 8 percent decline in butter exports to 72 000 tonnes may foster a change in the dairy production mix in favour of other dairy products, such as cheese, whey and cream. Prospects for butter exports by **Ukraine**, the **USA** and **Uruguay** are also expected to be negatively affected, which may result in a further rise in global inventories.

Since the beginning of year, global butter prices have retreated by 17.3 percent, averaging USD 3 340 per tonne in May. Much deeper falls were recorded in Europe, where they reached USD 2 475 per tonne, 38.7 percent less than in January.

Figure 6. New Zealand's butter exports by destination



Cheese

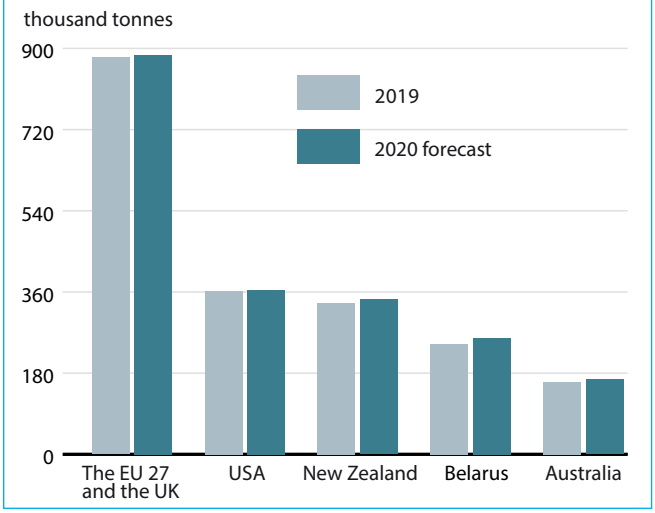
Despite supply-demand imbalances, cheese trade to register growth

Unlike the other major dairy products, trade in cheese is expected to rise, albeit only slightly. At 2.7 million tonnes in 2020, world cheese exports would be up 0.5 percent year-on-year, compared to a 3.3 percent average annual growth over the past three years. In 2020, the **Russian Federation, China** and the **Republic of Korea** are forecast to increase their purchases, generally underpinned by continued demand from affluent consumers. On the other hand, cheese imports are forecast to decline in **Saudi Arabia**, the **USA**, **United Arab Emirates**, the **EU** and the **UK** and **Australia**.

The anticipated increase in the world cheese trade is likely to be met through larger sales by **Belarus**, **New Zealand** and **Australia**, but also **Argentina**, the **EU** and the **UK** and the **USA**. Cheese exports by **Belarus** are expected to rise by 6 percent, sustained by increases in production, with parallel reductions in other dairy commodities, especially milk powders. The change in the production mix was made in response to an expected rise in import demand from the Russian Federation. Cheese exports from **New Zealand** could rise by 2.2 percent to 343 000 tonnes, spurred by sustained demand from Asian markets, in particular China, the Republic of Korea and the Philippines. With more milk diverted into producing cheese, **Australia** may also be in a position to step up its exports. Export sales by the **EU** and the **UK** are forecast to grow by 0.5 percent to 885 000 tonnes, as a result of robust demand from Asian markets.

From January to May, the FAO cheese price sub-index increased by 1.5 percent, amid seasonally low spot supplies of cheese from Oceania.

Figure 7. Cheese exports by major exporters



FISH AND FISHERY PRODUCTS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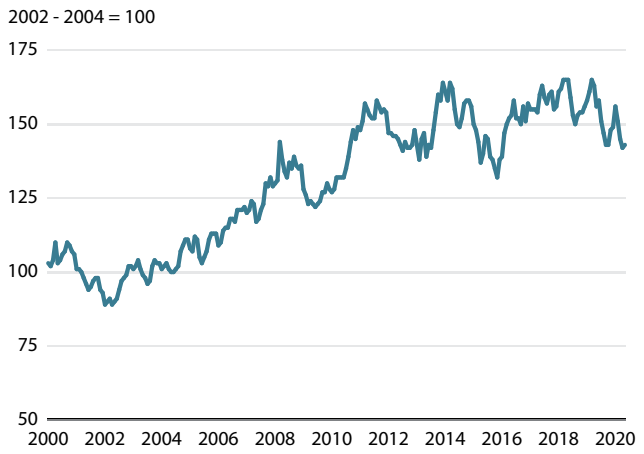
COVID-19 SEVERELY DAMPENS DEMAND AND CREATES CHALLENGES THROUGHOUT THE SUPPLY CHAIN

Global fish production in 2019 fell by around 1 percent. Trade in fish and fisheries products contracted in both volume and value terms, primarily due to geopolitical tensions and trade conflicts. This year was expected to be somewhat more positive for the seafood industry relative to 2019, but the emergence of the COVID-19 pandemic and associated impacts have rendered previous forecasts largely irrelevant.

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



Source of the raw data for the FAO Fish Price Index: EUMOFA, INFOFISH, INFOPESCA, INFOYU, Statistics Norway

Table 1. World fish market at a glance

	2018	2019 *estim.*	2020 *f'cast*	Change: 2020 over 2019
	million tonnes (live weight)			%
WORLD BALANCE				
Production	**178.5**	**175.9**	**172.9**	**-1.7**
Capture fisheries	96.4	91.8	89.9	-2.0
Aquaculture	82.1	84.1	82.9	-1.4
Trade value (exports USD billion)	**164.1**	**159.6**	**150.4**	**-5.8**
Trade volume (live weight)	**67.1**	**65.3**	**63.2**	**-3.2**
Total utilization	**178.5**	**175.9**	**172.9**	**-1.7**
Food	156.4	156.4	154.2	-1.4
Feed	18.2	15.5	15.0	-3.5
Other uses	4.0	4.0	3.7	-7.5
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
Food fish (kg/yr)	20.5	20.3	19.8	-2.4
From capture fisheries (kg/year)	9.7	9.4	9.1	-2.4
From aquaculture (kg/year)	10.8	10.9	10.6	-2.4
FAO FISH PRICE INDEX (2002-2004=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2019 %**
	158	154	147	-8.3

Totals may not match due to rounding
Source of the raw data for the FAO Fish Price Index: EUMOFA, INFOFISH, INFOPESCA, INFOYU, Statistics Norway

In an effort to contain the virus, governments around the world have introduced isolation directives, limitations on business opening hours and travel restrictions. The restaurant industry was one of the first sectors to be shut down, leading to an evaporation of food-service demand in many important markets. Effects on retail sales have been more mixed, however, with demand for packaged and frozen products boosted as households look to stock up on non-perishable foods.

On the supply side, labour shortages and other business challenges appear likely to continue exerting a negative impact on seafood production across the world, alongside the poor demand outlook. Aquaculture harvests are being delayed and stocking targets drastically reduced, while entire fishing fleets are laying idle. Businesses further down the supply chain have all been affected by the lack of raw material, on top of other operational difficulties. Logistics have become costly and slow due to closed or restricted road borders, health inspection delays, and the large-scale cancellation of flights.

Industry stakeholders are calling for financial aid and regulator flexibility in terms of adjusting catch quotas and raising biomass limits, and emphasizing the need to rapidly understand and plan for long-term changes in the market landscape. While China and some other countries have been able to return to somewhat normal conditions in a relatively short period of time, the process will be slower in the EU and the USA. For other markets where the virus is later to peak, such as Brazil, the scale of the damage is yet to become clear.

Whatever the time frame, prolonged market downturn can be expected even after current restrictions are lifted or relaxed. Luxury products and species that are primarily marketed fresh and through the food service will be the most heavily affected. Most seafood trade events will continue to be postponed or cancelled for some time to come.

SHRIMP

The COVID-19 pandemic will severely dampen global shrimp production in 2020. The shrimp farming season in Asia, which generally begins in April, is now set to be delayed until June/July. The situation has led to a general forecast of a 30–40 percent fall in farmed shrimp production in India during the 2020 farming season.

The pandemic has also significantly impacted shrimp demand in both domestic and international markets, with worldwide demand for both fresh and frozen shrimp declining significantly. Although there have been strong increases in grocery sales and takeout deliveries, overall consumption has declined. This trend is likely to continue for the rest of the year both in developed and developing markets.

TUNA

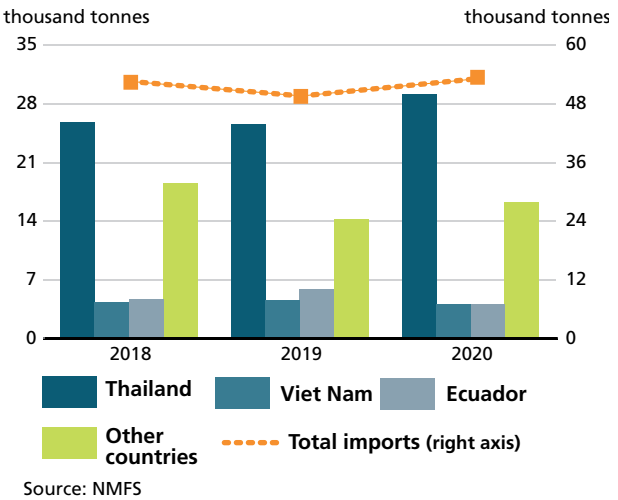
In terms of raw material supplies, tuna packers in Southeast Asia have reportedly been less affected as many have been holding sufficient raw material bought in 2019, although catches may fall due to the measures implemented to combat COVID-19. In the Western and Central Pacific Ocean, the three-month fish aggregating device (FAD) fishing closure will be in force from July to September 2020 and tightening supply is likely to push frozen tuna prices up.

Reduced household purchasing power due to widespread economic difficulties has translated into a worldwide demand boost for canned, pouched and processed tuna during the first quarter of 2020 as consumers shifted their purchasing to shelf-stable products amidst COVID-19 lockdowns. By contrast, the non-canned tuna market (fresh and frozen dressed fish, fillets and steaks) will certainly be negatively affected by the economic downturn.

GROUNDFISH

Global groundfish supplies are expected to be somewhat higher in 2020 than in 2019. Estimates indicate an increase of about 300 000 tonnes, all of which will come from aquaculture. Market demand for groundfish is good, but there will be a shift from the restaurant and food-service sector to the retail sector.

Figure 2. USA imports canned tuna



Source: NMFS

With the expected economic difficulties forthcoming due to COVID-19 in most economies, more expensive products will likely suffer a decline in demand, while cheaper products will be more popular. There will also be an accelerated shift from sales through traditional outlets to e-trade and home delivery. This trend is developing rapidly during COVID-19, and it is expected that such distribution to consumers will continue after the pandemic is over.

CEPHALOPODS

The outlook for octopus supplies indicates that they will decline somewhat in 2020, compared with 2019. Mauritania and Morocco are introducing further restrictions on octopus fishing, and this is likely to reduce supplies. The other two large producers, China and Mexico, are expected to land about the same volume as in 2019.

The COVID-19 pandemic has put a severe dampener on cephalopods trade. The collapse of the tourism industry and a general weakening of demand has seen a decline in imports into the two major EU27 markets – Spain and Italy – while buying interest is also slow in Japan. This situation is expected to last throughout the rest of the year.

PANGASIUS

After pangasius prices peaked in 2018, a strong supply response in 2019 followed by the economic devastation inflicted by the COVID-19 pandemic in early 2020 has seen pangasius prices collapse.

In Viet Nam, where the vast majority of internationally traded pangasius is produced, farmers are reluctant to stock any significant quantities, with farmgate prices barely at break-even levels and core markets subdued.

In China, which has become an increasingly important target market for the Vietnamese industry, authorities began loosening COVID-19 restrictions at the end of March. However, it will take some time for Chinese demand to recover fully.

TILAPIA

In China, the world's largest tilapia producer, the containment measures associated with the pandemic have translated into delayed tilapia production, feed shortages and limited processing activity.

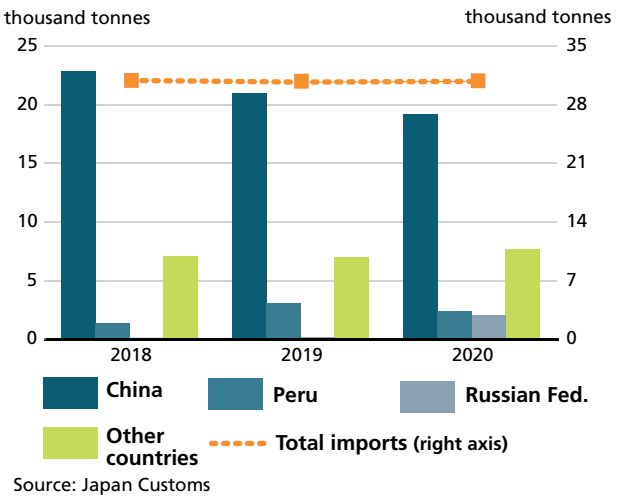
In Brazil, where the tilapia sector has been expanding, industry representatives have requested that the Government immediately suspend some taxes on producers and extend credit access for farmers.

Chinese marketers, who have been struggling to make headway in a lukewarm US market for several years, were hit hard by a 25 percent tariff on Chinese-origin imports into the USA in 2019. Now the COVID-19 outbreak has led to uncertainty dominating market sentiment with prices under downward pressure. However, the tighter supply combined with strong frozen product retail sales and the removal of US tariffs in April 2020, may soften the impact on markets to some extent.

SEABASS AND SEABREAM

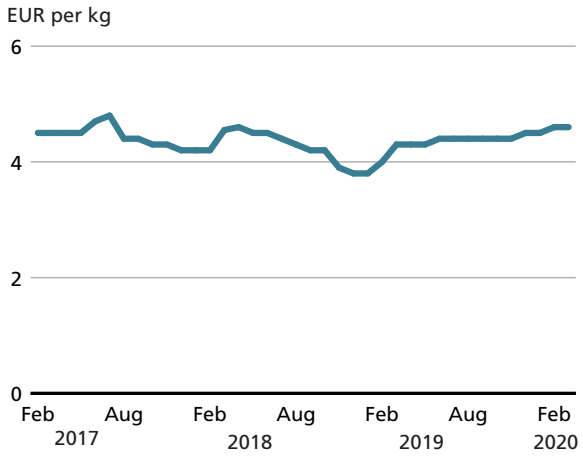
The somewhat brighter outlook for the bass and bream sector that was emerging at the end of last year has deteriorated again in 2020.

Figure 3. Japan imports of squid and cuttlefish



Source: Japan Customs

Figure 4. Seabass/bream prices Greece



fresh whole, 300-450 gr/pc

Source: European Price Report

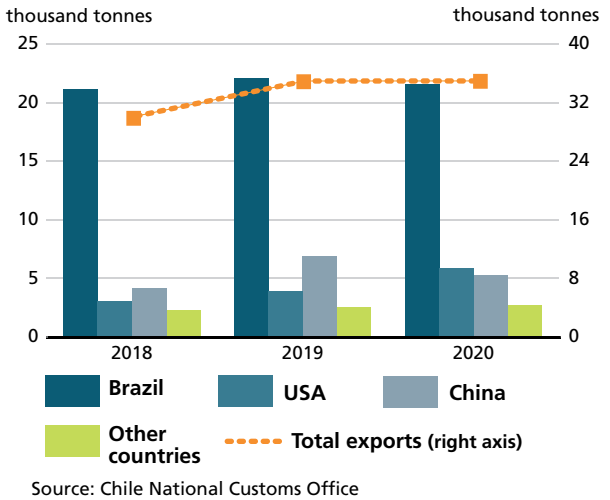
First, Storm Gloria that hit the Western Mediterranean in January 2020 saw the Spanish sector lose almost 50 percent of penned fish to escapes. Although the resulting supply contraction would have lifted prices in a normal market, the wider market impact brought about by COVID-19 has seen demand all but disappear. Together with increased logistical costs, this has quickly pushed the vulnerable Greek industry into dangerous financial territory, while Turkish producers are also suffering. With backed-up biomasses and an uncertain path to economic recovery, sector profitability is set to be severely impacted.

SALMON

For 2020, Atlantic salmon production growth is expected to slow to around 2–3 percent while the market is set to contract. In Chile, where the salmon sector had to face an array of challenges associated with social unrest in the last quarter of 2019, the COVID-19 outbreak is affecting both domestic production and foreign trade. In other large producing countries, such as Norway, the direct impact of COVID-19 restrictions on supply operations has been more limited, but producers are nevertheless having to contend with a weakened market and logistical difficulties. In the wild salmon sector, meanwhile, the industry is looking for solutions to the potential seasonal labour shortages this summer expected to result from COVID-19 travel restrictions.

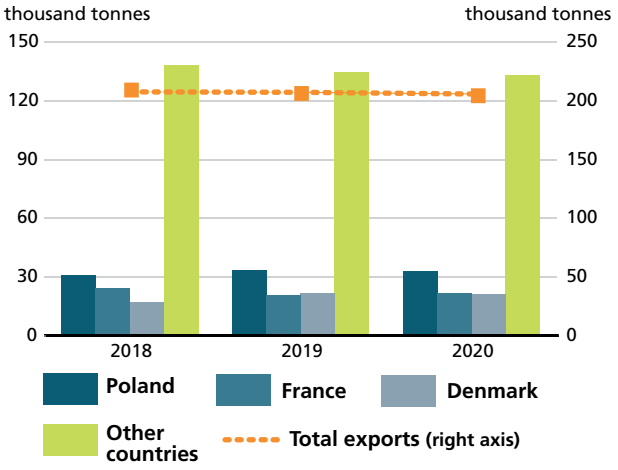
The impact of the COVID-19 pandemic on the global salmon market has been significant, with analysts projecting a drop in worldwide demand for salmon of at least 15 percent. In particular, retail sales of fresh salmon and trout have fallen greatly, and this segment will not recover for some time.

Figure 5. Chile exports salmon



Source: Chile National Customs Office

Figure 6. Norway exports Salmon



Source: Norway Customs

SMALL PELAGICS

Supplies of small pelagics are forecast to increase in aggregate by about 4 percent in 2020 compared to 2019, but changes will be different depending on the species. Atlantic herring will have a tighter supply situation, whereas mackerel supplies will increase.

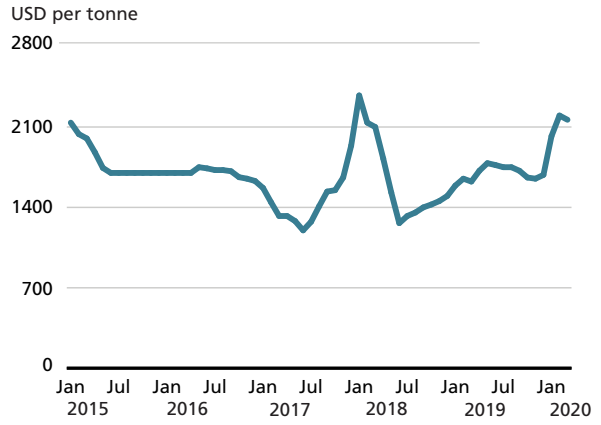
The Norwegian krone has depreciated dramatically against the US dollar and the Euro in recent months, and this has had a significant effect on world prices. While Norwegian exporters can sell at lower prices in US dollars without suffering any loss in krone terms, other producers (like Denmark) can see export revenues fall. The British pound has also depreciated against the Euro, and British exporters will therefore experience similar effects as the Norwegian exporters.

FISHMEAL AND FISH OIL

In Peru – the leading global fishmeal and fish oil producer – the Government has introduced a number of preventative measures that have direct implications for the anchovy industry, including restrictions on boats entering ports, physical distancing policies for crew members and a directive to prohibit boarding for people over the age of 60. These factors will all lead to a decline in fishmeal and fish oil production in 2020.

From the demand side, with restaurant closures and a sharp contraction in trade, there is lower demand for farmed fish, and thus the need for feed. However, with COVID-19 now under better control in China, it is expected that Chinese demand for fishmeal will strengthen once the country's pig farming and aquaculture sectors begin to show

Figure 7. Prices fish oil in Europe



Source: Oil World

signs of rebound.

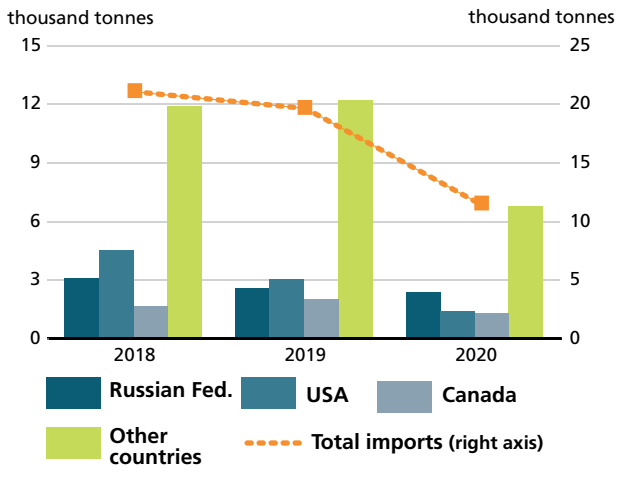
In the short term, prices are expected to continue their upward momentum as a result of poor raw material supply from Peru.

CRAB

While Canadian king crab supplies are expected to increase in 2020, the Alaska quota was reduced to the lowest since 1982. Global supplies of king crab are therefore forecast to be tighter in 2020. By contrast, snow crab supplies are expected to be strong.

Demand for crab is continuing to grow in China, especially for king crab. However, trade was abruptly halted due to COVID-19 and trade volumes dropped dramatically.

Figure 8. China imports crab



Source: China Customs, estimates

BIVALVES

Worldwide, bivalve producers have started longer grow times and are not restocking aquaculture sites. Many aquaculture companies are halting operations in light of the deteriorating market situation, waiting for government support in order to survive. As a result, supply will be far lower than normal.

Bivalve trade has been severely affected by COVID-19. Companies selling on the Chinese and Chinese Hong Kong Special Administrative Region (SAR) markets have reported sharp declines in orders, and short-term recovery is unlikely. In Chile, mussel producers have had to cope with civil unrest in the country on top of COVID-19, which is impeding logistics and day-to-day operations.

Demand for bivalves, particularly fresh and live, will continue to suffer from economic recession and an expected 80–90 percent drop in demand from the tourism sector this year. On the positive side, demand for ready-to-eat bivalve products from supermarkets is increasing, particularly for scallops.

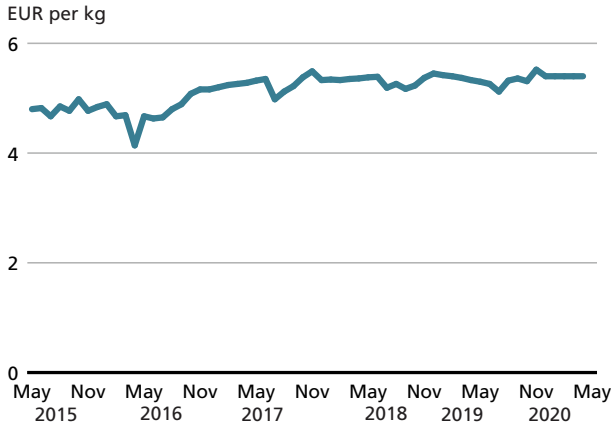
In the longer term, many small-size production and trading companies in the EU, Asia and the USA are unlikely to reopen their business until 2021, and some may not be able to survive the dire economic impacts of COVID-19.

LOBSTER

The Maine lobster harvest in 2019 was more than 20 percent below that of 2018, and may drop further in 2020.

In general, demand is growing in several markets, especially in China. The COVID-19 pandemic halted

Figure 9. Prices mussels France



Montly average consumer prices in metropolitan France

Source: European Price Report

trading for almost two months at the start of 2020, but it is now starting to pick up again as China emerges from the lockdown.

The trade tension between the USA and China has major implications for the lobster trade. Chinese importers have shifted to Canadian suppliers, which have taken over the market share from their US counterparts. In response, US traders are currently putting pressure on harvesters to close down their activities in order to maintain prices.

COVID-19: FROM A GLOBAL HEALTH CRISIS TO A GLOBAL FOOD CRISIS?[1]

International food markets are well supplied, but supply chain disruptions and access to food by the most vulnerable warrant interventions

Contributed by:
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As the world faces an unprecedented public health crisis in living memory in the form of COVID-19, this special feature examines the current and likely impacts of the pandemic – the "Great Lockdown" – with a focus on international food markets. Such markets are not insulated from changes in the wider economy, therefore emphasis is placed on how broader economic shocks have, and can be, transmitted to food markets, notwithstanding the direct transmittable effects of the novel virus to the agricultural sector. In terms of required policy responses, much can be learnt from previous crises, especially the "Great Recession" culminating in 2009[2]. It provides an informative benchmark on how to return market functioning to normality, even if contagion rates remain unchecked.

The big picture – what we can expect

With the new coronavirus spreading rapidly, the impacts of the COVID-19 pandemic on global agricultural and food markets are becoming increasingly apparent. The contours of these impacts are shaped by changes in macroeconomic environments, energy and credit markets, and importantly, input prices and prices in agricultural factor markets. Some of these shifts resemble those of the last global crisis – the Great Recession – and the lessons learnt can help target policy responses in addressing the challenges of the severe ongoing economic emergency.

Not to detract from the global scale of the human tragedy from COVID-19, a leading indicator of the economic impact of the virus is that of GDP growth. The International Monetary Fund's (IMF) most recent World Economic Outlook (April 2020)[3] forecasts a global recession to the tune of a -3 percent annual fall in world GDP in 2020. This compares with a mere -0.1 percent reduction in 2009. The IMF expects global growth to rebound in 2021, with a yearly growth rate of 5.8 percent. It estimates the cumulative output loss in both 2020 and 2021 at USD 9 trillion. The Fund's projections also suggest that no country group – rich or poor – will escape economic contraction, with high-income countries expected to experience deeper and longer-lasting recessions. Such has been the severity of the COVID-19 shock that the IMF has significantly downgraded GDP growth in a matter of months, as illustrated in Figure 1.

The newly projected economic environments are likely to unleash profound impacts on food demand, access to food and nutritional outcomes, well into next year. The big question is whether COVID-19 will lead to a full-blown global food crisis, resembling what the world experienced over the years 2007 to 2009.

Is there enough food currently available?

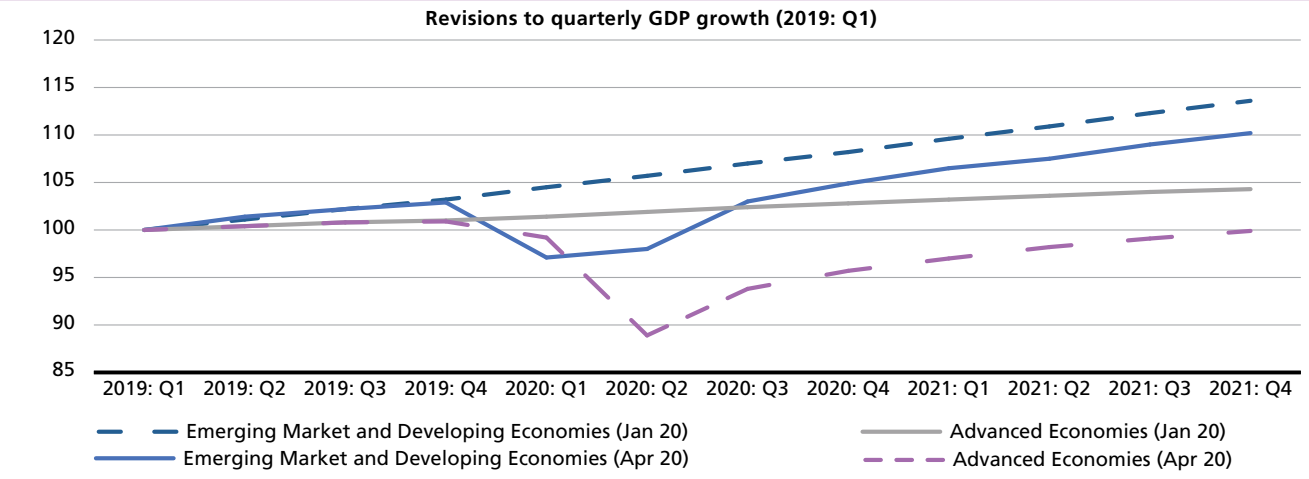
To set the all-important stage, a critical question is whether current global food supplies can satisfy food needs. One traditional indicator to guide this assessment is the amount of cereal stocks held globally, and their 'liquidity', that is whether they are made available for procurement on the international stage. At the beginning of the 2020 COVID-19 crisis, cereal stocks hovered around a multi-year high of about 850 million tonnes. In absolute terms, they were nearly twice as high as at the beginning of the 2007/08 crisis (472 million tonnes) and even relative to utilization, they had reached levels far above those registered in 2007/08. These high stocks should provide a solid buffer against adverse shocks such as, for instance, a bad weather event in the 2020/21 growing season. While important, absolute levels of stocks are not all that matters for buffer capacity. Equally significant is the distribution of stocks over countries, over exporters and importers, and notably, their concentration over major storers (few or many).

[1] This special feature is based on recent analysis by Schmidhuber and Qiao, available at: www.fao.org/3/ca8833en/CA8833EN.pdf

[2] For global food and agriculture, the Great Recession unfolded as a combination of two distinct crises that followed each other from 2007 to 2009. The initial 2007-2008 crisis was largely limited to food and agriculture, arising from a combination of supply and demand shocks within the global agri-food sector. The 2009 crisis arose from an external demand side shock, brought about by the sharp contraction in overall economic activity in 2009, which is now known as the Great Recession. When referring to the Great Recession, this special feature of Food Outlook distinguishes two distinct sub-crises, i.e. the global food crisis of 2007-2008 and the global recession of 2009.

[3] https://www.imf.org/en/Publications/WEO/Issues/2020/04/14/weo-april-2020

Figure 1. GDP growth revisions to the COVID-19 shock



Source: IMF, World Economic Outlook (April 2020)

Irrespective of the tradability or not of cereal inventories concentrated in a few major countries, Figure 1 shows that many countries are better placed to distribute staples for domestic utilization from current stocks, compared with the last crisis.

Table 1 summarizes the concentration ratios of cereal stock holders of the top 1, 3, 5 and 7 storers in 2007/08 and 2020/21. All calculations are based on quantities. The figures show that the concentration of stocks across countries was already very high in 2007/08, but has further increased over time. A large share of stocks is not only in the hands of a few countries, but is also held by storers such as China and India, which have not been very responsive to global price signals in the past. Put into the context of the current crisis, the high stocks held globally may not provide as much buffer capacity as their absolute levels suggest in the case of a disruption in the global supply chains, caused, for instance, by a breakdown in bulk shipment facilities.

Falling price of internationally traded foodstuffs portend a boon for food security

The price hikes for basic foods on a global level made the 2007/08 crisis a particularly serious one. In addition to losing jobs and incomes, consumers also saw their purchasing power decline as food prices rose. The changes in international prices caused by the 2020 crisis are in stark contrast to the 2007/08 developments. Virtually all quotations for globally traded foodstuffs were in decline at the beginning of the year, and COVID-19 has since put further impetus to this trend, especially for sugar, vegetable oils and meat products.

Barring major disruptions in the supply chains, the projected economic recession means that the trend of generally lower food prices could prevail throughout the current crisis. Lower food prices on international markets should also attenuate global food security concerns compared with the Great Recession. However, they cannot necessarily prevent local, national and international disruptions in food supply chains. Nor can they ensure that prices in local currencies do not see increases, given the often hefty depreciation of currencies against the US dollar.

Table 1. Concentration ratios of global cereal stocks (closing levels)

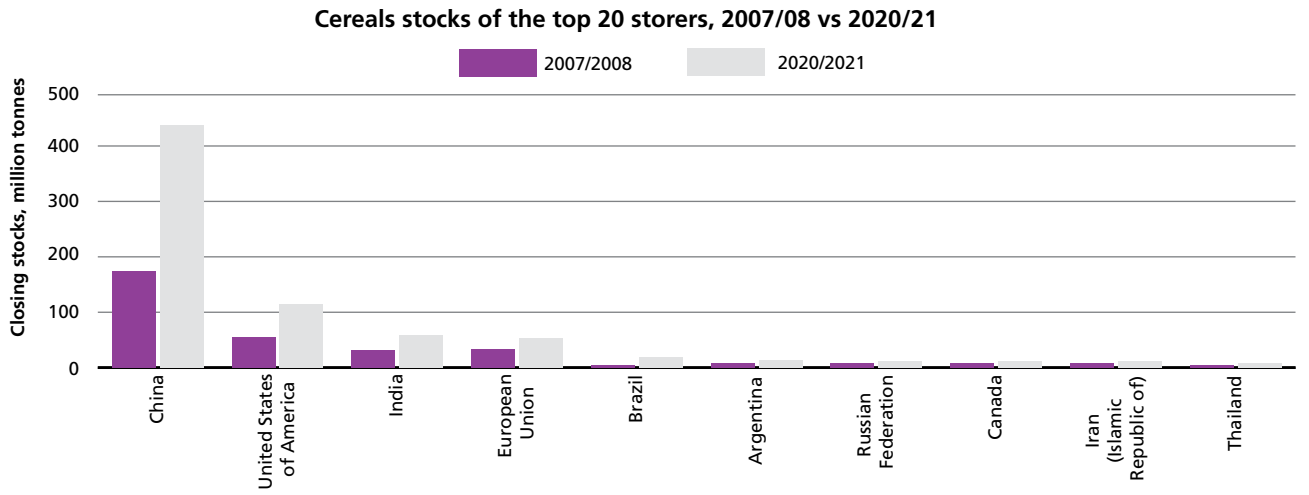
	cr1	cr2	cr3	cr3
2007/08	37%	62%	64%	67%
	CHN	CHN, USA, EUR	CHN, USA, EUR IND, RUS	CHN, USA, EUR, IND, RUS, CAN, UKR
2020/21	47%	66%	74%	77%
	CHN	CHN, USA, IND	CHN, USA, IND, EUR, BRA	CHN, USA, IND, EUR, BRA, ARG RUS

Trade has an increasingly important role to play

To put the importance of adequate global food supplies in further perspective, exporters of foodstuffs have an increasingly important role to play in meeting global food needs. Import dependency[4] by countries on the international marketplace for food has steadily increased

[4] See www.fao.org/3/ca8833en/CA8833EN.pdf for the methodology in calculating import dependency

Figure 2. Cereal stocks of the 10 largest storers 2007/2008 vs 2020/2021



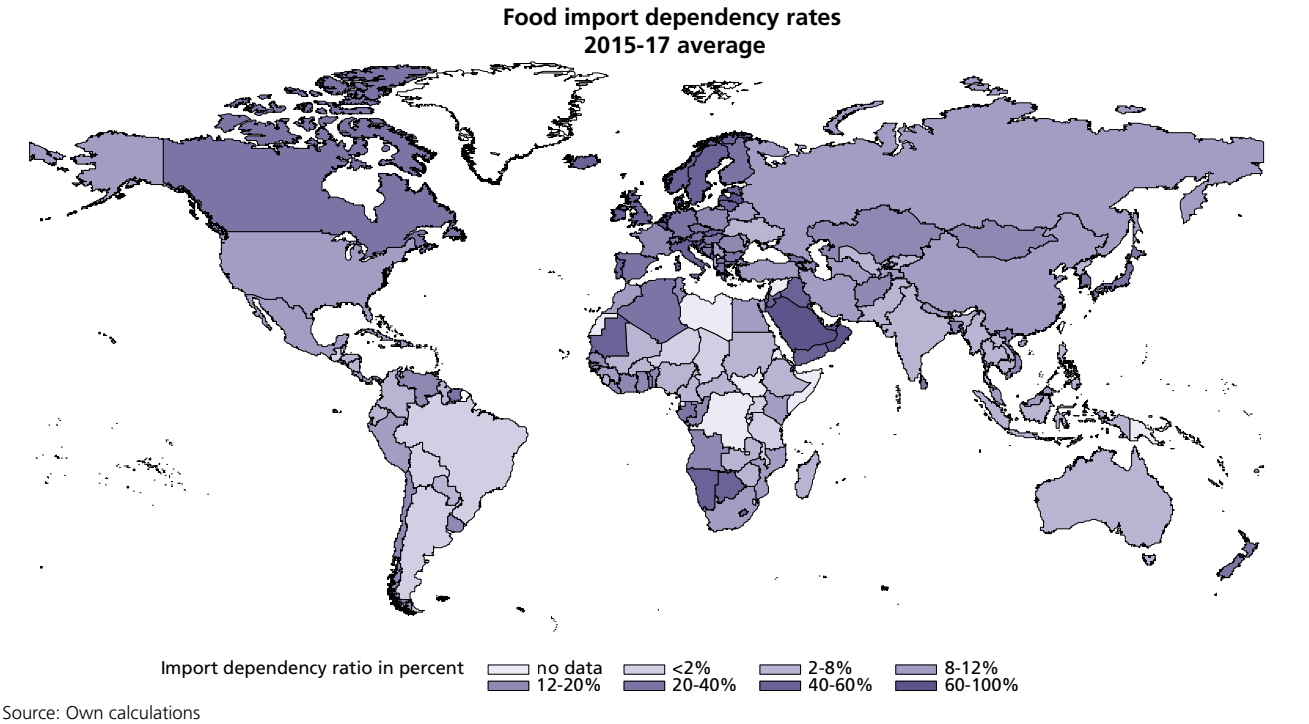
Notes: For comparison reasons, stock estimates for the UK are included in the EU aggregate for both 2007/2008 and 2020/2021
Source: FAO, CCBS

over time, and now stands on average at around 28 percent globally. However, as shown in Figure 3, there is a significant dispersion in the level of food import dependency, with some countries relying as much as 98 percent on the global markets for their food needs. Indeed, many countries that are traditionally heavily reliant on international markets are economically vulnerable, such as those situated in sub-Saharan Africa and South Asia, as well as Small Island Developing States (SIDS). Their plight is particularly noteworthy given their dependence on foreign remittances, which are expected to decline sharply, while for SIDS, dependence on remittances, and to an even greater extent on tourism, increases their exposure due to the closure of international borders to visitors.

Greater diversification in agricultural trade equates to increased resilience

The degree of exposure of the global trading system to a crisis is also conditioned by the concentration of exporters and importers. A high concentration of exporters makes markets susceptible to logistical constraints or policy interventions (export restrictions) imposed by large players,

Figure 3. Food import dependency around the world



Source: Own calculations

potentially jeopardizing access to food for importers. Conversely, a high concentration on the import side could mean that a sharp reduction in import demand by one or two major importers could significantly affect prices and jeopardize revenue streams for exporters dependent on these agricultural exports.

Figure 4 illustrates the change in concentration[5] for all agricultural commodities, both exports and imports. A comparison of the pre-crisis situation in 2007–2009 and 2020 suggests that the concentration of agricultural trade has declined for many products on both the export and import sides, i.e. for many agricultural products. These are the bubbles in the lower left quadrant, i.e. all commodities for which the number of importers and exporters has risen, not declined. This means that, when moving into the 2020 crisis, more exporters and importers were participating in trade, which should make the global trading system for any given commodity more resilient to shocks, not more vulnerable.

Despite the greater diversity over importers and exporters in general, there are a number of noticeable deviations from this trend, i.e. commodities where either imports or exports, or both, have become more concentrated over countries. The latter (both more concentrated imports and exports) are commodities depicted in the upper right quadrant of Figure 4, entitled 'less diversified imports, less diversified exports'. In addition to rice and palm oil, the most important product in this rubric are soybeans, for which China has become the dominant importer with a world market share close to 65 percent. Also, exports have remained in the hands of a few countries, notably the United States of America, Brazil, Argentina and, more recently, Paraguay.

The generally greater diversification offers added resilience to the agricultural trading system, which should prove increasingly important, as the number of importing and exporting countries affected by the COVID-19 crisis rises.

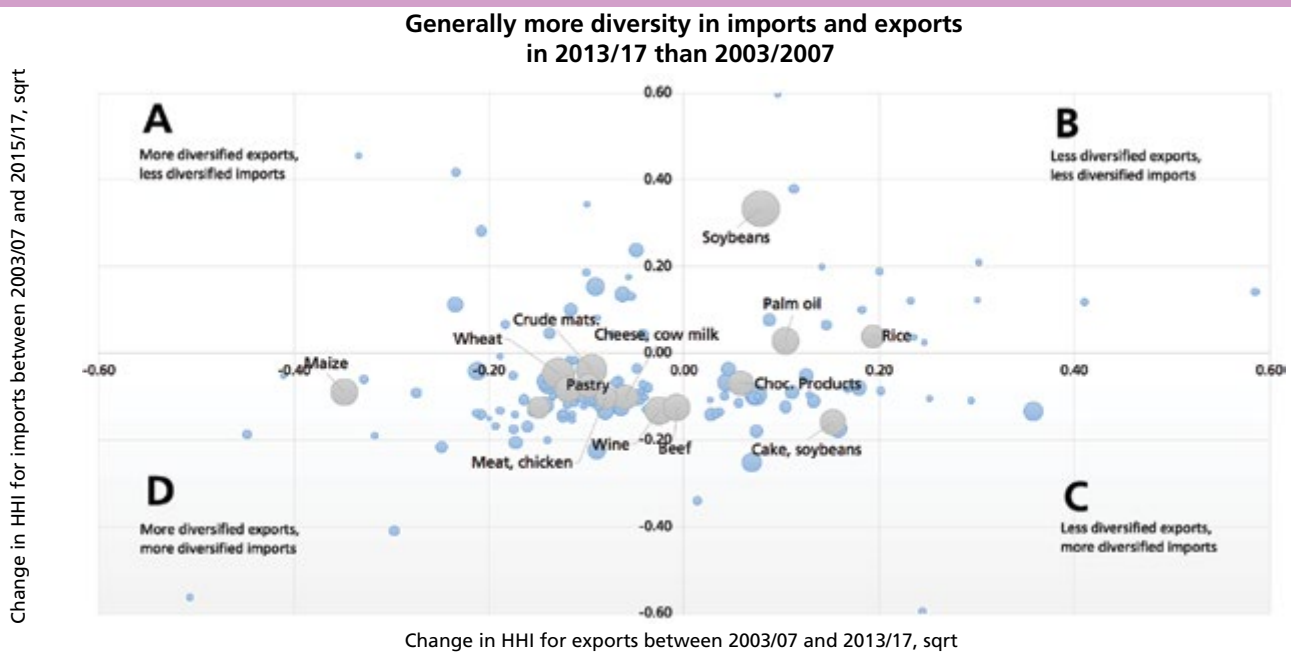
Exchange rates matter for import capacity and trade competitiveness

One of the immediate outcomes to the 2020 COVID-19 crisis has been an adverse change in exchange rates. Figure 5 presents the trade-weighted US dollar index, which has climbed to an all-time high, suggesting that Low-Income Food-Deficit Countries (LIFDCs), depicted in Figure 6, could struggle to buy food even when international food prices are falling, especially those that do not have convertible currencies and are heavily reliant on foreign exchange reserves to procure goods on the international marketplace.

However, the strength of the US dollar has made non-US exporters more competitive and kept a lid on US dollar-

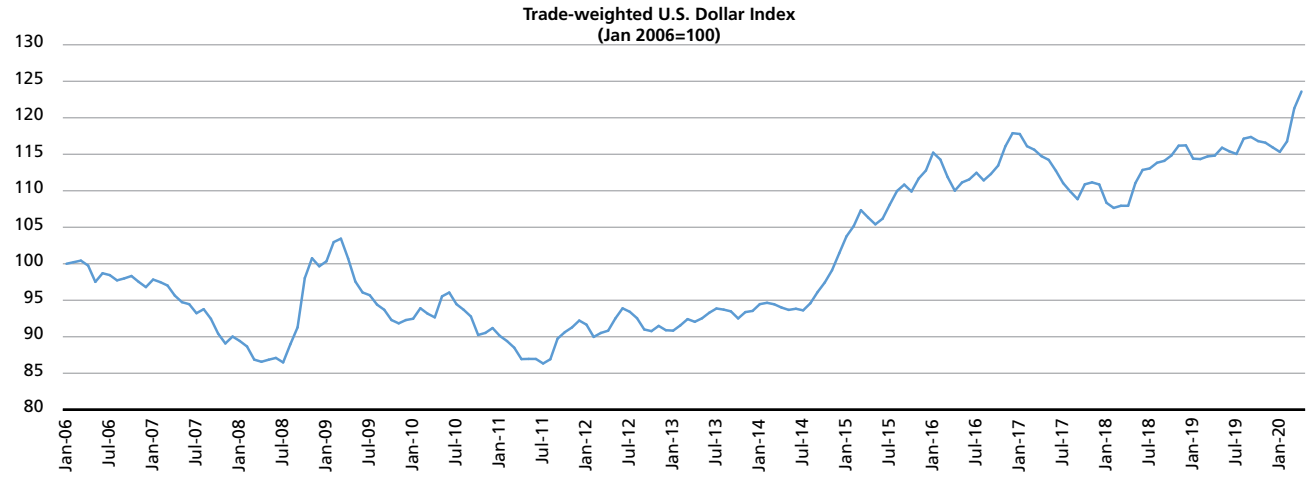
[5] Changes are based on the differences between the average Herfindahl-Hirschman Index (HHI) prior to the two crises, i.e. the difference between the average of HHIs 2013–2017 and the average in 2003–2007. The calculations are undertaken for all agricultural commodities.

Figure 4. Changes in the Herfindahl–Hirschman (HHI) Index for all traded commodities, imports and exports



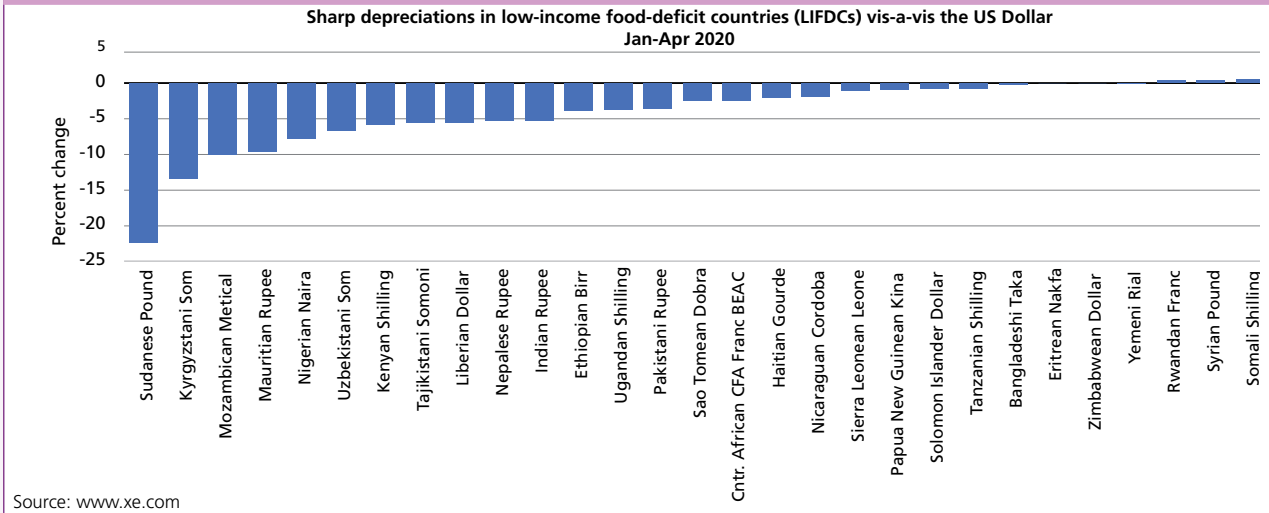
Note: Changes in HHI are presented on a square root scale.
For negative values, we take the square root of the absolute value, expressed as negative values.
Source: FAOSTAT, own calculations

Figure 5. Trade-weighted US dollar index (Jan 2006=100). Source: Federal Bank of St. Louis



Source: Federal Bank of St. Louis

Figure 6. Exchange rate depreciation (in percent) of LIFDCs, January – April 2020



Source: www.xe.com

denominated commodity prices, notably maize and sugar, which were also affected by both lower energy prices and high export availabilities. However, over the medium term, the strength of the US dollar in conjunction with projected higher commodity prices could add to inflationary pressures in commodity exporting countries (Figure 7). It could also add to existing problems in servicing US dollar-denominated debts, which have seen a massive increase in recent years.

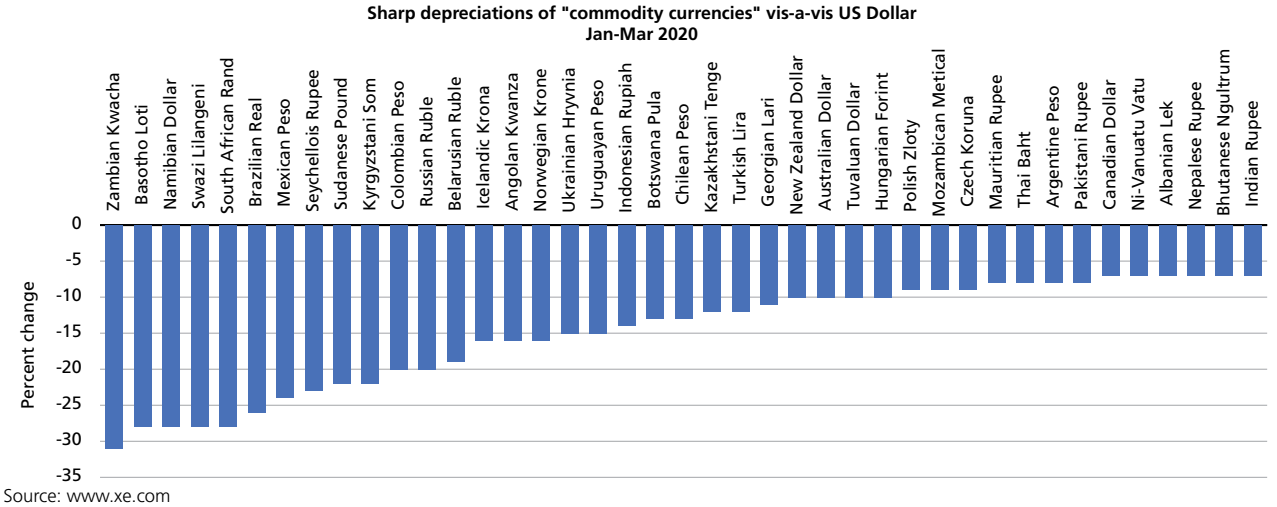
Current prices of energy, biofuels and agricultural inputs support food producers

Agriculture is generally a highly energy-intensive industry, especially for modern and large-scale enterprises. Trends and absolute levels of energy prices in 2020 are radically different from those in 2007/08. In 2007–2008, Western Texas Intermediate (WTI) crude oil prices experienced a massive run-up, culminating by mid-2008 at levels close to USD 140/bbl, measured on a monthly average basis. In April 2020, by contrast, crude oil (WTI) prices had fallen below USD 20/bbl on a monthly basis, and even below USD 12/bbl during intra-day lows.[6]

In 2007/08, the rise in energy prices was so significant that it turned agricultural products into competitive feedstocks for the energy market, siphoning off increasing quantities of agricultural products from food markets into the biofuels market. The most direct effects were visible in the demand for bio-energy feedstocks, while the more indirect effects came through substitution on the demand side and competition for cropland on the supply side, which eventually lifted prices for all agricultural products. The exact opposite set of drivers has been at work since the beginning of the COVID-19 crisis. The sharp decline in energy prices (Figure 8) caused prices of ethanol and

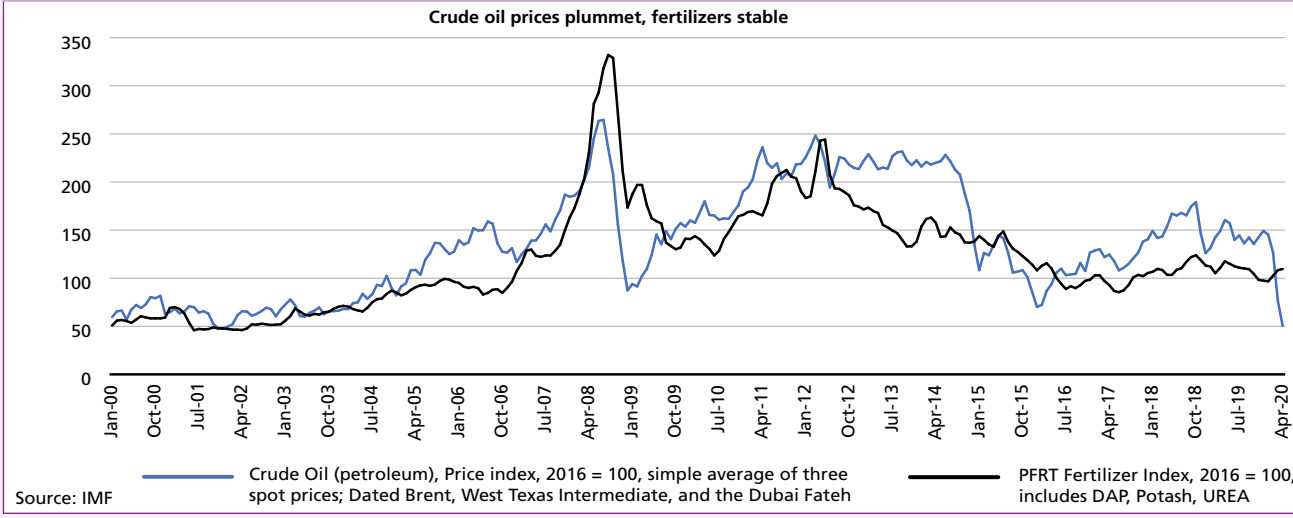
[6] On 20 April 2020, quotations for nearby futures of WTI closed at levels of minus USD 35/bbl, reflecting the need to rollover nearby futures to avoid delivery in May.

Figure 7. Depreciation rates in percent, January – March 2020, commodity currencies



Source: www.xe.com

Figure 8. Crude oil and fertilizer indices, 2016=100 (Jan 2000 – Apr 2020)



Source: IMF

biodiesel to collapse and resulted, without any time lag, in strong declines in the demand for, and prices of, bioenergy feedstocks, such as maize, sugar and vegetable oils.

More generally, lower energy prices affect agricultural production costs through several channels. The direct impacts include lower costs of energy for all forms of mechanization, including power needed to till fields, for irrigation and for transportation. The indirect impacts are channelled through lower costs of energy-intensive inputs such, lubricants, pesticides and electricity while fertilizer prices have been contained. These generally lower input costs act as an automatic stabilizer for farm incomes, keep prices for basic foodstuffs under downward pressure and attenuate the direct impacts of the COVID-19 pandemic on food and agriculture.

Credit markets are tightening, debt soaring in lower-income countries

As in the case of the Great Recession, the 2020 crisis is also expected to have a negative impact on credit markets, with developing countries being hard hit, given their high indebtedness in foreign currencies, sharply depreciating exchange rates and low commodity and energy prices, which make it harder to service these debts. In response to the COVID-19 crisis, many central banks around the world intervened in lowering interest rates. Despite these moves, market rates for borrowing fresh capital have often risen, particularly in low-income countries. A Jubilee Debt Campaign[7] reported that interest rates have on average risen by 3.5 percentage points for low- and middle-income

[7] Jubilee Debt Campaign [online]. London. [Cited 27 April 2020]. https://jubileedebt.org.uk/

countries since mid-February, and that costs for new borrowing stood at 10 percent.

The build-up of private debt by non-financial corporations, e.g. private and public enterprises, which now amounts to nearly three-quarters of total debt in developing countries (a much higher ratio than in advanced economies), is seen as particularly concerning. According to the United Nations Conference on Trade and Development (UNCTAD),[8] inherently volatile "foreign shadow financial institutions" have played a major role in fuelling this accumulation, such that around one-third of private non-financial corporate debt is located in low-income countries. While debt vulnerabilities remain contained in the majority of Low-Income Developing Countries (LIDCs), some 40 percent of them currently face significant debt-related challenges. Nine out of 12 countries that moved from 'low/moderate risk' to 'high risk/in debt distress' are located in sub-Saharan Africa.

With rising costs for capital, the impacts would also be felt in agriculture, notably capital-intensive forms of production. Credit markets could become an important channel of transmission, adversely affecting capital-intensive agriculture. This would further deteriorate the commodity terms-of-trade for many commodity-dependent LIDCs that have been under way since the last price hike in 2012.

Supply chain disruptions present a major hurdle

Agriculture and food supply chains are also labour-intensive (especially for high-value crops, meat and fish) and the effects of the Great Lockdown are bearing down heavily. Labour market shocks arise from mobility restrictions on workers, especially the migrant workforce, and the direct health impacts of COVID-19 are weighing directly on the ability of workers to produce, harvest or process food. The labour force is also affected by a deterioration of occupational health and safety standards. In addition, COVID-19 is having a major impact on moving food to domestic and international consumers, depending on the mode of transportation.

Bulk: The Baltic Dry Index, which is a benchmark measure for the cost of shipping goods around the world, is hovering at the lowest level in 25 years (Figure 9). For the first quarter of 2020, the index slipped more than 40 percent as the rapid spread of the new coronavirus led to shipping restrictions and weakened demand for dry bulk vessels. The index started to strengthen again in April 2020 as a gradual restart of industrial activity in China led to rising demand for shipping vessels.

Container and truck transportation: While bulk shipments have seen few disruptions and no upward pressure in prices, container and truck shipments are already affected by the COVID-19 outbreak. These affect mainly second-tier ports, transhipments to landlocked countries and truck transportation within large countries. For instance, shipments of tropical fruits from Southeast Asia, which are in season at this time of year (April–May), were disrupted through congestions at ports of Shanghai and Tianjin,[9] leading to significant losses due to the perishability of the produce. As another example, cargo disruptions have been amplified by severe container shortages stemming from increased imports of pork in

[8] UNCTAD. 2020. The coronavirus shock: a story of another global crisis foretold. Geneva. (also available at https://unctad.org/en/PublicationsLibrary/gds_tdr2019_update_coronavirus.pdf).

[9] Hey, J. 2020. Coronavirus: measuring the market impact. In: fruitnet [online]. London. [Cited 27 April 2020]. www.fruitnet.com/asiafruit/article/181021/coronavirus-measuring-the-market-impact

Figure 9. Baltic Dry Index, 1995–2020

Source: https://tradingeconomics.com/commodity/baltic

response to African Swine Fever. The closure of some wholesale markets due to quarantine measures has further impeded sales. Not just container shipments are under strain; there are also first reports about a lack of truck drivers due to quarantine restrictions, industrial action or actual illness. Strikes have been announced in several ports of Brazil and Argentina; if they materialize, this would be particularly disruptive given that April and May are the peak period for Brazilian soybean exports.

Air freight: The so-called 'bellies' of passenger jets are often used to ship high-value goods and foods, making up a small but important portion of cross-border trade around the world. As passenger traffic collapsed around the world, air freight followed suit. While capacity increased slightly on specialized cargo planes, the daily international capacity available from the bellies of passenger planes was 80 percent lower globally in the final week of March. At the same time, demand remained strong for air freight. As supply chains around ports continue to come under pressure, air transport remains a viable alternative for importers and exporters. As a result, prices for air freight, usually measured per kilogram or tonne of product, have risen. Relative to pre-crisis levels, estimates suggest that prices are up 20 percent to 30 percent across the Asia-Pacific region, and that for some routes, such as Hong Kong to Beijing, they may have jumped by about 50 percent.

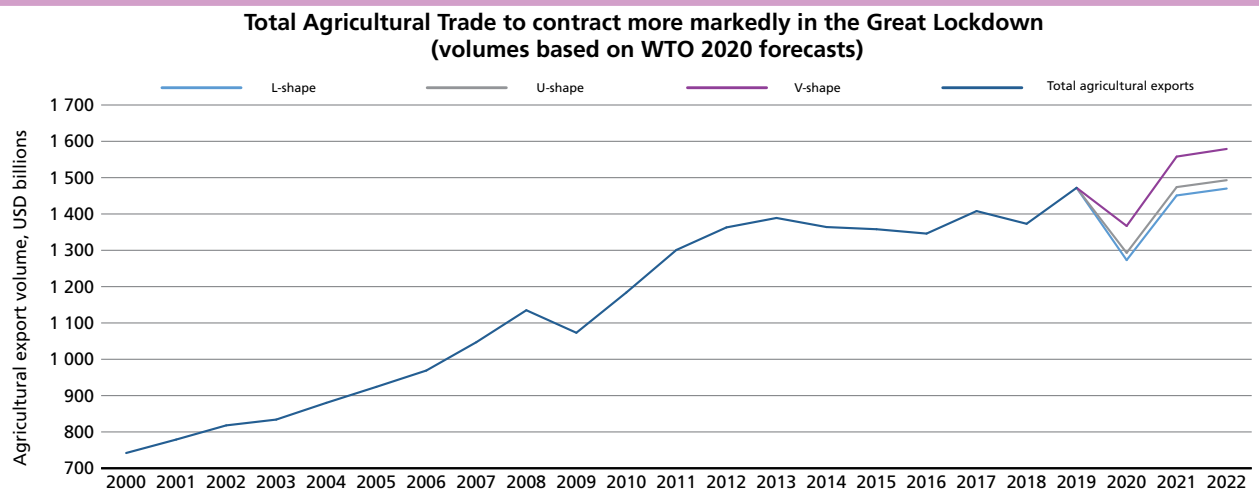
All-in-all trade in food and agriculture likely to contract in 2020

Generally, lower incomes and supply chain disruptions suggests that total merchandise trade will likely fall between 13 to 32 percent in 2020.[10] The World Trade Organization (WTO) expects a recovery in trade in 2021, although the extent is likely to be limited. However, trade in agricultural products is projected to contract more significantly (Figure 10), but less than the average across all goods and services. A number of factors suggest that agricultural trade is likely to be less affected than total merchandise trade.

First, demand for agricultural products is relatively income-inelastic; food is an essential product for all, and the options for import substitution, i.e. replacing food imports through domestic production, are limited at least in the short term. Second, a considerable amount of agricultural trade (especially cereals and products in the oilseed complex) takes place in bulk shipments, highly capital-intensive, and trade logistics in many routes are highly automatized with little human interaction. Disruptions due to health reasons are no doubt possible, but they are less likely to result in protracted interruptions of trade flows. For high-value perishables (e.g. fruit and vegetables, livestock and fishery products) as well as processed foods, where bulk shipments play a lesser role, the impacts of COVID-19 are expected to be more pronounced, and could lead to a supply-induced worsening of nutritional outcomes, notwithstanding falling incomes of consumers, who may no longer be in a position to afford such foodstuffs. Third, while global food value chains are also becoming increasingly complex, the international division of labour in food and agriculture is much less pronounced than in other sectors. Finally, international prices of food have begun to decline, and this is a sector that has limited recourse to widespread trade restricting measures, such as export bans or taxes.

[10] World Trade Organization. 2020. Trade set to plunge as COVID-19 pandemic upends global economy. Geneva. (also available at from www.wto.org/english/news_e/pres20_e/pr855_e.htm).

Figure 10. Agricultural trade projections, own calculations based on WTO estimates



Source: WTO, own calculations

A global food crisis or not?

The analysis presented in this special feature suggests that a COVID-19-induced global food crisis is not on the horizon. Indeed, while the world food economy was ill-prepared for the shocks that characterized the global food crisis in 2007/08 and the recession that followed in 2009, this cannot be said of the situation in 2020.

Global food production prospects are positive, stocks are high, international food prices are low, trade is broader-based with more importing and exporting countries, costs of bulk transportation are depressed, fertilizer and input prices remain stable, energy prices have collapsed and competition from biofuels has virtually seized. Policy-makers in 2020 are more experienced in dealing with global crises, and arguably also better informed and better prepared. In high-income countries, central banks are now fully familiar with the instruments of monetary easing; they have been adding new instruments to accommodate additional credit needs. On the fiscal side, governments have been lifting spending constraints. However, the large accumulation of debts in low-income countries, including in foreign currencies, is of concern as it could spark a credit crunch and result in debt defaults.

The importance of 'global stabilizers' – allowing market forces to equilibrate imbalances – are key to solidifying the fundamentals for international food security. In order for these stabilizers to do their job, the current hindrances to logistics and distribution must be addressed and mitigated. In this regard, governments must recognize the importance of ensuring that trade, whether internal or international, remains open and frictionless, free from restrictions, and meets food capacities in terms of volumes and fulfilling nutritional gaps. This also implies speedy clearances at customs, borders and ports.

The truism that food is the most fundamental need requires that farmers and agricultural workers are placed on the same footing as health workers engaged in fighting COVID-19. Equally, global and national food systems should be regarded as on a par with health systems in ensuring that hunger and poor nutrition problems are not allowed to escalate. This in turn requires that farmers maintain and invest in productivity, with access to affordable credit, and that consumers have normal opportunities to procure food and meet their nutritional needs on the marketplace. Not all countries have the fiscal means to manage the impacts of the pandemic, especially SIDS, which are highly dependent on food imports. Also vulnerable are localized shock-prone countries in sub-Saharan Africa, which are in the grip of other crises, such as pest and disease outbreaks (locust, African swine fever), adverse weather conditions, or compromised security (civil strife). Their societies are facing a loss of income-earning opportunities as well as deepening threats to their livelihoods. As a result, cooperative international support and interventions will be imperative to safeguard the vulnerable populations of these countries and avoid an aggravation of their food insecurity.

REVISIONS TO THE FAO FOOD PRICE INDICES

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Introduction

Since the **FAO Food Price Index (FFPI)** was introduced in 1996, global food markets have changed radically.[2] While the global population grew by 34 percent from 1996 to 2020, global net agricultural production increased by almost 70 percent as measured in constant value terms.[3] The volume of commodity trade in cereals, vegetable oils, sugar, meats and dairy products increased by 66 , 240, 220, 130, and 190 percent, respectively, over the same period. Prices of food commodities traded in international markets as measured by the FFPI have risen relative to unit prices of traded manufactured goods (measured by the World Bank's manufactures unit value index, or MUV) by about 10 percent since 1996. However from 1996 they fell to near 60-year lows in 2000, and then surged to 45-year highs in 2011. Nominal prices have displayed high variation on a monthly basis. In this context of change and uncertainty, the FAO Food Price Index has become a critical and timely monthly indicator of the state of international food markets, gauging the change in food commodity prices over time in nominal and real terms. The index is widely quoted following its release on the first Thursday of each month (always featuring in top-tier media) and is an essential reference in global policy discussion.

This feature article documents the principal changes to the FFPI due to take effect from July 2020, and outlines their implications. The revisions reported here concern the rebasing of the FFPI from the current base period of 2002–04 to 2014–16, and various necessary changes to several prices used in the construction of the index. The article also includes revisions to the **FAO Global Food Consumption Price Indices (FGFCPI)**, which include the same prices as the FFPI, while also incorporating fish and oilseed prices. The FGFCPI are based on reference weights calculated using average per capita calorie and protein availability, as opposed to trade weights used for the FFPI.

Revision of the FAO Food Price Index

The FFPI is a Laspeyres price index, which is calculated as the trade-weighted average of the prices of food commodities spanning the key agricultural markets for cereals, vegetable oils, sugar, meat and dairy products.[4] While these commodities represent about 40 percent of gross agricultural food commodity trade (FAOSTAT), they are chosen for their high and strategic importance in global food security and trade. The Laspeyres price index is used because it facilitates timely updates. Prices are combined in the various sectors using trade weights calculated from average export values over a chosen three-year base period, when the trade wweights appear most stable relative to their trend values. A three-year period is chosen to minimize the impact of variation in both internationally traded prices and quantities. The base period 2014–16 was chosen as the new base as it was considered the most representative period for most markets in the past ten years. Over time, it is important to review price inputs when new conditions affect their availability, representativeness and timeliness. As trade patterns evolve, it is imperative to update the base period to ensure that the weighted basket remains relevant.

Revision to commodity prices and their sectoral indices

The current FFPI comprises separate sub-indices for five major food commodity groups. Table 1 outlines the construction of these sub-indices and notes the revisions that have been made to each. After revision,

[2] It is important to clarify that the FAO food price indices are formed from prices of bulk food commodities in international trade. The indices do not portend to indicate prices paid directly by retail consumers of food. Consumer price indices for food can be found at www.ilo.org.

[3] Estimates for the real value of net agricultural production are from FAOSTAT, and the real value of trade is from the OECD-FAO Agricultural Outlook 2019–2028.

[4] For a mathematical description of the index and its components, refer to Food Price Index Revisited in Food Outlook, November 2013. Food and Agriculture Organization of the United Nations [online]. Rome. [Cited 20 May 2020]. www.fao.org/fileadmin/templates/worldfood/Reports_and_docs/FO-Expanded-SF.pdf.

Table 1. Summary of revisions to sectoral indices and component commodity prices.

DESCRIPTION BY SECTOR	REVISIONS TO BE IMPLEMENTED IN JULY 2020
Cereal price index Compiled using the International Grains Council (IGC) Wheat Price Index of 10 quotations, 1 US maize quotation and 16 rice quotations. The rice quotations are combined into groups consisting of higher quality Indica, lower quality Indica, Japonica and Aromatic rice. Within each group, 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 trade shares. Indices for wheat, coarse grains and rice are combined using export value weights of the base period 2002–2004.	In the grains sub-index: no change to the wheat subcomponent; the US maize quotation replaced by the IGC Maize Price Index (an average of 4 different maize price quotations); the barley subcomponent based on the IGC Barley Price Index (an average of 5 different barley price quotations); and 1 (new) sorghum quotation added. In the rice sub-index, a glutinous subcomponent was added based on two price quotations; Indica components are no longer differentiated by quality, with quotations instead grouped under a single Indica component; Australian Japonica prices have been replaced with Vietnamese Japonica quotations; Vietnamese (new) quotations are added to Aromatic subcomponent; Indian (new) quotations have been added to Indica subcomponent; and sub-index weights have been redefined based on analysis of varietal structure of trade during revised base period. Trade weights for 2014–16 used to aggregate prices.
Vegetable oil price index Based on 10 quotations for soybean, sunflower, rapeseed, groundnut, cottonseed, copra, palm kernel, palm, linseed and castor oil. Prices are weighted by trade shares of the base period 2002–04.	No change in the commodity composition. Trade weights for 2014–16 used to weight quotations.
Sugar price index Calculated from International Sugar Agreement prices using 2002–2004 average as base.	No change in terms of price coverage. Index only rebased to 2014–16.
Meat price index Computed from average export unit values/market prices of bovine, pig meat, poultry meat and ovine meat, weighted by world average export trade shares for 2002–2004. Includes two poultry, three bovine, three pig, and one ovine meat products, with 27 quotations in total used in the calculation.	US and Brazilian export unit values for various meats have been revised to include fresh and chilled products, in addition to frozen, effectively adding 8 (new) quotations to the index defined by the Harmonized System (HS) codes, resulting in a more comprehensive and representative view on the unit prices of the most traded meat products. Australian lamb prices added to the ovine subcomponent. Trade weights for 2014–16 used to weight quotations.
Dairy price index Computed from two price quotes each (one for Europe and one for Oceania) for butter, skim milk powder (SMP) and whole milk powder (WMP), and one price quote for (Oceanian) cheese. The average of quotes is weighted by world average export trade shares for 2002–2004.	European Union (EU) cheddar prices has been added to the cheese subcomponent starting 2008; butter, SMP and WMP subcomponents were redefined to include European Commission-reported EU prices for these products, starting from 2008. Trade weights for 2014–16 used to weight quotations.

24 commodities will be covered by the FFPI. With additional commodity and market coverage, the new index will be based on 95 price quotations, compared to 73 in the current one.

The effects on the commodity price indices are illustrated by sector in Figures 1–5, which, with the current and revised indices normalized to 100 for January 1990, depict the cumulative impact of the revisions between the respective series. Table 2 provides summary statistics comparing the current and revised indices.

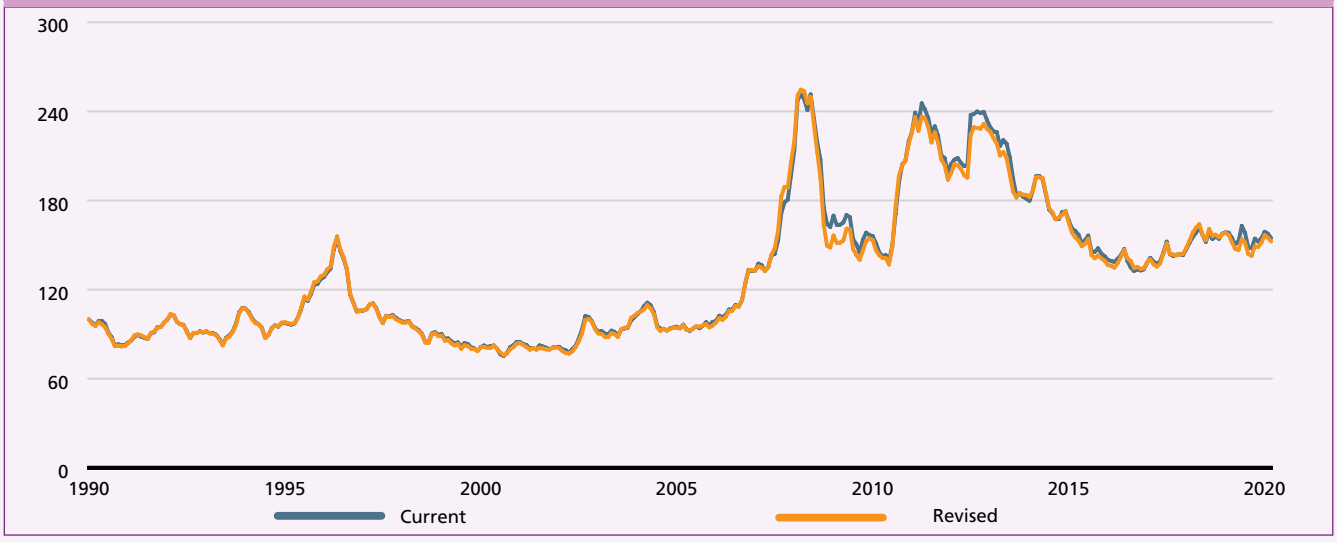
For cereals, the cumulative impact of the revisions is less than 1 percent by March 2020. While the trade share of wheat falls, the shares of maize and rice rise. The high correlation of price movements helps to keep the index resilient to these changes. A simple ordinary least squares (OLS) prediction explains the movements in the current index, with a standard error of only 1.1 (that is the standard deviation of the distance between predicted and actual values). This implies that the revised cereal index conveys the same information regarding price variations as the current index. However, an analysis of turning points indicates that in 5 percent of the monthly observations, the current and revised indices are moving in opposite directions. Given the very high degree of fit between the revised and current indices, these turning point differences are not considered as a significant issue.

The current and revised vegetable oil indices show little visual differences, given no changes to the component price series. The revised index predicts movements in the current index with a standard error of 0.3, and only 0.8 percent turning point differences between the series. While the input prices remain unchanged for this index, it may be noted that the trade weights of these input series have changed substantively compared with the base period; the share of soybean oil fell from 25 percent in 2002–04 to 15 percent in 2014–16, while the share of other oils rose, in particular those of sunflower, palm and rapeseed oils.

As there has not been any change in the composition of the sugar index, there is no difference in movement shown in the figure for sugar. The sugar index continues to have the highest monthly variation among the sectoral indices.

By contrast, there are considerable changes in the dairy and meat indices. For dairy, the main revisions are due to the inclusion of the European Union cheddar prices in the index, starting in 2008, and the removal of EU export prices of other dairy products prior to 2008. Review of the dairy price index found that including EU export prices is critical given the EU's large export share in global markets; however, EU export prices before 2008 were found to be heavily influenced by the intervention regime for butter and skimmed milk powder, and it was decided to remove them from the index. The cumulative impact of the revision, as measured from 1990, indicates a reduction of 12 percent compared with the current dairy index by March 2020. While the coefficient of variation in these indices is largely the same, the correlation of monthly changes between the two is weaker than for cereals or vegetable oils, at 87 percent. The revised index for dairy has the largest OLS prediction (standard) error at 3.7 and, in almost 12 percent of the observations, turning points do not correspond. While these statistics indicate a somewhat lower correspondence between the current and revised index, it is believed that the revised index is more representative of market and trade conditions than the current index.

Figure 1. Current and revised price index for cereals (1990 Jan = 100)



For the meat index, the redefinition of HS codes results in a cumulative and steady reduction in the trend in the revised series from 1990 to 2020 of 13 percent from the current index. The correlation of monthly changes in the two indices is lowest at 84 percent, and turning points do not correspond in 18 percent of observations. These statistics indicate somewhat lower correspondence between the current and the revised index, but the revisions have improved the coverage of the sector and reduced the number of datapoints that must be estimated each month. Nevertheless, the revised series predicts the current series with a standard error of only 1.4.

Table 2. Statistical comparisons between the current and revised Food Price Indices

Index	Coefficient of variation %		Correlation % (monthly changes)	Turning point differences %	Prediction error
	Current	Revised			
Cereals	26.5	26.3	97.2	5.0	1.5
Vegetable oils	29.8	29.9	99.7	0.8	0.5
Sugar	34.2	34.2	1	0	0
Meat	15.9	15.3	83.8	18.2	2.0
Dairy	24.2	25.4	86.8	11.6	3.7
FFPI	20.3	20.6	95.4	13.5	1.1

Note: The coefficient of variation is computed from differences from the linearly detrended series. Turning point differences are measured by instances where monthly changes of the current and revised series move in opposite directions. Prediction error refers to the standard error from a simple ordinary least squares fit of the current index by the change in the revised index and the previous value of the current index.[4]

[4] The statistics reported are noted in the table. The OLS model used for predictive performance is $CI_t = A0 + A1*(RI_t - RI_{t-1}) + A2*CI_{t-1}$ where CI is the current index value and RI is the revised index value

Figure 2. Current and revised price index for sugar (1990 Jan=100)

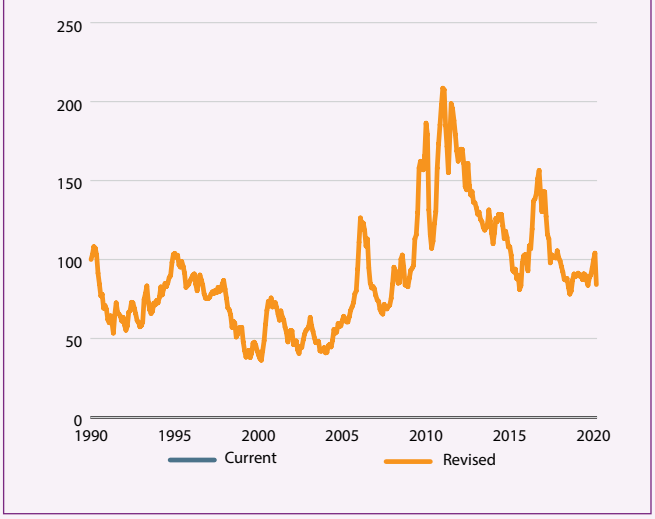


Figure 3. Current and revised price index for vegetable oils (1990 Jan=100)

Figure 4. Current and revised price index for Meat (1990 Jan = 100)

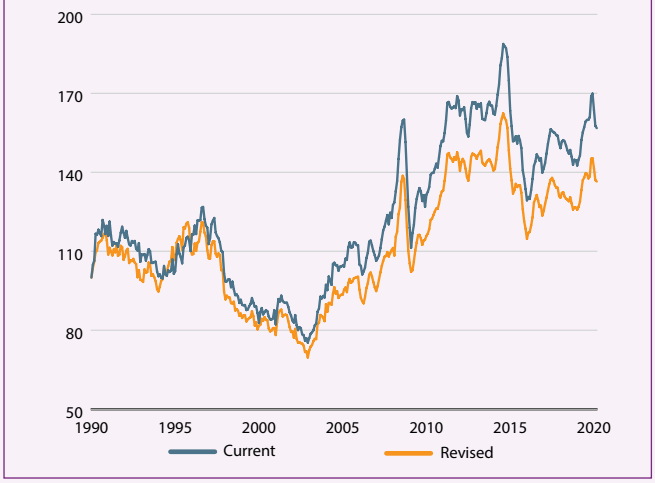
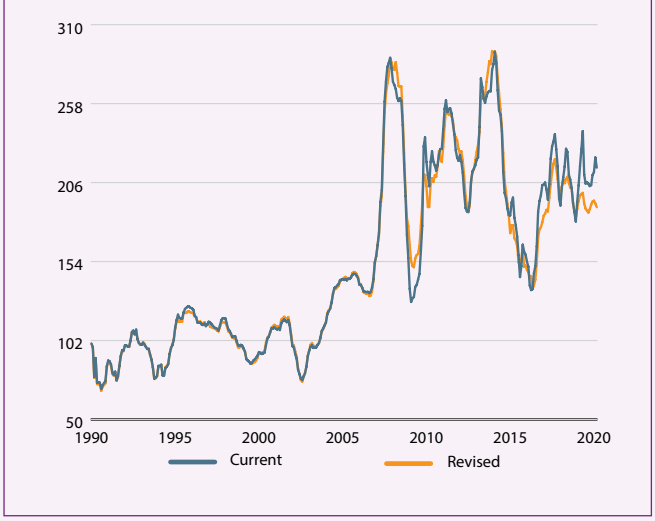


Figure 5. Current and revised price index for Dairy Products (1990 Jan = 100)



Revision of the base period

Table 3 indicates the weights assigned to the major commodity sectors for the calculation of the Food Price Index for the 2002–04 and 2014–16 base periods. Changes in the weights reflect changes in both export volumes and prices. Despite volatile international markets, the weights for the various sectors did not change significantly. The weight for cereals rose 1 percentage point to 29 percent, largely due to small increases in the shares of maize and rice, more than offsetting reduction in the shares of wheat and other coarse grains. The share of vegetable oils rose the most, by 3 percentage points, largely due to a substantial increase in palm oil (offset somewhat by a decrease in the trade share of soybean oil). Livestock commodities lost trade share between these two periods, with the share of meat falling 2 percentage points, as trade in pig meat fell by more than the rise in the poultry and bovine meat trade. The share of dairy products also fell by 2 percentage points, with trade in SMP and WMP rising and that of butter and cheese falling.

Comparison of the current and revised FFPI

Given the changes in the base period weights, and changes to the component prices, Figure 6 displays the current and revised FFPI, with axes aligned according to the change in base values. The revised FFPI has a slightly lower trend; this result is largely attributable to reduced price growth in the revised indices for meat and dairy products, with these being offset somewhat by a decline in the trade shares of these sectors between 2002–04 and 2014–16. The revised index is a good predictor of the current index, with a standard error of only 0.8 (Table 2). While turning points do not correspond in 14 percent of the cases, the revised index would not alter key messages stemming from food price variation from the current index.

Table 3. Changes in base period trade weights summarized by commodity sector

Base	Food	Cereals	Oils	Sugar	Meat	Diary
2002–04	1.00	0.28	0.14	0.07	0.35	0.16
2014–16	1.00	0.29	0.17	0.07	0.33	0.14

Note: Trade weights are calculated using average trade values from the FAOSTAT trade database.

The long-term annual FFPI

The revised base period weights have also been applied to calculate the annual FFPI backwards to 1961 in order to facilitate a longer-term assessment of food price movements. In nominal terms, the revised annual index

Figure 6. Comparison of the current and revised FAO Food Price Index

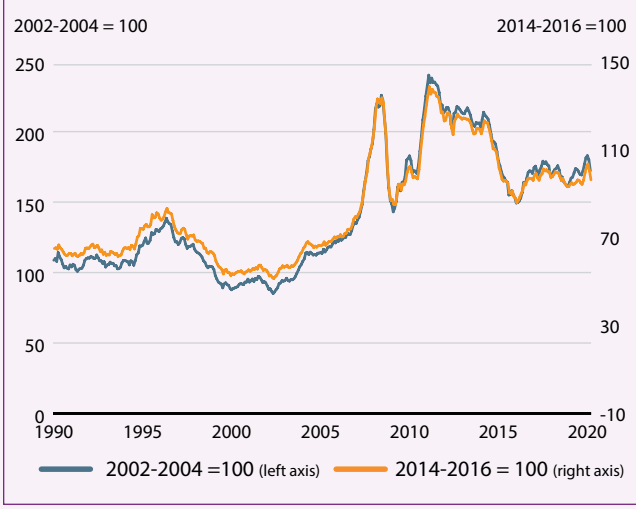
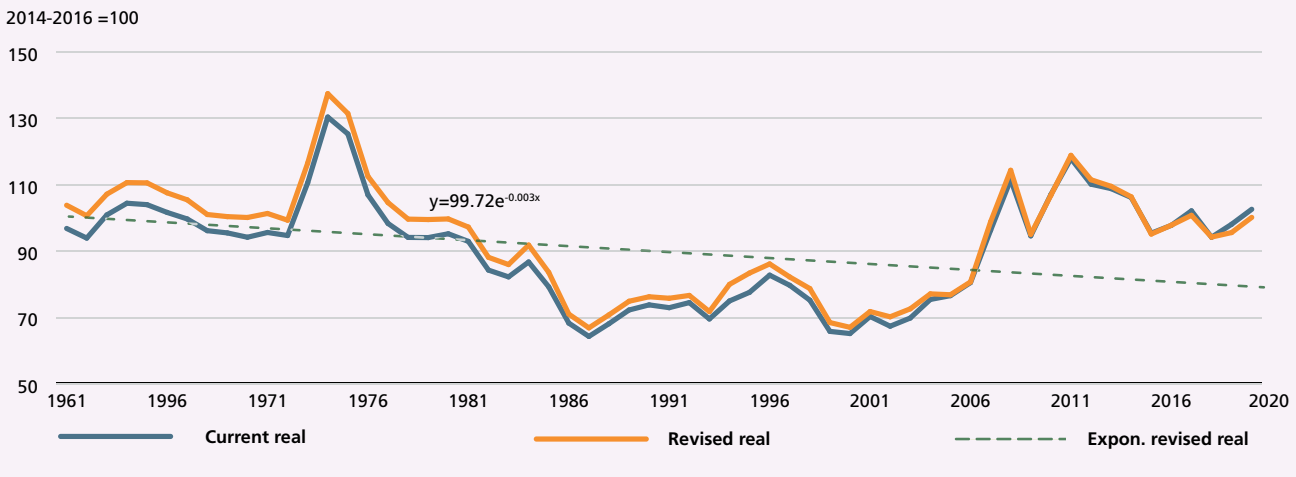


Figure 7. The long-term real FAO Food Price Index



displays a long-term trend rise of 2.9 percent per year over the period 1961-2020, as estimated by an exponential trend. When deflated by the World Bank index of the trade unit value of manufactures (MUV), the real FFPI displays a small negative trend of minus 0.3 percent per year over the same period (Figure 7). However, with a near historical low in 2000 the trend rise of the real FFPI of 1.6 percent per year between 2000 and 2020 is noteworthy, given interpretations that are often made concerning trend movements in real agricultural prices, as they reflect productivity improvements in agriculture relative to the wider economy. Looking at the whole period, food prices in real terms have trended downwards, implying higher relative productivity growth in agriculture. It would appear that the opposite may be true during the past two decades. Such assessments require further analysis and research as the choice of deflator itself may critically affect interpretation.

Revision of the FAO Global Food Consumption Price Indices for calories and protein

The FAO Global Food Consumption Price Index (FGFCPI) tracks changes in the cost of a global food basket. Two alternative formulations of the FGFCPI have been constructed, one on a calorie and the other on a protein basis. As a measure of the changing costs of the calorie basket of primary food commodities, the FGFCPI may be useful in assessing food security implications of commodity price changes. When based on protein weights, the index captures the aggregate purchasing power for different sources of protein.

The formula follows the same construction methodology used for the FFPI, and the same prices, with the addition of the Fish Price Index and Oilseed Price Index to the formula.[5] Rather than trade weights, which are used to weight price series in the FFPI, calorie and protein content weights are used for the calculation of the FGFCPI-calorie and FGFCPI-protein, respectively. These weights are derived from the FAO Food Balance Sheets (www.fao.org/faostat/en/#data/FBS). The commodities included in these indices cover 80 percent and 77 percent of global daily average calorie and protein availability, respectively.

Tables 4 and 5 summarize the calorie and protein weights used in the current and revised FGFCPI indices. In general, for the calorie index, the weight for cereals declines in the revised index, while the weights for vegetable oils, oilseeds and meat rises. This is the result of higher incomes that spur changes in food consumption reflecting a 'nutrition transition' where, as incomes rise, people eat relatively less starchy staples and more nutrient dense meats, oils, sugars, fruit and vegetables. For the protein index, the decline in the weight for cereals is larger, while the weights for oilseeds and fish rise in the revised index. The revisions to the commodity price series as noted in Table 1 are also included in the revisions made to FGFCPI indices.

The current and revised FGFCPI are displayed in Figures 8 and 9, and summary statistics are provided in Table 6. The revised food consumption price indices indicate very high correlation with the current indices and a strong prediction power that explains their movements. The revised series encompass, to a very high degree, the same information as the current ones and show near identical movements, even if the percentage of monthly turning point differences is high.

Table 4. Changes in base period calorie weights summarized by commodity sector

Base year	Food	Cereals	Oils/ Oilseeds	Sugar	Meat	Dairy	Fish
2002–04	1.00	0.58	0.13	0.11	0.09	0.07	0.02
2014–16	1.00	0.57	0.14	0.10	0.10	0.07	0.02

Table 5. Changes in base period protein weights summarized by commodity sector

Base year	Food	Cereals	Oils/ Oilseeds	Sugar	Meat	Dairy	Fish
2002–04	1.00	0.54	0.04	0.0	0.21	0.13	0.08
2014–16	1.00	0.51	0.04	0.0	0.22	0.13	0.09

Table 6. Statistical comparisons between the current and revised Global Food Consumption Price Indices

Index	Coefficient of variation %		Correlation % (monthly changes)	Turning point differences %	Prediction error
	Current	Revised			
FGFCPI-calories	22.9	23.0	97.0	7.8	1.1
FGFCPI-protein	20.4	20.2	96.5	12.4	1.0

[5] Fish was included in the calculation of these indices for the first time in Food Outlook, November 2019. Oilseeds included in the index are soybean, sunflower, rapeseed, copra and linseed.

Conclusions

The FAO Food Price Index is an important indicator of global food commodity price movements. Periodic revisions to price series and the base weights in the formulae of the FFPI, as well as the FGFCPI, are necessary to ensure their relevance. The revised FFPI and FGFCPI will replace current corresponding indices, starting in July 2020.

The evidence presented in this article supports the conclusion that the new revised series move in very close correlation with previous ones, and the revisions can be undertaken without concern that the interpretation of price movements could be altered. While trade and consumption of food commodities have changed considerably over time, with few exceptions, the commodity shares in both trade and consumption have not moved significantly. Furthermore, high commodity price variation has been strongly correlated within and across sectors, thus assuring that revised price indices continue to show very similar, if not identical, movements to their current counterparts. While turning point differences exist where price data have been changed or adjusted, the result is an important improvement in the timeliness and/or representativeness of the indices as measures of the movement in market prices. The very strong statistical correlation of the current and revised series will assure continuity of the FFPI as the revisions are implemented in July 2020.

Figure 8. Current and revised FAO Global Food Consumption Index (Calorie basis)

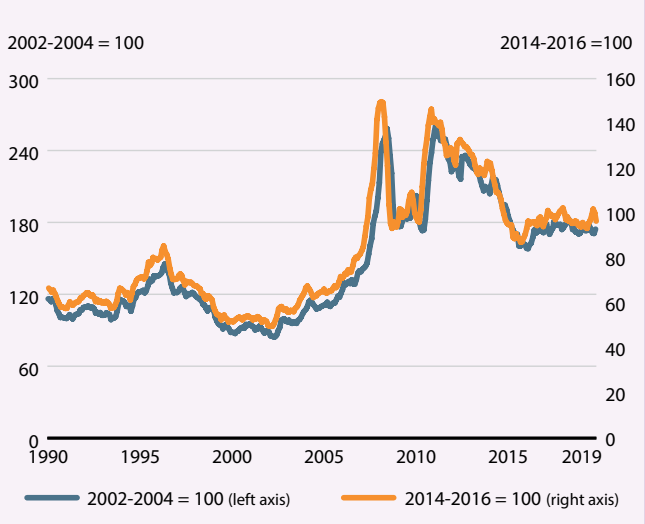
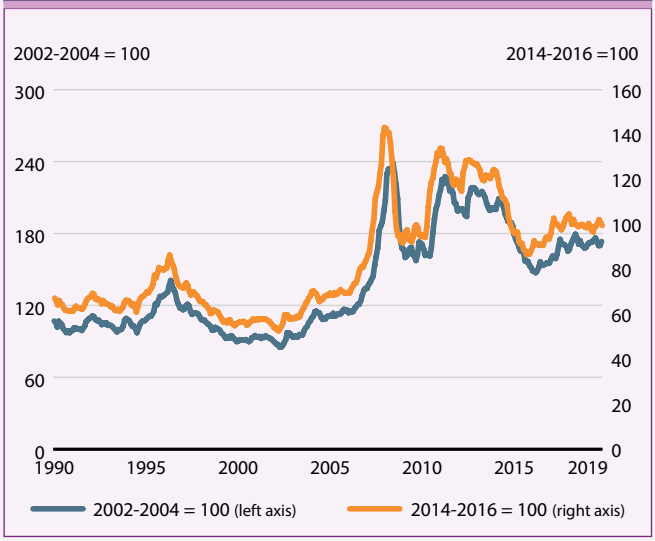


Figure 9. Current and revised FAO Global Food Consumption Index (Protein basis)



MARKET POLICY DEVELOPMENTS

GRAINS: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2019 TO MID-MAY 2020*

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
Afghanistan	Apr-20	Wheat	Consumption and marketing	Government Intervention	As part of humanitarian aid, the first consignment of 5 022 tonnes of wheat (of 75 000 tonnes) has been shipped from India.
Algeria	Nov-19	Wheat	Trade	Import quota	Announced the intention to limit annual milling wheat imports to 4 million tonnes, in an effort to preserve foreign currency reserves and eliminate fraud.
	Mar-20	All	Trade	Export ban	Temporarily introduced an export ban on certain products, including grains, due to the COVID-19 pandemic.
Argentina	Nov-19	Maize	Consumption and marketing	Government market intervention	Increased maize-based ethanol price from ARS 24.635 to ARS 26.606 (from USD 0.412 to 0.445) per litre.
	Dec-19	All	Trade	Export tax	Announced rise in export taxes from 7 to 12 percent for maize, wheat, barley and sorghum (Decree No. 37/2019), replacing the export tax limit of ARS 4 per USD.
	Dec-19	Maize and wheat	Trade	Export tax	Announced a further increase in export taxes for wheat and maize to 15 percent.
	Feb-20	All	Trade	Export policy	Suspended the registration of agricultural exports until further notice.
	Mar-20	Maize and wheat	Trade	Export tax	Lowered export taxes from 9 to 5 percent for maize flour and from 9 to 7 percent for wheat flour, while export taxes for maize and wheat were kept constant at 12 percent.
	Apr-20	All	Trade	Transport measures	Brazil agreed to release 1 400 m^3 of water at its Itaipu hydroelectric dam in order to raise the low level of the water in the Parana River, a key waterway for grains.
Belarus	Mar-20	All	Trade	Export ban	Issued a decree imposing a three-month export ban on a number of staple foods, including buckwheat and buckwheat groats.
Bolivia	Apr-20	Wheat	Trade	Import tariff	Suspended import tariffs on wheat for a period of two years.
Brazil	Nov-19	Wheat	Trade	Import quota	Implemented an annual 750 000-tonne tariff-free wheat import quota, open to any country with which it does not have a free trade agreement.
	Nov-19	Maize	Other	Biofuel	Approved raising the biodiesel blending mandate from 11 to 12 percent, effective from 1 March 2020. Blend levels will be increased by a further 1 percentage point each year, targeting a 15 percent mix by 2023.
	Feb-20	Wheat	Consumption and marketing	Procurement price	Set the new minimum guarantee prices for all wheat grain varieties and wheat seeds for the 2020/21 (July/June) agricultural season. Prices were increased by 6.95 percent compared with their levels in the 2019/20 season.
	Mar-20	All	Trade	Transport measures	The key Brazilian farm town of Canarana issued a decree to stop shipping of grains out of the city in Mato Grosso state, aimed at curbing the spread of coronavirus, disrupting grain export logistics.
Chad	Apr-20	All	Trade	Import duty	Exempted basic food products, including maize, millet and wheat, from import custom duties in order to limit the impact of COVID-19 on food markets. The exemption will be valid until December 2020.
Chile	Dec-19	Wheat	Trade	Trade policy	Established new discounts applicable on customs duties for wheat and wheat or meslin flour (Exempt Decree 434/2019). The discounts were applicable for a two-month period starting on 16 December 2019. The value of discounts have decreased from USD 86.78 to USD 68.61 per tonne of wheat and from USD 135.38 to USD 107.04 per tonne of wheat or meslin flour.

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
Chile	Feb-20	Wheat	Trade	Trade policy	Established new discounts on customs duties for wheat and wheat or meslin flour (Exempt Decree 37/2020). The value of discounts were applicable for a two-month period starting on 16 February 2020. The applicable discounts have increased from 68.61 to USD 112.36 per tonne of wheat and from USD 107.04 to USD 175.28 per tonne of wheat or meslin flour.
China (mainland)	Nov-19	Barley	Trade	Import policy	Extended an anti-dumping investigation into imports of Australian barley by another six months. The probe, launched a year ago, was due to be completed by 19 May 2020.
	Nov-19	All	Production	Production support	Announced CNY 61.6 billion (USD 8.9 billion) in subsidies for high-standard farmland and water conservation projects in 2020. By 2022, high-standard farmland area is expected to reach 1 billion mu (about 66.7 million hectares) for total grain output representing 80 percent of national requirements.
	Dec-19	Maize	Production	GMO policy	Issued biosafety certificates for domestically grown genetically modified (GM) maize, which are valid from 2 December 2019 to 2 December 2024.
	Dec-19	Barley	Trade	Import policy	Extended the anti-subsidy investigation into Australian barley by another six months, to be completed by 21 June 2020.
	Dec-19	Maize	Trade	GMO policy	Renewed import permits for ten GM crops which include maize-based products. Approvals took effect from 2 December 2019 for three years.
	Jan-20	Maize	Renewable energy	Biofuel	Suspended the national 10 percent ethanol-blend mandate due to declining maize stocks and limited production capacity of the biofuel.
	Jan-20	All	Trade	Trade agreement	Signed a wide-ranging Economic and Trade Agreement with the United States of America (USA). As part of the deal, China undertook to increase imports of US agricultural products (including cereals) by USD 32 billion from the 2017's USD 24 billion baseline over 2020 and 2021, subject to prevailing market conditions and commercial considerations.
	Feb-20	Maize and wheat	Production	Production support	Increased support for intercropping maize through the No.1 Central Document 2020 on agriculture and rural development. Policy priorities also include plans to improve the minimum purchase price programmes for wheat, while promoting pilot initiatives for full cost and income insurance for rice, wheat and maize.
	Feb-20	Maize	Stocks	Government intervention	Announced the selling of around 3 million tonnes of maize from state reserves, starting 7 February. The measures aim to ease shortages of feed supplies in southern areas of the country.
	Mar-20	All	Trade	Trade policy	Announced that incoming and outcoming international shipments were exempt from port construction fees from 1 March to 30 June 2020, in order to facilitate trade during the COVID-19 outbreak.
	Mar-20	Maize	Production	Production support	Heilongjiang's provincial agriculture department stated that subsidies for maize farmers will be increased in 2020, but will remain below those provided to soybean growers.
	May-20	All	Stocks	Stocks inventories	Urged state-run and private trading firms and food processors to boost inventories of grains, including maize, due to concerns over a potential second wave of coronavirus.
	May-20	Barley	Trade	Import policy	Announced anti-dumping and anti-subsidy duties totalling 80.5 percent on Australian barley imports, effective from 19 May.
	May-20	Maize	Stocks	Government intervention	Announced auctioning of up to 4 million tonnes of maize from state reserves, starting from 28 May, to address tightening of domestic supplies.
	May-20	All	Stocks	Food security	Announced the drafting and implementation of a response plan to ensure food security during the COVID-19 pandemic, aimed at improving management of grain reserves and expanding capacity of silos for summer harvests.

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
Colombia	Apr-20	Maize and sorghum	Trade	Import tariff	Eliminated, with immediate effect, import tariffs on maize and sorghum until 30 June 2020, with the possibility of a three-month extension.
Ecuador	Jan-20	Wheat	Trade	Import tariff	Extended tariff exemption for wheat imports from all origins for five years, effective 1 January 2020.
Egypt	Feb-20	All	Trade	Import policy	Reintroduced the mandatory inspection of grain imports at port-of-loading by the Central Plan Quarantine Authority under the Ministry of Agriculture and Land Reclamation Decree No. 562/2019.
	Feb-20	Wheat	Consumption and marketing	Government intervention	Extended its imported wheat moisture limit specifications of 13.5 percent by one year to April 2021.
	Mar-20	Wheat	Consumption and marketing	Procurement price	Set procurement price at EGY 700 per ardeb (USD 297 per tonne), aiming to secure 3.6 million tonnes from local farmers.
	May-20	Wheat	Consumption and marketing	Government market intervention	Approved a USD 100 million financing agreement between the International Islamic Trade Finance Corporation and the General Authority For Supply Commodities (GASC) for the purchase of essential commodities, including 240 000 tonnes of wheat, against the backdrop of the COVID-19 pandemic.
El Salvador	Mar-20	Maize	Stocks	Food stocks policy, government purchase	Government purchased around 50 000 tonnes of white maize to boost its national strategic reserves. The purchase aims to guarantee supplies of the country's staple food amid the COVID-19 pandemic and will be released only in case of need.
	Apr-20	Maize	Trade	Import tariff	Temporarily eliminated import tariffs and value added tax on white maize.
Eurasian Economic Union	Apr-20	Rye and bucket wheat	Trade	Import tariff	In order to minimize the negative economic consequences of COVID-19, and prevent the deficit of "socially significant goods" in Eurasian Economic Union (EAEU) countries, on April 18 the Board of the Eurasian Economic Commission granted tariff preferences for some critical import goods in the form of exemption from import duties on deliveries to EAEU member states from 1 April 1 to 30 June, 2020, inclusive. The list of products includes certain agricultural and food products: rye, long grain rice, buckwheat groats, etc.
European Union	Apr-20	All	Consumption and marketing	Government market intervention	As of mid-October, farmers will receive 70 percent instead of 50 percent of their direct payments and 85 percent rather than 75 percent of their Rural Development payments. In addition, national authorities will be allowed to transfer the money to farmers before finalizing all on-the-spot-checks. The European Commission agreed to reduce the number of physical on-the-spot checks that EU member states need to carry out to check farmers' eligibility for common agricultural policy subsidies.
	Apr-20	Maize	Trade	Import duty	Increased the import duty on maize to EUR 5.27 (USD 5.72) per tonne, triggered by a slump in oil and ethanol prices.
France	Dec-20	All	Consumption and marketing	Government market intervention	Decided to withdraw from the market 36 glyphosate-based products and ban their use from the end of 2020.
Georgia	Apr-20	Wheat	Trade	Import subsidy	Launched a subsidy programme for wheat imports, according to which beneficiaries will receive a subsidy of USD 40 per tonne of imported wheat, on condition that they sell a 50 kg bag of flour at no more than GEL 51 (USD 16). The measures come amid trade limitations implemented in exporting countries of the subregion and a recent increase in the export price quotations of wheat.
Guatemala	Mar-20	Maize	Trade	Import quota	Set duty-free quotas for importing 200 000 tonnes of white maize until the end of this year, with the aim of boosting domestic supplies.
India	Jan-20	Wheat	Stocks	Stocks policy	Announced the establishment of temporary storage structures for 10 million tonnes of wheat in order to facilitate state procurement for the 2020/21 wheat crop.

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
India	Jan-20	Wheat	Consumption and marketing	Procurement price	Lowered reserve prices for wheat sold under the Open Market Sale Scheme. Prices for fair average quality wheat decreased from INR 2 245 to INR 2 135 per quintal (USD 311 to USD 296 per tonne) and prices for lower quality wheat decreased to INR 2 080 per quintal (USD 288 per tonne).
	Feb-20	Wheat	Consumption and marketing	Price support	Announced revised criteria for determining market price support for wheat.
	Mar-20	All	Consumption and marketing	Government market intervention	Announced that beneficiaries under the Public Distribution System (PDS) scheme will be allowed to withdraw six months' worth of food grains at one time, instead of the usual two-month quota. The measure is to control COVID-19 panic buying and prevent a price increase.
	Mar-20	All	Consumption and marketing	Government market intervention	Increased the monthly quota of subsidized food grains to beneficiaries of the PDS scheme from 5 to 7 kg for a period of three months from April, in order to ensure a sufficient supply of food grains during the lockdown caused by the COVID-19 outbreak.
	Apr-20	Wheat	Production	Production support	Advised farmers to delay harvesting of the 2020/21 wheat crop until 20 April, amid the COVID-19 outbreak.
	Apr-20	Wheat	Consumption and marketing	Government procurement	Launched wheat procurement operations.
	May-20	All	Consumption and marketing	Food security	Announced spending INR 35 billion (USD 463.1 million) to provide free food grain rations to nearly 80 million migrant workers over the next two months. The measure is aimed at supporting workers affected by the COVID-19- induced lockdown.
Indonesia	May-20	Indonesia	Trade	Bilateral agreement	Announced that the Indonesia-Australia Comprehensive Economic Partnership Agreement (IA-CEPA), a free trade agreement between the two countries, will enter into force on 5 July. Grain producers are among groups that will benefit most from the lower tariffs and improved access.
Italy	Apr-20	Wheat	Consumption and marketing	Marketing measures	Extended the validity of mandatory labelling of origin for pasta until 31 December 2021. The countries where wheat was produced and/or milled must be specified.
Kazakhstan	Mar-20	Buckwheat	Consumption and marketing	Government market intervention	Used regional stabilization funds to purchase basic food products, including buckwheat, to ensure their availability and price stability during the COVID-19 pandemic.
	Mar-20	Wheat	Trade	Export ban	Banned the exports of wheat flour and buckwheat until 15 April, during the state of emergency in the country due to the COVID-19 pandemic.
	Mar-20	Wheat	Trade	Export ban	Lifted the export ban previously introduced on wheat flour and buckwheat.
	Mar-20	Wheat	Trade	Export quota	Announced quotas for export shipments in April covering wheat (200 000 tonnes) and wheat flour (70 000 tonnes) to ensure steady domestic supplies amid the COVID-19 crisis.
	Apr-20	All	Trade	Trade policy	Announced trade restrictions for food products until 1 September. These measures include an export ban for buckwheat and a monthly quota for wheat and rye flour, soft wheat and meslin.
	Apr-20	Wheat	Trade	Export quota	Increased April wheat and wheat flour export quotas from 200 000 to 250 000 tonnes, and from 70 000 to 150 000 tonnes, respectively, for the month of May.
	Apr-20	All	Production	Production support	Announced that it will provide KZT 200 billion (USD 0.5 billion) to support 2020/21 spring plantings and forward purchases of fertilizers and pesticides.
Kyrgyzstan	Mar-20	Wheat	Consumption and marketing	Procurement price	Set prices of wheat flour at KGS 1 450 per 50 kg bag (USD 392 per tonne), valid until 13 June.
	Mar-20	Wheat	Consumption and marketing	Procurement price	Set maximum levels of wholesale and retail prices for a number of food items, including wheat flour. The measure will remain in place for a period of 90 days.

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
Kyrgyzstan	Mar-20	Wheat	Stocks	Stocks inventories	Announced allocation of KGS 631 million (USD 8.6 million) from the state budget to purchase wheat and wheat flour to increase emergency stocks for potential market and price stabilization efforts.
	Mar-20	All	Trade	Export ban	Banned the export of basic food products, including wheat and meslin, wheat flour and almost all types of feed for animals, for six months.
Kenya	Jan-20	Wheat	Trade	Import ban	Lifted a decade-old prohibition on US wheat imports.
Mali	Apr-20	Millet	Trade	Export ban	Banned exports and re-exports of selected food products, including millet and pasta.
Mexico	Dec-19	All	Consumption and marketing	Transport measures	Modified the tax exemptions applicable for fuel used by the agricultural and fishing industries. The subsidized tax credit on diesel for the agricultural industry was increased from 41.9 to 45.6 percent.
	Mar-20	Maize	Consumption and marketing	Procurement price	Announced the guaranteed price of white maize for medium-scale farms at MXN 4 150 (USD 173.4) per tonne.
Morocco	Dec-19	Wheat	Trade	Import duty	Announced the suspension of the 35 percent import duty on soft wheat, set in September 2019, from 2 January to 30 April 2020.
	Mar-20	Barley	Production	Government market intervention	Set up subsidies for 120 000 tonnes of feed barley, totalling MAD 221 million (USD 22.2 million), for farmers to rear their livestock.
	Mar-20	Wheat	Trade	Import duty	Revised the end date of the wheat import duty suspension from 30 April to 15 June 2020.
	May-20	Wheat	Trade	Import duty	Approved the extensions of the 35 percent import duty exemption on soft wheat until 31 December 2020.
Namibia	May-20	Maize	Trade	Import policy	Announced that white maize and pear millet imports will be temporarily suspended. Suspension of white maize imports starts on 1 June, and on 30 June for pear millet imports, until the local harvest has been taken up by millers (around November) .
Nigeria	Apr-20	All	Stocks	Stocks release	Announced the release of 70 000 tonnes of grains from the national strategic reserves on the domestic market to help tackle food shortages during the COVID-19 pandemic.
North Macedonia	Mar-20	Wheat	Trade	Export ban	Announced an export ban on wheat, wheat flour and processed wheat products until 3 April, following the COVID-19 outbreak.
Pakistan	Nov-19	Wheat	Stocks	Stocks release	Released 900 000 tonnes of wheat from stocks as part of efforts to cap domestic market prices.
	Nov-19	Wheat	Consumption and marketing	Procurement price	Raised the minimum support price of wheat from the previously announced level of PKR 1 350 to PKR 1 365 per 40 kg (from USD 217.6 to USD 220 per tonne).
	Jan-20	Wheat	Trade	Import duty	Approved the duty-free import of 300 000 tonnes of wheat.
	Feb-20	Wheat	Trade	Import duty	Suspended a 60 percent wheat import duty for 36 days, until 31 March
	Mar-20	Wheat	Consumption and marketing	Procurement price	Fixed the minimum support price at PKR 1 400 per kg (USD 219 per tonne), 2.6 percent above the level announced in late November 2019. The wheat procurement target is set at 8.25 million tonnes.
	Mar-20	Wheat	Consumption and marketing	Government procurement	Implemented restrictions on intra-district movement of wheat crop and a ban on private sector crop purchases until public sector targets are achieved. The wheat procurement target for Pakistan Agricultural Storage and Services Corporation (PASSCO) has been set at 1.8 million tonnes, while Punjab will procure 4.5 million tonnes, Sindh 1.4 million tonnes, Balochistan 1 million tonnes, and Khyber-Pakhtunkhwa 0.45 million tonnes.
Romania	Apr-20	Grains	Trade	Export policy	Suspended exports of most grains and related products to non-EU export markets during the state of emergency for COVID-19.

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
Romania	Apr-20	Wheat	Trade	Export policy	Lifted all export restrictions for wheat and other food products to non-EU destinations, enforced on 10 April.
Russian Federation	Mar-20	Wheat	Stocks	Stocks release	Announced the sale of 131 416 tonnes of wheat from the state intervention fund.
	Mar-20	All	Trade	Export policy	Suspended exports of processed grains such as ready-to-eat buckwheat or oat flakes from 20 March for 10 days following stronger domestic demand due to the COVID-19 pandemic.
	Mar-20	All	Trade	Export ban	Cancelled the export ban previously introduced on processed grains and buckwheat.
	Mar-20	All	Trade	Export quota	Introduced an export quota of 7 million tonnes of wheat, maize, barley and rye from 1 April to 30 June 2020, aiming to stabilize the domestic market.
	Apr-20	Wheat	Stocks	Stocks release	Announced the sale of 1.5 million tonnes of grains from state reserves into the domestic market, starting from 13 April, raising the amount from a previously announced figure of 1 million tonnes. The measure aims to ensure supplies and keep prices down amid the COVID-19 pandemic.
	Apr-20	All	Trade	Export policy	Announced the suspension of grain exports, including wheat, rye, barley and maize, until 1 July. The export quota of 7 million tonnes introduced on 27 March for the April–June quarter was fully exhausted.
Saudi Arabia	Apr-20	Wheat	Consumption and marketing	Government market intervention	The state grain buyer, SAGO, asked Saudi investors in foreign agricultural land to import 350 000 tonnes of wheat between May and November, to fill strategic reserves amid the COVID-19 pandemic.
	May-20	Maize	Consumption and marketing	Government market intervention	Allocated SAR 2 billion (USD 533 million) to fund imports of agricultural products in efforts to ensure food security against the backdrop of the COVID-19 pandemic. Based on direct and indirect loans, the scheme will initially target a range of products, including maize.
South Africa	Jan-20	Wheat	Trade	Import duty	Reduced the import duty on wheat and wheat flour from ZAR 100.86 to ZAR 77.62 cents per kg (USD 69 to USD 53 per tonne) and ZAR 151.29 to ZAR 116.44 cents per kg (USD 104 to USD 80 per tonne), respectively. The import tariff applies to all countries, except those belonging to the Southern African Development Community.
	Mar-20	Wheat	Trade	Import duty	Reduced the import duty on wheat and wheat flour from ZAR 77.62 to ZAR 51.66 cents per kg (USD 49 to USD 33 per tonne) and ZAR 116.44 to ZAR 77.49 cents per kg (USD 74 to USD 49 per tonne), respectively.
Sudan	Apr-20	Sorghum	Trade	Export ban	Introduced a ban on sorghum exports, effective from 15 April
Tajikistan	Apr-20	All	Trade	Export ban	Imposed a temporary ban on grain exports, to protect food markets and ensure sufficient volumes of domestic products.
Turkey	Apr-20	All	Trade	Import tariff	Lowered import tariff from 40 percent to 0 percent for cereals and pulses.
United States of America	Apr-20	All	Consumption and marketing	Production support	Introduced a USD 19 billion Coronavirus Food Assistance Programme (CFAP). This new package includes direct payments to producers worth USD 16 billion based on actual losses, as well as any adjustment assistance that may be required due to short-term oversupply conditions during the 2020 marketing year.
	Apr-20	Maize	Consumption and marketing	Government market intervention	In an attempt to protect domestic consumers from impurities, Government tightened restrictions on use of ethanol in hand sanitizers, with some maize-based alcohol producers forced to idle production.
	May-20	Maize and wheat	Consumption and marketing	Production support	Announced that maize and wheat farmers will receive coronavirus assistance payments based on either half of their 2019 production or the supplies that they had as of 15 January. Payments are set at USD 0.32 per bushel for maize and at USD 0.18 per bushel for Hard Red wheat.

COUNTRY	DATE	COMMODITY	POLICY CATEGORY	POLICY INSTRUMENT	DESCRIPTION
Ukraine	Mar-20	Wheat	Stocks	Stocks release	Announced the sale of 160 000 tonnes of milling wheat into the domestic market.
	Mar-20	Wheat	Trade	Export quota	Set a maximum limit of wheat exports for the 2019/20 season at 20.2 million tonnes to avoid a rise in domestic bread prices.
	Apr-20	All	Trade	Import duty	Temporarily removed import duties on rye, buckwheat and other grain crops until 1 July 2020.
Uzbekistan	Apr-20	Wheat	Trade	Import tariff	Adopted Decree 5978, which eliminates import tariffs on a number of commodities, including wheat flour, sugar, meat and dairy products, until 31 December 2020.
Zimbabwe	Nov-19	Maize and wheat	Trade	Trade policy	Temporarily removed import controls on maize and wheat flour to try to prevent food shortages.
	Dec-19	Maize	Consumption and marketing	Government market intervention	Reinstated maize subsidies in order to protect citizens from rising food prices. A 10 kg bag of maize meal would now cost ZWL 50 (USD 200 per tonne). The Government will fund the procurement of grain at market prices and sell it to registered maize millers to ensure availability and affordability of the commodity.
	Jan-20	Maize	Trade	GMO policy	Lifted a ban on imports of GM maize, after easing restrictions on private imports in late 2019.
	Feb-20	Maize	Consumption and marketing	Government market intervention	Raised the maize subsidized price from ZWL 50 to ZWL 70 per 10 kg bag (from USD 200 to USD 280 per tonne).

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

RICE: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2019 TO MID-MAY 2020*

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Argentina	Dec-19	Export taxes	Lowered export taxes on parboiled paddy, husked, milled and broken rice from 12 to 9 percent, while at the same time repealing previously set caps on export taxes for these commodities, effective from 14 December 2019.
	Mar-20	Export taxes	Lowered export taxes on parboiled paddy, husked, milled and broken rice from 9 to 5 percent, and for non-parboiled paddy (not for sowing purposes) from 12 to 6 percent, effective from 5 March 2020.
	Mar-20	Price controls	Fixed ceilings on prices of various basic goods, including rice, at their prevailing level on 6 March 2020. The price ceilings were to be maintained for a period of 30 days, starting from 20 March 2020, but a successive measure extended their duration for another 30 days, rendering the ceilings subject to further renewals depending on COVID-19 developments.
Bangladesh	Oct-19	Government procurement, purchasing prices	Announced that it would purchase 600 000 tonnes of paddy directly from farmers, as well as 400 000 tonnes of rice from the 2019 Aman harvest. The procurement drive will span 20 November 2019 to 28 February 2020, offering BDT 36 per kg of parboiled rice (USD 415 per tonne), BDT 35 per kg (USD 404 per tonne) of white rice and BDT 26 per kg (USD 300 per tonne) of paddy bought. The duration of the procurement drive was successively extended to 5 March 2020.
	Jan-20	Export subsidy	Announced that it would extend a cash subsidy equivalent to 15 percent of the FOB value of supplies exported to rice exporters who process locally produced rice. The subsidy would be valid until the end of the 2019/20 fiscal year, on 30 June 2020.
	Apr-20	Food subsidies	Launched a special Open Market Sales (OMS) scheme to ensure that vulnerable urban dwellers have access to rice during the nationwide lockdown imposed to contain the spread of COVID-19. The OMS drive would cover all cities and district towns, allowing consumers to purchase up to 5 kg of rice at BDT 10 (USD 0.12) per kg per week. In subsequent moves, the OMS rice was made accessible to those consumers holding ration cards, further to being expanded to low income consumers not covered by the Food Friendly Programme and Vulnerable Group Development programmes, who were made eligible to receive up to 20 kg of rice per month at BDT 10 (USD 0.12) per kg.
	Apr-20	Government procurement, purchasing prices	Announced that it would purchase 600 000 tonnes of paddy, 1.0 million tonnes of parboiled rice and 150 000 tonnes of white rice from the 2020 Boro harvest, between 26 April and 31 August 2020. This would be up from the 400 000 tonnes of paddy and 1.15 million tonnes of Boro rice purchased the previous season. Prices under the purchase drive would be set to BDT 36 per kg of parboiled rice (USD 415 per tonne), BDT 35 per kg (USD 404 per tonne) of white rice and BDT 26 per kg of paddy bought (USD 300 per tonne).
	Apr-20	Production support, credit, crop insurance, Government procurement	Announced that a support package would be availed to the agricultural sector to help it cope with the impact of the COVID-19 pandemic. Under the initiative, further to seeing public purchases of 2020 Boro paddy raised by 200 000 tonnes compared with the previous season, as previously announced, BDT 50 billion (USD 577 million) would be availed to small and medium scale farmers as credit at subsidized rates. Funds allocated to help farmers purchase agricultural machinery by subsidizing half their cost would be doubled to BDT 2.0 billion (USD 23 million) and a separate BDT 1.5 billion (USD 17 million) would be destined to distribute seeds and seedlings among affected farmers.
Bilateral/ Multilateral	Mar-20	Export restrictions	The Eurasian Economic Union (EAEU), comprising Armenia, Belarus, Kazakhstan, Kyrgyzstan and Russia, prohibited exports of rice and other products destined to non-EAEU countries. The ban entered into force on 12 April 2020 and will be effective until 30 June 2020.
	Apr-20	Import tariff	The EAEU suspended import duties on long-grain paddy, husked and milled rice, and other foodstuffs, effective from 1 April 2020 to 30 June 2020.
Brazil	Feb-20	Minimum support prices	Set Minimum Support Prices (MSPs) for long grain paddy (other than fine long-grain paddy) for the 2020/21 season (2019/20 season for Brazil), effective from February 2020 to January 2021. For the Southern region (except Paraná), the MSP was raised by 8.7 percent to BRL 411 (USD 70) per tonne, while for all other regions it was set at BRL 448 (USD 76), up 10.0 percent from 2019/20.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Cambodia	Dec-19	Production support	Announced that it would allocate an additional USD 50 million through the Rural Development Bank to provide credit to millers in order to assist them purchase 300 000 tonnes of 2019 monsoon paddy.
	Mar-20	Export restrictions	Banned exports of paddy and non-fragrant milled rice with the aim of ensuring supplies for domestic consumption in the context of the COVID-19 outbreak. Exports of fragrant rice will be allowed to continue. The ban was to be enforced from 5 April 2020 until further notice.
	Mar-20	Marketing assistance	Announced that the Ministry of Economy and Finance would monitor market developments and release funds to rice processors to assist them purchase supplies for storage. The move would be geared towards stabilizing local paddy prices, in the context of the COVID-19 pandemic and the 5 April entry into force of the ban on exports of paddy and non-fragrant milled rice.
	May-20	Export restrictions	Repealed the export ban it imposed on non-fragrant milled rice and paddy on 5 April 2020, effective from 20 May 2020.
China (Mainland)	Jan-20	Trade agreement	As part of the Economic and Trade Agreement between the Government of the United States of America (USA) and the Government of the People's Republic of China, agreed that, within 20 days of receiving a list of rice facilities deemed by the US Animal and Plant Health Inspection Service as compliant with the Phytosanitary Protocol on the Import of Rice from the United States to China, it would register them, publish their list and allow the importation of US rice from said facilities, while it retained the right to carry out on-site phytosanitary inspections of registered US rice facilities. Among the measures that pertain tariff rate import quotas (TRQs), the agreement foresees China allocating all rice, wheat and maize TRQs of a given year by 1 January of said year; applying uniform eligibility, allocation, return, reallocation requirements and penalties to the TRQ shares corresponding to state-owned enterprises and private sector entities; and reallocating all unused/returned portions of the TRQs by 1 October to a set of applicants that meet certain criteria. Concerning Chinese purchases of US agricultural products, the agreement envisages China importing USD 32 billion worth more of a range of US goods, including rice, than it did in 2017 by 31 December 2021. These purchases, alongside those of other products, would be conducted at market prices, based on commercial considerations, and with market conditions determining their timing within a year.
	Feb-20	Support prices, production adjustment programme	Stated that government procurement prices of paddy would remain stable in 2020 or be increased, if needed, and that double-cropping of rice could resume in areas where conditions permitted.
	Feb-20	Government procurement, support prices	Raised government procurement prices of Indica paddy for the first time in six years. Accordingly, 2020 state purchasing prices would be set at CNY 121 per 50 kg (USD 341 per tonne) in the case of early Indica paddy and at CNY 127 per 50 kg (USD 358 per tonne) for late/intermediate Indica paddy, up 0.8 percent, each, from levels set in 2019. On the other hand, Government purchase prices of Japonica paddy would be left unchanged at their 2019 level of CNY 130 per 50 kg (USD 366 per tonne). In addition, state procurement volumes would be capped at a total of 50 million tonnes of paddy in 2020, of which 20 million tonnes would consist of Indica paddy and the balance Japonica paddy.
	Mar-20	Production target, production adjustment programme	Issued guidelines instructing provincial authorities to ensure that grain area and production remained stable in 2020, in addition to encouraging the resumption of double cropping of rice in areas with conducive growing conditions, the expansion of early rice plantings, and the reduction of fallowed land.
	Oct-19 to May-20	Stock release	Sold 5.0 million tonnes of paddy from government reserves through 31 auctions held between 18 October 2019 and 15 May 2020, which offered a total of 24.1 million tonnes of paddy for sale.
Costa Rica	Apr-20	Import quota	Approved a shortage import quota of 50 012 tonnes of paddy in order to ensure sufficient supplies for consumption needs, in the context of the COVID-19 pandemic. The volume will be subject to a 6.5 percent preferential duty and is to be imported by the National Rice Corporation (CONARROZ) by 31 December 2020.
	Apr-20	Consumer prices, commercial practices	In light of the national emergency caused by the COVID-19 pandemic, decided to temporarily suspend stipulations approved in 2015 that prohibit sales of rice by tying rice to other products, through raffles, promotions or other practices deemed contrary to state rice price regulation. The decision took immediate effect and its duration will be reviewed in accordance with the development of the national state of emergency.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Côte d'Ivoire	Apr-20	Production support	Announced that, in response to the COVID-19 outbreak, it would launch an Emergency Rice Programme 2020, with the aim of facilitating production of an additional 500 000 tonnes of rice. The initiative would envisage sustaining farm mechanization and distributing sanitary kits, as well as high-yielding certified seeds, fertilizers and other agro-chemicals to producers, and mandating rice purchases from leaders of rice development poles.
Ecuador	Apr-20	Production support, support prices	Decided to leave producer prices for paddy during the 2020 season at their 2019 level of USD 29 per 200 lb (USD 320 per tonne) for paddy of less than 7 mm in length, 20 percent moisture content and 5 percent impurities, and at USD 31 per 200 lb (USD 342 per tonne) for paddy exceeding 7.1 mm in length, with 20 percent moisture content and 5 percent impurities.
El Salvador	Mar-20	Price controls	Set ceilings on prices of various basic foodstuffs, with immediate effect and until the state of emergency due to the COVID-19 pandemic remains in place. In the case of white rice, the maximum retail price was set at USD 0.48 per pound (USD 1.1 per kg) and at USD 0.53 per pound (USD 1.2 per kg) for pre-cooked rice. A 30 March decision adjusted these ceilings to USD 0.5 per pound (USD 1.1 per kg) and to 0.55 per pound (USD 1.2 per kg) for white and pre-cooked rice, respectively, also setting maximum prices of USD 42 per quintal (USD 0.9 per kg) and USD 45 per quintal (USD 1.0 per kg) for white rice and pre-cooked rice at wholesale level.
	Mar-20	Import tariff	Exempted rice flour (HS code 1102903000) and various other commodities from import tariffs, in addition to establishing a duty-free import quota of 7 500 metric tonnes for milled rice (HS code 10063090). The measure is to be effective from 20 March 2020 until state of emergency due to the COVID-19 pandemic remains in place.
	Mar-20	Import quota	Established a duty-free shortage import quota of 20 000 tonnes for paddy (HS code 1006109000) to be brought into the country no later than 31 December 2020.
European Union	Feb-20	Preferential trade arrangement	Decided that it would partially and temporarily withdraw trade concessions granted to Cambodia under the Everything-But-Arms (EBA) agreement, on concerns over human and labour rights in Cambodia. The decision, while still requiring European Council and Parliament approval, would have standard EU tariffs reinstated on selected classes of Cambodian footwear, garments, all travel goods and sugar as of 12 August 2020. However, in line with the development objective of the scheme, other Cambodian goods, including rice, would continue to benefit from duty and quota-free access into the EU market under the EBA scheme.
	Mar-20	Import tariff	Lowered tariffs on non-basmati husked rice imported outside of existing trade agreements from EUR 65 (USD 70) to EUR 42.5 (USD 46) per tonne, effective from 9 March 2020.
Gambia	Mar-20	Price controls, commercial practices, re-export ban	Issued the Essential Commodities Emergency Powers Regulations 2020, under which retail and wholesale prices of essential goods, including rice, were frozen at their 18 March 2020 level. The Regulations also set out fines and penalties to those found in breach of their provisions, further prohibiting hoarding of essential commodities, their re-export and rendering their sale conditional on purchases of other products. The measures will be in place for as long as the state of public emergency remains in place in the country.
Honduras	Mar-20	Price controls	Set ceilings on consumer prices of 30 basic foodstuffs, in order to help consumers, cope with the impact of the COVID-19 emergency. In the case of white rice, the maximum retail price was set at HNL 12 per pound (USD 1.0 per kg). The measure was initially effective from 26 March to 26 April 2020 but was then renewed until 27 May 2020.
India	Nov-19	Export requirements	Made exports of basmati and non-basmati rice to the European Union and other European countries subject to the issuance of Certificate of Inspections by the Export Inspection Council/ Export Inspection Agency, with immediate effect.
	Mar-20	Food subsidies	Announced that it would provide 800 million people with a monthly ration of 5 kg of rice or wheat and 1 kg of pulses between April and June 2020. The supplies would be provided free of cost and come on top of existing assistance under the public distribution system. A total of 12.1 million tonnes of wheat and rice would be allocated for the purpose, of which 11.1 million tonnes would consist of rice. The initiative seeks to help vulnerable consumers to cope with the impact of the COVID-19 pandemic.
	Apr-20	Stock release, biofuels	Approved a plan under which surplus rice stocks held by the state's Food Corporation of India would be converted into ethanol for use as hand sanitizers, and for ethanol-blended petrol.
	Apr-20	Stock release	Lowered the reserve price of rice under the Open Market Sales Scheme to INR 22 500 (USD 300) per tonne for 2020/21, down from the INR 27 525-27 850 (USD 367-372 per tonne) previously applicable.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Indonesia	Mar-20	Rationing	Instructed retailers and traders to limit the quantity of four necessities that consumers could purchase for personal use, in order to avert panic buying spurred by concerns over the COVID-19 outbreak. In the case of rice, consumers would be able to purchase a maximum of 10 kg per transaction. The measure became effective 17 March 2020.
	Mar-20	Government procurement, purchasing prices	Raised government purchase prices by 13.3-13.5 percent to IDR 4 200-4 250 per kg (USD 294-298 per tonne) of wet paddy. For dry paddy these were raised by 13.7-14.1 percent to IDR 5 250-5 300 (USD 368-371 per tonne) and for milled rice to 8 300 per kg (USD 581 per tonne). The revised prices became effective on 19 March 2020.
	Apr-20	Production support	Announced that, in a bid to assist producers in planting during the 2020 dry crop cycle, it would provide 2.44 million farmers with a monthly assistance package of IDR 600 000 (USD 42) for three months, half of which would be in the form of a direct cash outlay and the balance in the form of agricultural inputs. In addition, it instructed various state entities to open new lands for paddy cultivation in wetlands and peatlands, stating that in Central Kalimantan some 900 000 hectares (ha) could be cultivated with paddy, 300 000 ha of which would be ready for planting.
	Apr-20	Food subsidies	Instructed the State Logistics Agency (Bulog) to distribute 450 000 tonnes of rice in various deficit areas.
Kyrgyzstan	Mar-20	Export restrictions	Banned exports of rice and other commodities. The prohibition will be in force from 22 March 2020 to 22 September 2020.
Liberia	Feb-20	Import tariff	Renewed duty exemptions on imports of semi/wholly milled and broken rice, with immediate effect.
Liberia	Mar-20	Production support, finance and credit facilities	Launched a three-year cash collateral scheme of USD 700 000 to support millers in purchasing and processing paddy from small-holders.
Madagascar	Nov-19	Production support	Announced plans to establish 'Dokany Mora' throughout the country through which it would avail producers with agricultural equipment, seeds and fertilizer support at subsidized prices. The initiative was in line with its aim to attain food self-sufficiency, a plan that also foresaw the rehabilitation of 100 000 ha for rice cultivation, of which 35 000 ha would have already been rehabilitated by the state.
	Mar-20	Price controls	According to press reports, set a ceiling of MGA 1 800 (USD 0.47) per kg on rice prices to counter a sudden rise in local quotations occurring in the context of the COVID-19 emergency.
	Mar-20	Food subsidies	Announced that, among other measures, it would provide food assistance staring 26 March 2020, in the form of rice, sugar and other commodities, to vulnerable households, as part of a Social Emergency Plan geared towards helping them cope with the impact of quarantine measures put in place to contain the COVID-19 outbreak. A subsequent announcement indicated that food kits consisting of rice, oil, sugar and other products would be distributed to 240 000 vulnerable households in Antananarivo and Toamasina for this purpose.
Mali	Mar-20	Price controls	Set ceilings on prices of four foodstuffs. In the case of non-fragrant broken rice, these were set at XOF 350 (USD 0.58) per kg at retail level and at XOF 300 000 (USD 495) per tonne at wholesale level.
Myanmar	Oct-19	Support prices	Decided that the floor price for monsoon and summer paddy would remain set at MMK 500 000 per 100 baskets (USD 168 per tonne) of paddy with 14 percent moisture content during the 2019/20 season.
	Apr-20	Export restrictions, export licences	Issued statements to the press indicating that the suspension in issuance of new rice export licences, reportedly in place since late March, was a transitory measure put in place while new export arrangements were being devised. Rice exports previously licensed could continue during the transition period.
	Apr-20	Production support	Announced that the Myanmar Agricultural Development Bank would lower interest rates on the loans it disburses to agricultural producers from 8 to 7 percent, while interest rates of Japan International Cooperation Agency and Myanmar Economic Bank two-step loans would be cut by 1.5-2.0 percentage points. The revised rates were effective 1 April 2020.
	Apr-20	Export restrictions, export licences	Issued a rice export plan specifying that traders who sought rice export permits between 16 and 20 March 2020 would be required to sell 10 percent of volumes they intended to ship (as milled Emata) to the state for reserve purposes. Said volumes needed to be delivered to state warehouses within a week after sought shipments were concluded, or traders would risk having permits revoked, among other penalties. Further export instructions would be issued successively.
	Apr-20	Strategic reserve	Announced that it would purchase 50 000 tonnes of rice to keep as an emergency reserve. Volumes would be sourced by allocating 10 percent of rice exports for reserve purposes.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Myanmar	Apr-20	Export restrictions, export quota	Set a rice export quota of 150 000 tonnes for May 2020. The quota would be applicable to all rice varieties and qualities, except for parboiled rice, which could be exported without restrictions. Of the total quota, 100 000 tonnes would be seaborne and the balance exported as overland cross-border consignments, with exporters also required to sell the equivalent of 10 percent of their shipments to the state for its reserve. Future export directions would be discussed between the officials and industry representatives based on COVID-19 developments as well as domestic and offshore market conditions.
	May-20	Production support	Announced that funds for agricultural loans disbursed by the Myanmar Agricultural Development Bank during the 2019/20 fiscal year (October-September) would be raised by MMK 63 billion (USD 44 million) to MMK 1.747 trillion (USD 1.2 billion).
Nigeria	Apr-20	Food subsidies	Approved the release of 150 trucks of rice, seized by the Nigeria Customs Service, for country-wide distribution through the Ministry of Humanitarian Affairs and Disaster Management.
Pakistan	Jan-20	Food subsidies	Launched the Prime Minister's Relief Package, under which various foodstuffs, including rice, would be sold through the Utility Stores Corporation at subsidized rates from January until the month of Ramadan. Additional plans included the issuance of ration cards to low-income families that would permit them to purchase up to PKR 3 000 (USD 19) worth of foodstuffs through Utility Stores per month.
	Jan-20	Finance and Credit Facilities	Doubled the financing limits applicable under the Long-term Financing Facility (LTFF) for credit support to exporters purchasing plants and machinery to PKR 5.0 billion (USD 31 million), while expanding the scheme's coverage to all export-oriented sectors. The move will also see an additional PKR 200 billion (USD 1.2 billion) of credit support made available to exporters for use by 30 June 2020 under the LTFF scheme and the Export Refinance Scheme.
	Mar-20	Finance and Credit Facilities	Relaxed export performance requirements set out under the Export Finance Scheme, as well eligibility conditions for the Long-term Financing Facility (LTFF), in order to assist exporters cope with demand reductions resulting from the COVID-19 pandemic. In addition, banks would be permitted to extend deadlines for the realization of export proceeds from 180 to 270 days, in order to allow buyers more time to complete payments of Pakistani goods during the pandemic.
	Apr-20	Export restrictions	Clarified that rice exports would not be subject to any Government restriction. The assertion came in response to official instructions issued on 29 April 2020 that called on exports of commonly consumed foodstuffs in Pakistan to be prohibited.
Panama	Mar-20	Import quota	Approved a shortage import quota of 104 328 tonnes of paddy. Volumes imported under the quota will be liable to a 3 percent import duty and must be brought into the country by 15 June 2020.
Republic of Korea	Nov-19	Import quota	Announced that it had concluded the verification process of its plan to move towards rice tariffication, following the expiry of the World Trade Organization (WTO) special treatment on rice on 31 December 2014, after obtaining agreement to impose a 513 percent tariff on volumes imported outside of the 408 700 tonne minimum access volume from the five WTO members who had reservations on the plan. As part of the agreement, the 408 700 tonne import quota would be divided into the following country specific quotas: 157 195 metric tonnes for China (mainland), 132 304 metric tonnes for the USA, 55 112 metric tonnes for Viet Nam, 28 494 tonnes for Thailand and 15 595 for Australia. The remaining 20 000 tonnes would be reserved as a global quota open to rice originating in any WTO member. The quotas would be effective from 1 January 2020. A subsequent announcement indicated that the WTO had certified the schedule of concessions on 24 January 2020, thus bringing the country's rice tariffication move to a full conclusion.
Romania	Apr-20	Export restrictions	Suspended exports of various foodstuffs to non-EU members, including rice (paddy, husked, semi-wholly milled and brokens), as well as the issuance of phytosanitary export certificates, effective from 10 April 2020 and for as long as the national state of emergency caused by COVID-19 remained in effect.
	Apr-20	Export restrictions	Rescinded its ban on exports of various foodstuffs, including rice, to non-EU countries, with immediate effect.
Russian Federation	Mar-20	Export restrictions	Imposed a temporary ban on exports of various cereals, including rice, following a sudden surge in domestic demand due to COVID-19 concerns, according to press reports. Although the prohibition was intended to last for ten days, it was repealed on 24 March 2020.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Rwanda	Mar-20	Price controls, rationing	In a bid to stem increases in local quotations during the COVID-19 emergency, instructed retailers and wholesalers to refrain from setting prices of foodstuffs above prescribed levels. According to the decision, in the case of local rice, prices should not exceed RWF 18 000-19 700 per 25 kg (USD 0.76 -0.83 per kg) at wholesale level and at RWF 750-850 (USD 0.79-0.89) per kg at retail level. For imported rice, ceilings were set at RWF 20 500- 26 500 per 25 kg (USD 0.86-1.11 per kg) at wholesale level and at RWF 840-1 200 (USD 0.88-1.26) per kg at retail level, depending on the various origins and qualities. Successive instructions also stipulated that a maximum of 5 kg of rice is to be sold per individual per day.
Saudi Arabia	May-20	Finance and Credit Facilities	Announced that it would avail a SAR 2.0 billion (USD 532 million) loan package to facilitate imports of food products and help mitigate economic impacts of the COVID-19 pandemic. The first phase of the initiative would target foodstuffs such as rice, sugar, yellow maize and soybeans.
Senegal	Apr-20	Food subsidies	Launched a scheme under which 100 000 tonnes of rice, alongside other necessities, would be distributed to 1.0 million households in order to assist them cope with the impact of the COVID-19 pandemic.
	May-20	Production support	Indicated that it had increased funds destined for distribution of agricultural inputs and equipment to small-holders by 50 percent to XOF 20 billion (USD 33 million), in order to support productive activities during the 2020 season in the context of the COVID-19 pandemic. The move was in line with its target of boosting paddy production to 1.5 million tonnes and attaining self-sufficiency in rice.
Sri Lanka	Nov-19	Stock release	Announced that, in view of increases in local rice prices, it planned to mill and release supplies stored by the Paddy Marketing Board for sale to consumers, at prescribed price ceilings, through Lanka Sathosa outlets.
	Dec-19	Price controls	Repealed previously enforced maximum retail prices on rice and set a price ceiling of LKR 98 (USD 0.52) per kg of steamed Samba rice (white/red, excepting Keeri Samba and Suduru Samba) and of steamed Nadu rice (white/red, excepting Mottaikarupan and Attakari), effective 19 December 2019.
	Jan-20	Food subsidies	Approved a plan under which low-income and vulnerable groups would be provided with subsidized food kits, consisting of rice, dhal, dried fish and other foodstuffs. The packages would be extended to 1 million beneficiaries at a price of LKR 500 (USD 2.6) and form part of the National Programme for Eradication of Poverty.
	Jan-20	Government procurement, support prices	Decided that, in order to ensure remunerative prices for farmers at harvest time, it would establish a minimum certified price of LKR 45-50 per kg (USD 237-264 per tonne) of paddy, depending on moisture content, during the 2020 Maha procurement drive. This level compares with the LKR 38-41 kg (USD 200-216 per tonne) price paid to producers during the 2019 Maha procurement drive. State purchases during the purchase campaign would be conducted through district secretaries, government agents and the Paddy Marketing Board. Moreover, LKR 100 billion (USD 527 million) worth of pledge loads would be issued for millers at a concessional interest rate of 8 percent in order to help them to purchase paddy at certified prices.
	Feb-20	Strategic reserve	Approved a plan under which 20 000 tonnes of Samba and Nadu rice purchased by the Paddy Marketing Board would be maintained on stock for price stabilization purposes.
	Apr-20	Price controls	Lowered maximum retail prices on steamed and raw Samba (white/red, excepting Suduru Samba) and steamed Nadu rice (white/red, excepting Mottaikarupan and Attakari) to LKR 90 (USD 0.47) per kg. Ceilings of LKR 125 and 85 (USD 0.45 and 0.66) per kg were also set on prices of Keeri Samba and white/red raw rice, respectively, effective 10 April 2020.
	Apr-20	Finance and credit facilities, import restrictions	Suspended imports of rice, along with other products, under Letters of Credits, Documents against Acceptance, Documents against Payment, Advance payments, or a combination of these, from 16 April to 15 July 2020.
Tajikistan	Apr-20	Export restrictions	Prohibited exports of rice along with other cereals and legumes, effective 25 April 2020.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Thailand	Nov-19	Production support	Set aside funds to implement three schemes geared towards stabilizing paddy prices. Under the first scheme, covering up to 1.0 million tonnes of paddy, THB 1.5 billion (USD 47 million) would go to implementing a pledging programme for fragrant and glutinous paddy, under which farmers would receive THB 500-1 500 (USD 16-47) to cover the costs of a tonne of stored paddy. Under a second programme, which would cover up to 1.5 million tonnes of paddy, THB 562 million (USD 17 million) would be provided as credit to farmers' organizations purchasing paddy. Under the third programme, covering up to 4.0 million tonnes of paddy, THB 510 (USD 16) would be destined to provide a 3 percent interest subsidy to millers and traders who agree to store supplies for 2-6 months.
	Apr-20	Consumer prices	Reached an agreement with manufacturers, wholesalers and retailers under which 72 necessities, including rice, would be sold to consumers with discounts of up to 58 percent until 30 June 2020.
Philippines	Nov-19	Import requirements	Revised documentation requirements for registration and renewal of importers of plants, their products and planting materials, including provisions that require importers provide proof of existence or right to use of warehouses and annual income tax returns for the past three years. In addition, it stipulated that consignments of rice to the Philippines were to depart their country of origin within the prescribed date of the approved Sanitary and Phytosanitary Import Clearance (SPSIC) issued by the Bureau of Plant Industry and were to arrive in the Philippines no later than 60 days of the Must Ship Out Date indicated in the SPSIC. Successive official statements also indicated that it intended to conduct pre-inspections at rice imports' point of origin in order to ensure their quality and safety.
	Nov-19	Production support, government procurement, stock-holding policy	Instructed the National Food Authority to step up local purchases of paddy so as to increase buffer stocks of milled rice from 15 to 30 days' worth of consumption and to raise its daily milled rice releases to at least an average 1 000 tonnes. In addition, PHP 3 billion (USD 59 million) were to be set aside to extend the implementation of the Rice Farmer Financial Assistance (RFFA) programme into 2020, in order to help farmers cope with declines in paddy prices. The RFFA was first launched in 2019 and provides a PHP 5 000 (USD 99) cash assistance to 600 000 rice producers.
	Mar-20	Price controls	In line with provisions set out under Republic Act No. 7581, prices of goods deemed necessities, including rice, were automatically frozen at their prevailing levels following the 8 March declaration of nation-wide state of public health emergency and the 16 March declaration of state of calamity. Accordingly, price increases for these basic goods in retail markets were barred under any circumstance until 15 May 2020, or sooner, if so decided by the President of the Philippines.
	Mar-20	Production support, credit, crop insurance, Government procurement	A budget of PHP 31 billion (USD 614 million) approved by the Inter-Agency Task Force for the Management of Emerging Infectious Diseases to bolster local food production under the *Ahon Lahat, Pagkaing Sapat Kontra COVID-19* (ALPAS or "Plant, Plant, Plant") Program. The program contemplates destining PHP 8.5 billion (USD 168 million) to implement a Rice Resiliency Project, under which rice producers would be provided with seeds, fertilizers and technical assistance to raise output during the 2020/21 main-crop cycle. A separate PHP 7 billion (USD 139 million) would be set aside for the National Food Authority to purchase local paddy and PHP 3 billion (USD 59 million) to provide rice farmers with interest-free loans under the Expanded Survival and Recovery Assistance Program for Rice Farmers (SURE Aid) Program. Among other measures, additional funds would go to strengthen insurance coverage, urban agriculture and assist marketing of supplies at affordable prices.
	Mar-20	Import quota	A contingency import plan approved by the Inter-Agency Task Force for the Management of Emerging Infectious Diseases, under which 300 000 tonnes of rice would be purchased on a Government-to-Government basis if needed to mitigate the impact of COVID-19. Volumes purchased under the plan would be levied the 35 percent import applicable for rice originated in ASEAN members, even if they were supplied by non-ASEAN members, such as India and Pakistan.
	Apr-20	Price controls	Made various commodities, including local and imported rice, subject to Suggested Retail Prices (SRPs). In the case of rice supplied by the National Food Authority, the SRP was set at PHP 27 (USD 0.53) per kg. For local regular milled rice, the SRP was at PHP 33 (USD 0.65) per kg, while the SRP was set at PHP 40 (USD 0.79) per kg of local well-milled rice, at PHP 45 (USD 0.89) per kg of local premium rice and at PHP 53 (USD 1.05) per kg for local special rice. In the case of imported rice, SRPs of PHP 39, 40, 42 and 51 (USD 0.77, 0.79, 0.83, and 1.01) were set per kg of regular, well-milled, premium and special rice, respectively. The decision became effective 17 April 2020.
Turkey	Apr-20	Import quota, import tariffs	Approved a duty-free import quota for 100 000 tonnes paddy, valid until 31 May 2020.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
United States of America	Jan-20	Import tariff	Lowered the additional import tariff on imports of paddy originated in China (mainland) from 15 percent to 7.5 percent, effective 14 February 2020.
Viet Nam	Mar-20	Export requirements	Instructed rice traders to strictly abide by the provisions of Decree 107/2018/ND-CP, in particular stipulations set out by the 2018 Decree that require that rice traders maintain the equivalent of 5 percent of the volume they shipped in the preceding six months on reserve in order to be eligible for rice exports.
	Mar-20	Export restrictions	Decided that no new rice export contracts could be signed from 25 March 2020 until an inter-ministerial body reviewed the country's rice supply situation to ensure that sufficient availabilities existed to meet domestic needs in the context of the Covid-19 outbreak. The findings of the inter-ministerial body, not expected until at least 28 March 2020, would serve to define the rice export policy going forward. The decision followed news the preceding day relaying that the General Department of Viet Nam Customs had instructed provincial and city level customs departments to stop the registration, receipt and clearance of rice export contracts from 25 March 2020 until the end of May 2020, while permitting rice exports registered prior to that date.
	Mar-20	Government procurement, strategic reserve	Announced that it planned to purchase 190 000 tonnes of rice and 80 000 tonnes of paddy for the national reserve to meet contingency needs in the context of the Covid-19 outbreak. Of this volume, 190 000 tonnes of rice would be stored by mid-June 2020.
	Apr-20	Export restrictions, export quota	Decided that a maximum of 400 000 tonnes of rice (HS code 1006) would be permitted to be exported in April 2020, while a rice export plan for the month of May 2020 would be decided based on official proposals to be submitted by 25 April 2020. The decision became effective 11 April 2020, following recommendations of an inter-ministerial committee set out to review whether sufficient rice supplies existed in the country to meet domestic consumption in the context of the Covid-19 outbreak.
	Apr-20	Export restrictions, export quota	Decided that glutinous rice shipments would not be subject to the export quotas established on 11 April 2020 and could instead continue as required. In addition, in order to clear shipments stuck at ports, the April 2020 monthly rice export quota would be raised to 500 000 tonnes by bringing forward 100 000 tonnes from the May 2020 quota.
	Apr-20	Export restrictions, export quota	Agreed to rescind export quotas on rice and permit rice shipments to proceed unrestricted, as of 1 May 2020. According to the decision, rice traders would be required to strictly abide by provisions of Decree 107/2018/ND-CP and maintain the equivalent of 5 percent of the volume they shipped in the preceding six months on reserve, further to signing agreements with at least one local retailer to supply local markets when called on to do so by the Government. In addition, border surveillance would be strengthened to combat undocumented overland outflows of rice.

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

OILCROPS: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2019 TO MID-MAY 2020*

COUNTRY	DATE	POLICY INSTRUMENT	PRODUCT	DESCRIPTION
Argentina	Dec-19	Export taxation	Soybeans, soyoil, soymeal, sunflower seed	Raised the export tax for soybeans, soyoil and soymeal from 25 percent to 30 percent, and that for sunflower seed from 7 percent to 12 percent.
	Mar-20	Export taxation	Soybeans, sunflower and groundnut, and their respective oils/meals	Raised the export tax for soybean, soyoil and soymeal soyoil from 30 percent to 33 percent, and that for biodiesel from 27 percent to 30 percent. By contrast, the tax rates for sunflower seed, groundnut and their respective crude oils were lowered from 12 percent to 7 percent, and those for confectionary sunflower seed/groundnuts, refined sunflower-seed/groundnut oil and sunflower-seed/groundnut meal from 12 percent to 5 percent. Under the revised duty scheme, small- and medium-scale soybean producers benefit from lower tax rates. Reportedly, the full 30 percent rate would apply to roughly one-quarter of the country's soybean farmers, who account for about three-quarters of domestic soy production.
Association of Southeast Asian Nations (ASEAN)	Oct-19	Comprehensive trade agreements	Coconut products, palm oil	ASEAN members signed a memorandum of understanding aimed at strengthening the collective bargaining position of member nations and expanding exports to international markets. Specific trade promotion activities were agreed on for coconut products and palm oil.
Australia	Nov-19	Agricultural relief measures	Agricultural sector	Announced that it would offer subsidized loans to farmers affected by drought. In addition, farmers would be able to buy water for growing fodder at discounted rates, while measures to improve rural infrastructure would also be implemented.
Brazil	Oct-19	Production support	Arable crops	Announced an increase in public outlays for its rural insurance premium subsidization programme.
	Nov-19	Biofuel policy	Biodiesel	Approved an increase in the nationwide biodiesel blending mandate from 11 percent to 12 percent, effective 1 March 2020. Thereafter, blend levels would rise by a further 1 percentage point each year, until they reach 15 percent in March 2023.
	Dec-19	Transport infrastructure	Grains, oilseeds	Postponed to the second half of 2020 the auction of two major railway projects of special relevance for grain/oilseed exports – the 'Ferrogrão' project and the FIOL railroad designed to link the country's interior to a port in Bahia State. At the same time, the Government confirmed that plans to repave highway BR-319 – running though the Amazon basin from Porto Velho to Manaus – would go ahead.
	Jan-20	Transport policy	Grains, oilseeds	Simplified the rules used to calculate minimum freight rates. From January 2020, key parameters would include haul distance and the type of cargo, truck and loading operations.
	Mar-20	Biofuel policy	Biodiesel	Raised the nationwide mandatory biodiesel blend to 12 percent.
Canada/China (mainland)	Apr-20	Bilateral, sector-specific trade negotiations	Rapeseed	While bilateral talks aimed at restoring full access for Canadian rapeseed to China continued, China's import licences for Canada's two largest rapeseed exporters remained suspended. Meanwhile, and despite the expiry of a phytosanitary agreement regulating shipments of Canadian rapeseed to China, imports of rapeseed from other Canadian exporters would continue to be accepted, provided they respect a reduced dockage limit of 1 percent of foreign material.
China (mainland)/ Uruguay	Nov-19	Bilateral, sector-specific trade initiatives	Non-GM soybeans	The two countries launched talks on a technical protocol that would open China's markets to imports of non-genetically modified (GM) soybeans from Uruguay.
China (mainland)	Nov-19 to Dec-19	Import policy	Soybeans, soymeal, cottonseed meal, rapeseed meal, animal tallow, palm stearin, fish oil	Continued pursuing efforts to expand the nation's import options for oilseeds and derived products. More specifically: i) suspended, for the year 2020, the 'most favoured nations' import tariffs for oilcakes/meals other than soymeal, while lowering the tariffs for bovine animal tallow, palm stearin and fish oil; ii) approved the importation of cottonseed meal from Brazil and worked on a bilateral protocol aimed at facilitating imports of Brazilian soymeal; iii) eased customs regulations on soybean imports from Kazakhstan and the Russian Federation; and iv) signed a protocol with Ukraine setting sanitary requirements for exports of Ukrainian rapeseed meal to China.

COUNTRY	DATE	POLICY INSTRUMENT	PRODUCT	DESCRIPTION
China (mainland)/ United States of America	Nov-19 to Dec-19	Comprehensive trade negotiations	Agricultural products, soybeans	Amid continued trade negotiations between the two countries, in November China issued additional import quotas for soybeans – comprising waivers of the retaliatory tariffs in place since July 2018 – to state-run and private companies. Eventually, in December 2019, the two countries announced an agreement on a 'Phase one' trade accord. The deal, which was signed on 15 January 2020 and took effect in mid-February 2020, included provisions for China to increase – over the course of two years – its imports of US agricultural goods by at least USD 32 billion compared with the level recorded in 2017. China also agreed to suspend planned tariff increases, relax its health standards regarding certain food imports, and expedite the approval of GM-crop imports. The USA committed to suspend an already planned escalation in import tariffs and reduce existing tariffs on certain Chinese goods – although the 25 percent surcharge on about half of all Chinese imports would remain in place. Furthermore, the two countries would consider further, phased reductions of the remaining tariffs, depending on implementation of 'Phase one' and progress in future stages of the negotiations.
China (mainland)	Dec-19	GMO policy	GM soybeans and rapeseed	Approved for importation two new GM-crops, including one soybean variety, and renewed existing import permits for four GM soybean varieties and three GM rapeseed varieties. The approvals would be valid for three years.
	Jan-20	Pesticide regulation	Selected pesticides	Invited comments by World Trade Organization (WTO) member countries on a set of proposed new maximum residue limits for 65 pesticides in selected food products, comprising oilcrops, meals, oils and animal fats.
	Jan-20	GMO policy	Soybeans	Granted – marking a departure from past policies – biosafety certificates for domestic cultivation of two locally developed GM traits, including one GM soybean variety. The authorizations would be valid through December 2024.
	Jan-20 to Apr-20	Market regulation	Soybeans	Released 1 million tonnes of soybeans from state reserves. Reportedly, the measure was prompted by supply concerns amid low levels of commercial stocks following temporary slowdowns in imports.
	Feb-20	Agricultural policy	Soybeans	Released its 2020 crop production policy, which included the continued promotion of soybean cultivation. Policy priorities also included increased support for high-yielding soybean traits and new incentives for intercropping maize with soybeans – two measures aimed at helping to reduce the country's dependence on soybean imports.
China (mainland)/ United States of America	Feb-20	Comprehensive trade negotiations	Agricultural products, soybeans	In addition to the trade truce signed between the two countries in January 2020, the Chinese Government announced that, on 14 February, the tariffs that it had imposed on selected US goods in September 2019 would be reduced by half. The reduction also concerned oilcrops and derived products, whose tariff rates would be reduced by 5 percentage points, except for soybeans, whose tariffs would see a reduction of 2.5 percentage points. All other retaliatory tariffs – notably the 25 percent soybean tariff introduced in July 2018 – would remain in place.
	Feb-20	Comprehensive trade negotiations	Selected goods	In compliance with the recently signed 'Phase one' agreement, on 14 February, the US Government cut by half its retaliatory tariffs on selected Chinese goods.
	Feb-20	Comprehensive trade negotiations	Agricultural products, soybeans	In view of China's pledge to scale up imports from the USA over the 2020–2021 period (see above), the Chinese Government invited importers to apply for exemptions from all the remaining retaliatory tariffs for US products. Eligible goods would include soybeans, other oilseeds and their derived products. In the case of soybeans, exempted importers would only pay the 'most favoured nation' tariff rate of 3 percent, which would put US soybeans on a par with soybeans from other origins.
China (mainland)/ Canada	Apr-20	Bilateral, sector-specific trade negotiations	Rapeseed	While bilateral talks aimed at restoring full access for Canadian rapeseed to China continued, China's import licences for Canada's two largest rapeseed exporters remained suspended. Meanwhile, and despite the expiry of a phytosanitary agreement regulating shipments of Canadian rapeseed to China, imports of rapeseed from other Canadian exporters would continue to be accepted, provided they respect a reduced dockage limit of 1 percent of foreign material.

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China (mainland)	May-20	Food security, agricultural policy	Agricultural products	Announced that in 2020 it would develop and implement a response plan to ensure domestic food security amid the COVID-19 crisis. Measures envisaged under the plan would be aimed at: i) stabilizing the acreage and output of major crops by providing incentives to major producing regions; ii) supporting the recovery in pig production; iii) raising the volume of inventories and improving the management of public grain reserves; and iv) diversifying imports of major agricultural commodities and inputs.
Colombia	Feb-20	Food standards/ health policies	Oils/fats	Announced that, from November 2020, warning labels would be required on food products that are high in saturated fats, salt and added sugars. Furthermore, stringent regulations regarding nutrition-related information would be introduced.
	Apr-20	Import policy	Soybeans	Suspended, until 30 June 2020, import tariffs for soybeans, maize and sorghum in a bid to reduce domestic feed production costs – and hence consumer prices for meat – during the COVID-19 emergency.
Ecuador	Jan-20	Import policy	Soybean meal	Extended import tariff exemption for soybean meal and wheat from all origins for five years, effective 1 January 2020.
Egypt	Nov-19	Sector development measures	Soybeans	Released a plan aimed at an almost four-fold increase in the country's area under soybean cultivation, with a view to reducing the country's dependence on vegetable oil imports.
Ethiopia	Nov-19	Import policy, market regulation	Palm oil	Raised the number of private and state-owned companies that are authorized to import refined palm oil for subsequent distribution to local markets at government-set prices.
Eurasian Economic Union (EEU)	Apr-20	Export policy	Sunflower seed, soybeans	Banned, until 30 June 2020, exports of a number of agricultural products, including sunflower seed and crushed and uncrushed soybeans, in a bid to secure supplies and stabilize consumer prices within the customs union during the COVID-19 emergency.
European Union	Oct-19	Food standards/ health policies	Oils/fats	Released a directive requiring member states to promote initiatives aimed at limiting children's exposure to advertisements for foods and beverages that are high in salt, sugar, saturated fats and transfatty acids.
	Nov-19	Market regulation	Olive oil	Activated a private storage aid mechanism for EU-produced olive oil, in a bid to reduce the bloc's supplies and thus support prices. The programme would remain in place until end-February 2020.
	Dec-19	Biofuel policy	Biodiesel	Confirmed the preliminary countervailing duties imposed in August 2019 on imports of palm oil-based biodiesel from Indonesia.
	Jan-20	Pesticide regulation	Thiacloprid	Decided not to renew the approval of thiacloprid – a pesticide belonging to the neonicotinoids group and used predominantly in rapeseed cultivation – citing identified insect and human health risks. The decision complemented a ban of three other neonicotinoid-based insecticides in all outdoor-uses in place since 2018.
	Feb-20	Environmental policies	Forests	Launched a public consultation on a draft EU policy aimed at i) minimizing the EU's contribution to deforestation and forest degradation worldwide; and ii) promoting the consumption of products from deforestation-free supply chains within the bloc. Reportedly, the consultation would be followed by an impact assessment of regulatory options and demand-side measures.
	May-20	Market support	Olive oil	Simplified the implementation of market support programmes for olive oil – as part of a package of measures aimed at enabling sectors affected by the COVID-19 pandemic to re-balance supply and adjust to demand shifts caused by the emergency.
Food and Agriculture Organization of the United Nations (FAO)	Mar-20	Environmental policies	Peatlands	Launched a geospatial online tool to help countries preserve critical carbon stores known as peatland. To halt peatland degradation and effectively plan peatland restoration, FAO called for urgent mapping and monitoring activities at national level and offered recommendations for the responsible management of such lands.
France	Nov-19	Biofuel policy	Biodiesel	Saw the French Parliament vote – on environmental grounds – in favour of removing tax breaks for palm oil used as biodiesel feedstock.

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Germany	Dec-19	Pesticide regulation	Glyphosate	Decided to extend the approval of glyphosate-containing herbicides by one year, until mid-December 2020, while confirming plans to outlaw the agrochemical in December 2023.
Ghana	Feb-20	Sector development measures	Coconut	Added coconut palm to the purview of the country's National Tree Crop Development Authority. The body would be mandated to develop and regulate production, processing, marketing and export of coconut products.
India	Oct-19	Production support measures	Rapeseed	Announced an increase in the state-mandated minimum support prices for winter (Rabi) crops in the 2020/21 marketing year, raising the support price for rapeseed by 5.4 percent to INR 44 250 per tonne (USD 584).
	Oct-19	Import policy	Palm oil	Announced an increase in the integrated general sales tax on imported refined palm oil from 5 percent to 12 percent – a measures aimed at offsetting a reduction in import tariffs on palm oil supplied by members of the ASEAN bloc scheduled for January 2020.
	Nov-19	Sector development measures	Oilcrops	Extended the geographical coverage of a federal programme promoting the cultivation of oilcrops (including oil-palm) in rice fallow areas, in a bid to lift the country's level of self-sufficiency in edible oil production.
	Dec-19	Import policy	Palm oil	Reduced – in compliance with a free trade agreement signed with ASEAN in 2009 – the tariff on palm oil imports from the regional bloc. The duties for crude and refined palm oil were reduced from, respectively, 40 percent and 50 percent to 37.5 percent and 45 percent.
	Jan-20	Import policy	Palm oil	Concerned about the adverse impact of refined vegetable oil imports on the domestic processing industry, the Government placed refined palm oil and palm olein on the list of goods requiring special import licences.
	Jan-20	Biofuel policy	Biodiesel	Promoted the recycling of used cooking oil into biodiesel in Tamil Nadu state, thereby contributing to reducing health hazards associated with the prolonged use of such oils.
	Feb-20	Import policy	Palm oil	Raised the standard import duty for crude palm oil from 37.5 percent to 44 percent, in a bid to encourage domestic oilseed production and thus reduce the country's dependence on imported oils.
	Mar-20 to Apr-20	Import policy	Palm oil	Decided not to extend the temporary safeguard duty imposed in September 2019 on refined palm oil imports from Malaysia. Furthermore, the Government eased the strict licensing requirements for refined palm oil imports that it introduced in January 2020.
	May-20	Import policy	Refined palm oil	Suspended several licences to import refined palm oil, in a bid to protect the domestic refining industry from surging imports of the commodity. The licences concerned imports from neighbouring countries such as Nepal and Bangladesh, which do not produce palm oil but enjoy duty-free access to India based on the South Asian Free Trade Agreement.
Indonesia	Oct-19	Environmental policies	Forest land	Resolved to hold an oil-palm estate liable for fires that razed forest land on its concession.
	Nov-19	Production sustainability policies	Oil-palm	Renewing its commitment to sustainable palm oil production, the Government ordered multiple ministries to coordinate a campaign aimed at: i) improving data management within the oil palm industry; ii) training farmers in sustainable production methods; iii) enhancing the management and protection of the environment; iv) resolving farmland conflicts; and v) fostering international recognition of Indonesia's palm oil sustainability standard.
	Dec-19	Trade differences (vs. European Union)	Biodiesel	Formally requested WTO dispute consultations with the European Union regarding measures adopted by the EU and certain member states in the renewable energy sector relating to biofuels – notably the classification of palm oil as a 'high indirect land use change (ILUC)-risk' biofuel feedstock.

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Indonesia	Jan-20	Biofuel policy	Biodiesel	Raised the nationwide mandatory biodiesel blending rate from 20 percent to 30 percent and announced plans to increase the blending rate further to 40 percent between 2021 and 2022 – adding that road test using 40 percent blends would be conducted during 2020 and that technical studies on mixing palm oil-based fuel with aviation were planned.
	Jan-20 to Feb-20	Export policy	Palm oil	Reactivated – following improvements in market prices – the country's variable export dues on foreign palm oil sales. The export levy was reintroduced in January, while the export tax was reestablished in February 2020. The two export tolls had remained suspended since, respectively, November 2018 and March 2017, reflecting depressed market prices.
	Feb-20	Production support measures	Coconut	Launched a 4-year programme for the rejuvenation of coconut plantations in 10 provinces across the country.
	Mar-20	Export policy	Palm oil	Revoked – with a view to avoiding disruption of the country's palm oil exports – a regulation announced in 2018 that required exporters of palm oil to use exclusively Indonesia-flagged vessels for their shipments from May 2020 onwards.
	Apr-20	Export policy	Palm oil	Suspended – after renewed falls in market prices – the country's variable export tax on foreign palm oil sales, while leaving in place the country's palm oil export levy.
	Apr-20	Production sustainability policies	Palm oil	Embarked on a reform of the Indonesian Sustainable Palm Oil certification system, with a view to addressing implementation obstacles that had been faced since the scheme's launch in 2011. Aimed at creating an effective, efficient, fair and sustainable oil palm management system able to support national economic development, the Government's initiative would concentrate on: i) improving management of the country's oil-palm plantations in line with a reformulated set of principles and criteria; ii) raising the acceptance and competitiveness of palm oil products in national and international markets; and iii) enhancing the reduction of greenhouse gas emissions. The revised scheme would extend mandatory certification to smallholder growers, who would be given five years to achieve certification and would receive support, including financial assistance.
	May-20	Biofuel policy	Biodiesel	Set aside public funds to support the country's recently introduced B30 biodiesel mandate (see above) and announced that additional funds would be raised through an increase in the export levy collected on oil-palm shipments. The need to raise subsidies for the inclusion of biodiesel in diesel arose from the recent plunge in crude mineral oil prices.
Islamic Rep. of Iran	Dec-19	Market regulation	Selected oilseeds and oils/fats	Launched a programme facilitating the importation of selected basic goods, including edible oils and oilseeds, in a bid to ensure adequate domestic food supplies.
Italy	Jan-20	Pest control	*Xylella fastidiosa*	Approved funding for the compensation of farmers affected by *xylella fastidiosa* disease and for activities aimed at restoring olive oil production, while containing the spread of the plague.
Japan/United States of America	Jan-20	Comprehensive trade agreements	Oils/fats	Under the USA-Japan Trade Agreement that entered into force on 1 January 2020, US exports of oils and fats to Japan became eligible for preferential tariff access. Depending on the type of oil/fat, imports are either duty-free or subject to preferential tariff rates set to be phased out over a period of three years.
Kazakhstan	Mar-20 to Apr-20	Export policy	Sunflower seed, sunflower-seed oil	Banned – with a view to guaranteeing uninterrupted domestic supplies and stabilizing consumer prices during the COVID-19 emergency – the exportation of selected staple foods, including sunflower seed and sunflower oil, until 1 September 2020. With respect to crude sunflower oil, the government subsequently replaced the ban with an export quota, while maintaining the ban for sunflower seed and refined sunflower oil.
	May-20	Market regulation	Sunflower-seed oil	Introduced temporary price ceilings for socially significant food products, including sunflower-seed oil, in a bid to protect consumers during the COVID-19 emergency.
Kyrgyzstan	Mar-20	Export policy	Vegetable oils	Banned, for a period of six months, the exportation of selected food and feed products, including vegetable oils, in a bid to secure domestic supplies of these commodities during the COVID-19 emergency.

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Malaysia	Sep-19	Export policy	Palm oil	Announced that the variable tax rates set under the country's export tax regime for palm oil would be lowered as of 1 January 2020. The measure was aimed at stimulating the country's palm oil exports.
	Oct-19	Market regulation	Palm oil	Banned food products carrying 'no palm oil' or 'palm oil-free' labels from the domestic market, in a bid to stem the development of negative perceptions among consumers and protect the interests of the country's oil-palm industry. Furthermore, the Government provided funding to the Malaysian Palm Oil Board to support the agency's programmes aimed at promoting foreign palm oil sales and protecting the commodity's image.
	Oct-19	Production sustainability policies	Palm oil	Offered soft loans to smallholders for the replacement of senile oil palms with more performant ones, in a bid to promote output growth via productivity improvements rather than land expansion.
	Nov-19	Export promotion	Palm oil	Backed private sector initiatives geared towards greater palm oil market penetration in China, India and the Indian subcontinent, with a view to diversifying the country's palm oil exports.
	Nov-19	Production sustainability policies	Palm oil	Announced that, from 1 January 2020, a levy would be collected from oil-palm growers for each tonne of palm oil produced. The proceeds would be used to support public reforestation and wildlife protection schemes and thus help raise the industry's environmental credentials.
	Nov-19	Biofuel policy	Biodiesel	Allocated funds to explore the use of palm oil derivatives as aviation fuel feedstock and approached potential investment partners in overseas. The initiative would address the expansion in demand for bio-jet fuels expected to arise from the International Civil Aviation Organization's policies favouring a higher presence of renewable feedstock in aviation fuel.
	Dec-19	Export taxation	Palm oil	Reactivated – following improvements in market prices – the country's variable export tax on foreign palm oil sales. The export duty had remained suspended since August 2018, reflecting depressed market prices.
	Dec-19	Production sustainability policies	Palm oil	In a bid to improve product traceability along the palm oil supply chain and provide evidence of sustainable production, the Government announced plans to make oil-palm concession maps accessible to the general public.
	Jan-20	Tax policies	Palm oil	Resumed – following improvements in market prices – windfall profit taxation for oil-palm growers, pledging to channel at least 50 percent of the proceeds back to the oil-palm industry, notably in the form of subsidies for palm oil-based biodiesel production.
	Feb-20	Export promotion	Palm oil	Stepped up export promotion efforts for palm oil, focusing on markets in the Middle East, Africa and Southeast Asia – reflecting concerns over recent slowdowns in the country's palm oil shipments to India.
	Feb-20	Trade differences (vs. European Union)	Palm oil	Dropped plans to file a WTO complaint against the European Union's restrictions on palm oil-based fuels, explaining that instead it would advocate changes in the treatment of palm oil during the review of the EU's policy scheduled for 2021.
	Feb-20	Biofuel policy	Biodiesel	Launched the rollout of mandatory B20 transportation fuel and of B7 fuel in the industrial sector – i.e. diesel containing, respectively, 20 percent and 7 percent of palm oil-based diesel. The shift would happen in stages, leading to nationwide adoption by mid-2021. In addition, the Government announced the start of field tests with higher blends, in line with plans to shift to B30 mixes by 2025.
	Mar-20 to May-20	Production & trade management, biofuel policy	Palm oil, biodiesel	Exempted – to avoid disruptions in production – the palm oil sector from a six-week nationwide lockdown enforced to halt the spread of COVID-19. Eventually, however, the Government decided to temporarily halt harvest and milling operations in large parts of Sabah state (the country's largest palm oil-producing state), following the detection of infections among estate workers. In addition, private port jetties used by plantation companies to ship their products were temporarily closed, while vessels arriving from certain countries were not allowed to dock in the country's ports, further hampering palm oil exports. In addition – due to a sharp drop in domestic fuel consumption and reflecting efforts to channel public resources towards sectors in need – the Government decided to suspend implementation of its recently launched B20 programme (see above).
	May-20	Export taxation	Palm oil	Suspended – in response to a marked contraction in market prices – the country's variable export tax on palm oil for the month of June.

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Mauritania	Mar-20	Import policy	Edible oils	Exempted, until end-2020, selected food products, including edible oils, from taxes and customs duties in a bid to guarantee adequate domestic supplies during the COVID-19 emergency. The exemption was scheduled to remain in force until the end of 2020.
MERCOSUR (Southern Common Market)	Jan-20	GMO policy	GM food products	Members agreed on a set of rules governing trade in food products that contain traces of GMOs, with a view to protecting food trade among the bloc's members from asynchronous trade barriers concerning low-level presence of GMOs.
Mexico	Apr-20	Production support measures	Selected agricultural commodities	Announced significant cuts in public support to agriculture, notably regarding support measures directed to large commercial growers.
	Apr-20	Food standards	Food product labels	Announced the gradual, nationwide introduction of mandatory front-of-package nutrition label requirements. As of 1 October 2020, food product labels would be required to include: i) warnings regarding nutritional content that could affect certain health conditions in the population; ii) cautionary legends; and iii) the prohibition of characters, graphics or pictures intended to promote consumption among children.
Morocco	Apr-20	Production support measures	Olive tree	Stepped up efforts to increase the olive sector's productivity, giving special attention to export-oriented operations.
Pan American Health Organization	Oct-19	Food standards/ health policies	Trans-fats, partially hydrogenated oils/fats	Agreed to develop an action plan aimed at banning, from 2025, harmful trans-fats from the food supply chains of member countries' territories. Planned actions would include the establishment of regulatory enforcement mechanisms. The organization invited food industries to join the regulatory effort by voluntarily banning the use of partial hydrogenation of oils and removing partially hydrogenated oils/fats from their products.
Pakistan	Sep-19	Food safety	Edible oils	Declared a large number of fluid and solid edible oil brands sold in Punjab state as unsafe for human consumption and consequently banned their production and distribution.
	Apr-20	Import policy	Soybean, rapeseed, palm and sunflower oils, and respective seeds	Suspended until 30 June the additional customs duty of 2 percent for imports of soy, rape, palm and sunflower oil (and their respective seeds) in a bid to reduce costs for consumers during the COVID-19 crisis.
Paraguay	Nov-19	GMO policy	GM soybean	Approved GM-soy variety 'HB4' for commercial use, reckoning that farmer access to the drought- and herbicide-tolerant variety had the potential to boost the country's area under soybean cultivation.
Philippines	Dec-19	Sector development measures	Coconut oil	Developed a national action plan to promote growth in coconut oil production and exports, focusing on the following strategic activities: i) promoting virgin coconut oil consumption and exports; ii) ensuring sustainable production practices and setting up appropriate certification for exports; iii) reducing the sector's vulnerability to climate change; and iv) promoting organic production and certification.
	Jan-20	Agricultural relief measures	Coconut	Implemented relief measures for coconut farmers affected by ashfall from the Taal volcano eruption of mid-January.
	Feb-20	Production support measures	Coconut	Launched a new public-private partnership to provide assistance to the country's coconut farmers. Under the programme, coconut agribusiness centres serving as one-stop-shops for coconut growers and service providers would be set up across the country.
Romania	Apr-20	Export policy	Grains, oilseeds	Temporarily banned exports of grains, oilseeds and derived products to non-EU markets, driven by concerns over possible supply shortages amid the COVID-19 emergency.

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Russian Federation	Jan-20	Agricultural policy	Vegetable oil	Set the nation's self-sufficiency rate for vegetable oil at 90 percent.
	Jan-20	Import policy	Sunflower seed	Lifted the country's duties on selected agricultural imports from Moldova, including sunflower seed.
	Feb-20	Export policy	Sunflower seed	Considered temporarily raising the country's export tax on sunflower seed, in a bid to support the domestic oilseed crushing industry following a sharp rise in sunflower-seed shipments.
	Apr-20	GMO policy	Soybeans, soymeal	Eased import requirements for certain GM crops, determining that until end-2021, imports of GM soybeans and soymeal products used as feed whose registration had expired would be exempt from the requirement of renewed registration.
Saudi Arabia	Jan-20	Food standards/ health policies	Partially hydrogenated oils/fats	Banned, as of 1 January 2020, the use of partially hydrogenated oils/fats by the food industry – a measure that complemented trans fatty acid limits for oils/fats and other foods introduced in 2017.
	May-20	Import policy	Agricultural products, soybeans	Announced direct and indirect loans to facilitate imports of a range of agricultural products, including soybeans, to safeguard domestic food supplies during the COVID-19 emergency.
Senegal	Feb-20	Export policy	Groundnuts	Concerned about the country's surging groundnut shipments to China, decided to limit the country's groundnut exports, so as to guarantee adequate supplies for domestic processors.
Serbia	Mar-20	Export policy	Sunflower seeds and derived products	Ordered a temporary export ban for sunflower seed and derived products, in a bid to prevent critical shortages of these products during the COVID-19 emergency.
Sri Lanka	Apr-20	Import policy	Palm, soy and sunflower oil	Raised the special commodity levies applying to imported palm, soy and sunflower oils.
	Apr-20	Import policy	Oilmeals, selected edible oils	Suspended, until mid-July, imports of certain non-essential goods, including oilcrop flours/meals and selected edible oils, to counter the economic impact of the COVID-19 crisis. At the same time, commercial banks were directed to facilitate imports of certain commodities, including palm, safflower and cottonseed oil.
Sudan	Mar-20	Export policy, market regulation	Groundnuts	Banned groundnut exports as of 1 April 2020 and prohibited local storage of groundnuts for speculative purposes, with a view to stabilizing domestic consumer prices and raising the added value of the country's crop.
Thailand	Nov-19	Production support measures	Palm oil	Released funds for assisting farmers in marketing their main crops, including palm oil. Interventions would be aimed at delaying the release of crops onto the market, thereby countering price declines after harvest time.
	Nov-19	Biofuel policy	Biodiesel	Announced the shift, on 1 January 2020, in mandatory biodiesel blending from B7 to B10 (i.e. transport diesel including, respectively, 7 percent and 10 percent of palm oil-based diesel). The move was aimed at stabilizing domestic palm oil prices, reducing airborne dust emissions, and reducing the country's mineral oil imports. Domestic biodiesel sales would continue to benefit from subsidies.
	Jan-20	Import policy	Palm oil	Considered measures aimed at halting illegal imports of palm oil for use as biodiesel feedstock, reckoning that smuggling was adversely impacting the domestic market.
	Apr-20	Pesticide regulation	Paraquat, chlorpyrifos, glyphosate	Planned to introduce, from 1 June 2020, zero-tolerance for residues of two agrochemicals in food ingredients and food products, while the use of glyphosate would continue to be allowed, subject to special permission and restrictions.
	Apr-20	Market regulation	Palm oil	Took steps to reduce the retail price of palm oil to shield consumers from price rises during the COVID-19 emergency. While entrepreneurs were requested to lower the price for 1-litre bottles, collaboration with refiners was stepped up to ensure that palm oil deliveries to factories remained adequate amid nationwide movement restrictions. Meanwhile, farmgate prices for fresh fruit branches would remain guaranteed.
Tunisia	Nov-19	Sector development measures	Olive oil	Announced new efforts in support of the country's export-oriented olive oil industry, notably: improved coverage under the country's Export Promotion Fund; support for exports by small producers; incentives for sales of organic olive oil and exports of bottled products; increased payment ceilings for individual producers and possibilities to defer debts; and increased funding for pest control programmes.

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Turkey	Apr-20	Import policy	Sunflower oil	Temporarily lowered the import tariff for sunflower-seed oil and reduced the reference price on which tariffs are applied, in a bid to facilitate imports and thus prevent increases in consumer prices of edible oil.
Uganda	Jan-20	Sector development measures	Palm oil	Set up an entity tasked to oversee the management and expansion of oil-palm cultivation across the country. The new agency would collaborate closely with farmers and operators from the private sector and draw on a national programme overseeing the introduction of improved crop varieties.
United States of America/China (mainland)	Nov-19 to Dec-19	Comprehensive trade negotiations	Agricultural products, soybeans	Amid continued trade negotiations between the two countries, in November, China issued additional import quotas for soybeans – comprising waivers of the retaliatory tariffs in place since July 2018 – to state-run and private companies. Eventually, in December, the two countries announced agreement on a 'Phase one' trade accord. The deal, which was signed on 15 January 2020 and took effect in mid-February 2020, included provisions for China to increase – over the course of two years – its imports of US agricultural goods by at least USD 32 billion compared with the level recorded in 2017. China also agreed to suspend planned tariff increases, relax its health standards regarding certain food imports, and expedite the approval of GM-crop imports. The USA committed to suspending an already planned escalation in import tariffs and reduce existing tariffs on certain Chinese goods – although the 25 percent surcharge on about half of all Chinese imports would remain in place. Furthermore, the two countries would consider further, phased reductions of the remaining tariffs, depending on the implementation of 'Phase one' and progress in future stages of the negotiations.
United States of America	Dec-19	Biofuel policy	Biodiesel	Approved a five-year extension of the USD 1 per gallon tax credit for biodiesel blenders. The tax incentive would be reinstated retroactively – from its expiry on 1 January 2018 through 31 December 2022.
	Dec-19	Biofuel policy	Biodiesel	Determined the volume of renewable fuels that would have to be supplied to the market. In the 'advanced biofuel' category, under which biodiesel qualifies, the requirement for 2020 was raised compared with 2019, while the 2021 volume for 'biomass-based diesel' was left unchanged from its 2020 level.
	Jan-20	Pesticide regulation	Glyphosate	Reaffirmed that glyphosate-based herbicides were not cancerogenic when used according to instructions provided on product labels.
United States of America/Japan	Jan-20	Comprehensive trade agreements	Oils/fats	Under the USA-Japan Trade Agreement that entered into force on 1 January 2020, US exports of oils and fats to Japan became eligible for preferential tariff access. Depending on the type of oil/fat, imports are either duty-free or subject to preferential tariff rates set to be phased out over a period of three years.
United States of America	Jan-20 to Feb-20	Biofuel policy	Biofuel	Announced that it would make available up to USD 100 million in competitive grants for activities designed to expand the availability and sale of renewable fuels. The initiative would help to set up infrastructure required to supply higher biofuel blends across the country. Furthermore, the Government awarded a grant aimed at expanding the use of oilseeds and other oil-rich crops in renewable jet fuel production.
United States of America/China (mainland)	Feb-20	Comprehensive trade negotiations	Agricultural products, soybeans	In addition to the trade truce signed between the two countries in January 2020, the Chinese Government announced that, on 14 February, the tariffs it had imposed on selected US goods in September 2019 would be reduced by half. The reduction also concerned oilcrops and derived products, whose tariff rates would be reduced by 5 percentage points, except for soybeans, whose tariffs would see a reduction of 2.5 percentage points. All other retaliatory tariffs – notably the 25 percent soybean tariff China introduced in July 2018 – would remain in place.
	Feb-20	Comprehensive trade negotiations	Selected goods	In compliance with the recently signed 'Phase one' agreement, on 14 February, the US Government cut by half its retaliatory tariffs on selected Chinese goods.
	Feb-20	Comprehensive trade negotiations	Agricultural products, soybeans	In view of China's pledge to scale up imports from the USA over the 2020–2021 period (see above), the Chinese Government invited importers to apply for exemptions from all the remaining retaliatory tariffs collected on US products. Eligible goods would include soybeans, other oilseeds and their derived products. In the case of soybeans, exempted Chinese importers would only pay the 'most favoured nation' tariff rate of 3 percent, which would put US soybeans on a par with soybeans from other origins.

COUNTRY	DATE	POLICY INSTRUMENT	PRODUCT	DESCRIPTION
United States of America	Mar-20	Pesticide regulation	Isoxaflutole	Cleared the use of the herbicide isoxaflutole on genetically modified soybeans, with a view to providing soy farmers with a new tool to control weeds that became resistant to other herbicides. Users of the herbicide would be required to undergo special training and use would only be allowed in certain parts of the country. Registration would be limited to five years.
	Mar-20 to May-20	Agricultural relief measures, biofuel policy	Selected crops, biodiesel	Announced a relief programme to help US farmers cope with the impact of the COVID-19 pandemic. The programme would target farmers who have suffered a 5 percent or greater price decline due to COVID-19 and who faced additional significant marketing costs as a result of lower demand, surplus production and disruptions to marketing or shipping patterns. The package would include payouts to producers of selected row crops, including soybeans, rapeseed and sunflower seed. Affected farmers would also be provided with access to more flexible federal loans. Moreover, ethanol and biodiesel producers impacted by reduced energy demand due to nationwide lockdowns would benefit from a recently launched programme aimed at expanding the availability and sale of renewable fuels (see above).
	May-20	Biofuel policy	Biodiesel	Determined – with respect to the anti-dumping and countervailing duties applied to imports of biodiesel from Argentina – that circumstances warranting the cancellation of such levies did not exist and hence confirmed the duty rates already in place since 2017–2018. The decision in part reversed preliminary findings announced in July 2019.
Uruguay/China (mainland)	Nov-19	Bilateral, sector-specific trade initiatives	Non-GM soybeans	The two countries launched talks on a technical protocol that would open China's markets to imports of non-GM soybeans from Uruguay.
Uzbekistan	Apr-20	Import policy	Vegetable oils	Reduced – until end-2020 – import duties on selected consumer goods, including vegetable oils, in a bid to protect consumers from economic hardship during the COVID-19 crisis.
Viet Nam	Feb-20	Import policy	Selected feed ingredients	Published new requirements regarding quality control of imported feed ingredients, including soybean, oilmeals, vegetable oil and animal fat. *Inter alia*, suppliers would be required to confirm that the concerned goods were manufactured and authorized for sale in the country of origin.

* 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/?groupANDcommodity=Oilseeds,%20oils%20and%20meals

MEAT: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2019 TO MID-MAY 2020*

COUNTRY	DATE	PRODUCT	POLICY INSTRUMENT	DESCRIPTION
Algeria	Feb-20	Bovine meat	Market access	Signed an agreement with Ireland's Department of Agriculture, allowing exports of cattle for breeding and fattening from Ireland.
Argentina	Dec-19	Bovine meat	Export duty	Issued a decree raising bovine meat export taxes from 7 to 9 percent.
Australia	Apr-20	All	Government support	Announced a temporary measure to help restore critical global supply chains that have been impacted by COVID-19 containment measures around the world. Called the International Freight Assistance Mechanism (IFAM), it is worth AUD 110 million (around USD 69 million). The IFAM helps producers of high-value agricultural and fisheries products, including premium red meat (bovine, sheep and pig meats), to resume servicing supply contracts with their international customers.
Canada	May-20	All	Government support	Announced the allocation of CAD 252 million (USD 179.5 million) to assist Canadian farmers and food processors to cover losses from reduced demand due to COVID-19 lockdowns. Bovine and pig meat producers, who have been forced to keep livestock on farms longer due to processing shutdowns, will receive CAD 125 million (USD 89 million) in disaster relief funding.
China (mainland)	Oct-19	Bovine meat	Market access	Granted approval for full access of bovine meat exports from the United Kingdom of Great Britain and Northern Ireland (UK), following a protocol agreement signed by the two countries in June 2019. The ban was imposed in 1996, following a Bovine Spongiform Encephalopathy (BSE) outbreak.
	Oct-19	Bovine meat	Market access	Approved imports from 14 more Irish bovine meat plants, taking the total number of authorized units to 21.
	Oct-19	Poultry meat	Import ban lifted	Lifted a ban, which existed since 2016, on imports of poultry and poultry products from Spain and Slovakia, after determining that highly pathogenic avian influenza (HPAI) was no longer present in those countries.
	Nov-19	All	Import ban lifted	Lifted the suspension on imports of pig and bovine meats from Canada, which was imposed in June 2019 when Chinese authorities found consignments containing the feed additive ractopamine. The suspension was later extended to all imports of Canadian bovine and pig meats.
	Nov-19	Pig meat	Market access	Granted approval to 7 additional meat plants in Brazil to export pig offal. This is in addition to the 25 Brazilian meatpacking plants that had already been granted approval for exporting bovine, pig and poultry meats to China.
	Nov-19	Poultry meat	Import ban lifted	Lifted the ban on poultry meat imports from the United States of America (the USA), recognizing that it no longer poses a risk of HPAI.
	Nov-19	Bovine meat	Market access	Authorized imports of frozen bovine meat from Ukraine for the first time.
	Dec-19	Pig meat	Import ban	Banned imports of pig meat, wild boar and related products from Indonesia due to African Swine Fever (ASF) outbreaks.
	Dec-19	All	Import ban lifted	Lifted a ban on deboned bovine meat from Japanese cows under 30 months, ending a restriction in place since 2001, after accepting that it no longer poses a risk from BSE. China also lifted restrictions related to foot-and-mouth disease (FMD) that had existed since 2010.
	Dec-19	Pig meat	Import tariff	Announced import tariff reductions for 850 products, including frozen pig meat. Rates on two tariff lines (02032220 and 02032900) would be reduced from 12 to 8 percent.
	Jan-20	Poultry meat	Market access	Authorized poultry meat imports from 11 Russian establishments, bringing the total to 40 processors who are now eligible to supply the Chinese market.
	Feb-20	Poultry meat	Import ban	Announced a ban on imports of poultry meat from Germany, Hungary, Slovenia and Ukraine due to reported cases of HPAI outbreaks.

COUNTRY	DATE	PRODUCT	POLICY INSTRUMENT	DESCRIPTION
China (mainland)	Feb-20	All	Import ban	Introduced a new classification of animals and poultry birds for human consumption, with provisions for banning illegal trading in wild animals. Formation of the list of animals deemed suitable for human consumption is based on several principles: 1) long period of domestication; 2) requirements under food security, safety, public health and ecosystem sustainability; and 3) compliance with international conventions.
	Feb-20	Ovine meat	Market access	Approved all necessary sanitary protocols and product approvals for Argentina to export sheep meat and by-products from Argentina's Patagonia region.
	Feb-20	All	Import tariff	Granted exemption on 696 US products, including bovine and pig meat products, under the ''Phase 1 trade deal" signed with the USA in January and made effective from February 2020.
	Mar-20	Pig meat	State market intervention	Released 270 000 tonnes of pig meat from government reserves to stabilize pig meat prices, which had been affected by the spread of ASF.
	Apr-20	Pig meat	Market access	Granted approval for 8 more suppliers in Spain to export pig meat to China, raising the total number of approved establishments to 57.
	May-20	Bovine meat	Import ban	Suspended bovine meat imports from 4 Australian abattoirs. The suspended units together account for about 35 percent of Australian bovine meat exports to China.
	May-20	Poultry meat	Import ban	Suspended imports of poultry meat from the Skopje region of North Macedonia due to an outbreak of Newcastle Disease.
Egypt	Apr-20	Bovine meat	Import policy	Extended the shelf-life validity period for imported frozen bovine meat liver from 7 to 10 months.
	Apr-20	All	Market access	Authorized 42 meat plants (27 poultry and 15 bovine meat) to import meat from Brazil.
European Union**	Mar-20	Poultry meat	Import ban lifted	Lifted a ban on imports of Ukrainian poultry meat, which was imposed after a reported outbreak of HPAI in January.
	Apr-20	All	Government support	Announced a plan to open Private Storage Aid (PSA) for bovine meat and lamb to help curb the impacts of COVID-19. For bovine meat, eligibility is restricted to products under code 02012050 (separated hindquarters: the rear part of the half-carcass, comprising all the bones and the thigh and sirloin, including the fillet but with or without the shank and thin flank). The PSA offers the option to store the meat for 90, 120 or 150 days. Under the proposal, applicants would receive EUR 1 008 (around USD 1 098) per tonne if storing the meat for 90 days, EUR 1 033 (around USD 1 125) per tonne for 120 days and EUR 1 058 (USD around 1 153) per tonne for 150 days.
	Apr-20	All	Government support	Announced a EUR 100 billion (around USD 109 billion) loan package to curb COVID-19 pandemic effects on the economy. It also included flexibility and simplification of some Common Agricultural Policy (CAP) instruments to support farmers, specifically through: 1) an extension of deadline for CAP payment applications from 15 May to 15 June 2020, offering more time for farmers to fill in their applications for both direct payments and rural development payments; 2) offering higher advances of payments, with direct payments from 50 to 70 percent and rural development payments from 75 to 85 percent, to increase cash flow for farmers. Farmers will start receiving these advances from mid-October 2020.
Hong Kong SAR of China	Nov-19	Poultry meat	Market access	Authorized poultry meat imports from the Russian Federation.
Indonesia	Feb-20	All	Import ban	Imposed a temporary ban on imports of live animals from China due to coronavirus concerns.
	Apr-20	Bovine meat	Market access	Issued permits to two state enterprises to import 20 000 tonnes of bovine meat from Brazil or Argentina.

COUNTRY	DATE	PRODUCT	POLICY INSTRUMENT	DESCRIPTION
Japan	Nov-19	Bovine meat	Import ban lifted	Announced the resumption of bovine meat imports from Spain for the first time in almost 20 years. The ban was first imposed in 1996 after an outbreak of BSE.
	Jan-20	Bovine meat	Trade agreement	Enforced the new tariff on US bovine meat according to the US-Japan trade agreement signed in September 2019 and approved in December 2019. Japan will gradually lower the tariff on US bovine meat from 38.5 to 9 percent, making tariff rates on US bovine meat equivalent to the revised tariff rates applicable for the 11 nations in the Trans-Pacific Partnership agreement.
	Apr-20	Bovine meat	Government support	Announced details of the government budgetary allocation of USD 875 million, part of Japan's COVID-19 supplementary budget, to the Agriculture and Livestock Industries Corporation (ALIC), a state-trading enterprise. The funding for the meat sector will be allocated under three programmes: 1) support for Wagyu Storage and Sales; 2) support for Beef Calf Operators; and 3) support to stabilize demand and supply of cattle/swine hides.
Republic of Korea	Nov-19	Bovine meat	Market access	Issued export certificates for Denmark to supply bovine meat from cattle below 30 months, after nearly two decades.
Kuwait	Nov-19	Poultry meat	Import ban lifted	Lifted a ban on importing poultry meat and meat products, including fresh, chilled, frozen and processed, from the Islamic Republic of Iran and India due to the ending of HPAI.
	Feb-20	Bovine meat	Import ban lifted	Resumed imports of Brazilian bovine meat after 7 years. The ban was first imposed due to the detection of an atypical case of BSE.
	Apr-20	Poultry meat	Import ban lifted	Lifted a ban on poultry meat imports from Poland, imposed in late January 2020 in the wake of HPAI outbreaks.
Malaysia	Dec-19	Pig meat	Import ban	Imposed a ban on imports of pig meat from Indonesia due to a reported outbreak of ASF.
Mexico	May-20	Pig meat	Market access	Authorized imports of pig meat from Ireland, approving 5 processing plants and 5 cold stores.
Namibia	Feb-20	Bovine meat	Market access	Became the first African country to export bovine meat to the USA.
	Apr-20	Poultry meat	Import ban	Suspended imports and the in-transit movement of poultry and poultry meat products from Hungary, Poland, Ukraine and South Carolina (USA), following outbreaks of HPAI.
Oman	Mar-20	All	Market access	Approved imports of meat, principally poultry meat, from 15 Brazilian plants.
Poland	Jan-20	Poultry meat	Export ban	Halted poultry meat exports to Cuba, Japan, Republic of Korea, the Philippines and South Africa, due to a ban imposed by these countries, at different times, following outbreaks of avian flu.
Peru	Dec-19	Pig meat	Import ban	Announced a ban on imports of pig meat from countries affected by ASF.
	Apr-20	All	Market access	Approved imports from 8 Brazilian meatpackers, signalling new market access opportunities in Latin America.
Philippines	Feb-20	All	Import policy	Suspended imports of poultry meat from of Czech Republic due to concerns over outbreaks of HPAI, while resuming pig meat imports from the same country, lifting the earlier imposed ban due to reported outbreaks of ASF.
	Mar-20	Poultry meat	Import ban	Imposed a ban on poultry meat imports from Germany following an outbreak of HPAI in the European country.
Russian Federation	Nov-19	Bovine meat	Import ban lifted	Removed restrictions on imports of bovine meat products from two plants in Brazil. The restrictions were imposed in December 2017 after finding ractopamine, an additive that is banned in the Russian Federation, in some imported consignments.
	Dec-19	Bovine meat	Import ban	Imposed restrictions on bovine meat imports from 7 plants in Argentina and Paraguay due to ractopamine, a food additive that is banned in the Russian Federation, found in some shipments.
	Dec-19	Bovine meat	Market access	Announced the receipt of veterinary certificates to export bovine meat to Morocco.
	Jan-20	Bovine meat	Market access	Received authorization from China to export bovine meat from two producers for deliveries.

COUNTRY	DATE	PRODUCT	POLICY INSTRUMENT	DESCRIPTION
Saudi Arabia	Oct-19	Poultry meat	Import ban lifted	Lifted a ban on imports of hatching eggs and day-old-chicks from several countries, including Denmark, Italy, Japan, the Republic of Korea, Lao People's Democratic Republic, Malaysia, the Russian Federation and the county of Lincolnshire (UK), as these countries have been free from HPAI outbreaks for at least three months.
	Nov-19	Bovine meat	Market access	Approved imports of bovine meat from 8 Brazilian meatpackers.
	Nov-19	Bovine meat	Market access	Reopened its market to bovine meat from Poland, while also allowing imports from Colombia for the first time.
	Jan-20	Poultry meat	Import ban lifted	Lifted a ban on Ukrainian poultry meat, imposed in September 2019 due to reported outbreaks of HPAI.
	Feb-20	All	Market access	Approved bovine and ovine meat imports from Uruguay and Paraguay.
	Feb-20	Poultry meat	Import ban	Suspended imports from two Brazilian poultry plants due to concerns over quality control.
Singapore	Nov-20	Pig meat	Import ban	Lifted a ban on Belgian pig meat imports after agreeing to recognize regionalization measures designed to limit pig meat imports only from regions affected by ASF.
Sri Lanka	Mar-20	All	Import ban	Issued a notice to importers, restricting the import of live animals, animal products, and animal by-products in an attempt to reduce the spread of COVID-19.
South Africa	Mar-20	Poultry meat	Import tariff	Announced a rise in import tariffs on poultry meat from countries not covered by existing trade agreements. Under the new rules, tariffs will be increased for bone-in poultry meat portion from 37 percent to 62 percent, for boneless portion from 12 percent to 42 percent.
	Apr-20	Poultry meat	Import ban	Banned imports of poultry meat from South Carolina (USA) due to a reported outbreak of HPAI.
Taiwan province of China	Feb-20	Pig meat	Import ban	Imposed a ban on pig meat imports from Italy following the Italian suspension of flights between the two countries in response to the coronavirus outbreak.
Ukraine	Feb-20	Poultry meat	Export ban	Halted poultry meat exports to Armenia, Azerbaijan, Iraq, Japan, the Republic of Korea, Kuwait Republic of Moldova, Morocco, the Philippines, Saudi Arabia, Singapore and Tunisia, to import bans imposed by the mentioned countries, at different times, following an outbreak HPAI.
	Apr-20	Poultry meat	State market intervention	Introduced state regulation for prices for 20 products, including poultry meat, until the end of the emergency regime.
United States of America	Feb-20	Bovine meat	Import ban lifted	Lifted a ban on Brazilian fresh bovine meat imports, imposed in June 2017 when some shipments from Brazil failed to pass food safety checks.
	Mar-20	All	Trade agreement	Announced a regionalization agreement with China, which implies that the Asian country will only block imports from disease-affected regions.
	Mar-20	Bovine meat	Market access	Announced an agreement on equivalence of standards on the UK's disease control measures, following an inspection, which will allow bovine meat imports from the UK.
	Apr-20	All	Government support	Launched the Coronavirus Food Assistance Program (CFAP) under the United States Department of Agriculture, aiming to assist farmers, ranchers and consumers in response to the COVID-19 outbreak. The budget allocation was set at USD 19 billion. The programme includes two major components: 1) Direct support to farmers and ranchers, worth USD 16 billion to assist agricultural producers where prices and market supply chains have been impacted; and 2): USDA Purchase and Distribution, to purchase USD 3 billion worth of fresh produce, dairy and meat and redistribute them through food banks, community and faith organizations and other organizations serving Americans in need.
Viet Nam	Dec-19	Pig meat	Market access	Authorized imports of pig meat from two Russian meat companies.

* 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/?groupANDcommodity=Meat
** From 31 January 2020: EU-27

DAIRY: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2019 TO MID-MAY 2020*

COUNTRY	DATE	PRODUCT	POLICY INSTRUMENT	DESCRIPTION
Argentina	Apr-20	Dairy products	Government support	Introduced a decree to compensate retailers for part of the cost of freezing the price of certain dairy products.
Australia	Apr-20	Dairy products	Government support	Announced a temporary measure to help restore critical global supply chains that have been impacted by COVID-19 containment measures around the world. Called the International Freight Assistance Mechanism (IFAM), it is worth AUD 110 million (around USD 69 million). The IFAM helps producers of high-value agricultural and fisheries products, including dairy products, to resume servicing supply contracts with their international customers.
Canada	Feb-20	Butter	State market intervention	State market intervention announced a 1.93 percent increase in butter support price effective, February 1
	May-20	Dairy products	Government support	Announced the allocation of CAD 252 million (USD 179.5 million) to assist Canadian farmers and food processors to cover losses from reduced demand due to COVID-19 lockdowns.
China	Dec-19	Dairy products	Import tariffs	Announced import tariff reductions for 850 products, including whey and cheese products (processed, grated and powdered, blue and hard and semi-hard cheeses), effective January 2020.
Ecuador	Apr-20	Dairy products	Trade agreement	Approved the Free Trade Agreement with the European Free Trade Association (EFTA), a regional trade organization and free trade area consisting of four European countries (Iceland, Liechtenstein, Norway, and Switzerland) after negotiations were completed in 2018. The treaty gives preferential Ecuadorian access to markets in the EFTA countries with zero duty. As a counterpart, Ecuador will deduct the tariff for EFTA products in a period ranging from 0 to 17 years. Dairy categories included in the tariff-free movements are liquid milk, skimmed milk powder, condensed milk, fermented dairy and yogurt, whey, butter, cheese (fresh, processed, grated or powdered, blue) and infant milk formula.
European Union **	Mar-20	Dairy products	State market intervention	Opened its public intervention scheme for butter and non-fat dried milk (NFDM) from March 1 to September 30, 2020. In this public intervention programme, the European Commission would procure butter at EUR 2 217.50 (around USD 2 400)/metric tonnes (MT) and NFDM at EUR 1 698 (around USD 1 850 USD)/MT. The programme established limits of 50 000 MT for butter and 109 000 MT for NFDM. Beyond those limits, any additional procurements can take place under a tendering process.
	Apr-20	Dairy products	Government support	Announced a plan to offer Private Storage Aid (PSA) for butter and skimmed milk powder to help curb the impacts of COVID-19. The PSA provisions offer traders incentives to hold products off the market for a period of between 90 and 180 days, to ease market surpluses for dairy commodities.
	Apr-20	Dairy products	Government support	Allowed temporary agreements on planning dairy production and collective production decisions by farmers, farmers' associations, recognized producer organizations, and recognized interbranch organizations to reduce market volatility and to plan production levels of raw milk in accordance with the changing demand patterns. Any agreements or decisions about production should be temporarily authorized for a six-month period, starting on 1 April 2020, coinciding with spring and summer, which is the peak production season in the dairy sector.

COUNTRY	DATE	PRODUCT	POLICY INSTRUMENT	DESCRIPTION
Japan	Apr-20	Dairy products	Tariff rate quota	Announced tariff-rate quota (TRQ) volumes for dairy products that will be in effect during Japanese fiscal year 2020 (April 2020–March 2021). All TRQ volumes remained at the same level as last year, except for natural cheese for processed cheese production. The volume for this TRQ was raised from 2019 by 1 900 tonnes to 48 100 tonnes.
	Apr-20	Milk powder	Government support	Announced details of the government budgetary allocation of USD 875 million, part of Japan's COVID-19 supplementary budget, to the Agriculture and Livestock Industries Corporation (ALIC), a state-trading enterprise. USD 46 million were allocated to support the use of domestic milk powder, with recipients defined as agricultural cooperatives and dairy companies that divert milk powder to feed use or to replace imports of prepared dairy products.
Russian Federation	Apr-20	Whey and whey products	Import ban lifted	Lifted the embargo on whey imports for infant formula production from all countries, valid until 31 December 2020. The resolution amended the annex to the government decree of 7 August 2014, which established a list of products that fall under the agrifood embargo.
Ukraine	Apr-20	Butter	State market intervention	Introduced state regulation for prices of 20 products, including butter (72.5 percent fat content), until the end of the emergency regime.
United Kingdom	May-20	Dairy products	Government support	Enacted new funding support for dairy farmers facing hardship due to the COVID-19 outbreak. Under the scheme, dairy farmers have been given access up to GBP 10 000 (around USD 12 000) each to cover 70 percent of their lost income during April and May.
United States of America	Apr-20	Dairy products	Government support	Launched the Coronavirus Food Assistance Programme (CFAP) under the United States Department of Agriculture, aiming to assist farmers, ranchers and consumers in response to the COVID-19 outbreak. The budget allocation was set at USD 19 billion. The programme includes two major components: 1) Direct support to farmers and ranchers, worth USD 16 billion, to assist agricultural producers where prices and market supply chains have been impacted; and 2): USDA Purchase and Distribution, to purchase USD 3 billion worth of fresh produce, dairy and meat and redistribute them through food banks, community and faith organizations and other organizations serving Americans in need.

* A collection of major dairy policy developments, starting in January 2012, is available at: http://www.fao.org/economic/est/est-commodities/commodity-policy-archive/en/?groupANDcommodity=Milk,%20Dairy%20products

** From 31 January 2020: EU-27

Statistical appendix tables

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 of China - Hong Kong SAR and Macao SAR - unless otherwise stated.
- Up to 2019/20 the European Union includes 28 member states. From 2020/21 the European Union includes 27 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.

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/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, references are made to special country groupings: Low-Income Food-Deficit Countries (LIFDCs) - Least Developed Countries (LDCs).

The LIFDCs include 51 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 47 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		
	2016-2018 average	2019 estim.	2020 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes								
ASIA	**1 185.6**	**1 199.6**	**1 213.4**	**207.6**	**215.0**	**219.1**	**61.6**	**55.9**	**60.1**
Bangladesh	39.5	41.4	41.9	8.5	7.8	7.9	-	-	-
China	548.7	548.3	549.9	30.0	26.3	30.4	2.5	3.7	3.5
India	254.7	265.9	270.1	2.7	0.6	0.6	12.8	12.1	13.5
Indonesia	60.9	61.3	61.1	12.6	13.5	12.7	0.2	0.1	0.1
Iran, Islamic Republic of	20.8	20.6	20.4	12.6	15.3	16.4	0.3	0.1	0.1
Iraq	3.5	6.6	6.5	4.6	4.0	3.8	-	-	-
Japan	8.6	8.6	8.7	23.7	24.5	24.7	0.3	0.3	0.3
Kazakhstan	19.7	17.0	18.8	0.4	1.0	0.7	9.6	8.0	9.0
Korea, Republic.of	4.2	4.0	4.1	14.4	15.4	15.3	0.1	0.1	0.1
Myanmar	18.2	18.2	18.8	0.5	0.5	0.6	4.1	3.8	4.0
Pakistan	39.6	39.4	41.2	0.2	0.5	0.5	4.9	4.8	4.8
Philippines	20.0	20.4	20.6	8.9	10.7	10.9	0.1	0.1	0.1
Saudi Arabia	0.5	0.5	0.8	15.7	15.5	16.1	-	-	-
Thailand	26.4	23.2	26.5	4.0	4.9	4.5	10.5	7.1	8.4
Turkey	34.9	33.9	34.6	8.7	14.1	11.8	4.9	4.6	4.6
Viet Nam	33.2	33.0	33.0	14.5	15.4	15.4	7.1	7.4	7.6
AFRICA	**187.8**	**190.5**	**191.7**	**91.6**	**93.1**	**97.0**	**6.7**	**6.0**	**6.7**
Algeria	4.3	6.1	4.9	13.0	11.7	11.1	-	-	-
Egypt	22.0	22.1	22.5	21.3	23.1	23.2	0.2	-	-
Ethiopia	26.6	29.6	29.5	1.8	1.8	2.0	1.1	1.3	1.3
Morocco	7.9	5.4	4.0	7.1	8.8	9.7	0.1	0.1	0.1
Nigeria	24.2	26.5	24.4	8.0	7.1	7.6	0.7	0.7	0.7
South Africa	15.3	13.9	18.3	3.2	3.4	3.0	1.8	1.5	2.3
Sudan	7.6	5.9	6.8	2.8	2.9	2.9	0.3	0.2	0.2
CENTRAL AMERICA & THE CARIBBEAN	**44.0**	**42.1**	**43.0**	**34.5**	**37.4**	**37.5**	**2.4**	**2.2**	**2.2**
Mexico	37.2	35.7	36.3	22.0	24.2	24.2	2.2	2.0	2.0
SOUTH AMERICA	**195.7**	**227.8**	**227.7**	**32.7**	**33.7**	**34.0**	**71.7**	**96.4**	**87.6**
Argentina	71.1	83.7	83.3	0.1	0.1	0.1	41.8	49.7	46.9
Brazil	97.0	115.8	116.5	10.3	10.0	9.9	24.9	40.3	34.9
Chile	3.5	3.1	3.0	3.3	3.6	3.6	0.1	0.1	0.1
Colombia	3.3	3.4	3.4	7.4	8.3	8.3	-	-	-
Peru	4.2	4.2	4.2	5.9	6.1	6.4	0.1	0.1	0.1
Venezuela	1.5	1.2	1.1	3.3	3.4	3.4	-	-	-
NORTHERN AMERICA	**507.2**	**479.9**	**541.8**	**10.0**	**10.3**	**9.1**	**121.8**	**103.8**	**119.2**
Canada	58.0	61.0	63.2	2.3	2.7	1.8	27.8	26.2	29.8
United States of America	449.2	418.9	478.5	7.7	7.6	7.3	94.0	77.6	89.4
EUROPE	**510.3**	**542.9**	**529.5**	**31.5**	**32.0**	**34.2**	**125.5**	**147.1**	**138.3**
European Union	301.7	323.8	290.7	26.9	26.8	25.3	32.3	46.0	38.3
Russian Federation	119.3	117.5	119.9	0.8	0.6	0.6	44.2	41.6	42.8
Serbia	9.4	10.4	9.4	0.1	0.1	0.1	3.0	3.2	2.9
Ukraine	65.2	74.7	72.1	0.2	0.2	0.2	44.8	55.4	51.2
United Kingdom of Great Britain and Northern Ireland	-	-	22.0	-	-	4.4	-	-	2.2
OCEANIA	**38.6**	**28.0**	**33.5**	**1.9**	**2.2**	**2.2**	**23.5**	**12.3**	**18.9**
Australia	37.6	26.9	32.4	0.3	0.5	0.4	23.5	12.3	18.9
WORLD	**2 669.1**	**2 710.9**	**2 780.5**	**409.7**	**423.7**	**433.0**	**413.2**	**423.7**	**433.0**
LIFDC	465.4	486.0	490.2	73.8	70.7	74.4	24.3	23.7	25.2
LDC	180.4	184.7	187.8	40.3	38.9	41.1	10.3	9.2	9.6

APPENDIX TABLE 1(B): **CEREAL STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes						(Kg/year)		
ASIA	**1 319.5**	**1 338.5**	**1 364.5**	**567.1**	**590.5**	**598.7**	**156.9**	**157.4**	**158.4**
Bangladesh	47.4	49.7	50.2	8.8	8.5	7.8	216.3	219.1	219.1
China	562.2	559.3	571.1	418.6	433.3	439.3	153.6	153.4	153.2
India	241.7	248.0	256.5	42.5	57.6	58.4	146.7	147.5	150.9
Indonesia	73.3	75.9	75.6	10.2	9.1	7.8	182.3	181.2	180.3
Iran, Islamic Republic of	33.4	34.9	35.4	10.4	9.7	11.0	204.3	205.2	205.4
Iraq	8.3	9.9	10.0	0.5	1.0	1.3	191.4	193.7	195.1
Japan	32.1	32.7	33.1	6.6	6.7	6.7	93.5	94.0	94.0
Kazakhstan	10.4	9.9	10.0	4.1	3.9	4.4	157.9	157.3	157.3
Korea, Republic.of	18.9	18.8	18.5	4.0	3.2	3.4	127.0	125.0	123.6
Myanmar	15.0	15.2	15.5	3.5	3.4	3.3	198.4	199.0	199.0
Pakistan	35.7	36.6	36.9	4.8	2.2	2.2	139.9	138.9	139.3
Philippines	28.4	31.1	31.4	4.2	4.5	4.6	157.9	162.8	163.2
Saudi Arabia	17.0	16.2	17.0	6.3	5.1	5.0	140.4	136.7	137.2
Thailand	21.2	21.0	22.1	8.5	8.1	9.0	117.9	118.5	118.6
Turkey	38.9	41.1	41.5	6.6	8.3	8.6	237.7	240.6	241.7
Viet Nam	41.0	41.4	41.0	5.6	4.3	4.3	178.5	176.8	173.8
AFRICA	**269.8**	**280.7**	**282.5**	**59.2**	**57.8**	**56.1**	**152.1**	**153.1**	**150.9**
Algeria	17.0	18.1	18.1	5.8	6.2	4.1	227.1	226.1	226.3
Egypt	44.0	44.2	45.4	6.6	6.4	6.7	276.7	273.8	273.4
Ethiopia	26.6	29.3	30.0	5.6	7.1	7.3	188.2	197.5	198.4
Morocco	15.3	15.4	15.2	6.6	6.0	4.4	238.2	238.8	238.7
Nigeria	30.7	33.2	31.2	3.1	3.3	3.2	127.7	130.8	125.5
South Africa	16.8	16.8	17.4	3.5	2.6	4.1	163.5	162.6	160.9
Sudan	9.1	9.1	9.4	3.4	2.6	2.3	179.7	183.1	181.0
CENTRAL AMERICA & THE CARIBBEAN	**75.7**	**78.5**	**79.1**	**10.9**	**9.8**	**9.5**	**164.4**	**166.2**	**167.5**
Mexico	56.4	58.4	59.0	7.2	7.2	6.9	193.1	194.2	194.4
SOUTH AMERICA	**156.1**	**163.7**	**168.6**	**41.5**	**41.0**	**43.4**	**117.1**	**115.7**	**115.1**
Argentina	30.0	30.2	32.2	10.9	12.8	13.7	136.0	136.0	135.7
Brazil	81.8	85.2	89.3	16.5	16.5	19.3	114.0	110.5	110.2
Chile	6.5	7.3	7.1	4.3	3.5	2.9	142.8	142.2	141.2
Colombia	10.5	11.9	11.7	1.9	1.6	1.4	87.1	92.8	91.9
Peru	9.9	10.9	10.6	1.0	0.8	0.7	154.6	157.1	153.6
Venezuela	4.9	4.6	4.5	0.8	0.7	0.7	114.2	109.6	110.0
NORTHERN AMERICA	**392.8**	**387.8**	**401.4**	**103.0**	**96.1**	**125.8**	**110.0**	**109.9**	**110.0**
Canada	32.7	36.3	34.4	11.0	10.2	11.0	95.9	95.8	95.7
United States of America	360.1	351.5	367.1	92.0	85.9	114.9	111.6	111.5	111.6
EUROPE	**415.5**	**423.1**	**419.2**	**76.4**	**78.9**	**85.2**	**132.9**	**133.2**	**132.8**
European Union	295.9	301.2	273.3	41.7	48.9	48.7	133.4	133.8	135.9
Russian Federation	74.9	78.0	78.1	19.1	12.8	12.5	126.3	126.3	126.3
Serbia	6.5	6.5	6.5	1.1	1.9	2.0	162.2	162.9	160.7
Ukraine	21.5	20.6	20.3	7.9	6.1	6.8	144.3	144.5	144.7
United Kingdom of Great Britain and Northern Ireland	-	-	24.1	-	-	4.6	-	-	115.8
OCEANIA	**17.6**	**17.1**	**17.1**	**8.8**	**8.6**	**8.2**	**94.7**	**95.5**	**95.5**
Australia	14.9	14.3	14.3	8.3	8.0	7.7	102.4	102.7	102.5
WORLD	**2 646.9**	**2 689.4**	**2 732.4**	**866.9**	**882.7**	**926.8**	**149.2**	**149.6**	**149.8**
LIFDC	509.6	527.1	538.4	98.0	111.2	111.3	151.1	152.2	153.3
LDC	208.3	216.3	219.4	44.8	43.5	42.6	157.1	157.6	156.3

APPENDIX TABLE 2(A): **WHEAT STATISTICS**

	Production			Imports			Exports		
	2016-2018 average	2019 estim.	2020 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes								
ASIA	**330.5**	**336.6**	**341.0**	**87.9**	**90.0**	**89.3**	**17.0**	**14.5**	**15.7**
Bangladesh	1.2	1.0	1.2	5.7	6.1	6.1	-	-	-
China	133.0	133.6	134.0	5.6	5.4	5.9	0.4	0.3	0.3
of which Taiwan Prov.	-	-	-	1.4	1.4	1.4	-	-	-
India	96.9	103.6	105.0	3.7	-	-	0.5	0.7	1.0
Indonesia	-	-	-	10.8	11.0	11.0	0.1	0.1	0.1
Iran, Islamic Republic of	14.4	14.5	14.0	0.6	1.0	2.0	0.3	-	-
Iraq	2.8	4.3	4.5	3.2	2.7	2.4	-	-	-
Japan	0.8	1.0	1.0	5.6	5.4	5.5	0.2	0.2	0.2
Kazakhstan	14.6	11.5	13.0	0.3	1.0	0.7	8.2	6.5	7.5
Korea, Republic of	-	-	-	4.1	4.1	3.8	-	-	-
Pakistan	25.8	25.2	26.0	-	0.4	0.3	0.8	0.2	0.2
Philippines	-	-	-	6.2	7.2	7.2	0.1	-	-
Saudi Arabia	0.6	0.2	0.5	3.3	3.4	3.2	-	-	-
Thailand	-	-	-	3.3	3.4	3.4	-	-	-
Turkey	20.7	19.0	20.0	5.6	9.5	7.5	4.7	4.5	4.5
AFRICA	**26.6**	**27.0**	**25.2**	**49.3**	**49.1**	**49.5**	**0.8**	**0.9**	**0.8**
Algeria	2.9	4.0	3.6	8.1	6.5	5.5	-	-	-
Egypt	8.8	9.0	9.0	12.0	13.0	13.0	-	-	-
Ethiopia	4.6	5.3	5.3	1.3	1.3	1.3	-	-	-
Morocco	5.7	4.1	3.0	4.4	5.0	5.5	0.1	0.1	0.1
Nigeria	0.1	0.1	0.1	5.1	4.8	4.8	0.4	0.4	0.4
South Africa	1.8	1.5	1.6	1.5	1.8	1.9	0.1	0.1	0.1
Tunisia	1.0	1.5	1.0	2.0	1.7	2.2	0.1	-	-
CENTRAL AMERICA & THE CARIBBEAN	**3.4**	**3.3**	**3.1**	**9.1**	**9.4**	**9.5**	**1.0**	**1.4**	**1.1**
Cuba	-	-	-	0.8	0.7	0.7	-	-	-
Mexico	3.4	3.3	3.0	5.1	5.3	5.4	0.8	1.3	1.0
SOUTH AMERICA	**27.8**	**28.6**	**29.4**	**15.4**	**15.5**	**15.5**	**14.0**	**14.8**	**15.1**
Argentina	18.8	19.8	20.3	-	-	-	12.7	13.5	13.7
Brazil	5.5	5.2	5.4	7.2	7.2	7.3	0.5	0.5	0.6
Chile	1.4	1.3	1.3	1.3	1.2	1.2	-	-	-
Colombia	-	-	-	1.9	1.8	1.9	-	-	-
Peru	0.2	0.2	0.2	2.0	2.1	2.0	-	-	-
Venezuela	-	-	-	1.3	1.4	1.4	-	-	-
NORTHERN AMERICA	**85.4**	**84.6**	**84.7**	**3.8**	**3.4**	**3.6**	**48.1**	**48.5**	**51.5**
Canada	31.6	32.3	33.9	0.1	0.1	0.1	21.9	21.5	25.0
United States of America	53.8	52.3	50.8	3.7	3.3	3.5	26.2	27.0	26.5
EUROPE	**255.4**	**266.4**	**253.2**	**7.8**	**6.6**	**9.0**	**77.5**	**86.7**	**79.1**
European Union	144.9	155.6	131.0	5.3	4.0	5.0	23.8	33.0	28.0
Russian Federation	77.1	74.5	77.0	0.4	0.3	0.3	34.7	32.5	33.0
Ukraine	25.6	28.3	25.0	-	-	-	17.3	20.2	16.5
United Kingdom of Great Britain and Northern Ireland	-	-	12.6	-	-	1.5	-	-	0.5
OCEANIA	**23.8**	**15.6**	**21.8**	**0.9**	**1.1**	**1.0**	**15.8**	**8.3**	**14.0**
Australia	23.3	15.2	21.4	0.2	0.2	0.1	15.8	8.3	14.0
WORLD	**752.9**	**762.2**	**758.3**	**174.3**	**175.1**	**177.5**	**174.2**	**175.1**	**177.5**
LIFDC	119.8	129.1	130.4	39.9	35.6	36.7	1.4	1.6	1.9
LDC	13.2	15.0	14.8	23.3	22.9	23.6	0.1	0.1	0.1

APPENDIX TABLE 2(B): **WHEAT STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes						(Kg/year)		
ASIA	**391.2**	**400.0**	**404.4**	**170.2**	**187.2**	**197.6**	**65.9**	**66.4**	**66.6**
Bangladesh	6.7	7.4	7.4	2.1	1.6	1.5	32.2	33.8	33.5
China	125.9	127.4	128.8	108.1	127.2	138.0	64.6	64.5	64.5
of which Taiwan Prov.	1.4	1.4	1.4	0.4	0.4	0.4	45.6	45.6	45.6
India	99.0	101.7	103.4	17.0	20.8	21.5	59.9	60.4	60.7
Indonesia	10.6	11.1	11.1	1.2	1.1	1.0	25.8	26.1	26.0
Iran, Islamic Republic of	15.3	15.6	15.8	7.5	6.0	6.1	168.2	168.8	169.1
Iraq	6.2	6.5	6.6	0.4	0.7	0.9	152.0	153.1	152.9
Japan	6.3	6.4	6.4	1.5	1.3	1.2	40.5	41.1	41.5
Kazakhstan	6.7	6.2	6.2	3.7	3.1	3.1	143.3	142.6	142.6
Korea, Republic of	3.9	4.0	3.8	1.0	1.1	1.1	47.7	47.7	47.7
Pakistan	25.6	26.5	26.4	3.2	1.0	0.8	117.8	117.5	117.5
Philippines	6.0	7.4	7.2	1.0	0.9	0.9	23.6	24.3	24.2
Saudi Arabia	3.6	3.6	3.7	3.1	3.0	3.0	98.3	98.0	97.9
Thailand	3.2	3.3	3.4	1.7	1.8	1.7	16.5	16.7	16.3
Turkey	21.8	22.9	23.2	4.5	5.6	5.4	209.0	212.2	213.4
AFRICA	**75.1**	**76.8**	**77.0**	**20.7**	**17.8**	**14.3**	**50.8**	**50.3**	**49.9**
Algeria	10.8	11.0	11.0	4.1	4.0	2.1	208.9	208.6	208.9
Egypt	21.4	21.8	22.1	4.1	3.8	3.6	188.4	188.0	188.0
Ethiopia	6.1	6.6	6.6	0.9	0.8	0.8	46.1	48.8	47.8
Morocco	10.2	10.4	9.7	5.4	4.3	3.0	206.8	207.0	207.0
Nigeria	4.1	4.3	4.3	0.2	0.2	0.2	20.1	20.2	19.7
South Africa	3.2	3.4	3.4	0.5	0.4	0.4	56.2	56.2	56.0
Tunisia	3.0	3.0	3.2	0.5	0.6	0.6	211.2	211.2	211.1
CENTRAL AMERICA & THE CARIBBEAN	**11.4**	**11.7**	**11.5**	**2.0**	**1.6**	**1.5**	**45.2**	**45.6**	**46.0**
Cuba	0.8	0.7	0.7	0.1	-	-	56.5	56.9	57.0
Mexico	7.5	7.6	7.4	1.1	1.0	1.0	50.5	51.0	50.8
SOUTH AMERICA	**28.7**	**30.0**	**30.0**	**7.5**	**7.5**	**7.3**	**60.4**	**61.3**	**60.7**
Argentina	5.9	6.6	6.6	1.9	3.0	3.0	118.5	118.7	118.6
Brazil	11.8	12.1	12.1	2.3	1.8	1.8	53.8	54.0	53.9
Chile	2.8	2.7	2.6	1.0	0.5	0.4	106.7	105.8	105.1
Colombia	1.8	2.1	2.0	1.0	0.7	0.5	33.7	38.0	36.0
Peru	2.2	2.3	2.2	0.3	0.2	0.2	65.3	66.6	62.9
Venezuela	1.3	1.4	1.4	0.1	0.1	0.1	43.9	48.4	48.6
NORTHERN AMERICA	**39.6**	**42.6**	**39.6**	**37.0**	**32.5**	**30.0**	**82.5**	**82.3**	**82.3**
Canada	9.2	11.1	9.0	6.5	5.9	5.9	81.0	80.9	80.8
United States of America	30.4	31.5	30.6	30.5	26.6	24.1	82.6	82.5	82.5
EUROPE	**186.8**	**187.6**	**182.7**	**33.0**	**25.8**	**26.2**	**107.3**	**107.4**	**106.6**
European Union	127.0	126.3	107.0	15.8	14.5	12.5	109.0	109.1	109.5
Russian Federation	42.5	44.2	44.2	13.0	7.1	7.2	100.0	100.0	100.0
Ukraine	9.0	8.7	8.5	2.3	1.5	1.5	112.6	112.7	112.7
United Kingdom of Great Britain and Northern Ireland	-	-	14.6	-	-	2.0	-	-	97.9
OCEANIA	**9.7**	**8.8**	**9.2**	**5.3**	**3.7**	**3.4**	**68.3**	**68.3**	**68.1**
Australia	8.4	7.4	7.9	4.9	3.4	3.1	82.0	82.1	82.0
WORLD	**742.5**	**757.5**	**754.3**	**275.7**	**276.2**	**280.3**	**67.5**	**67.6**	**67.4**
LIFDC	159.0	162.3	165.0	32.6	32.3	32.3	49.5	49.6	49.6
LDC	36.6	38.2	38.6	10.3	8.1	7.4	31.4	31.7	31.4

APPENDIX TABLE 3(A): COARSE GRAIN STATISTICS

	Production			Imports			Exports		
	2016-2018 average	2019 *estim.*	2020 *f'cast*	16/17-18/19 average	2019/20 *estim.*	2020/21 *f'cast*	16/17-18/19 average	2019/20 *estim.*	2020/21 *f'cast*
	million tonnes								
ASIA	**405.1**	**412.4**	**415.7**	**98.2**	**105.4**	**110.1**	**5.5**	**4.5**	**4.5**
China	269.2	269.9	270.4	19.2	17.9	21.5	0.1	0.1	0.1
of which Taiwan Prov.	0.2	0.2	0.2	4.4	5.1	5.1	-	-	-
India	44.8	44.3	45.9	0.3	0.6	0.6	0.9	0.6	0.6
Indonesia	23.5	26.3	26.5	0.8	1.1	1.0	0.2	-	-
Iran, Islamic Republic of	4.5	4.1	4.3	10.8	13.0	13.0	-	-	-
Japan	0.2	0.2	0.2	17.4	18.4	18.5	-	-	-
Korea, Republic of	0.2	0.2	0.2	9.9	10.8	11.1	-	-	-
Malaysia	0.1	0.1	0.1	3.8	4.0	4.1	-	-	-
Pakistan	6.6	7.0	7.2	0.2	0.2	0.2	-	-	-
Philippines	7.6	8.1	8.2	0.7	0.6	0.6	-	-	-
Saudi Arabia	0.3	0.3	0.3	11.2	10.7	11.5	-	-	-
Thailand	5.0	4.4	5.2	0.3	1.1	0.8	0.4	0.1	0.1
Turkey	13.6	14.3	14.0	2.8	4.3	4.0	0.1	0.1	0.1
Viet Nam	5.1	4.8	4.7	9.3	11.6	11.6	0.2	0.2	0.2
AFRICA	**138.5**	**139.5**	**141.7**	**25.7**	**27.9**	**29.1**	**5.3**	**4.7**	**5.4**
Algeria	1.4	2.1	1.3	4.8	5.1	5.5	-	-	-
Egypt	8.9	8.5	8.6	9.0	9.8	10.1	-	-	-
Ethiopia	21.8	24.2	24.1	-	-	-	1.1	1.3	1.3
Morocco	2.1	1.2	1.0	2.7	3.8	4.1	-	-	-
Nigeria	19.3	21.4	19.2	0.5	0.4	0.4	0.2	0.2	0.2
South Africa	13.5	12.3	16.7	0.8	0.8	0.2	1.7	1.4	2.2
Sudan	7.0	5.2	6.1	0.2	0.3	0.3	0.3	0.2	0.2
Tanzania, United Rep. of	7.4	6.8	7.4	-	-	-	0.4	0.3	0.3
CENTRAL AMERICA & THE CARIBBEAN	**38.6**	**37.0**	**38.0**	**22.9**	**25.6**	**25.5**	**1.4**	**0.8**	**1.0**
Mexico	33.6	32.3	33.0	16.2	18.2	18.2	1.3	0.8	1.0
SOUTH AMERICA	**151.3**	**183.6**	**182.3**	**15.5**	**16.3**	**16.5**	**54.3**	**78.1**	**69.1**
Argentina	51.4	63.2	62.2	0.1	0.1	0.1	28.7	35.8	32.8
Brazil	83.5	103.5	103.7	2.4	2.1	1.9	23.6	39.0	33.5
Chile	2.0	1.7	1.6	1.9	2.3	2.3	0.1	0.1	0.1
Colombia	1.5	1.6	1.5	5.4	6.2	6.2	-	-	-
Peru	1.8	1.8	1.8	3.6	3.7	4.1	-	-	-
Venezuela	1.3	1.1	1.0	1.5	1.5	1.5	-	-	-
NORTHERN AMERICA	**415.2**	**389.4**	**450.2**	**4.8**	**5.6**	**4.1**	**70.6**	**52.1**	**64.5**
Canada	26.5	28.6	29.3	1.8	2.3	1.4	5.9	4.7	4.8
United States of America	388.7	360.8	420.9	3.0	3.3	2.7	64.7	47.4	59.7
EUROPE	**252.4**	**274.0**	**273.8**	**21.1**	**22.7**	**22.3**	**47.5**	**59.8**	**58.5**
European Union	155.0	166.5	157.9	19.6	21.2	18.6	8.2	12.5	9.8
Russian Federation	41.4	42.3	42.2	0.2	0.1	0.1	9.4	8.9	9.6
Serbia	6.7	7.9	6.8	0.1	0.1	0.1	2.0	2.7	2.1
Ukraine	39.5	46.4	47.1	0.1	0.1	0.1	27.5	35.2	34.7
United Kingdom of Great Britain and Northern Ireland	-	-	9.4	-	-	2.3	-	-	1.7
OCEANIA	**14.5**	**12.3**	**11.7**	**0.3**	**0.3**	**0.3**	**7.6**	**3.9**	**4.9**
Australia	13.9	11.7	11.0	-	-	-	7.6	3.9	4.9
WORLD	**1 415.6**	**1 448.1**	**1 513.5**	**188.5**	**203.7**	**207.9**	**192.1**	**203.7**	**207.9**
LIFDC	149.6	152.9	154.3	17.7	20.2	20.7	4.2	3.7	3.7
LDC	92.1	92.5	94.7	4.8	5.1	5.1	5.3	4.7	4.7

APPENDIX TABLE 3(B): **COARSE GRAIN STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes						Kg/year		
ASIA	**499.5**	**505.4**	**520.8**	**230.3**	**229.1**	**228.8**	**14.6**	**14.3**	**14.7**
China	289.1	284.5	294.2	206.6	202.6	200.1	13.0	12.9	12.9
of which Taiwan Prov.	4.5	5.3	5.3	0.4	0.5	0.5	7.0	6.9	6.9
India	44.5	43.6	46.3	2.2	3.1	2.6	18.6	17.3	18.8
Indonesia	24.2	27.4	27.4	1.8	2.0	2.0	29.1	29.4	29.3
Iran, Islamic Republic of	14.9	16.0	16.2	2.2	3.1	4.1	1.3	1.2	1.2
Japan	17.6	18.4	18.7	2.0	2.2	2.2	3.3	3.3	3.3
Korea, Republic.of	10.2	10.7	10.7	1.4	1.2	1.3	4.3	4.4	4.4
Malaysia	3.8	4.1	4.2	0.2	0.2	0.2	1.9	2.0	2.0
Pakistan	7.0	7.1	7.3	1.1	0.8	0.9	9.8	9.8	9.8
Philippines	8.2	8.7	8.8	0.9	1.1	1.1	18.4	18.8	18.8
Saudi Arabia	12.1	11.3	12.0	2.9	2.0	1.8	2.9	2.8	2.8
Thailand	5.0	5.5	5.9	0.7	0.7	0.7	2.7	2.7	2.7
Turkey	16.3	17.4	17.5	2.0	2.6	3.1	19.6	19.3	19.1
Viet Nam	14.5	16.0	16.1	1.2	0.7	0.7	7.3	7.9	7.8
AFRICA	**155.9**	**163.7**	**164.0**	**32.4**	**35.4**	**36.8**	**74.2**	**75.8**	**73.7**
Algeria	6.1	7.0	7.0	1.8	2.3	2.0	15.5	14.9	14.6
Egypt	17.9	17.9	18.6	1.6	1.9	2.0	45.4	44.8	44.4
Ethiopia	19.9	22.0	22.6	4.6	6.3	6.4	137.3	143.1	144.4
Morocco	5.0	4.9	5.5	1.2	1.7	1.4	30.1	30.0	29.9
Nigeria	19.3	21.5	19.4	1.9	2.5	2.5	74.2	78.7	73.8
South Africa	12.7	12.6	13.1	2.8	2.0	3.6	91.6	91.3	90.3
Sudan	6.2	6.1	6.3	1.7	1.5	1.5	111.2	114.5	112.6
Tanzania, United Rep. of	7.0	7.1	7.2	1.5	0.9	0.8	90.7	90.2	90.6
CENTRAL AMERICA & THE CARIBBEAN	**60.1**	**62.5**	**63.2**	**8.3**	**7.7**	**7.4**	**100.9**	**102.0**	**102.7**
Mexico	48.1	49.9	50.6	6.0	6.1	5.8	136.0	136.4	136.5
SOUTH AMERICA	**112.2**	**119.3**	**124.2**	**31.7**	**31.5**	**34.2**	**24.7**	**24.1**	**24.0**
Argentina	23.5	23.2	25.1	8.8	9.6	10.6	7.3	7.3	7.3
Brazil	62.2	66.1	70.2	13.7	14.4	16.9	25.8	25.8	25.8
Chile	3.6	4.4	4.2	3.3	2.9	2.5	24.7	24.4	24.2
Colombia	6.9	7.9	7.6	0.5	0.4	0.4	18.9	18.8	18.6
Peru	5.3	6.1	5.9	0.3	0.2	0.2	21.9	22.5	22.8
Venezuela	3.0	2.6	2.5	0.6	0.5	0.5	51.5	42.6	42.7
NORTHERN AMERICA	**348.4**	**340.6**	**357.0**	**64.7**	**62.5**	**94.5**	**18.0**	**18.0**	**18.0**
Canada	23.1	24.8	25.0	4.5	4.2	5.0	4.6	4.6	4.5
United States of America	325.3	315.8	332.1	60.2	58.3	89.4	19.5	19.5	19.5
EUROPE	**224.1**	**230.8**	**231.8**	**42.6**	**52.4**	**58.3**	**20.3**	**20.3**	**20.7**
European Union	165.5	171.4	163.4	25.4	33.8	35.6	18.8	18.8	20.7
Russian Federation	31.6	33.0	33.1	6.0	5.6	5.1	21.3	21.3	21.3
Serbia	4.8	4.8	4.8	0.6	1.1	1.0	22.2	22.6	20.6
Ukraine	12.3	11.8	11.7	5.6	4.6	5.3	29.0	29.1	29.0
United Kingdom of Great Britain and Northern Ireland	-	-	8.9	-	-	2.5	-	-	11.5
OCEANIA	**7.0**	**7.5**	**7.1**	**3.2**	**4.6**	**4.6**	**8.0**	**7.8**	**7.7**
Australia	6.2	6.6	6.1	3.1	4.5	4.5	9.5	9.3	9.2
WORLD	**1 407.3**	**1 429.8**	**1 468.0**	**413.3**	**423.1**	**464.6**	**28.2**	**28.5**	**28.5**
LIFDC	161.0	167.9	171.1	27.2	30.9	31.1	37.4	37.7	38.0
LDC	89.4	93.5	94.6	19.3	20.5	20.7	60.2	60.9	60.0

APPENDIX TABLE 4(A): **MAIZE STATISTICS**

	Production			Imports			Exports		
	2016-2018 average	2019 estim.	2020 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes								
ASIA	**357.8**	**363.8**	**364.7**	**70.7**	**80.1**	**84.0**	**3.9**	**3.0**	**3.0**
China	260.1	260.9	261.2	7.8	9.1	12.1	0.1	-	-
of which Taiwan Prov.	0.2	0.2	0.2	4.3	5.0	5.0	-	-	-
India	27.5	29.0	28.0	0.2	0.3	0.3	0.7	0.5	0.5
Indonesia	23.5	26.3	26.5	0.7	1.0	0.9	0.2	-	-
Iran, Islamic Republic of	1.2	1.1	1.3	8.5	9.8	9.5	-	-	-
Japan	-	-	-	15.5	16.5	16.5	-	-	-
Korea, Republic.of	0.1	0.1	0.1	9.8	10.7	11.0	-	-	-
Malaysia	0.1	0.1	0.1	3.7	4.0	4.1	-	-	-
Pakistan	6.1	6.5	6.7	-	-	-	-	-	-
Philippines	7.6	8.1	8.2	0.6	0.6	0.6	-	-	-
Thailand	4.8	4.2	5.0	0.2	0.9	0.6	0.4	0.1	0.1
Turkey	6.0	6.0	6.0	2.4	3.2	3.5	0.1	0.1	0.1
Viet Nam	5.1	4.8	4.7	9.2	11.5	11.5	0.2	0.2	0.2
AFRICA	**82.8**	**82.7**	**86.6**	**21.9**	**23.7**	**24.3**	**3.9**	**3.5**	**4.3**
Algeria	-	-	-	4.3	4.7	5.0	-	-	-
Egypt	7.9	7.4	7.5	8.9	9.7	10.0	-	-	-
Ethiopia	8.6	9.6	9.6	-	-	-	0.7	0.8	0.8
Kenya	3.5	3.4	3.7	1.0	1.2	1.2	-	-	-
Morocco	0.1	-	-	2.3	2.6	2.8	-	-	-
Nigeria	11.2	12.7	11.1	0.4	0.4	0.4	0.2	0.2	0.2
South Africa	13.0	11.8	16.1	1.1	0.6	-	1.7	1.4	2.2
Tanzania, United Rep. of	6.4	5.7	6.3	-	-	-	0.4	0.3	0.3
CENTRAL AMERICA & THE CARIBBEAN	**32.4**	**31.3**	**31.9**	**22.3**	**24.9**	**24.8**	**1.3**	**0.8**	**1.0**
Mexico	27.7	27.0	27.2	15.6	17.5	17.5	1.3	0.8	1.0
SOUTH AMERICA	**138.3**	**170.9**	**168.9**	**14.0**	**15.0**	**15.2**	**50.9**	**75.1**	**66.1**
Argentina	44.3	57.0	55.6	-	-	-	25.6	33.0	30.0
Brazil	80.6	100.0	100.0	1.7	1.5	1.3	23.5	39.0	33.5
Chile	1.1	1.0	0.8	1.8	2.2	2.2	-	-	-
Colombia	1.5	1.6	1.5	5.0	5.9	5.9	-	-	-
Peru	1.5	1.5	1.6	3.4	3.6	4.0	-	-	-
Venezuela	1.3	1.1	1.0	1.5	1.5	1.5	-	-	-
NORTHERN AMERICA	**387.3**	**360.5**	**421.0**	**2.7**	**3.2**	**1.9**	**61.6**	**43.6**	**55.0**
Canada	14.0	13.4	14.7	1.7	2.2	1.3	2.0	0.6	1.0
United States of America	373.4	347.0	406.3	1.1	1.0	0.6	59.7	43.0	54.0
EUROPE	**119.1**	**132.9**	**133.6**	**19.4**	**20.9**	**19.6**	**32.4**	**42.1**	**40.5**
European Union	65.9	70.3	71.0	18.5	20.0	16.5	2.7	5.0	3.5
Russian Federation	13.3	14.3	14.5	0.1	-	-	4.7	4.0	4.4
Serbia	6.1	7.3	6.2	-	-	-	1.9	2.6	2.0
Ukraine	29.5	35.9	37.0	0.1	-	-	22.8	30.0	30.0
OCEANIA	**0.6**	**0.6**	**0.4**	**0.2**	**0.2**	**0.2**	**0.1**	**-**	**-**
WORLD	**1 118.4**	**1 142.6**	**1 207.1**	**151.1**	**168.0**	**170.0**	**154.2**	**168.0**	**170.0**
LIFDC	87.6	91.2	90.2	15.8	18.6	19.2	2.8	2.6	2.5
LDC	50.8	51.0	53.0	4.1	4.2	4.2	4.1	3.7	3.7

APPENDIX TABLE 4(B): **MAIZE STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	(million tonnes)						(Kg/year)		
ASIA	**425.2**	**436.4**	**446.5**	**220.6**	**217.4**	**216.0**	**9.3**	**9.4**	**9.3**
China	268.6	268.4	275.5	204.7	199.8	197.6	9.8	9.8	9.7
of which Taiwan Prov.	4.4	5.2	5.2	0.4	0.5	0.5	5.5	5.5	5.5
India	26.5	27.9	28.3	1.7	3.0	2.5	6.3	6.4	6.4
Indonesia	24.2	27.3	27.3	1.8	2.0	2.0	28.8	29.2	29.1
Iran, Islamic Republic of	9.4	10.2	10.2	1.3	1.9	2.4	0.9	0.9	0.9
Japan	15.5	16.3	16.5	1.7	1.9	1.9	0.8	0.8	0.8
Korea, Republic.of	10.0	10.4	10.4	1.4	1.1	1.2	2.0	2.0	2.0
Malaysia	3.8	4.1	4.2	0.2	0.2	0.2	1.9	2.0	2.0
Pakistan	6.3	6.4	6.6	1.1	0.8	0.9	7.9	7.8	7.9
Philippines	8.1	8.7	8.8	0.9	1.1	1.1	18.4	18.8	18.7
Thailand	4.7	5.1	5.5	0.7	0.7	0.7	1.2	1.2	1.2
Turkey	8.3	8.5	9.0	1.0	1.0	1.5	16.0	15.8	15.7
Viet Nam	14.3	15.9	16.0	1.2	0.7	0.7	7.3	7.9	7.8
AFRICA	**98.9**	**103.9**	**104.9**	**20.0**	**20.9**	**22.6**	**41.4**	**42.7**	**41.8**
Algeria	4.3	4.7	5.1	1.2	1.3	1.2	3.4	3.3	3.2
Egypt	16.8	16.8	17.4	1.5	1.8	1.8	42.4	41.8	41.5
Ethiopia	7.6	8.4	8.7	0.9	1.6	1.7	45.3	48.1	48.9
Kenya	4.6	4.7	5.0	0.5	0.4	0.4	81.5	82.5	82.8
Morocco	2.3	2.4	2.9	0.8	1.2	1.2	10.3	10.4	10.3
Nigeria	11.2	12.9	11.4	1.4	2.0	2.0	35.4	39.6	38.6
South Africa	12.0	11.8	12.4	2.6	1.8	3.3	88.9	88.6	87.7
Tanzania, United Rep. of	6.0	6.0	6.1	1.4	0.7	0.6	73.1	73.5	73.8
CENTRAL AMERICA & THE CARIBBEAN	**53.3**	**56.1**	**56.4**	**7.9**	**7.2**	**6.9**	**100.1**	**101.2**	**101.9**
Mexico	41.7	43.8	44.2	5.6	5.6	5.4	135.5	136.0	136.1
SOUTH AMERICA	**100.8**	**108.0**	**112.6**	**29.5**	**29.7**	**32.5**	**23.0**	**22.4**	**22.3**
Argentina	19.3	19.8	21.6	8.0	9.0	10.0	7.1	7.1	7.1
Brazil	58.6	62.0	65.8	13.3	14.0	16.5	24.3	24.4	24.4
Chile	2.7	3.5	3.4	2.6	2.4	2.0	20.8	20.5	20.3
Colombia	6.5	7.5	7.3	0.5	0.4	0.4	18.1	18.3	18.1
Peru	4.9	5.7	5.4	0.3	0.2	0.2	15.3	16.0	15.8
Venezuela	3.0	2.6	2.5	0.6	0.5	0.5	51.0	42.1	42.2
NORTHERN AMERICA	**326.8**	**319.2**	**336.0**	**58.7**	**56.8**	**88.0**	**14.8**	**14.8**	**14.8**
Canada	14.0	14.7	14.7	2.3	1.8	2.0	3.2	3.1	3.1
United States of America	312.8	304.5	321.3	56.4	55.0	86.0	16.1	16.1	16.2
EUROPE	**102.5**	**111.4**	**111.7**	**24.2**	**30.3**	**31.1**	**8.1**	**8.1**	**8.1**
European Union	79.0	86.3	84.7	15.2	19.0	18.0	9.5	9.5	10.5
Russian Federation	8.3	10.2	10.1	1.5	1.8	1.8	1.4	1.4	1.4
Serbia	4.3	4.3	4.3	0.6	0.9	0.8	20.5	21.0	19.0
Ukraine	7.1	6.7	6.6	3.8	2.6	3.0	11.3	11.3	11.3
OCEANIA	**0.7**	**0.7**	**0.6**	**0.1**	**0.1**	**0.1**	**2.3**	**2.2**	**2.2**
WORLD	**1 108.2**	**1 135.7**	**1 168.7**	**360.9**	**362.4**	**397.2**	**18.0**	**18.5**	**18.4**
LIFDC	99.4	106.5	107.3	15.3	16.8	16.2	18.1	18.8	18.6
LDC	49.8	52.4	53.2	9.1	8.8	8.9	29.1	29.5	29.2

APPENDIX TABLE 5(A): **BARLEY STATISTICS**

	Production			Imports			Exports		
	2016-2018 average	**2019** *estim.*	**2020** *f'cast*	**16/17-18/19** average	**2019/20** *estim.*	**2020/21** *f'cast*	**16/17-18/19** average	**2019/20** *estim.*	**2020/21** *f'cast*
	million tonnes								
ASIA	**19.8**	**23.2**	**22.6**	**22.2**	**20.9**	**20.5**	**1.3**	**1.4**	**1.4**
China	1.1	1.0	0.9	7.2	5.5	5.0	-	-	-
India	1.7	1.6	1.6	0.2	0.2	0.2	-	-	-
Iran, Islamic Republic of	3.2	3.0	3.0	2.3	3.2	3.5	-	-	-
Iraq	0.3	1.5	1.3	-	-	-	-	-	-
Japan	0.2	0.2	0.2	1.2	1.2	1.3	-	-	-
Kazakhstan	3.5	3.8	4.1	-	-	-	1.3	1.3	1.3
Saudi Arabia	-	-	-	7.4	6.7	7.0	-	-	-
Syrian Arab Republic	0.6	2.0	1.7	0.5	-	-	-	-	-
Turkey	6.9	7.6	7.3	0.4	1.1	0.5	-	-	-
AFRICA	**6.3**	**7.2**	**5.7**	**2.7**	**3.0**	**3.6**	**-**	**-**	**-**
Algeria	1.3	2.0	1.2	0.5	0.4	0.4	-	-	-
Ethiopia	2.0	2.4	2.3	-	-	-	-	-	-
Libya	0.1	0.1	0.1	1.2	1.0	1.0	-	-	-
Morocco	2.0	1.2	0.9	0.4	1.1	1.3	-	-	-
Tunisia	0.4	0.9	0.5	0.6	0.3	0.7	-	-	-
CENTRAL AMERICA & THE CARIBBEAN	**1.0**	**1.0**	**1.0**	**-**	**-**	**-**	**-**	**-**	**-**
Mexico	1.0	1.0	1.0	-	-	-	-	-	-
SOUTH AMERICA	**5.3**	**5.3**	**5.7**	**1.2**	**1.0**	**1.0**	**2.9**	**2.6**	**2.6**
Argentina	4.0	3.8	4.3	-	-	-	2.8	2.5	2.5
NORTHERN AMERICA	**12.0**	**14.1**	**13.5**	**0.2**	**0.2**	**0.2**	**2.0**	**2.1**	**1.8**
Canada	8.4	10.4	9.5	0.1	-	-	1.9	2.0	1.7
United States of America	3.6	3.7	4.0	0.2	0.2	0.2	0.1	0.1	0.1
EUROPE	**88.0**	**96.0**	**94.2**	**0.7**	**1.1**	**1.9**	**14.2**	**16.8**	**17.1**
Belarus	1.2	1.5	1.3	0.2	0.2	0.1	-	-	-
European Union	58.4	63.6	55.6	0.3	0.7	1.5	5.2	7.0	6.0
Russian Federation	18.5	20.5	19.1	0.2	-	-	4.4	4.7	5.0
Ukraine	8.3	8.9	8.5	-	-	-	4.5	5.0	4.5
United Kingdom of Great Britain and Northern Ireland	-	-	8.2	-	-	-	-	-	1.5
OCEANIA	**10.7**	**9.2**	**9.5**	**-**	**-**	**-**	**6.7**	**3.5**	**4.5**
Australia	10.4	8.9	9.1	-	-	-	6.7	3.5	4.5
WORLD	**143.2**	**155.9**	**152.2**	**27.1**	**26.3**	**27.3**	**27.2**	**26.3**	**27.3**
LIFDC	5.3	7.2	6.8	0.9	0.5	0.5	-	-	-
LDC	2.3	2.6	2.6	-	-	-	-	-	-

APPENDIX TABLE 5(B): **BARLEY STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 t'cast	2017-2019 average	2020 estim.	2021 t'cast	16/17-18/19 average	2019/20 estim.	2020/21 t'cast
	million tonnes						Kg/year		
ASIA	**41.3**	**39.7**	**40.3**	**7.4**	**9.6**	**10.9**	**0.7**	**0.6**	**0.6**
China	8.7	5.5	6.0	0.6	1.4	1.3	0.1	0.1	0.1
India	1.8	1.8	1.8	-	-	-	1.2	1.1	1.1
Iran, Islamic Republic of	5.4	5.8	6.0	0.9	1.2	1.7	0.3	0.3	0.3
Iraq	0.3	1.4	1.3	-	0.2	0.2	3.5	3.6	3.5
Japan	1.4	1.4	1.5	0.2	0.2	0.2	2.4	2.4	2.4
Kazakhstan	2.2	2.2	2.2	0.2	0.4	1.0	1.1	1.1	1.1
Saudi Arabia	8.1	7.1	7.2	2.6	1.7	1.5	0.8	0.8	0.8
Syrian Arab Republic	1.0	1.4	1.4	0.3	1.1	1.4	16.3	16.4	16.0
Turkey	7.4	8.1	7.8	1.0	1.5	1.5	1.0	1.0	1.0
AFRICA	**9.3**	**10.1**	**9.8**	**1.6**	**2.1**	**1.6**	**2.6**	**2.7**	**2.6**
Algeria	1.7	2.2	1.8	0.5	0.9	0.7	12.1	11.6	11.4
Ethiopia	2.0	2.3	2.3	0.1	-	-	17.1	17.9	17.2
Libya	1.3	1.1	1.1	-	-	-	13.0	12.7	12.5
Morocco	2.6	2.5	2.5	0.4	0.4	0.2	19.7	19.5	19.5
Tunisia	1.0	1.1	1.2	0.4	0.4	0.4	7.9	7.7	7.6
CENTRAL AMERICA & THE CARIBBEAN	**1.0**	**1.0**	**1.0**	**0.1**	**0.1**	**0.1**	**-**	**-**	**-**
Mexico	1.0	1.0	1.0	0.1	0.1	0.1	-	-	-
SOUTH AMERICA	**3.7**	**3.9**	**4.1**	**0.6**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**
Argentina	1.3	1.4	1.6	0.4	0.5	0.5	-	-	-
NORTHERN AMERICA	**10.5**	**11.2**	**11.5**	**3.5**	**3.7**	**4.0**	**0.5**	**0.5**	**0.5**
Canada	6.7	7.6	7.6	1.4	1.7	2.0	0.3	0.3	0.3
United States of America	3.8	3.6	4.0	2.1	2.0	2.0	0.6	0.6	0.6
EUROPE	**74.6**	**76.5**	**78.2**	**11.0**	**14.6**	**15.4**	**1.1**	**1.1**	**1.1**
Belarus	1.5	1.5	1.5	0.7	0.7	0.6	-	-	-
European Union	53.4	55.3	51.1	6.7	9.5	8.5	0.7	0.7	0.8
Russian Federation	14.4	14.5	14.7	2.0	2.5	2.0	1.8	1.8	1.8
Ukraine	3.8	3.8	3.7	1.2	1.5	1.8	2.7	2.6	2.6
United Kingdom of Great Britain and Northern Ireland	-	-	5.7	-	-	2.0	-	-	0.7
OCEANIA	**4.1**	**4.8**	**4.7**	**2.2**	**3.3**	**3.6**	**0.1**	**0.1**	**0.1**
Australia	3.7	4.4	4.3	2.2	3.3	3.6	0.2	0.2	0.2
WORLD	**144.5**	**147.2**	**149.7**	**26.3**	**34.1**	**36.3**	**1.0**	**1.0**	**1.0**
LIFDC	6.1	6.7	6.7	1.1	2.2	2.8	1.5	1.5	1.5
LDC	2.3	2.6	2.6	0.1	0.1	0.1	1.9	2.0	2.0

APPENDIX TABLE 6(A): **SORGHUM STATISTICS**

	Production			Imports			Exports		
	2016-2018 average	2019 estim.	2020 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes								
ASIA	**8.2**	**7.5**	**8.2**	**4.5**	**3.6**	**4.8**	**0.1**	**-**	**-**
China	2.8	3.1	3.3	3.9	2.9	4.1	-	-	-
India	4.5	3.5	4.0	-	-	-	0.1	-	-
Japan	-	-	-	0.6	0.6	0.6	-	-	-
AFRICA	**28.6**	**28.3**	**28.2**	**0.9**	**1.0**	**1.0**	**0.9**	**0.7**	**0.7**
Burkina Faso	1.7	1.9	1.6	-	-	-	-	-	-
Ethiopia	5.0	5.3	5.3	-	-	-	0.4	0.5	0.5
Nigeria	6.5	6.7	6.4	-	-	-	-	-	-
Sudan	5.3	4.0	4.7	0.2	0.3	0.3	0.3	-	-
CENTRAL AMERICA & THE CARIBBEAN	**5.1**	**4.6**	**5.1**	**0.4**	**0.5**	**0.5**	**-**	**-**	**-**
Mexico	4.8	4.3	4.8	0.4	0.5	0.5	-	-	-
SOUTH AMERICA	**5.2**	**5.0**	**5.2**	**0.1**	**0.1**	**0.1**	**0.3**	**0.3**	**0.3**
Argentina	2.4	1.6	1.6	-	-	-	0.3	0.3	0.3
Brazil	1.7	2.2	2.4	-	-	-	-	-	-
Venezuela	-	-	-	-	-	-	-	-	-
NORTHERN AMERICA	**10.2**	**8.7**	**8.9**	**0.1**	**-**	**-**	**4.8**	**4.2**	**5.5**
United States of America	10.2	8.7	8.9	0.1	-	-	4.8	4.2	5.5
EUROPE	**1.1**	**1.3**	**1.1**	**0.5**	**0.2**	**0.3**	**0.1**	**0.1**	**0.1**
European Union	0.7	1.0	0.8	0.5	0.2	0.3	-	-	-
OCEANIA	**1.4**	**1.3**	**0.3**	**0.1**	**-**	**-**	**0.4**	**0.2**	**0.1**
Australia	1.4	1.3	0.3	-	-	-	0.4	0.2	0.1
WORLD	**59.9**	**56.7**	**57.0**	**6.5**	**5.5**	**6.8**	**6.8**	**5.5**	**6.8**
LIFDC	25.9	24.5	25.2	0.8	0.9	0.9	0.9	0.7	0.7
LDC	20.2	19.8	20.0	0.6	0.7	0.7	0.8	0.7	0.6

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

	Production			Imports			Exports		
	2016-2018 average	2019 estim.	2020 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes								
ASIA	19.3	17.9	20.2	0.8	0.8	0.8	0.1	0.1	0.1
AFRICA	20.8	21.3	21.2	0.2	0.2	0.2	0.4	0.5	0.4
CENTRAL AMERICA & THE CARIBBEAN	0.1	0.1	-	0.2	0.2	0.2	-	-	-
SOUTH AMERICA	2.5	2.4	2.5	0.2	0.2	0.2	0.1	0.1	0.1
NORTHERN AMERICA	5.6	6.1	6.8	1.8	2.2	2.0	2.1	2.2	2.2
EUROPE	44.1	43.8	44.9	0.5	0.5	0.5	0.8	0.8	0.8
OCEANIA	1.8	1.2	1.5	-	0.1	0.1	0.4	0.2	0.3
WORLD	**94.0**	**92.9**	**97.2**	**3.8**	**3.9**	**3.8**	**3.9**	**3.9**	**3.8**

APPENDIX TABLE 6(B): **SORGHUM STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes						Kg/year		
ASIA	**12.5**	**10.5**	**13.0**	**1.0**	**1.3**	**1.2**	**1.2**	**1.0**	**1.1**
China	6.3	5.4	7.4	0.7	0.9	0.9	0.4	0.5	0.5
India	4.6	3.5	4.0	-	-	-	3.3	2.5	2.8
Japan	0.6	0.6	0.6	0.1	0.1	0.1	-	-	-
AFRICA	**28.4**	**29.1**	**28.5**	**4.0**	**3.5**	**3.4**	**18.2**	**18.3**	**17.3**
Burkina Faso	1.6	1.8	1.5	0.4	0.5	0.5	77.1	85.8	68.7
Ethiopia	4.5	4.7	4.8	0.7	0.8	0.8	31.9	31.9	31.5
Nigeria	6.5	6.6	6.3	0.1	-	-	31.9	31.0	28.8
Sudan	5.0	4.8	5.0	0.8	0.1	0.1	94.3	96.0	94.2
CENTRAL AMERICA & THE CARIBBEAN	**5.5**	**5.2**	**5.6**	**0.4**	**0.4**	**0.4**	**0.5**	**0.5**	**0.5**
Mexico	5.1	4.9	5.2	0.3	0.3	0.3	-	-	-
SOUTH AMERICA	**5.2**	**4.8**	**5.0**	**0.9**	**0.6**	**0.6**	**0.0**	**0.0**	**0.0**
Argentina	2.2	1.2	1.2	0.3	0.1	0.1	-	-	-
Brazil	1.7	2.2	2.4	0.2	0.2	0.2	-	-	-
Venezuela	0.1	-	-	-	-	-	-	-	-
NORTHERN AMERICA	**5.5**	**4.3**	**3.4**	**1.1**	**0.9**	**0.8**	**0.1**	**0.1**	**0.1**
United States of America	5.5	4.3	3.4	1.1	0.9	0.8	0.1	0.1	0.1
EUROPE	**1.3**	**0.8**	**0.9**	**0.4**	**1.3**	**1.8**	**0.2**	**0.2**	**0.2**
European Union	1.0	0.6	0.7	0.4	1.2	1.6	0.3	0.3	0.3
OCEANIA	**0.9**	**0.9**	**0.6**	**0.8**	**1.0**	**0.6**	**0.2**	**0.2**	**0.2**
Australia	0.8	0.9	0.6	0.8	1.0	0.6	-	-	-
WORLD	**59.3**	**55.6**	**57.0**	**8.7**	**8.9**	**8.7**	**3.8**	**3.7**	**3.7**
LIFDC	25.8	25.2	25.4	4.0	3.5	3.4	8.2	8.0	7.8
LDC	19.8	20.3	20.1	3.8	3.3	3.2	15.3	15.6	14.9

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

	Total Utilization			Stocks ending in			Per caput food use		
	18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes						Kg/year		
ASIA	20.4	18.8	21.0	1.3	0.8	0.7	3.4	3.3	3.7
AFRICA	19.3	20.6	20.8	6.8	8.9	9.2	12.0	12.1	12.0
CENTRAL AMERICA & THE CARIBBEAN	0.3	0.2	0.2	-	-	-	0.3	0.3	0.3
SOUTH AMERICA	2.5	2.6	2.5	0.7	0.6	0.5	1.2	1.2	1.2
NORTHERN AMERICA	5.6	5.9	6.1	1.4	1.1	1.7	2.6	2.6	2.6
EUROPE	45.8	42.1	41.0	7.0	6.2	10.0	10.9	10.9	11.3
OCEANIA	1.4	1.1	1.2	0.1	0.2	0.3	5.4	5.3	5.2
WORLD	**95.4**	**91.3**	**92.6**	**17.4**	**17.7**	**22.4**	**5.4**	**5.3**	**5.4**

APPENDIX TABLE 8(A): **RICE STATISTICS**

	Production			Imports			Exports		
	2016-2018 average	2019 estim.	2020 f'cast	2016-2018 average	2019 estim.	2020 f'cast	2016-2018 average	2019 estim.	2020 f'cast
	million tonnes, milled equivalent								
ASIA	**450.0**	**450.6**	**456.7**	**21.4**	**18.9**	**19.5**	**38.1**	**36.3**	**36.9**
Bangladesh	35.3	36.9	36.9	1.4	0.1	0.2	-	-	-
China	146.5	144.9	145.5	6.0	3.8	3.1	1.3	2.8	3.2
of which Taiwan Prov.	1.3	1.3	1.3	0.1	0.1	0.1	0.1	0.1	0.1
India	113.0	117.9	119.2	-	-	-	11.6	9.8	10.8
Indonesia	37.5	35.0	34.6	1.3	0.4	1.4	-	-	-
Iran, Islamic Republic of	1.9	2.0	2.1	1.2	1.4	1.3	-	-	-
Iraq	0.2	0.3	0.3	1.0	1.3	1.1	-	-	-
Japan	7.5	7.4	7.4	0.7	0.7	0.7	0.1	0.1	-
Korea, Republic of	4.0	3.7	3.8	0.4	0.3	0.5	0.1	0.1	-
Malaysia	1.7	1.7	1.7	1.0	1.1	1.2	-	-	-
Myanmar	15.7	15.4	15.8	-	-	-	2.3	2.5	2.3
Pakistan	7.2	7.2	7.9	-	-	-	3.9	4.5	4.6
Philippines	12.3	12.3	12.4	1.4	2.8	2.8	-	-	-
Saudi Arabia	-	-	-	1.2	1.3	1.4	-	-	-
Sri Lanka	2.4	3.1	3.2	0.5	-	-	-	-	-
Thailand	21.4	18.8	21.4	0.3	0.4	0.4	10.9	7.6	7.0
Viet Nam	28.2	28.2	28.3	0.7	0.5	0.4	6.4	7.2	7.1
AFRICA	**22.8**	**24.1**	**24.8**	**16.0**	**16.0**	**16.1**	**0.7**	**0.4**	**0.5**
Cote D'ivoire	1.2	1.1	1.2	1.5	1.4	1.6	-	-	-
Egypt	4.3	4.6	5.0	0.1	0.7	0.2	0.2	-	-
Madagascar	2.3	2.6	2.5	0.5	0.4	0.4	-	-	-
Nigeria	4.8	5.1	5.1	2.4	2.3	1.9	-	-	-
Senegal	0.7	0.8	0.9	1.4	1.0	1.4	-	-	-
South Africa	-	-	-	0.9	0.9	0.9	-	-	-
Tanzania, United Rep. of	2.0	2.0	2.3	0.2	0.3	0.2	0.2	0.2	0.3
CENTRAL AMERICA & THE CARIBBEAN	**1.9**	**1.9**	**1.9**	**2.5**	**2.4**	**2.5**	**0.1**	**0.1**	**0.1**
Cuba	0.3	0.3	0.3	0.5	0.5	0.6	-	-	-
Mexico	0.2	0.2	0.2	0.8	0.7	0.7	0.1	-	-
SOUTH AMERICA	**16.5**	**15.6**	**15.9**	**1.9**	**1.8**	**1.9**	**3.3**	**3.5**	**3.6**
Argentina	0.9	0.8	0.8	-	-	-	0.4	0.4	0.4
Brazil	7.9	7.1	7.4	0.7	0.7	0.7	0.8	0.9	0.8
Peru	2.2	2.2	2.2	0.3	0.3	0.3	0.1	0.1	0.1
Uruguay	0.9	0.8	0.8	-	-	-	0.9	0.8	0.8
NORTHERN AMERICA	**6.6**	**5.9**	**6.9**	**1.2**	**1.5**	**1.3**	**3.2**	**3.1**	**3.2**
Canada	-	-	-	0.4	0.5	0.3	-	-	-
United States of America	6.6	5.9	6.9	0.8	1.0	1.0	3.2	3.1	3.2
EUROPE	**2.5**	**2.5**	**2.5**	**2.4**	**2.7**	**2.8**	**0.5**	**0.4**	**0.6**
European Union	1.7	1.7	1.8	1.9	2.2	1.6	0.3	0.3	0.5
Russian Federation	0.7	0.7	0.7	0.2	0.2	0.2	0.2	0.1	0.1
United Kingdom of Great Britain and Northern Ireland	-	-	-	-	-	0.6	-	-	-
OCEANIA	**0.4**	**0.1**	**-**	**0.7**	**0.8**	**0.8**	**0.2**	**0.1**	**0.1**
Australia	0.4	-	-	0.2	0.2	0.3	0.2	0.1	0.1
WORLD	**500.7**	**500.6**	**508.7**	**46.1**	**44.1**	**44.9**	**46.1**	**44.1**	**44.9**
LIFDC	196.0	204.0	205.5	15.7	14.1	14.8	18.4	17.4	18.4
LDC	75.1	77.2	78.3	11.8	10.1	10.9	4.3	4.6	4.4

APPENDIX TABLE 8(B): **RICE STATISTICS**

	Total Utilization			Stocks ending in			Per caput food use		
	16/17-18/19 average	2019/20 estim.	2020/21 f'cast	2017-2019 average	2020 estim.	2021 f'cast	16/17-18/19 average	2019/20 estim.	2020/21 f'cast
	million tonnes, milled equivalent						(Kg/year)		
ASIA	**428.8**	**433.0**	**439.3**	**166.6**	**174.1**	**172.3**	**76.3**	**76.7**	**77.1**
Bangladesh	36.5	37.4	37.6	6.4	6.5	6.0	179.9	180.9	181.1
China	147.3	147.5	148.1	103.8	103.6	101.2	76.0	75.9	75.8
of which Taiwan Prov.	1.3	1.3	1.4	0.3	0.4	0.4	48.1	48.2	48.4
India	98.2	102.7	106.7	23.4	33.8	34.3	68.2	69.8	71.5
Indonesia	38.5	37.5	37.2	7.2	6.0	4.8	127.4	125.6	125.1
Iran, Islamic Republic of	3.2	3.3	3.3	0.7	0.6	0.7	34.8	35.1	35.1
Iraq	1.3	1.4	1.5	0.1	0.1	0.2	33.4	34.6	36.4
Japan	8.2	7.9	7.9	3.1	3.2	3.3	49.7	49.5	49.2
Korea, Republic of	4.8	4.2	4.1	1.6	0.9	1.0	75.0	72.8	71.5
Malaysia	2.8	2.8	2.8	0.4	0.2	0.3	81.7	82.2	81.9
Myanmar	13.3	13.3	13.4	3.2	3.1	3.1	181.2	180.7	180.8
Pakistan	3.1	3.0	3.2	0.5	0.3	0.4	12.2	11.6	12.0
Philippines	14.2	15.0	15.4	2.3	2.5	2.6	115.9	119.6	120.2
Saudi Arabia	1.3	1.2	1.3	0.3	0.2	0.2	39.2	35.9	36.5
Sri Lanka	2.9	3.0	3.1	0.4	0.4	0.5	121.3	123.4	125.4
Thailand	12.9	12.1	12.7	6.2	5.6	6.6	98.8	99.1	99.7
Viet Nam	22.0	22.0	21.6	3.6	3.4	3.4	153.8	151.1	148.2
AFRICA	**38.8**	**40.2**	**41.5**	**6.1**	**4.6**	**5.0**	**27.0**	**26.9**	**27.3**
Cote D'ivoire	2.8	2.8	2.9	0.5	0.4	0.4	93.4	93.3	95.7
Egypt	4.7	4.5	4.6	1.0	0.7	1.1	42.9	41.0	41.0
Madagascar	2.8	2.9	3.0	0.3	0.3	0.2	98.3	97.7	97.8
Nigeria	7.4	7.4	7.5	1.0	0.6	0.5	33.5	31.9	32.0
Senegal	2.1	2.2	2.3	0.4	0.3	0.3	123.1	124.4	126.8
South Africa	0.9	0.9	0.9	0.1	0.1	0.1	15.6	15.2	14.6
Tanzania, United Rep. of	2.0	2.1	2.2	0.4	0.2	0.3	29.5	30.8	31.1
CENTRAL AMERICA & THE CARIBBEAN	**4.2**	**4.3**	**4.4**	**0.6**	**0.5**	**0.5**	**18.4**	**18.6**	**18.9**
Cuba	0.8	0.8	0.8	0.1	-	-	68.3	65.4	68.1
Mexico	0.8	0.9	0.9	0.1	0.1	0.1	6.7	6.9	7.1
SOUTH AMERICA	**15.2**	**14.4**	**14.5**	**2.3**	**1.9**	**1.8**	**32.0**	**30.4**	**30.4**
Argentina	0.5	0.5	0.5	0.2	0.2	0.1	10.3	10.0	9.9
Brazil	7.9	7.0	7.0	0.4	0.4	0.5	34.4	30.6	30.4
Peru	2.4	2.5	2.5	0.3	0.3	0.3	67.4	67.9	67.9
Uruguay	0.1	0.1	0.1	0.1	-	-	11.0	10.7	10.4
NORTHERN AMERICA	**4.8**	**4.6**	**4.8**	**1.3**	**1.1**	**1.4**	**9.6**	**9.6**	**9.7**
Canada	0.4	0.4	0.4	-	0.2	-	10.3	10.3	10.3
United States of America	4.4	4.2	4.4	1.3	1.0	1.3	9.5	9.5	9.6
EUROPE	**4.6**	**4.7**	**4.7**	**0.7**	**0.8**	**0.7**	**5.3**	**5.4**	**5.4**
European Union	3.4	3.5	2.9	0.5	0.6	0.5	5.6	5.8	5.8
Russian Federation	0.8	0.8	0.8	0.1	0.1	0.1	4.9	5.0	5.0
United Kingdom of Great Britain and Northern Ireland	-	-	0.6	-	-	0.1	-	-	6.4
OCEANIA	**0.8**	**0.9**	**0.9**	**0.4**	**0.3**	**0.2**	**18.4**	**19.4**	**19.6**
Australia	0.3	0.3	0.3	0.3	0.2	0.1	10.9	11.2	11.4
WORLD	**497.1**	**502.0**	**510.0**	**178.0**	**183.4**	**182.0**	**53.5**	**53.6**	**53.9**
LIFDC	189.6	197.0	202.3	38.1	47.9	48.0	64.2	64.9	65.7
LDC	82.3	84.6	86.2	15.2	14.9	14.4	65.5	65.0	65.0

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)		
	2018/19	2019/20 *estim.*	2020/21 *f'cast*	2018/19	2019/20 *estim.*	2020/21 *f'cast*	2018/19	2019/20 *estim.*	2020/21 *f'cast*
	UNITED STATES of AMERICA (Jun/May)			**UNITED STATES of AMERICA**			**UNITED STATES of AMERICA** (Aug/Jul)		
Opening Stocks	29.9	29.4	26.6	57.9	60.5	58.3	0.9	1.4	1.0
Production	51.3	52.3	50.8	378.3	360.8	420.9	7.1	5.9	6.9
Imports	3.7	2.9	3.8	2.7	3.2	2.7	0.9	1.0	1.0
Total Supply	**84.9**	**84.6**	**81.2**	**438.9**	**424.5**	**481.9**	**8.9**	**8.3**	**8.9**
Domestic use	30.0	31.5	30.6	323.4	315.8	332.1	4.6	4.2	4.4
Exports	25.5	26.4	26.5	55.0	50.4	60.4	3.0	3.1	3.2
Closing stocks	29.4	26.6	24.1	60.5	58.3	89.4	1.4	1.0	1.3
	CANADA (August/July)			**CANADA**			**THAILAND** (Aug/July)		
Opening Stocks	6.5	6.0	5.9	4.6	3.3	4.2	5.3	5.0	5.6
Production	32.2	32.3	33.9	26.3	28.6	29.3	21.4	18.8	21.4
Imports	0.1	0.1	0.1	2.9	1.7	1.3	0.3	0.4	0.2
Total Supply	**38.8**	**38.4**	**39.9**	**33.8**	**33.6**	**34.8**	**27.0**	**24.2**	**27.2**
Domestic use	8.4	11.1	9.0	24.3	24.8	25.0	12.2	12.1	12.7
Exports	24.3	21.5	25.0	6.2	4.7	4.8	9.9	6.4	7.9
Closing stocks	6.0	5.9	5.9	3.3	4.2	5.0	5.0	5.6	6.6
	ARGENTINA (Dec./Nov.)			**ARGENTINA**			**INDIA** (Oct./Sept.)		
Opening Stocks	1.6	2.8	3.0	10.6	9.9	9.6	21.8	28.8	33.8
Production	19.5	19.8	20.3	50.8	63.2	62.2	116.5	117.9	119.2
Imports	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0
Total Supply	**21.1**	**22.6**	**23.3**	**61.5**	**73.2**	**71.9**	**138.3**	**146.7**	**153.0**
Domestic use	6.3	6.6	6.6	25.9	23.2	25.1	99.1	102.7	106.7
Exports	11.9	13.0	13.7	25.7	40.3	36.1	10.4	10.3	11.9
Closing stocks	2.8	3.0	3.0	9.9	9.6	10.6	28.8	33.8	34.3
	AUSTRALIA (Oct./Sept.)			**AUSTRALIA**			**PAKISTAN** (Sept./Aug.)		
Opening Stocks	4.4	4.4	3.4	2.6	3.2	4.5	0.6	0.5	0.3
Production	17.3	15.2	21.4	11.1	11.7	11.0	7.2	7.2	7.9
Imports	0.3	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Total Supply	**22.0**	**19.9**	**25.1**	**13.7**	**14.9**	**15.5**	**7.8**	**7.7**	**8.2**
Domestic use	8.7	7.4	7.9	5.4	6.6	6.1	3.1	3.0	3.2
Exports	9.0	9.0	14.0	5.1	3.8	4.9	4.3	4.4	4.6
Closing stocks	4.4	3.4	3.1	3.2	4.5	4.5	0.5	0.3	0.4
	EU (July/June)			**EU**			**VIET NAM** (Jan./Dec.)		
Opening Stocks	20.3	14.2	11.5	24.5	29.9	32.3	3.6	3.8	3.4
Production	138.1	155.6	131.0	154.4	166.5	157.9	28.6	28.2	28.3
Imports	5.4	4.0	5.0	26.8	21.2	18.6	0.6	0.5	0.4
Total Supply	**163.8**	**173.8**	**147.5**	**205.7**	**217.6**	**208.8**	**32.8**	**32.5**	**32.1**
Domestic use	127.0	126.3	107.0	167.8	171.4	163.4	22.1	22.0	21.6
Exports	22.6	33.0	28.0	8.0	12.5	9.8	6.8	7.2	7.1
Closing stocks	14.2	14.5	12.5	29.9	33.8	35.6	3.8	3.4	3.4
	TOTAL OF ABOVE			**TOTAL OF ABOVE**			**TOTAL OF ABOVE**		
Opening Stocks	62.7	56.8	50.4	100.2	106.8	108.9	32.2	39.5	44.1
Production	258.4	275.2	257.4	620.9	630.8	681.3	180.8	178.0	183.7
Imports	9.5	7.3	9.2	32.5	26.2	22.7	1.8	1.9	1.6
Total Supply	**330.6**	**339.3**	**317.0**	**753.6**	**763.8**	**812.9**	**214.8**	**219.4**	**229.4**
Domestic use	180.4	182.9	161.1	546.8	541.8	551.7	141.1	144.0	148.6
Exports	93.3	102.9	107.2	100.0	111.7	116.0	34.4	31.4	34.7
Closing stocks	56.8	53.4	48.6	106.8	110.4	145.1	39.5	44.1	46.0

[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		
	15/16-17/18 average	2018/19 *estim.*	2019/20 *f'cast*	15/16-17/18 average	2018/19 *estim.*	2019/20 *f'cast*	15/16-17/18 average	2018/19 *estim.*	2019/20 *f'cast*
ASIA	**133.7**	**143.2**	**144.8**	**128.5**	**123.3**	**131.3**	**3.7**	**3.6**	**3.6**
China	58.0	61.9	64.1	98.5	90.0	98.8	1.0	0.8	0.9
of which Taiwan Prov.	0.1	0.1	0.1	2.6	2.6	2.7	-	-	-
India	38.0	40.7	41.4	0.4	0.3	0.3	1.2	1.1	1.3
Indonesia	11.7	13.3	13.3	2.7	2.9	2.9	0.1	0.1	0.1
Iran, Islamic Republic of	0.8	0.9	0.9	2.2	2.7	2.4	0.1	0.1	0.1
Japan	0.3	0.2	0.2	6.0	6.1	6.1	-	-	-
Korea, Republic of	0.2	0.2	0.2	0.9	1.0	1.0	0.1	-	-
Malaysia	4.9	5.1	4.9	2.8	2.9	3.1	-	-	-
Pakistan	4.2	4.3	3.7	1.6	1.7	1.6	-	-	-
Thailand	1.1	1.2	1.2	2.8	3.1	3.0	-	-	-
Turkey	3.3	3.6	3.5	3.3	3.7	3.7	0.2	0.3	0.1
AFRICA	**20.4**	**21.2**	**20.9**	**4.0**	**5.8**	**6.0**	**0.8**	**0.9**	**0.9**
Nigeria	4.6	4.7	4.6	0.1	0.2	0.1	0.1	0.1	0.1
CENTRAL AMERICA & THE CARIBBEAN	**2.1**	**2.1**	**2.0**	**6.9**	**9.1**	**8.7**	**0.2**	**0.2**	**0.2**
Mexico	1.4	1.4	1.3	6.2	8.2	7.8	-	-	-
SOUTH AMERICA	**186.6**	**203.4**	**200.9**	**4.1**	**8.2**	**5.7**	**80.3**	**93.3**	**99.4**
Argentina	55.4	61.1	55.3	2.3	6.4	4.0	7.2	10.1	9.5
Brazil	114.1	126.2	128.0	0.3	0.2	0.2	64.8	75.3	80.1
Paraguay	10.1	9.0	10.8	-	-	-	5.7	5.2	6.5
Uruguay	2.8	3.1	2.6	-	-	-	2.4	2.6	3.0
NORTHERN AMERICA	**153.3**	**160.2**	**133.5**	**2.3**	**2.7**	**2.0**	**74.5**	**65.7**	**63.8**
Canada	27.9	28.9	25.9	0.7	1.5	0.8	16.2	16.0	15.0
United States of America	125.3	131.3	107.7	1.6	1.2	1.2	58.4	49.7	48.8
EUROPE	**70.1**	**78.7**	**79.1**	**23.2**	**25.8**	**25.9**	**7.0**	**9.4**	**10.4**
European Union	32.7	33.6	30.5	20.3	21.9	22.9	1.1	0.9	0.9
Russian Federation	15.5	19.4	22.2	2.1	2.7	1.9	0.9	2.3	2.7
Ukraine	19.5	22.7	23.4	-	-	-	4.3	5.5	5.9
OCEANIA	**5.5**	**3.4**	**3.1**	**-**	**-**	**-**	**3.0**	**1.8**	**1.5**
Australia	5.0	3.0	2.7	-	-	-	2.9	1.7	1.4
WORLD	**571.6**	**612.3**	**584.3**	**169.0**	**175.0**	**179.6**	**169.5**	**175.0**	**179.7**
LIFDC	55.2	57.8	58.6	4.2	4.8	4.3	2.0	2.1	2.2
LDC	13.6	14.0	14.0	1.4	1.8	1.7	0.6	0.7	0.7

[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		
	15/16-17/18 average	2018/19 *estim.*	2019/20 *f'cast*	15/16-17/18 average	2018/19 *estim.*	2019/20 *f'cast*	15/16-17/18 average	2018/19 *estim.*	2019/20 *f'cast*
ASIA	**47.6**	**54.2**	**53.6**	**51.2**	**57.6**	**54.9**	**116.5**	**130.1**	**129.9**
Bangladesh	2.3	2.6	2.5	-	-	-	2.7	3.0	3.0
China	9.7	13.2	13.8	0.6	0.5	0.5	40.2	45.2	44.5
of which Taiwan Prov.	0.5	0.5	0.5	-	-	-	0.9	1.0	1.0
India	15.4	15.8	15.4	0.2	0.3	0.2	25.2	26.4	26.1
Indonesia	0.1	0.1	0.1	29.0	32.8	32.0	13.0	16.5	17.6
Iran, Islamic Republic of	1.2	1.7	1.2	0.1	-	-	2.0	2.5	2.2
Japan	1.3	1.4	1.4	-	-	-	3.3	3.4	3.3
Korea, Republic of	1.2	1.4	1.4	-	-	-	1.6	1.7	1.8
Malaysia	1.3	1.9	1.7	17.7	19.7	18.1	4.8	5.4	5.2
Pakistan	3.3	3.4	3.5	0.1	0.1	0.1	5.1	5.4	5.4
Philippines	1.2	1.3	1.3	-	1.1	0.9	2.1	2.3	2.2
Singapore	0.9	1.1	0.9	0.2	0.3	0.2	0.7	0.8	0.8
Turkey	1.8	1.7	1.9	0.6	0.6	0.7	3.2	3.4	3.5
AFRICA	**11.5**	**12.1**	**11.7**	**1.8**	**2.0**	**2.0**	**18.8**	**19.6**	**19.6**
Algeria	0.9	1.0	1.0	0.1	0.1	0.1	1.0	1.0	1.0
Egypt	2.1	2.1	1.9	0.2	0.2	0.2	2.5	2.8	2.7
Nigeria	1.4	1.4	1.3	0.1	0.1	0.1	3.3	3.2	3.3
South Africa	0.9	1.0	0.9	0.1	-	-	1.5	1.6	1.5
CENTRAL AMERICA & THE CARIBBEAN	**2.6**	**2.6**	**2.6**	**1.5**	**1.8**	**1.8**	**5.3**	**5.8**	**5.8**
Mexico	1.5	1.5	1.5	0.1	-	-	3.6	3.9	3.9
SOUTH AMERICA	**3.2**	**3.2**	**3.2**	**10.3**	**10.5**	**10.3**	**18.0**	**19.8**	**19.8**
Argentina	0.1	-	0.1	6.1	6.6	6.5	4.0	4.4	4.1
Brazil	0.6	0.6	0.6	1.7	1.4	1.4	9.2	10.5	10.6
Paraguay	-	-	-	0.7	0.7	0.7	0.1	0.1	0.1
Uruguay	0.1	0.1	0.1	-	-	-	0.1	0.1	0.1
NORTHERN AMERICA	**5.6**	**5.5**	**5.6**	**7.3**	**7.3**	**7.6**	**21.6**	**23.0**	**22.8**
Canada	0.5	0.4	0.4	3.8	4.0	4.0	1.6	1.6	1.9
United States of America	5.1	5.1	5.2	3.5	3.4	3.6	20.1	21.4	20.9
EUROPE	**15.3**	**17.3**	**16.1**	**12.2**	**14.4**	**15.1**	**39.9**	**42.5**	**41.5**
European Union	12.5	14.0	13.1	3.2	3.2	3.2	32.9	35.1	34.2
Russian Federation	1.4	1.7	1.5	2.9	4.0	4.6	4.5	4.7	4.5
Ukraine	0.3	0.3	0.3	5.6	6.5	6.6	0.9	1.0	1.1
OCEANIA	**0.7**	**0.8**	**0.8**	**1.9**	**2.0**	**1.9**	**1.3**	**1.4**	**1.4**
Australia	0.5	0.6	0.6	0.7	0.8	0.7	0.9	1.0	1.0
WORLD	**86.4**	**95.7**	**93.7**	**86.3**	**95.7**	**93.7**	**221.4**	**242.2**	**240.9**
LIFDC	25.2	26.5	26.0	1.6	1.9	1.8	40.5	42.5	42.3
LDC	8.1	8.6	8.6	0.7	0.8	0.8	11.7	12.4	12.4

[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		
	15/16-17/18 average	**2018/19** *estim.*	**2019/20** *f'cast*	**15/16-17/18** average	**2018/19** *estim.*	**2019/20** *f'cast*	**15/16-17/18** average	**2018/19** *estim.*	**2019/20** *f'cast*
ASIA	**37.7**	**43.9**	**43.0**	**13.5**	**15.3**	**15.1**	**169.9**	**178.6**	**180.5**
China	3.6	5.6	5.8	1.9	1.4	1.5	94.4	96.9	99.0
of which Taiwan Prov.	0.5	0.4	0.5	-	-	-	2.5	2.6	2.6
India	0.5	0.5	0.6	2.2	3.5	3.4	15.3	16.1	16.3
Indonesia	4.5	4.7	4.8	4.7	5.5	5.6	5.1	5.2	5.2
Iran, Islamic Republic of	1.6	3.0	1.8	-	0.1	-	3.7	5.1	4.4
Japan	2.2	2.2	2.3	-	-	-	6.5	6.5	6.6
Korea, Republic of	3.4	3.6	3.7	0.1	0.1	0.1	4.7	4.7	4.9
Malaysia	1.5	1.4	1.6	2.5	2.6	2.5	2.3	2.4	2.5
Pakistan	0.6	0.6	0.5	0.1	0.1	0.1	4.3	4.3	4.2
Philippines	2.8	3.2	3.2	0.3	0.4	0.3	3.5	3.9	4.0
Saudi Arabia	1.4	1.6	1.7	0.1	-	-	1.9	2.4	2.3
Thailand	3.4	3.7	3.7	0.2	0.2	0.2	6.4	6.9	6.8
Turkey	2.2	2.4	2.5	0.1	0.1	0.2	5.9	6.5	6.8
Viet Nam	5.8	6.6	6.3	0.3	0.3	0.3	7.5	8.1	8.0
AFRICA	**5.9**	**4.7**	**4.8**	**1.1**	**1.2**	**1.2**	**14.1**	**14.6**	**15.0**
Egypt	1.6	0.4	0.4	-	-	-	3.4	3.5	3.8
South Africa	0.7	0.7	0.7	0.1	0.1	0.1	2.0	2.1	2.1
CENTRAL AMERICA & THE CARIBBEAN	**4.3**	**4.1**	**4.1**	**0.2**	**0.2**	**0.2**	**10.3**	**11.1**	**11.2**
Mexico	2.4	2.2	2.2	0.1	0.1	0.1	7.7	8.4	8.5
SOUTH AMERICA	**5.3**	**5.6**	**5.7**	**51.1**	**52.0**	**51.6**	**32.1**	**36.1**	**35.7**
Argentina	-	-	-	30.6	30.1	30.1	6.6	8.0	8.0
Bolivia	-	-	-	1.7	1.8	1.9	0.4	0.4	0.4
Brazil	-	-	-	14.9	16.2	16.0	17.5	19.7	19.4
Chile	1.1	1.0	1.1	0.2	0.2	0.2	1.5	1.4	1.5
Paraguay	-	-	-	2.5	2.4	2.4	0.4	0.5	0.5
Peru	1.2	1.4	1.3	0.9	1.0	0.9	1.7	1.9	1.9
Uruguay	0.2	0.2	0.2	-	-	-	0.2	0.2	0.2
Venezuela	0.8	0.7	0.7	-	-	-	1.0	0.9	0.9
NORTHERN AMERICA	**5.1**	**5.2**	**5.3**	**17.3**	**18.4**	**18.4**	**39.7**	**41.7**	**42.9**
Canada	1.0	1.1	1.2	5.4	5.5	5.6	2.5	2.9	3.2
United States of America	4.1	4.1	4.2	11.9	12.9	12.8	37.2	38.8	39.8
EUROPE	**30.2**	**30.1**	**30.1**	**8.6**	**10.0**	**10.0**	**69.6**	**73.6**	**73.1**
European Union	27.7	27.8	27.9	1.5	1.6	1.3	57.9	60.8	59.8
Russian Federation	0.4	0.1	-	2.0	2.6	2.8	6.7	7.2	7.5
Ukraine	-	-	-	4.6	5.2	5.3	1.8	2.3	2.3
OCEANIA	**3.4**	**3.7**	**3.7**	**0.3**	**0.3**	**0.3**	**4.3**	**4.4**	**4.4**
Australia	1.1	1.5	1.5	0.1	0.1	0.1	1.9	2.1	2.1
WORLD	**91.9**	**97.3**	**96.7**	**92.2**	**97.3**	**96.7**	**339.9**	**360.0**	**363.0**
LIFDC	8.3	9.5	9.2	3.3	4.6	4.5	30.5	32.3	32.5
LDC	1.0	1.1	1.1	0.6	0.6	0.6	5.6	6.1	6.1

[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	
	2018/19 *estim.*	2019/20 *f'cast*	2018/19 *estim.*	2019/20 *f'cast*	2018/19 *estim.*	2019/20 *f'cast*	2018/19 *estim.*	2019/20 *f'cast*
ASIA	**74.9**	**63.2**	**33.4**	**34.0**	**17.7**	**16.1**	**85.8**	**87.0**
China	10.8	10.9	6.3	6.2	0.2	0.4	17.1	17.3
India	32.4	26.8	1.8	1.8	3.7	4.5	26.8	27.1
Indonesia	2.2	2.4	4.8	5.0	-	-	7.1	7.3
Japan	0.8	0.8	1.4	1.4	-	-	2.1	2.1
Korea, Republic of	-	-	1.9	1.9	0.3	0.3	1.6	1.6
Malaysia	-	-	2.1	2.3	0.1	0.1	2.0	2.0
Pakistan	5.9	5.3	0.4	0.4	0.5	0.4	5.8	5.9
Philippines	2.1	2.1	0.1	0.2	0.1	0.2	2.0	2.0
Thailand	14.4	8.3	-	-	10.6	7.8	2.9	2.9
Turkey	2.3	2.7	0.1	0.1	-	-	2.4	2.4
Viet Nam	1.4	1.0	0.3	0.6	-	0.1	1.6	1.6
AFRICA	**11.4**	**11.6**	**12.4**	**12.9**	**4.0**	**3.9**	**19.4**	**19.9**
Algeria	-	-	2.5	2.6	0.5	0.5	1.5	1.5
Egypt	2.5	2.5	1.1	1.2	0.2	0.2	3.5	3.5
Eswatini	0.8	0.8	-	-	0.7	0.7	0.1	0.1
Ethiopia	0.4	0.5	0.1	0.3	0.1	0.1	0.6	0.6
Kenya	0.5	0.5	0.5	0.5	-	-	1.0	1.0
Mauritius	0.3	0.3	-	-	0.3	0.3	-	-
Morocco	0.6	0.6	1.0	1.0	0.4	0.3	1.2	1.2
Mozambique	0.5	0.5	-	-	0.2	0.2	0.3	0.3
Nigeria	-	-	1.2	1.2	-	-	1.2	1.2
South Africa	2.2	2.2	0.3	0.3	0.7	0.8	1.7	1.7
Sudan	0.7	0.7	1.3	1.4	0.2	0.2	1.8	1.8
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 & THE CARIBBEAN	**14.3**	**13.9**	**0.4**	**0.6**	**6.9**	**6.6**	**8.8**	**9.0**
Cuba	1.3	1.6	-	-	0.8	1.0	0.5	0.5
Dominican Republic	0.6	0.5	-	-	0.2	0.2	0.4	0.4
Guatemala	3.0	3.0	-	-	2.0	2.1	0.9	0.9
Mexico	6.4	5.8	0.1	0.2	2.2	1.6	5.4	5.4
SOUTH AMERICA	**35.9**	**42.4**	**1.4**	**1.6**	**19.5**	**24.4**	**18.6**	**18.5**
Argentina	1.9	1.9	-	-	0.3	0.3	1.5	1.5
Brazil	28.4	35.0	-	-	17.9	22.8	11.2	11.2
Colombia	2.4	2.4	0.1	0.1	0.8	0.8	1.7	1.7
Peru	1.3	1.3	0.3	0.3	0.1	0.1	1.5	1.5
Venezuela	0.3	0.1	0.4	0.5	-	-	0.7	0.6
NORTHERN AMERICA	**7.6**	**6.9**	**4.4**	**4.9**	**0.1**	**0.1**	**12.9**	**12.9**
Canada	0.1	0.1	1.2	1.2	-	-	1.2	1.2
United States of America	7.5	6.8	3.2	3.8	-	-	11.6	11.7
EUROPE	**25.8**	**27.1**	**3.5**	**4.0**	**3.5**	**3.8**	**27.1**	**27.2**
European Union	16.7	16.5	2.7	3.2	2.2	1.4	18.3	18.4
Russian Federation	6.0	7.7	0.2	0.3	0.4	1.7	5.8	5.8
Ukraine	1.8	1.5	-	-	0.4	0.3	1.5	1.4
OCEANIA	**4.8**	**4.6**	**0.4**	**0.5**	**4.1**	**3.8**	**1.3**	**1.3**
Australia	4.5	4.3	0.1	0.2	3.9	3.6	0.9	1.0
Fiji	0.2	0.2	-	-	0.2	0.2	-	-
WORLD	**174.6**	**169.6**	**56.0**	**58.6**	**55.8**	**58.7**	**173.9**	**175.7**
LIFDC	39.5	33.7	12.1	12.8	5.3	6.1	42.9	43.6
LDC	4.4	4.5	8.5	8.9	1.3	1.3	11.8	12.2

APPENDIX TABLE 14: **TOTAL MEAT STATISTICS**
(*thousand tonnes - carcass weight equivalent*)

	Production		Imports		Exports		Utilization	
	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*
ASIA	**136 354**	**130 245**	**19 599**	**21 109**	**4 675**	**4 387**	**151 200**	**146 876**
China	80 340	75 069	7 496	9 325	603	531	87 233	83 863
India	7 747	7 340	2	2	1 451	1 360	6 297	5 983
Indonesia	3 696	3 760	259	254	6	6	3 948	4 008
Iran, Islamic Republic of	3 141	3 186	151	119	53	51	3 239	3 254
Japan	4 074	4 082	3 726	3 741	18	20	7 724	7 805
Korea, Republic of	2 568	2 570	1 490	1 388	59	63	3 941	3 895
Malaysia	2 136	2 158	321	304	70	70	2 386	2 391
Pakistan	3 999	4 129	3	3	62	65	3 941	4 066
Philippines	3 694	3 612	624	630	7	9	4 311	4 233
Saudi Arabia	781	792	827	776	87	88	1 521	1 480
Singapore	124	125	362	372	35	35	451	463
Thailand	3 012	2 772	29	27	1 371	1 276	1 709	1 431
Turkey	3 687	3 634	8	7	535	493	3 161	3 147
Viet Nam	4 845	4 408	979	917	19	19	5 805	5 306
AFRICA	**20 518**	**20 718**	**2 941**	**2 787**	**266**	**275**	**23 193**	**23 230**
Algeria	810	812	68	62	2	2	877	873
Angola	265	266	518	486	-	-	784	751
Egypt	2 210	2 211	353	314	4	4	2 558	2 521
Nigeria	1 449	1 448	3	3	1	1	1 451	1 451
South Africa	3 309	3 320	600	536	135	141	3 775	3 715
CENTRAL AMERICA & THE CARIBBEAN	**10 455**	**10 641**	**3 600**	**3 470**	**836**	**881**	**13 220**	**13 230**
Cuba	352	353	368	309	-	-	720	662
Mexico	7 314	7 473	2 288	2 250	567	612	9 035	9 111
SOUTH AMERICA	**47 147**	**47 599**	**1 236**	**1 201**	**9 814**	**10 312**	**38 569**	**38 486**
Argentina	6 114	6 137	63	56	1 072	1 088	5 105	5 106
Brazil	30 244	30 627	54	50	7 493	7 957	22 805	22 719
Chile	1 517	1 524	607	611	432	457	1 693	1 678
Colombia	2 805	2 823	268	243	25	32	3 048	3 035
Uruguay	627	615	103	97	438	433	292	279
NORTHERN AMERICA	**53 375**	**52 665**	**2 885**	**2 758**	**9 944**	**10 435**	**46 243**	**44 960**
Canada	5 113	5 171	731	755	1 991	2 110	3 850	3 834
United States of America	48 262	47 493	2 141	1 989	7 953	8 325	42 379	41 111
EUROPE	**64 309**	**64 798**	**2 937**	**2 784**	**7 265**	**7 658**	**59 974**	**59 924**
Belarus	1 169	1 188	63	62	412	429	819	821
European Union	48 053	48 357	1 405	1 386	5 907	6 266	43 551	43 477
Russian Federation	10 849	11 034	778	679	387	417	11 233	11 295
Ukraine	2 490	2 460	171	149	464	454	2 197	2 155
OCEANIA	**6 709**	**6 311**	**566**	**544**	**3 315**	**3 037**	**3 961**	**3 818**
Australia	4 647	4 287	297	274	2 277	2 014	2 667	2 548
New Zealand	1 481	1 441	86	85	1 034	1 019	533	506
WORLD	**338 867**	**332 977**	**33 765**	**34 652**	**36 115**	**36 985**	**336 360**	**330 525**
LIFDC	27 096	26 439	2 428	2 343	1 674	1 583	27 850	27 199
LDC	14 278	14 405	1 576	1 527	40	40	15 814	15 892

[1] including "other meat"

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

	Production		Imports		Exports		Utilization	
	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*
ASIA	**18 898**	**19 168**	**6 571**	**6 689**	**1 778**	**1 695**	**23 688**	**24 158**
China	6 685	6 965	2 726	3 108	65	65	9 346	10 008
India	2 649	2 554	-	-	1 429	1 339	1 220	1 215
Indonesia	565	566	254	248	1	1	819	814
Iran, Islamic Republic of	482	484	128	102	3	4	607	583
Japan	470	475	857	865	6	6	1 322	1 330
Korea, Republic of	286	291	561	533	4	4	840	821
Malaysia	52	52	190	175	9	9	233	218
Pakistan	1 955	1 977	1	1	52	56	1 904	1 922
Philippines	309	314	167	137	3	5	473	447
AFRICA	**7 201**	**7 212**	**637**	**584**	**89**	**98**	**7 749**	**7 699**
Algeria	152	151	66	60	-	-	218	211
Angola	104	104	125	102	-	-	229	206
Egypt	737	725	290	267	1	1	1 026	991
South Africa	995	927	20	17	49	56	966	888
CENTRAL AMERICA & THE CARIBBEAN	**2 811**	**2 838**	**419**	**373**	**536**	**544**	**2 694**	**2 667**
Mexico	2 030	2 062	223	190	317	324	1 936	1 929
SOUTH AMERICA	**16 460**	**16 610**	**462**	**455**	**3 848**	**4 095**	**13 074**	**12 970**
Argentina	3 137	3 152	16	15	776	807	2 377	2 360
Brazil	10 200	10 330	42	39	2 279	2 491	7 962	7 878
Chile	212	220	333	332	23	34	522	518
Colombia	765	764	7	6	24	30	748	740
Uruguay	556	545	42	41	417	411	182	175
NORTHERN AMERICA	**13 721**	**13 105**	**1 565**	**1 501**	**1 941**	**1 893**	**13 364**	**12 694**
Canada	1 340	1 355	232	239	516	539	1 065	1 062
United States of America	12 381	11 750	1 330	1 260	1 426	1 354	12 296	11 629
EUROPE	**10 557**	**10 495**	**890**	**838**	**750**	**754**	**10 697**	**10 579**
The EU and the UK	7 886	7 839	318	318	429	433	7 775	7 724
Russian Federation	1 622	1 632	406	354	49	50	1 979	1 936
Ukraine	345	316	4	4	42	39	306	280
OCEANIA	**2 960**	**2 603**	**52**	**52**	**2 272**	**2 018**	**741**	**638**
Australia	2 228	1 909	14	14	1 672	1 431	570	492
New Zealand	718	680	14	14	597	584	135	110
WORLD	**72 609**	**72 031**	**10 597**	**10 493**	**11 214**	**11 098**	**72 007**	**71 404**
LIFDC	9 318	9 323	727	613	1 593	1 505	8 452	8 432
LDC	4 857	4 899	222	204	12	12	5 067	5 091

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

	Production		Imports		Exports		Utilization	
	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*
ASIA	**9 431**	**9 561**	**712**	**696**	**33**	**31**	**10 110**	**10 225**
Bangladesh	230	232	-	-	-	-	230	232
China	4 867	4 979	417	418	-	-	5 283	5 396
India	731	728	-	-	16	15	715	713
Iran, Islamic Republic of	415	416	23	16	-	-	438	432
Pakistan	521	523	-	-	4	4	517	519
Saudi Arabia	123	125	23	20	1	1	145	144
Turkey	434	436	-	-	-	-	434	436
AFRICA	**3 476**	**3 537**	**18**	**17**	**29**	**27**	**3 466**	**3 526**
Algeria	346	347	-	-	-	-	346	347
Nigeria	388	386	-	-	-	-	389	386
South Africa	163	164	4	3	1	1	166	166
CENTRAL AMERICA & THE CARIBBEAN	**132**	**133**	**15**	**15**	**1**	**1**	**146**	**147**
Mexico	104	105	7	6	1	1	110	111
SOUTH AMERICA	**327**	**334**	**6**	**6**	**22**	**22**	**311**	**316**
Brazil	133	135	5	5	-	-	138	140
NORTHERN AMERICA	**96**	**91**	**150**	**149**	**4**	**4**	**242**	**235**
United States of America	80	75	127	126	4	4	203	197
EUROPE	**1 340**	**1 348**	**121**	**116**	**54**	**53**	**1 407**	**1 411**
The EU and the UK	973	973	112	107	33	34	1 051	1 046
Russian Federation	227	229	3	3	12	11	217	220
OCEANIA	**1 224**	**1 167**	**31**	**30**	**906**	**878**	**349**	**319**
Australia	754	698	1	1	515	488	240	211
New Zealand	470	468	3	3	392	390	81	81
WORLD	**16 025**	**16 169**	**1 053**	**1 029**	**1 048**	**1 017**	**16 031**	**16 179**
LIFDC	3 917	3 964	6	6	42	40	3 881	3 929
LDC	2 629	2 680	3	4	16	15	2 616	2 669

APPENDIX TABLE 17: **PIG MEAT STATISTICS**
(*thousand tonnes - carcass weight equivalent*)

	Production		Imports		Exports		Utilization	
	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*
ASIA	**54 548**	**45 264**	**5 605**	**6 838**	**177**	**162**	**59 876**	**51 938**
China	43 447	34 852	2 886	4 098	83	65	46 250	38 885
India	295	294	1	2	1	1	295	295
Indonesia	325	315	1	2	-	-	326	317
Japan	1 279	1 280	1 505	1 502	3	4	2 727	2 776
Korea, Republic of	1 364	1 348	703	638	2	2	2 019	1 983
Malaysia	185	184	26	25	5	5	206	205
Philippines	1 854	1 697	125	158	2	2	1 978	1 852
Thailand	1 002	984	1	1	34	36	969	949
Viet Nam	3 233	2 755	74	122	15	15	3 291	2 862
AFRICA	**1 621**	**1 640**	**346**	**324**	**30**	**30**	**1 938**	**1 933**
Madagascar	66	67	-	-	-	-	66	67
Nigeria	285	285	1	2	-	-	286	287
South Africa	280	289	36	33	26	27	291	296
Uganda	132	134	1	-	-	-	132	134
CENTRAL AMERICA & THE CARIBBEAN	**2 191**	**2 250**	**1 287**	**1 249**	**256**	**293**	**3 222**	**3 206**
Cuba	234	236	18	16	-	-	252	252
Mexico	1 603	1 654	1 016	991	236	274	2 383	2 371
SOUTH AMERICA	**6 424**	**6 620**	**393**	**408**	**1 188**	**1 400**	**5 629**	**5 628**
Argentina	629	634	40	35	9	10	661	659
Brazil	4 000	4 156	3	3	950	1 132	3 052	3 026
Chile	517	527	136	157	223	253	430	431
Colombia	370	391	139	143	-	-	509	533
NORTHERN AMERICA	**14 755**	**14 694**	**809**	**754**	**4 043**	**4 496**	**11 471**	**10 905**
Canada	2 213	2 240	278	293	1 295	1 388	1 185	1 159
United States of America	12 542	12 454	527	456	2 749	3 107	10 281	9 742
EUROPE	**29 711**	**29 987**	**372**	**331**	**3 802**	**4 176**	**26 281**	**26 142**
Belarus	368	374	29	28	32	32	366	371
The EU and the UK	23 906	24 081	19	20	3 635	3 987	20 290	20 113
Russian Federation	3 943	4 077	125	79	97	119	3 971	4 037
Serbia	307	300	46	41	20	19	332	322
Ukraine	715	682	31	48	3	3	743	726
OCEANIA	**541**	**541**	**362**	**338**	**36**	**39**	**867**	**841**
Australia	392	394	271	248	34	36	629	606
Papua New Guinea	81	77	7	6	-	-	88	83
WORLD	**109 792**	**100 996**	**9 174**	**10 242**	**9 532**	**10 596**	**109 284**	**100 593**
LIFDC	4 677	4 211	252	296	18	18	4 911	4 489
LDC	2 176	2 167	234	218	1	1	2 409	2 385

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

	Production		Imports		Exports		Utilization	
	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*	2019 *estim.*	2020 *f'cast*
ASIA	**50 809**	**53 538**	**6 611**	**6 789**	**2 509**	**2 320**	**54 936**	**57 922**
China	23 516	26 414	1 415	1 653	441	388	24 490	27 679
India	3 873	3 563	-	-	6	5	3 868	3 558
Indonesia	2 689	2 764	-	-	2	2	2 687	2 762
Iran, Islamic Republic of	2 233	2 276	1	1	48	45	2 186	2 231
Japan	2 318	2 320	1 331	1 341	10	10	3 636	3 659
Korea, Republic of	912	924	204	195	52	56	1 053	1 063
Kuwait	65	68	143	137	9	10	198	196
Malaysia	1 895	1 918	73	73	56	56	1 913	1 935
Saudi Arabia	570	578	618	591	47	49	1 140	1 120
Singapore	105	105	180	184	18	18	267	271
Thailand	1 853	1 629	3	2	1 212	1 115	682	424
Turkey	2 209	2 145	1	1	498	455	1 712	1 691
AFRICA	**6 189**	**6 275**	**1 925**	**1 847**	**106**	**109**	**8 008**	**8 013**
Angola	28	28	255	260	-	-	283	288
South Africa	1 822	1 891	540	482	57	55	2 305	2 318
CENTRAL AMERICA & THE CARIBBEAN	**5 215**	**5 314**	**1 844**	**1 797**	**41**	**40**	**7 019**	**7 071**
Cuba	25	23	295	238	-	-	320	262
Mexico	3 488	3 564	1 040	1 059	11	11	4 517	4 612
SOUTH AMERICA	**23 790**	**23 889**	**375**	**331**	**4 593**	**4 631**	**19 572**	**19 589**
Argentina	2 221	2 225	5	5	265	249	1 961	1 982
Brazil	15 885	15 980	5	3	4 133	4 202	11 758	11 781
Chile	765	753	139	122	180	165	724	711
NORTHERN AMERICA	**24 480**	**24 450**	**350**	**343**	**3 934**	**4 020**	**20 853**	**20 810**
Canada	1 512	1 529	197	200	166	167	1 542	1 557
United States of America	22 967	22 921	147	137	3 769	3 853	19 304	19 247
EUROPE	**21 568**	**21 813**	**1 297**	**1 243**	**2 619**	**2 634**	**20 240**	**20 422**
The EU and the UK	14 723	14 900	718	701	1 773	1 777	13 668	13 824
Russian Federation	4 529	4 545	233	234	228	236	4 528	4 544
Ukraine	1 395	1 426	136	97	417	408	1 114	1 115
OCEANIA	**1 523**	**1 537**	**118**	**119**	**81**	**82**	**1 560**	**1 575**
Australia	1 250	1 264	11	10	49	51	1 212	1 223
New Zealand	223	221	1	1	31	30	193	192
WORLD	**133 575**	**136 815**	**12 520**	**12 469**	**13 882**	**13 835**	**132 188**	**135 401**
LIFDC	7 271	7 008	1 433	1 417	9	8	8 695	8 417
LDC	3 637	3 665	1 110	1 095	9	10	4 738	4 750

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

	Production			Imports			Exports		
	2016-2018 average	2019 *estim.*	2020 *f'cast*	2016-2018 average	2019 *estim.*	2020 *f'cast*	2016-2018 average	2019 *estim.*	2020 *f'cast*
ASIA	**334 903**	**359 786**	**367 080**	**43 762**	**46 579**	**44 320**	**7 418**	**8 070**	**7 635**
China	32 521	32 669	33 507	12 078	15 724	14 439	42	49	50
India [1]	176 445	196 178	201 221	115	88	90	381	440	361
Indonesia	1 523	1 514	1 516	2 849	3 212	3 231	48	53	53
Iran, Islamic Republic of	7 373	7 610	7 597	341	264	198	785	713	671
Japan	7 322	7 314	7 373	2 098	2 291	2 264	10	10	10
Korea, Republic.of	2 058	2 022	2 018	1 178	1 328	1 346	29	34	35
Malaysia	52	52	52	2 268	2 432	2 391	656	666	664
Pakistan	44 358	47 297	48 558	579	445	419	33	34	34
Philippines	18	15	15	2 451	2 825	2 770	115	100	99
Saudi Arabia	2 447	2 491	2 502	2 784	2 523	2 363	1 510	1 542	1 517
Singapore	-	-	-	1 545	1 531	1 475	484	455	436
Thailand	802	655	654	1 536	1 673	1 654	270	293	277
Turkey	20 437	21 530	21 440	124	104	103	862	1 033	965
AFRICA	**48 024**	**46 802**	**46 934**	**9 768**	**9 619**	**9 072**	**1 138**	**1 192**	**1 146**
Algeria	3 439	3 145	3 173	3 396	3 221	2 797	-	-	-
Egypt	4 990	4 492	4 510	1 304	1 257	1 225	373	479	438
Kenya	4 990	5 016	5 097	145	247	249	3	1	1
South Africa	3 648	3 761	3 772	303	395	412	373	367	367
Tunisia	1 403	1 410	1 422	90	120	120	68	73	71
CENTRAL AMERICA & THE CARIBBEAN	**17 714**	**18 167**	**18 429**	**6 144**	**6 719**	**6 634**	**1 308**	**835**	**810**
Costa Rica	1 148	1 168	1 173	59	60	61	139	151	133
Mexico	12 014	12 472	12 721	3 947	4 355	4 252	809	326	329
SOUTH AMERICA	**61 615**	**61 540**	**60 885**	**3 505**	**2 632**	**2 479**	**3 830**	**3 832**	**3 741**
Argentina	10 305	10 343	10 543	31	37	25	1 711	1 708	1 726
Brazil	33 875	34 897	34 209	1 273	941	860	131	73	74
Colombia	6 568	5 646	5 580	359	453	455	23	9	7
Uruguay	2 083	2 082	2 011	30	34	31	1 427	1 484	1 380
NORTHERN AMERICA	**106 749**	**108 534**	**109 004**	**2 674**	**2 905**	**2 871**	**11 789**	**11 739**	**12 086**
Canada	9 142	9 476	9 483	623	803	844	945	950	943
United States of America	97 605	99 057	99 520	2 034	2 086	2 011	10 842	10 787	11 141
EUROPE	**223 209**	**226 327**	**225 705**	**6 405**	**6 344**	**6 286**	**26 151**	**27 998**	**26 241**
Belarus	7 269	7 394	7 433	90	51	54	3 895	3 911	3 890
The EU and the UK	165 133	167 600	166 700	1 200	1 040	977	19 920	22 079	20 452
Russian Federation	30 173	31 338	31 777	4 092	3 982	3 948	280	249	220
Ukraine	10 401	9 911	9 723	72	166	187	750	632	585
OCEANIA	**31 067**	**30 687**	**30 897**	**1 578**	**1 721**	**1 690**	**22 129**	**23 070**	**21 935**
Australia	9 472	8 831	9 154	1 074	1 206	1 193	3 154	2 732	2 683
New Zealand	21 527	21 787	21 674	287	292	273	18 970	20 333	19 248
WORLD	**823 281**	**851 843**	**858 934**	**76 054**	**76 520**	**73 353**	**75 909**	**76 736**	**73 594**
LIFDC	229 852	250 545	255 758	6 118	6 257	5 988	1 074	1 080	981
LDC	34 252	33 643	33 613	3 976	3 983	3 830	223	197	197

[1] For production, the annual dairy cycle starting in April 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), 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		
	2017	2018	2017	2018	2018	2019 estim.	2020 f'cast	2018	2019 estim.	2020 f'cast
	Million tonnes (live weight equivalent)				USD billion			USD billion		
ASIA[2]	**49.4**	**49.6**	**70.7**	**72.8**	**60.3**	**57.9**	**53.8**	**55.0**	**57.3**	**52.1**
China	16.3	15.6	47.1	47.8	24.3	22.5	19.9	20.0	23.1	20.7
of which: Hong Kong SAR	0.1	0.1	-	-	0.7	0.6	0.5	3.9	3.4	3.0
Taiwan Province of China	0.8	0.8	0.3	0.3	2.0	1.9	1.7	1.6	1.7	1.6
India	5.5	5.3	6.2	7.1	6.9	6.8	6.7	0.1	0.2	0.2
Indonesia	6.7	7.2	5.5	5.4	4.5	4.5	4.4	0.4	0.4	0.4
Japan	3.2	3.1	0.6	0.6	2.3	2.2	2.0	15.4	15.1	13.9
Korea, Republic of	1.4	1.3	0.6	0.6	1.7	1.8	1.7	5.9	5.6	5.1
Philippines	1.9	2.0	0.8	0.8	0.9	0.8	0.7	0.6	0.6	0.5
Thailand	1.5	1.7	0.9	0.9	6.0	5.7	5.6	3.9	3.7	3.3
Viet Nam	3.3	3.3	3.8	4.1	7.3	7.3	7.0	1.9	1.9	1.7
AFRICA	**10.0**	**10.1**	**2.1**	**2.2**	**8.1**	**7.5**	**7.1**	**5.7**	**5.7**	**5.1**
Egypt	0.4	0.4	1.5	1.6	-	0.1	0.1	0.9	1.0	0.9
Morocco	1.4	1.4	-	-	2.3	2.2	2.1	0.2	0.2	0.2
Namibia	0.5	0.5	-	-	0.8	0.7	0.6	0.1	0.1	0.1
Nigeria	0.9	0.9	0.3	0.3	0.1	0.1	0.1	0.8	0.8	0.7
Senegal	0.5	0.5	-	-	0.5	0.6	0.6	0.1	0.1	0.1
South Africa	0.5	0.6	-	-	0.7	0.6	0.6	0.5	0.5	0.4
THE CARIBBEAN	**2.3**	**2.4**	**0.4**	**0.4**	**2.9**	**2.7**	**2.4**	**1.9**	**1.7**	**1.5**
Mexico	1.6	1.7	0.2	0.2	1.5	1.4	1.2	0.9	0.8	0.7
Panama	0.1	0.2	-	-	0.2	0.2	0.2	0.1	0.1	0.1
SOUTH AMERICA	**8.9**	**12.1**	**2.5**	**2.7**	**18.1**	**18.5**	**17.3**	**3.1**	**2.8**	**2.4**
Argentina	0.8	0.8	-	-	2.1	1.8	1.5	0.2	0.2	0.1
Brazil	0.7	0.7	0.6	0.6	0.3	0.3	0.2	1.4	1.3	1.0
Chile	1.9	2.1	1.2	1.3	6.8	6.6	6.2	0.4	0.4	0.3
Ecuador	0.6	0.6	0.5	0.5	4.9	5.5	5.6	0.2	0.2	0.2
Peru	4.2	7.2	0.1	0.1	3.3	3.5	3.1	0.3	0.3	0.3
NORTHERN AMERICA	**6.2**	**5.9**	**0.6**	**0.7**	**12.0**	**12.4**	**11.3**	**26.8**	**26.5**	**25.2**
Canada	0.8	0.8	0.2	0.2	5.4	5.8	5.5	3.0	3.2	3.0
United States of America	5.0	4.7	0.4	0.5	6.0	6.0	5.3	23.7	23.3	22.1
EUROPE	**14.8**	**15.0**	**3.0**	**3.1**	**59.4**	**57.3**	**55.4**	**65.4**	**62.9**	**60.9**
European Union[2]	4.9	4.7	1.1	1.2	35.0	33.1	31.9	55.2	52.7	51.0
of which extra-EU	-	-	-	-	8.0	7.6	6.8	30.3	29.2	27.6
Iceland	1.2	1.3	-	-	2.4	2.4	2.2	0.1	0.1	0.1
Norway	2.4	2.5	1.3	1.4	12.0	12.0	11.6	1.3	1.3	1.2
Russian Federation	4.9	5.1	0.2	0.2	5.3	5.7	5.7	2.2	2.2	2.2
OCEANIA	**1.4**	**1.4**	**0.2**	**0.2**	**3.4**	**3.4**	**2.9**	**2.0**	**1.9**	**1.6**
Australia	0.2	0.2	0.1	0.1	1.1	1.1	0.8	1.6	1.5	1.3
New Zealand	0.4	0.4	0.1	0.1	1.2	1.3	1.2	0.2	0.2	0.2
WORLD[3]	**93.1**	**96.4**	**79.5**	**82.1**	**164.1**	**159.6**	**150.4**	**159.9**	**158.8**	**148.8**
Excl. intra-EU	-	-	-	-	137.1	134.1	125.3	134.9	135.3	125.4
LIFDC	16.4	16.5	12.8	14.1	18.2	18.0	17.6	4.3	4.2	3.9
LDC	10.0	10.0	4.0	4.2	4.2	4.4	4.2	1.3	1.2	1.1

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

[2] EU-27. Including intra-trade. Cyprus is included in Asia as well as in the European Union

[3] For capture fisheries production, the aggregate includes also 13 323 tonnes in 2017 and 14 263 tonnes in 2018 of not 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/tonne)							
Annual (July/June)								
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	297	298	281
2013/14	318	265	335	216	219	243	241	281
2014/15	266	221	246	173	177	205	243	210
2015/16	211	194	208	166	170	174	185	174
2016/17	197	170	190	156	172	159	162	151
2017/18	230	188	203	159	165	193	222	174
2018/19	236	210	233	166	166	219	265	163
2019 – May	212	203	218	172	166	188	237	164
2019 – June	227	222	243	196	183	189	249	164
2019 – July	216	201	244	188	177	180	244	158
2019 – August	203	197	238	162	151	175	223	147
2019 - September	200	200	228	157	145	172	223	149
2019 - October	212	213	229	168	157	187	221	164
2019 - November	220	225	198	167	167	187	209	162
2019 - December	225	238	203	168	173	189	217	165
2020 - January	237	249	226	172	185	192	226	167
2020 - February	230	240	240	170	179	189	217	165
2020 - March	227	230	243	162	170	185	202	165
2020 - April	232	222	244	145	155	182	217	165
2020 - May	223	211	239	144	146	181	194	176

[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

	December		March		May		July	
	Jul 2020	Jul 2019	Sept 2020	Sept 2019	Dec 2020	Dec 2019	Mar 2021	Mar 2020
	(USD/tonne)							
Wheat								
April 22	200	162	201	165	203	171	206	177
April 29	190	160	191	163	195	169	198	176
May 6	190	161	191	164	194	170	197	176
May 13	184	161	186	164	190	169	193	174
May 20	189	176	189	178	192	183	195	187
May 27	185	185	187	187	190	192	193	197
Maize								
April 22	128	143	129	146	133	151	138	156
April 29	124	142	127	146	131	150	137	156
May 6	124	143	126	146	130	150	135	156
May 13	125	140	127	144	131	148	136	154
May 20	126	153	128	156	131	159	136	163
May 27	126	165	128	169	132	172	136	176

Source: Chicago Board of Trade (CBOT)

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

Period	International prices				FAO indices				
						Indica			
	Thai 100% B[1]	Thai broken[2]	US long grain[3]	Pakisan Basmati[4]	FAO All Rice Price Index	Higher quality	Lower quality	Japonica	Aromatic
Annual (Jan/Dec)	*(USD per tonne)*				*(2002-2004=100)*				
2013	534	483	628	1372	233	219	226	230	268
2014	435	322	571	1324	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	1131	206	183	195	232	204
2018	445	365	531	1023	224	201	208	256	216
2019	435	385	500	982	224	191	195	268	217
Monthly									
2019 – May	425	374	481	1004	222	190	195	264	219
2019 – June	436	382	479	1038	224	190	192	267	223
2019 – July	431	387	499	1031	224	190	194	267	224
2019 – August	444	389	508	1039	228	193	195	270	232
2019 – September	444	399	508	1045	228	192	195	271	232
2019 – October	440	398	509	989	226	192	197	273	219
2019 – November	439	395	511	976	222	193	195	267	206
2019 – December	449	394	515	943	222	195	194	268	202
2020 – January	468	404	533	961	225	200	199	270	203
2020 – February	467	414	558	988	229	204	203	275	204
2020 – March	509	421	581	911	232	215	210	274	198
2020 – April	582	442	636	999	248	238	228	286	210
2020 – May	535	440	646	1047	250	236	229	292	212

[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% brokens 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 brokens. 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 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
2008/09	437	849	682	409	206	157	146	179
2009/10	429	924	806	388	220	162	177	183
2010/11	549	1308	1147	418	279	214	259	200
2011/12	562	1235	1051	461	295	214	232	219
2012/13	563	1099	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
2017/18	402	820	648	381	258	152	154	182
2018/19	370	744	523	328	247	142	130	159
Monthly								
2019 - January	275	545	419	212	130	104	103	101
2019 - February	259	572	451	202	130	100	107	96
2019 - March	335	772	684	264	184	129	150	128
2019 - April	437	849	682	409	206	157	146	179
2019 - May	429	924	806	388	220	162	177	183
2019 - June	549	1308	1147	418	279	214	259	200
2019 - July	562	1235	1051	461	295	214	232	219
2019 - August	563	1099	835	539	345	213	193	255
2019 - September	521	949	867	534	324	194	189	253
2019 - October	407	777	658	406	270	155	153	194
2019 - November	396	773	655	351	232	151	155	168
2019 - December	404	806	729	336	225	154	160	171
2020 - January	402	820	648	381	258	152	154	182
2020 - February	370	744	523	328	247	142	130	159
2020 - March	367	722	621	364	255	141	139	175
2020 - April	363	675	573	363	280	140	132	176
2020 - May [7]	360	663	521	330	262	140	126	161

[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. Northwest Europe
[5] Soybean cake: Pellets - 44/45 percent - Argentina - c.i.f. Rotterdam
[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: **SELECTED INTERNATIONAL PRICES FOR SUGAR AND SUGAR PRICE INDEX**

	I.S.A. daily price average[1]	FAO Sugar Price Index (2002/04 = 100)
	Raw sugar	
Annual (Jan/Dec)	*(US Cents/lb)*	*(2002/04=100)*
2009	18.14	257.30
2010	21.28	302.00
2011	26.00	368.90
2012	21.54	305.70
2013	17.69	251.00
2014	17.00	241.20
2015	13.44	190.70
2016	18.05	256.00
2017	16.01	227.26
2018	12.52	177.48
2019	12.63	179.15
2020	12.50	181.21
Monthly		
2018 - June	12.50	177.40
2018 - July	11.72	166.25
2018 - August	11.09	157.31
2018 - September	11.37	161.37
2018 - October	12.50	175.41
2018 - November	12.90	183.12
2018 - December	12.65	179.56
2019 - January	12.82	181.93
2019 - February	12.98	184.15
2019 - March	12.71	180.37
2019 - April	12.80	181.73
2019 - May	12.40	175.95
2019 - June	12.92	183.31
2019 - July	12.83	182.13
2019 - August	12.32	174.79
2019 - September	11.88	168.56
2019 - October	12.57	178.33
2019 - November	12.80	181.58
2019 - December	12.70	190.31
2020 - January	14.15	200.73
2020 - February	14.78	209.69
2020 - March	11.83	169.55
2020 - April	10.21	144.87
2020 - May	10.91	155.57

[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 DAIRY PRICE INDEX**

	International prices				FAO dairy price index
Period	**Butter[1]**	**Skim milk powder[2]**	**Whole milk powder[3]**	**Cheddar cheese[4]**	
Annual (Jan/Dec)	..... *(USD per tonne)*				... *(2002-2004=100)* ...
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
2018	5 325	1 911	3 087	3 648	193
2019	4 489	2 536	3 206	3 932	199
Monthly					
2019 – May	5 261	2 450	3 282	4 731	226
2019 – June	4 683	2 367	3 188	3 944	199
2019 – July	4 300	2 457	3 132	3 856	194
2019 – August	4 104	2 497	3 166	3 938	195
2019 – September	4 074	2 557	3 189	3 875	193
2019 – October	4 074	2 681	3 226	3 763	192
2019 – November	4 096	2 895	3 321	3 669	193
2019 – December	3 977	2 925	3 311	3 956	199
2020 – January	4 040	2 977	3 268	4 008	201
2020 – February	4 079	2 940	3 140	4 431	210
2020 – March	4 049	2 667	2 968	4 356	203
2020 – April	3 641	2 286	2 669	4 475	196
2020 – May	3 340	2 247	2 582	4 069	182

[1] Butter - 82% butterfat - f.o.b. Oceania and EU; average indicative traded prices.
[2] Skim Milk Powder - 1.25% butterfat - f.o.b. Oceania and EU - averaged indicative traded prices.
[3] Whole Milk Powder - 26% 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 of America	Brazil	New Zealand	United States of America	Brazil	Germany	United States of America	Brazil
Annual (Jan/Dec)	*(USD per tonne)*								
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
2018	4 110	6 416	3 931	5 249	2 506	1 965	1 728	971	1 552
2019	4 821	6 326	4 061	5 138	2 486	2 252	1 989	972	1 621
Monthly									
2019 – May	4 529	6 443	3 755	4 777	2 435	2 268	2 047	1 016	1 695
2019 – June	4 591	6 427	3 709	4 997	2 591	2 308	2 119	1 059	1 624
2019 – July	4 674	6 299	3 908	5 245	2 659	2 297	2 049	1 085	1 686
2019 – August	4 633	6 263	4 136	5 246	2 613	2 235	2 112	1 089	1 665
2019 – September	4 779	6 170	4 199	5 385	2 598	2 327	2 096	1 041	1 636
2019 – October	5 048	6 261	4 475	5 464	2 519	2 375	2 104	945	1 586
2019 – November	6 193	6 037	4 877	5 779	2 545	2 413	2 161	901	1 594
2019 – December	5 698	6 101	5 025	5 777	2 606	2 602	2 269	923	1 612
2020 – January	4 881	6 185	4 913	5 115	2 680	2 578	2 113	991	1 618
2020 – February	4 491	5 899	4 388	4 549	2 655	2 468	2 152	1 009	1 557
2020 – March	4 348	5 936	4 343	4 183	2 585	2 466	2 210	978	1 544
2020 – April	4 415	5 922	4 364	3 922	2 564	2 451	2 026	962	1 476
2020 – May	4 980	5 895	4 390	3 911	2 548	2 409	1 836	954	1 351

Notes:

Bovine meat prices:
Australia: Cow 90CL export prices to the USA (FAS)
United States of America: 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:
United States of America: Frozen pigmeat - export unit value
Brazil: Frozen pigmeat - export unit value
Germany: Monthly market price for pig carcass grade E

Poultry meat prices:
United States of America: 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: SELECTED INTERNATIONAL MEAT PRICES AND FAO MEAT PRICE INDICES

	FAO indices				
Period	**Total meat**	**Bovine meat**	**Ovine meat**	**Pig meat**	**Poultry meat**
Annual (Jan/Dec)	*(2002-2004=100)*				
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
2018	166	204	227	124	160
2019	176	217	222	133	165
Monthly					
2019 – May	174	209	206	136	173
2019 – June	176	209	216	142	171
2019 – July	179	212	226	141	176
2019 – August	180	214	226	141	175
2019 – September	180	216	232	142	170
2019 – October	181	226	236	141	161
2019 – November	190	248	249	144	159
2019 – December	191	243	249	151	161
2020 – January	184	228	221	146	166
2020 – February	175	211	196	146	163
2020 – March	173	208	181	147	160
2020 – April	169	209	169	140	155
2020 – May	168	219	169	133	146

Notes:

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	White fish	Salmon	Shrimp	Pelagic excl. tuna	Tuna
Annual (Jan/Dec)			*(2002-2004=100)*			
2009	126	132	159	98	140	147
2010	137	138	187	109	144	146
2011	126	132	159	98	140	147
2012	137	138	187	109	144	146
2013	148	134	157	126	215	190
2014	157	142	159	148	210	175
2015	141	142	131	121	253	149
2016	151	140	178	123	257	164
2017	158	152	183	126	234	183
2018	158	169	185	116	244	172
2019	154	175	169	112	234	160
Monthly						
2018 - January	161	169	178	122	246	179
2018 - February	162	167	196	120	267	171
2018 - March	165	170	216	120	253	167
2018 - April	165	169	211	119	266	176
2018 - May	165	168	225	116	249	173
2018 - June	159	165	188	113	276	174
2018 - July	153	165	168	113	256	168
2018 - August	150	167	157	112	219	169
2018 - September	153	168	181	115	218	160
2018 - October	154	165	177	114	216	174
2018 - November	154	175	157	112	227	178
2018 - December	156	178	167	112	236	171
2019 - January	158	182	176	111	222	177
2019 - February	161	193	173	110	225	179
2019 - March	165	197	187	111	243	173
2019 - April	163	186	201	111	239	172
2019 - May	156	180	174	111	223	170
2019 - June	158	176	172	112	289	162
2019 - July	151	170	161	114	226	162
2019 - August	147	160	152	115	216	163
2019 - September	143	156	137	114	231	157
2019 - October	143	162	140	113	232	145
2019 - November	148	166	161	113	241	146
2019 - December	149	172	192	112	222	112
2020 - January	156	176	207	112	233	112
2020 - February	151	172	181	112	214	134
2020 - March	145	154	152	112	235	155
2020 - April	142	148	135	112	241	165
2020 - May	143	142	149	111	274	153

Source of the raw data for the FAO Fish Price Index: EUMOFA, INFOFISH, INFOPESCA, INFOYU, Statistics Norway.
Note: The table presents a new version of the FAO Fish Price Index, with slight differences compared to the data included in previous issues. These changes were implemented in order to be more consistent with the methodology and timing requirements of the price indices reported in the Food Outlook.

APPENDIX TABLE 30: **SELECTED INTERNATIONAL COMMODITY PRICES**

	Currency and unit	Effective date	Latest quotation	One month ago	One year ago	Average 2015-2019
Sugar (ISA daily price)	US cents per lb	18-05-20	11.10	10.28	12.40	14.53
Coffee (ICO daily price)	US cents per lb	20-05-20	104.49	109.76	93.33	117.64
Cocoa (ICCO daily price)	US cents per lb	19-05-20	105.89	103.25	105.01	115.13
Tea (FAO Tea Composite Price)	USD per kg	30-04-20	2.26	2.15	2.45	2.70
Cotton (COTLOOK A index)	US cents per lb	30-04-20	63.53	67.69	87.25	79.50
Jute "BTD" (Fob Bangladesh Port)	USD per tonne	30-04-20	860.00	850.00	870.00	758.67

MARKET INIDCATORS

Futures markets

Contributed by Ann Berg
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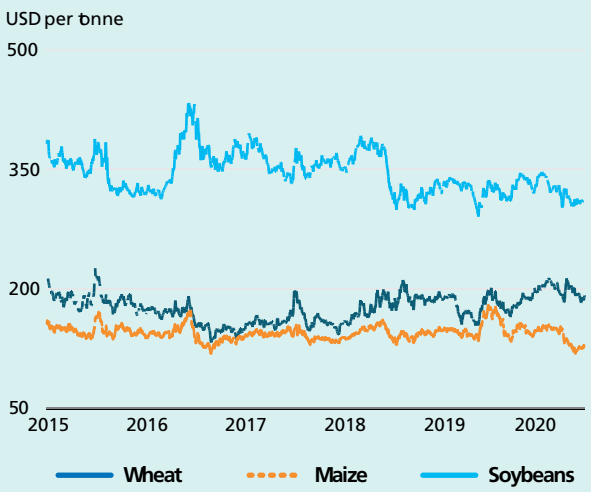
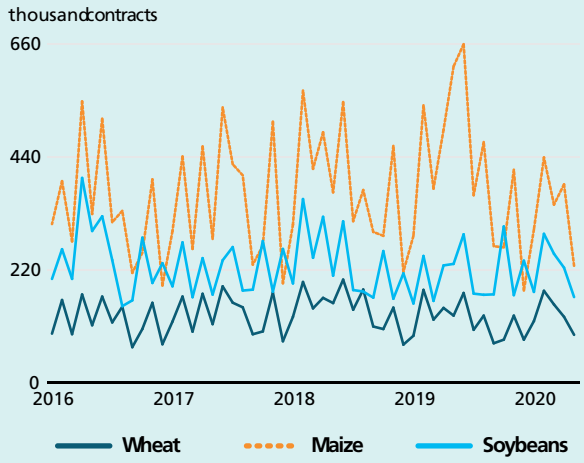
Futures prices for wheat, maize and soybeans have trended lower since the start of 2020, driven by ample supplies and a rapid deterioration in demand precipitated by COVID-19, which reached pandemic stage in March. Maize prices fell the most, declining to an 11-year low in April, coinciding with the collapse of US crude oil futures prices into negative values. The United States Department of Agriculture (USDA) lowered its 2019/20 maize usage, citing y/y declines in feed, industrial and export demand, while projecting the 2020/21 ending US maize stocks to be the highest on record. Soybean prices, which had remained weak since the start of the US/China trade dispute in July 2018, drifted lower, but remained above the lowest levels recorded over the past two years. Wheat prices, which commenced in 2020 at five-year highs on regional production concerns, declined as increases were projected in Argentina, Australia, Canada and the Russian Federation. Developments in exogenous markets, such as foreign exchange and energy, weighed on agricultural markets as the US dollar reached multi-year highs in April and crude oil prices, particularly the West Texas Intermediate contract, plummeted to historic lows. Global equity and bond markets also negatively affected much of the commodity sector, although the extreme turbulence roiling the financial markets in March had subsided by late May.

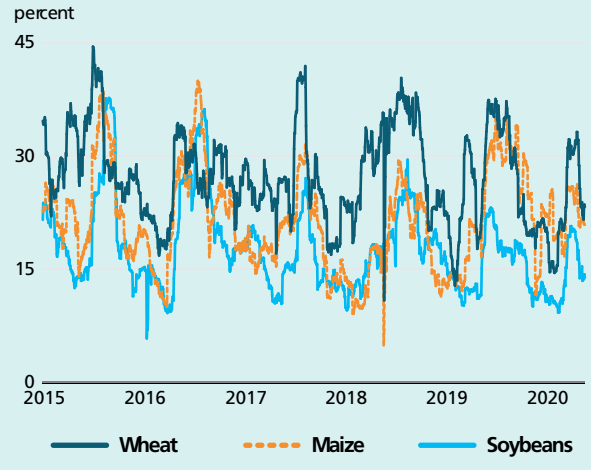
CME futures prices



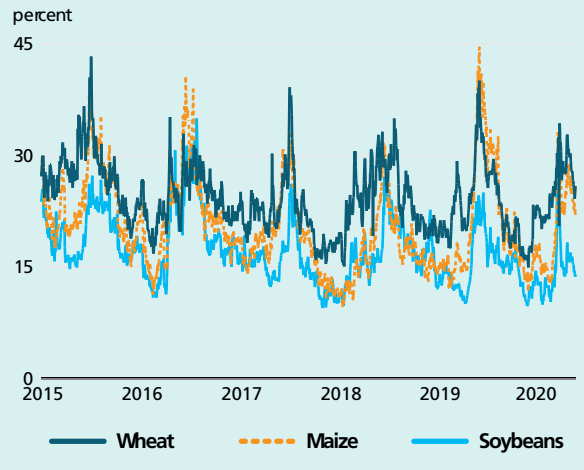
CME futures volumes



Historical volatility (30 days)



Implied volatility



FOOD OUTLOOK
JUNE 2020

FORWARD CURVES

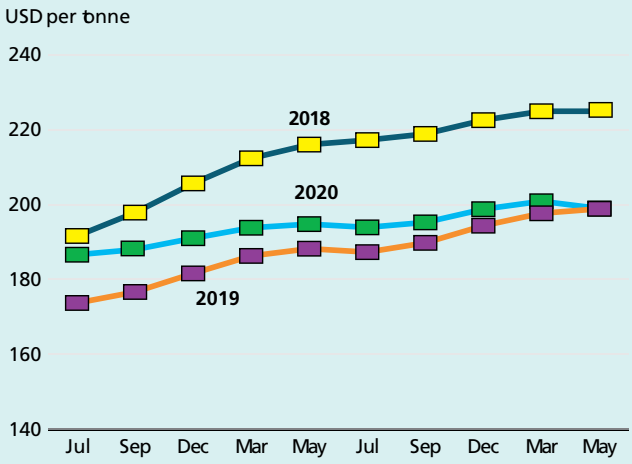
Forward curves for wheat, maize and soybeans reflected the rapid change in supply and demand fundamentals following the restrictions issued by most countries on non-essential economic activities due to COVID-19. The maize forward curve between the July 2020 and December 2021 contracts steepened (contango) y/y from USD 7 to USD 18 per tonne as USDA revised downward industrial demand for ethanol and exports for the remainder of the 2019/20 crop year, while projecting record ending stocks for 2020/21. Conversely, the soybean curve between July 2020 and November 2021 flattened y/y from USD 17 to USD 4, as USDA forecast the 2020/21 stocks-to-use ratio at less than 10 percent, based on increased domestic crush and export demand. The wheat forward curve, similar to soybeans, exhibited a somewhat flatter configuration than normal, with the spread between July 2020 and December 2021 narrowing to USD 12 versus the two previous years of USD 21 – indicating in part the persistently high basis levels needed to procure the soft red wheat crop, which has diminished to less than half the quantity produced in 2013.

VOLUMES

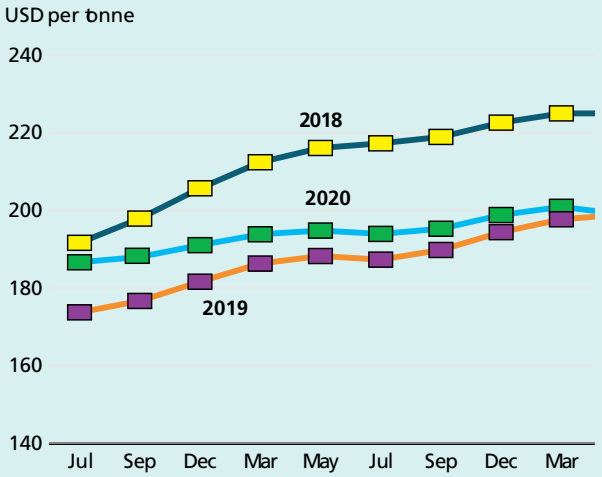
Trade volumes for the first five months of the year remained subdued – as is typical of low-price environments. Maize, which experienced a price surge and record volumes during the 2019 spring planting season amid record US rainfall, saw volumes fall by 25 percent y/y. Trade in soybeans, still impaired by uncertainty over the Phase One trade agreement between the United States of America and China, registered volumes about unchanged y/y, as did wheat. Open interest, which reached record levels in mid-2018, was slightly higher y/y for soybeans, but lower for wheat. In maize, open interest posted sharp declines y/y, particularly in the commercial category, which revealed a dearth of producer and warehouse pricing for the 2020/2021 crop year, despite the swift pace of US maize planting. Open interest in options, which had steadily grown over several years, saw significant to moderate declines for maize and wheat respectively, while rising slightly for soybeans. In general, the pandemic appeared to dampen US grains and oilseeds futures trade, which was already experiencing a slowdown due to some areas of domestic and export demand contraction.

Forward curves snapshots as of May 2018, 2019 and 2020

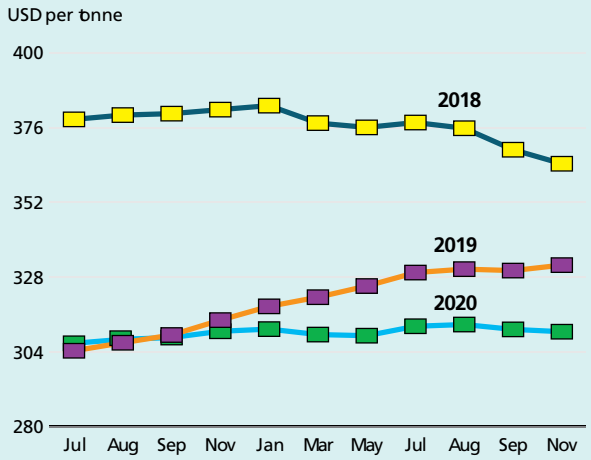
Wheat



Maize



Soybeans



FOOD OUTLOOK JUNE 2020

VOLATILITY

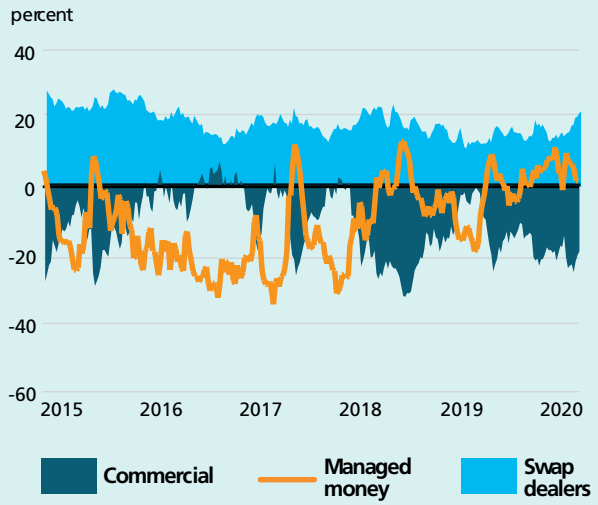
Volatility levels for wheat, maize and soybeans began following the seasonal norm of rising from January into the planting season, but reversed course mid-March when COVID-19 reached pandemic status. The rapid planting pace coupled with a demand slowdown offered a stark contrast to last year's markets, when torrential rain had lifted volatility levels for maize and wheat to multi-year highs by June. Historical (based on 30 days) and implied volatility (calculated by the level of option premiums on underlying futures contracts) for wheat and maize ranged mostly between the upper teens and twenties. For soybeans, both measures registered below 20, reflecting diminished trade expectations for the US oilseed. In the energy sector, the widely followed Crude Oil Volatility Index rose from the mid-30s during the first two months of the year, spiking to a record level of 325 as West Texas Intermediate oil prices fell steeply into negative territory during contract expiration in late April.

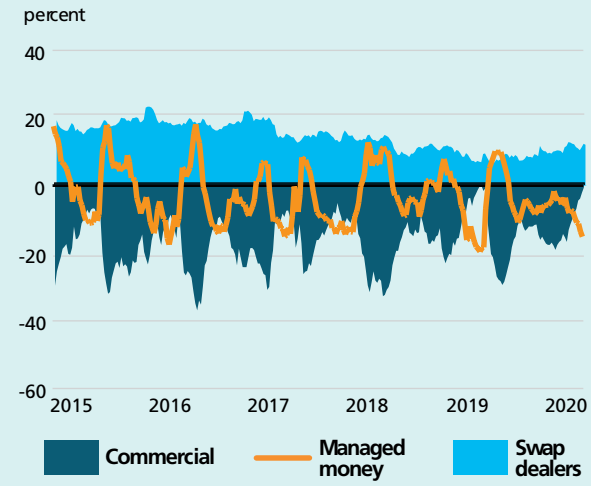
INVESTMENT FLOWS

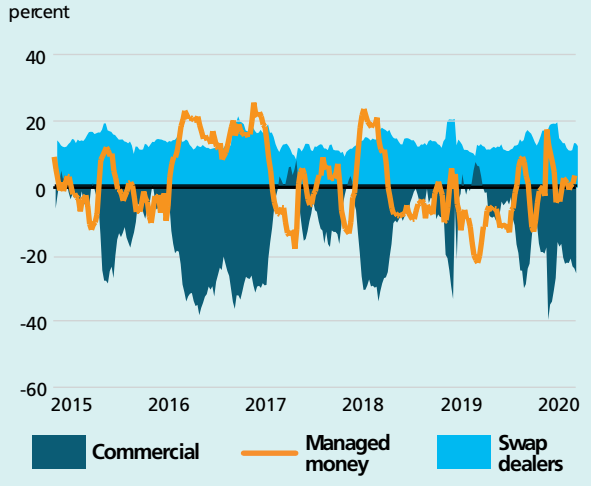
Managed money relinquished last year's bearish stance for a more neutral one in wheat and soybeans, while establishing a moderately large net short in maize. Commercials held their standard short positions for wheat and soybeans, but remained uncharacteristically neutral for maize. Anecdotally, producers and warehouses in some areas deemed short hedges, fixed at prices below production costs, to be a poor wager. Swaps dealers increased their overall net long positions for all three commodities y/y, possibly attracting retail customers which exited the equities market in March amid the equity share price collapse. Spread positioning (the equal holding of long and short contracts of two different maturities within one commodity futures contract), which had grown considerably over the past few years, declined for maize and wheat, while increasing for soybeans among money managers y/y.

Assets under management (as tracked by Barclay Hedge) for agricultural commodity hedge funds and Commodity Trading Advisors continued to drop steadily – peaking at USD 2 400 million in 2015 and sinking to USD 900 million in 2019. However, agricultural money managers showed a positive year-to-date return of 3.3 percent as of April 2020, their best performance since 2013. The Deutsche Bank Agricultural Index Fund, which peaked in 2008 at USD 41.50 and passively tracks 10 agricultural futures markets, including wheat, maize and soybeans, fell to another y/y all-time low at USD 13.50.

CME net-length as % of open interests (Jan 2015 - May 2020)







Ocean freight rates

Contributed by the International Grains Council (IGC)
www.igc.int

OCEAN FREIGHT MARKET (NOV 2019 - MAY 2020)

The dry bulk freight complex, which include vessels which ship commodities such as grains/oilseeds, coal, sugar, cement and ores, witnessed steep losses over the past six months. Concerns about ongoing trade tensions and slackening world economic growth weighed on sentiment in the latter half of 2019, while the shipping sector had to cope with uncertainty ahead of the introduction of new marine fuel requirements of the International Maritime Organisation (IMO 2020). Even though earlier fears about heavy market disruption did not materialise as the regulation came into force on 1 January, the bearish tone evident in early-2020 was amplified by seasonal factors, including a slowdown in grains/oilseeds flows from some southern hemisphere origins and Lunar New Year holidays in Asia. While charterers and vessel owners were also faced with scepticism about the US-China Phase One trade deal signed in January, the spread of coronavirus around the globe has heavily suppressed economic activity and curbed cargo flows across all major routes. Apart from subdued spot demand, markets were pressured by pessimistic scenarios, including projections by Clarksons Research for a 5% y/y contraction in seaborne trade in 2020, the steepest annual drop in over three decades.

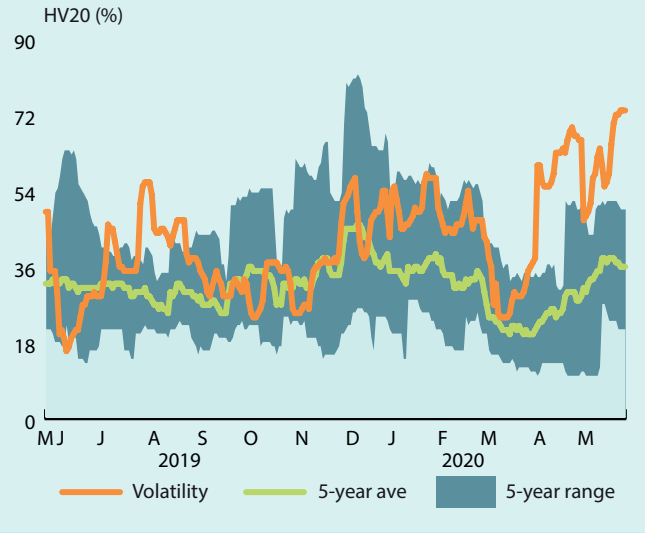
Summary of dry bulk freight markets

	28 May 2020	Changes	
		6 months	y/y
		%	
Baltic Dry Index (BDI)*	**489**	-67	-55
Sub-indices:			
Capesize	**27**	- 99%	- 98%
Panamax	**720**	- 38%	- 46%
Supramax	**502**	- 38%	- 35%
*Baltic: Handysize Index (BHSI)***	***267***	***- 47%***	***- 32%***
IGC Grains and Oilseeds Freight Index (GOFI)	***76***	***- 26%***	***- 35%***

Source: Baltic Exchange, IGC. * 4 January 1985 = 1000. ** 23 May 2006 = 1000. *** 1 January 2013 = 100.

Reflecting market weakness, the Baltic Dry Index (BDI) – a composite measure of timecharter rates across main carrier sizes – contracted by two-thirds during the past six months, nearly touching an all-time low of February 2016 recently. The Index was down by 55% y/y as at late-May. With market participants grappling with uncertainty and risks posted by COVID-19 and related containment measures, volatility has been well above average levels since March.

Volatility in Baltic Dry Index (HV20)
28 May 2019 - 28 May 2020



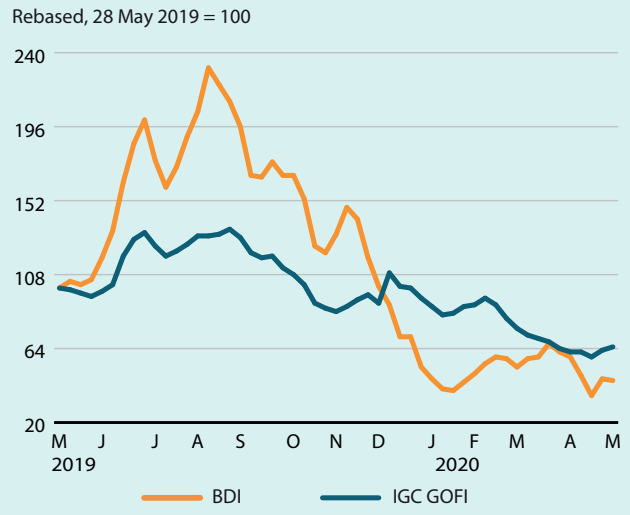
Note: Historical volatility, as measured by the standard deviation (%) of daily quotation movements over a 20-day window (HV20).
Sources: Baltic Exchange, IGC calculations.

Although a swift post-pandemic global recovery is not envisaged, signs of improving sentiment were observed lately on news of the easing of lockdowns in many countries. While a typically quiet summer season for the freight market is approaching, some participants are cautiously optimistic about prospects for the second half of the year as parts of the world economy are set to re-open, with increased government stimulus.

Costs of ocean transportation in the grains and oilseeds sector (including bunker costs) also declined, but to a lesser extent compared to the broader dry bulk complex. This is demonstrated by the IGC Grains and Oilseeds Freight Index (GOFI), which offers a measure of movements in nominal voyage rates across around 300 main routes. Pressured by losses across all major origins, the Index slid by one-quarter since late-November, to a four-year low.

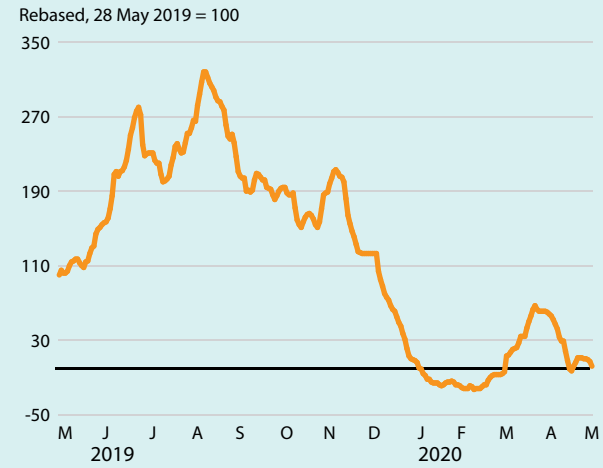
BDI losses throughout the period were led by the **Capesize** sector, involved in the transportation of iron ore and heavy raw materials. In volatile activity, the corresponding Baltic sub-Index lost 99% of its value in

BDI and IGC GOFI
28 May 2019 - 28 May 2020



Note: IGC Grains and Oilseeds Freight Index, constructed based on nominal freight rates on major grains/oilseeds routes using trade-weighted approach.
Source: Baltic Exchange, IGC

Baltic Capesize Index
28 May 2019 - 28 May 2020



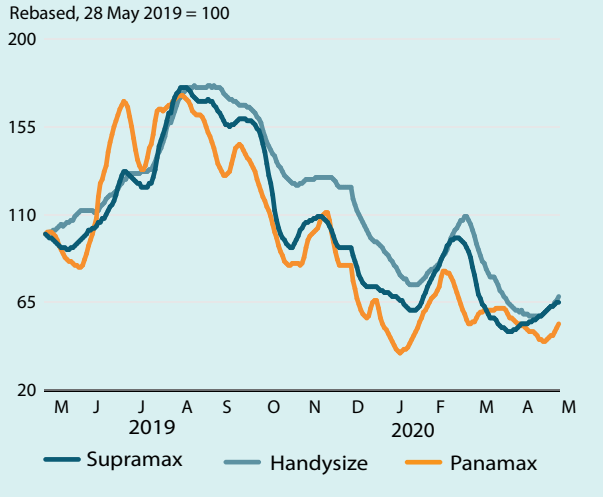
Source: Baltic Exchange

the past six months. Sharply reduced enquiry levels in the Atlantic and overcapacity in the Pacific exerted severe pressure on sector earnings in early-2020. With activity also impacted by stormy weather at some major loading areas, the sub-Index turned negative for the first time in late January. After bottoming out in early-March, values moved back into positive territory in April as a post-lockdown upturn in Chinese demand underpinned rates on the key iron ore route from Brazil, but the uptrend has stalled thereafter as building tonnage prompted discounting in the Atlantic.

Activity in **Panamax**, **Supramax** and **Handysize** sectors, often referred to as "the grains and oilseeds carrying segments", appeared to hold up relatively well during the period under review, as evidenced by smaller declines in corresponding Baltic Indices compared to unprecedented Capesize losses. Earnings across the three markets exhibited two-sided, often synchronous trends in recent months, with average values quoted up to 50% lower compared to last November. Still, major grain terminals around the world have been mostly operating as normal despite the evolving pandemic, even though broad-based quarantine measures at ports slowed cargo movement and the completion of paperwork. Coronavirus-related transportation restrictions in some exporters had temporarily disrupted deliveries to port terminals and prompted importers' fears about the sustainability of deliveries, but those issues were eventually resolved.

An initial downtrend in the **Panamax** market was reversed in early-February on accelerating activity out of South America, which included the ramping-up of soyabean shipments out of Brazil, where logistics were hampered by flooding and industrial action. Fresh maize and soyabean demand at the US Pacific Northwest contributed to gains, as did brisk minerals trading in Australia and Indonesia. While an influx of ballasting vessels in the Atlantic and a lack of transatlantic business contributed to a subsequent retreat, solid cargo flows from South America to Asia remained supportive, with Brazilian soyabean volumes setting consecutive monthly records in March and April.

Grains and oilseeds carrying sectors: Panamax and Supramax sub-Indices and Handysize Index
28 May 2019 - 28 May 2020



Source: Baltic Exchange

Supramax and **Handysize** segments witnessed a slow start to the calendar year, but firmer enquiries in Europe, including for grains shipments, coupled with steady fixing in South America and signs of tightening tonnage at the US Gulf, prompted an upswing in mid-February. Limited fresh enquiries across key loading areas, including at the US Gulf and in the Back Sea, saw values recede in March, but the uptrend resumed more recently, with brisk minerals activity evident in Asia and the Indian Ocean and firmer rates reported on most grains/oilseeds routes out of Argentina. However, logistics at the latter origin have been affected by exceptionally low water levels on the Parana River, a key artery for grains and oilseeds shipments, with limited drafts and cargo loading reportedly leading to a recent build-up of supplies at ports.

Summary of freight rates on selected routes

USD/t	Cargo / Discharge	28 May 2020	Changes	
			6 months	y/y %
US (Gulf) to:				
China (Dalian)	**66,000 / 8,000**	**30**	-17	-29
EU (Rotterdam)	**66,000 / 10,000**	**12**	-35	-45
Japan (Yokohama)	**66,000 / 8,000**	**30**	-16	-27
Canada (St. Lawrence) to:				
China (Dalian)	**66,000 / 8,000**	**27**	-21	-38
EU (Rotterdam)	**66,000 / 10,000**	**8**	-41	-55
Japan (Yokohama)	**66,000 / 8,000**	**28**	-17	-34
Argentina (Up river) to:				
Algeria (Belaja)	**25,500 / 2,500**	**21**	-23	-21
Egypt (Alexandria)	**49,000 / 6,000**	**17**	-19	-38
EU (Rotterdam)	**66,000 / 10,000**	**14**	-37	-48
Brazil (Santos) to:				
China (Dalian)	**66,000 / 8,000**	**25**	-21	-30
EU (Rotterdam)	**66,000 / 10,000**	**10**	-41	-53
South Korea (Inchon)	**66,000 / 7,250**	**24**	-23	-36
EU (France, Rouen) to:				
Algeria (Belaja)	**25,500 / 2,500**	**11**	-33	-41
Egypt (Alexandria)	**49,000 / 6,000**	**9**	-48	-49
Morocco (Casablanca)	**25,500 / 3,000**	**10**	-31	-31
Russia (Novorossiysk) to:				
Egypt (Alexandria)	**49,000 / 6,000**	**8**	-47	-41
Morocco (Casablanca)	**25,500 / 3,000**	**11**	-42	-50
Tunisia (Bizerte)	**25,500 / 2,500**	**10**	-38	-46
Australia (Kwinana) to:				
China (Dalian)	**66,000 / 8,000**	**12**	-17	-30
Indonesia (Jakarta)	**49,000 / 8,000**	**10**	-16	-15
South Korea (Inchon)	**66,000 / 7,250**	**11**	-21	-31

Note: Nominal ocean freight rates for HSS (heavy grains, soyabeans, sorghum) cargoes. Values do not represent market fixtures.
Source: IGC

FAO price indices[1]

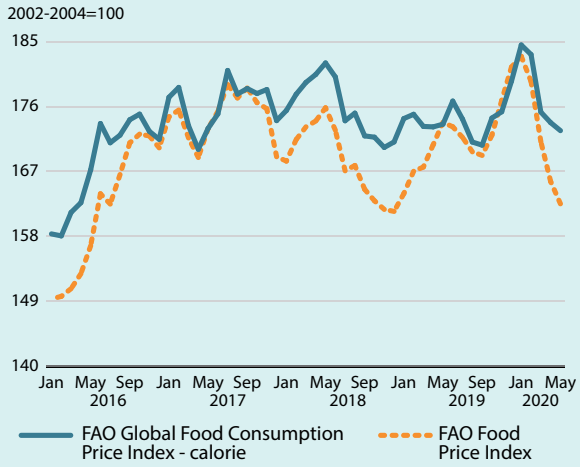
The FAO Global Food Consumption Price Indices (FGFCPI) are down from the beginning of the year

The **FAO Global Food Consumption Price Indices** (FGFCPI) track changes in the cost of the global food basket, alternatively using calorie and protein weights for major food items to form two separate indices. The weights are derived from the FAO food balance sheets (http://www.fao.org/faostat/en/#dat/FBS) for the base period 2002-2004. The two indices use different weights for wheat, rice, coarse grains, sugar, oilseed crops, vegetable oils, beef, pig meat, ovine meat, poultry meat, milk, butter and fish multiplied by their respective commodity price indices and summed up. These commodities represent 80 and 77 percent of global calorie and protein availability, respectively. Both indices are dominated by crop products with shares of 83 percent in the calorie index and 61 percent in the protein index. The different weights reflect relatively higher protein contents of meat, dairy product and fish, and little, if any, presence of protein in vegetable oils and sugar. The corresponding price indices for world trade are found in Appendix Tables 21-28.

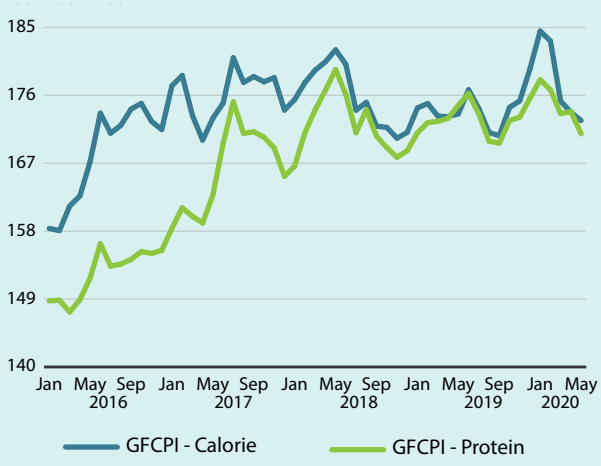
The GFCPI for calories rose steadily from a low in September 2019 to a peak value in January 2020, its highest value since January 2015. The increase largely followed a similar pattern in the prices of cereals, oils and to some extent for meat and fish. From January to May 2020, the index fell by 6 percent due to broadly based declines in all price categories, but notably to a large decline in vegetable oil prices of 27 percent over this period.

The GFCPI for proteins has followed a very similar trend course as that for calories since September 2019, and while its peak was also reached in January 2020, its rise and fall was considerably less pronounced given the very low weight of vegetable oils in its composition. The indices for calories and proteins in May 2020 show less than a two-point spread; the spread was as high as 20 points in 2016, indicating the degree to which protein values have increased relative to those for calorie in the past 4-5 years. This convergence is mostly explained by falling prices of sugar, and rising prices of dairy products.

The FAO Global Food Consumption and Food Price Indices



FAO Global Food Consumption Price Index – calorie vs protein-based



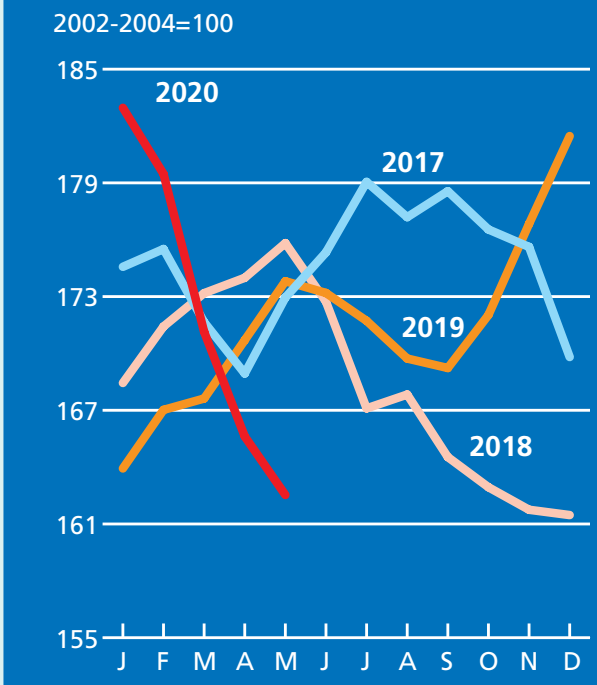
[1] All changes referred to in this section, in absolute or percentage terms, are calculated based on unrounded figures.

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

The FAO Food Price Index drops to a seventeen-month low[3]

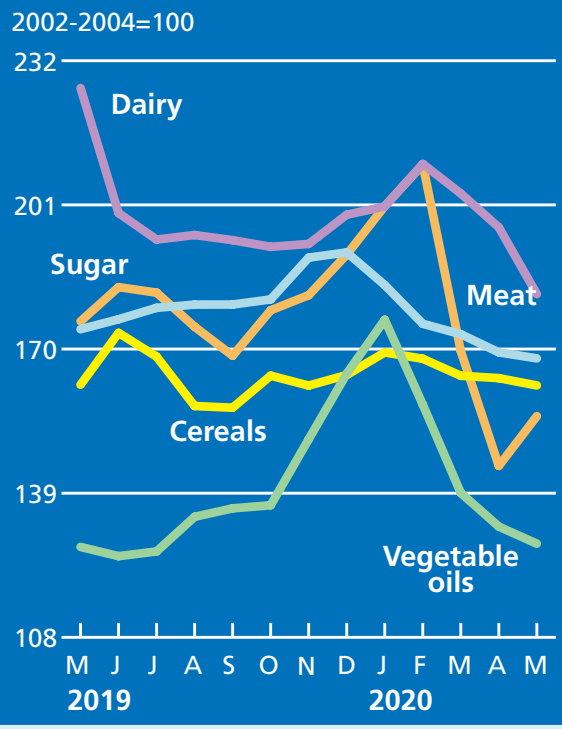
The **FAO Food Price Index**[2] (FFPI) averaged 162.5 points in May 2020, down 3.1 points (1.9 percent) from April and reaching the lowest monthly average since December 2018. With the continued negative economic effects of COVID-19, the FFPI has been on a downward trend for four consecutive months. The latest drop in May reflects falling values of all the sub-indices with the exception of sugar, which rose for the first time in three months.

FAO Food Price Index



The **FAO Cereal Price Index** averaged 162.2 points in May, down 1.6 points (1.0 percent) from April and very close to its level in the corresponding month last year. Among major cereals, only rice prices rose in May. International rice prices edged up 1 percent, mainly on rising Japonica and Basmati quotations, although currency movements and demand from Malaysia and the Philippines also kept Indica quotations firm. In wheat markets, after a rise in April, export prices fell under downward pressure, shedding almost 2 percent, as expectations point to ample global supplies also in the new season while trade activities have slowed down with the harvesting seasons underway, or

FAO Food Commodity Price Indices



approaching, in the northern hemisphere. In coarse grain markets, the US maize prices, continuing the downward trend of the last four months, fell further in May, to almost 16 percent below the corresponding period last year. Weak demand from feed and biofuel sectors, amidst abundant export supplies, continued to pressure international maize prices.

The **FAO Vegetable Oil Price Index** averaged 128.1 points in May, shedding another 3.7 points (or 2.8 percent) and marking a 10-month low. The continued decline of the index primarily reflects lower palm oil prices, whereas quotations of rapeseed and sunflower oils increased. International palm oil values registered the fourth consecutive monthly drop in May, mainly reflecting protracted, subdued global import demand (tied to the coronavirus pandemic and depressed mineral oil prices) and higher than expected production and inventory levels in major exporting countries. By contrast, international prices of rapeseed and sunflower oils strengthened owing to, respectively, prospects of continued supply tightness in the EU and shrinking exportable surpluses in the Black Sea region.

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

The **FAO Dairy Price Index** averaged 181.8 points in May, down 14.4 points (7.3 percent) from April, registering the third consecutive month of decline and setting the index value 44.3 points (19.6 percent) below its level one year ago. Quotations for all dairy products represented in the index fell in May, with the steepest drops registered for butter and cheese. Quotations for butter fell due to large seasonal supplies, especially in Europe, while those of cheese dropped, pressured by lower import demand amid high late season export supplies from Oceania. Despite continued high export availabilities and inventories, quotations for whole milk powder (WMP) and skim milk powder (SMP) declined only moderately, as low prices and renewed economic activities in China fuelled strong buying interests.

The **FAO Meat Price Index**[4] averaged 168.0 points in May, down 1.3 points (0.8 percent) from April, registering the fifth consecutive monthly decline. At this level, the index is 6.3 points (3.6 percent) below its value in the corresponding month last year and 44 points (20.8 percent) below the peak it reached in August 2014. In May, international quotations for poultry and pig meats continued to fall, reflecting high export availabilities in major producing countries, despite an increase in import demand in East Asia following the relaxation of COVID-19 social distancing measures. Ovine meat prices fell slightly due to diminished import demand from the Middle East, caused by economic hardships and logistical difficulties. By contrast, bovine meat quotations increased on strong import demand amid reduced supplies from Brazil and Oceania, reflecting the start of herd rebuilding phases.

The **FAO Sugar Price Index** averaged 155.6 points in May, up 10.7 points (7.4% percent) from April. The month-on-month increase of international sugar prices comes largely on the back of lower than expected harvests in some major countries, notably India, the world's second largest sugar producer and Thailand, the world's second largest sugar exporter. Furthermore, higher international prices of crude oil also contributed to the increase in sugar quotations, as higher energy prices tend to encourage sugar mills to use more sugarcane supplies to produce ethanol, reducing sugar availability in the global market. This is notably the case in Brazil, the world's largest sugar exporter. price quotations.

[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]
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
2018		168.4	166.3	192.9	165.3	144.0	177.5
2019		171.4	175.7	198.7	164.3	135.2	180.3
2019	May	173.8	174.3	226.1	162.3	127.4	176.0
	June	173.2	176.4	199.2	173.5	125.5	183.3
	July	171.7	178.9	193.5	168.4	126.5	182.1
	August	169.7	179.6	194.5	157.8	133.9	174.8
	September	169.2	179.6	193.4	157.4	135.7	168.6
	October	172.0	180.7	192.0	164.3	136.4	178.3
	November	176.8	189.7	192.6	162.1	150.6	181.6
	December	181.5	190.8	198.9	164.4	164.7	190.3
2020	January	183.0	183.8	200.6	169.3	176.3	200.7
	February	179.5	175.4	209.8	167.9	158.1	209.7
	March	171.1	173.2	203.5	164.2	139.1	169.6
	April	165.6	169.3	196.2	163.7	131.8	144.9
	May	162.5	168.0	181.8	162.2	128.1	155.6

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!

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The Compendium assists policy makers, market experts and other stakeholders in monitoring and anlayzing the impact of specific commodity policies on trade, food security and national agri-food systems. The report supports country efforts to make informed, evidence-based policy decisions and to allow countries to take advantage of global, regional and domestic trade and market opportunities.

Published: May 2020

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 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.

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This report is based on information available up to late May 2020.

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ISBN 978-92-5-132848-4
9 789251 328484
CA9509EN/1/06.20