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Food Outlook

BIANNUAL REPORT ON GLOBAL FOOD MARKETS

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HIGHLIGHTS

Against the background of fast expanding trade and a surge in food import bills, which has come to characterise much of the developments shaping global food markets in 2020/21, early forecasts for 2021/22 point to resilient food trade and a continuation of strong international prices amidst many supply and demand uncertainties.

WHEAT

Global wheat supplies in the new season 2021/22 are expected to increase further, given large carryover stocks and the forecast record production in 2021. However, demand is also expected to remain strong, thus keeping international prices firm.

COARSE GRAINS

Despite a record 2021 global production, as currently expected, coarse grains stocks are forecast to fall below opening levels for the fourth consecutive season. Robust demand and tight supplies are expected to sustain elevated international price levels.

RICE

Early prospects for 2021/22 point to global rice production and utilization reaching new peaks, while stocks remain ample. International trade is forecast to expand in 2021, although smaller Asian imports may stall trade growth in 2022.

MEAT

World meat output in 2021 is forecast to expand despite the many challenges facing meat value chains. Global meat trade is seen heading towards a stagnation, with higher trade in bovine and poultry meat offsetting a contraction in trade of pig and ovine meat.

SUGAR

World production of sugar in 2020/21 is forecast to decline for the third consecutive year and fall short of global consumption. World trade in sugar is foreseen to contract slightly because of reduced availabilities in key exporters.

OILCROPS

A tight market outlook for oilseeds and derived products is expected for 2020/21, with resumed growth in production foreseen insufficient to satisfy world demand. Tentative forecasts for 2021/22 suggest a slight improvement in the global supply-demand picture, including moderate stock replenishments.

DAIRY

Global milk production in 2021 is forecast to increase at a steady pace, despite the likely dampening effects of the COVID-19 pandemic on output in some key producing countries. Global trade in milk products is foreseen to rise in 2021, with a higher import concentration in Asia.

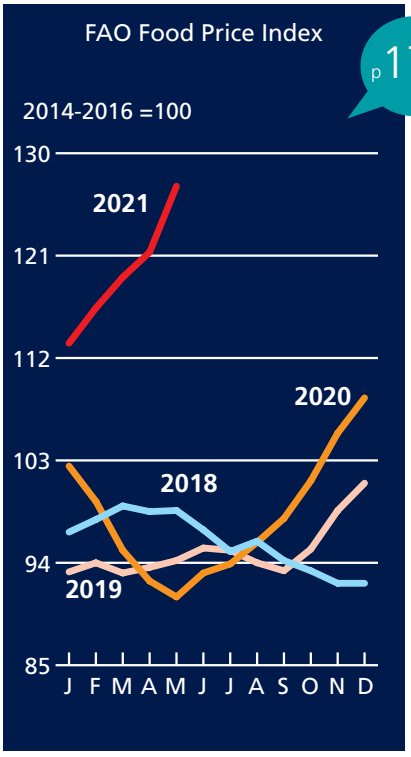
FISHERIES

With gradual economic recovery under way, the global fish industry is preparing for the return of food service demand. Retail market gains and stricter sanitary procedures are among the many changes forced by the pandemic and expected to persist in the longer term.

SPECIAL FEATURE

Surging trade, record import bills and rising food prices: how the international food system kept a lid on a global health crisis

The Special Feature puts recent trends in global food trade under the spotlight, with particular focus on how commodity flows have measured-up during the COVID-19 pandemic. Contrary to widespread predictions of a collapse in global markets, recent data show that trade continues to reach new heights. With rapidly rising international food prices, alternative indicators to better capture this momentum are also presented.



ACKNOWLEDGEMENTS

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MARKET SUMMARIES

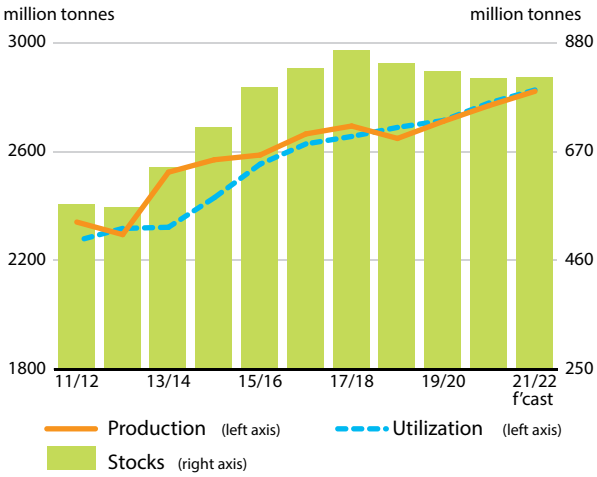
CEREALS

Current prospects for world cereal production point to a third successive year of moderate growth, with FAO's first forecast for the world cereal output in 2021 now pegged at nearly 2 821 million tonnes (including rice in milled equivalent), a new record and 1.9 percent above the outturn in 2020. The bulk of this year's foreseen growth relates to maize, with output anticipated up 3.7 percent from 2020. Global wheat production is also expected to increase, up 1.4 percent year-on-year, while rice production is set to go up by 1.0 percent.

World cereal utilization in 2021/22 is expected to expand by 1.7 percent, to a new peak of 2 826 million tonnes. Total cereal food consumption is forecast to rise in tandem with world population, resulting in a stable annual per capita level of 150 kg. As for animal feed use of cereals, similar to 2020/21, a notable feature is an anticipated continued growth in the use of wheat for feed, which is seen to rise to 156 million tonnes, still well below the level of coarse grains, forecast at 895 million tonnes. Based on current production and utilization forecasts for 2021/22, world cereal stocks at the close of crop seasons ending in 2022 are anticipated to increase, but by only 0.3 percent, to 811 million tonnes. The expected small rise in the level of world cereal inventories, which follows three consecutive seasons of declines, may not be sufficient to prevent a further drop in the stocks-to-use ratio, which is forecast to fall from 28.6 percent in 2020/21 to 27.9 percent in 2021/22.

While FAO's first forecast for world trade in cereals in 2021/22 indicates an increase of only 0.3 percent from the high level estimated for 2020/21, much will depend on the volume of cereals to be imported by China. World cereal trade in 2020/21 is seen to expand by as much as 6.3 percent, reaching a peak level of 468 million tonnes. Most of this sharp increase, however, reflects surges in imports of cereals by China, which are expected to rise by 30 million tonnes (123 percent) from the previous season.

CEREAL GRAIN PRODUCTION, UTILIZATION AND STOCKS



WORLD CEREAL MARKET AT A GLANCE

	2019/0	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
	million tonnes			%
WORLD BALANCE				
Production	**2 710.7**	**2 768.6**	**2 820.9**	**1.9**
Trade[1]	**440.1**	**468.0**	**469.3**	**0.3**
Total utilization	**2 713.7**	**2 778.2**	**2 825.7**	**1.7**
Food	1 151.4	1 170.7	1 183.9	1.1
Feed	1 007.8	1 050.5	1 070.2	1.9
Other uses	554.5	557.0	571.6	2.6
Ending stocks[2]	**822.3**	**808.8**	**811.5**	**0.3**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	149.3	150.2	150.3	0.1
LIFDC (kg/yr)	152.3	153.7	153.4	-0.2
World stocks-to-use ratio (%)	*29.6*	*28.6*	*28.1*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*18.2*	*17.6*	*18.4*	

FAO CEREAL PRICE INDEX (2014-2016=100)	2019	2020	2021 *Jan-May*	Change: Jan-May 2021 over Jan-May 2020 %
	96	103	125	26.0

[1] Trade refers to exports based on a July/June marketing season for wheat and coarse grains and on a January/December marketing season for rice.
[2] May not equal the difference between supply (defined as production plus opening stocks) and utilization due to differences in individual countries' marketing years.
[3] Major exporters include Argentina, Australia, Brazil, Canada, European Union, Russian Federation, Ukraine and the United States of America.

WHEAT

Preliminary forecasts for global wheat markets in 2021/22 point to overall adequate supplies. World wheat production in 2021 is forecast to surpass last year's record by 1.4 percent to reach a new all-time high level. Expected larger outputs in the European Union, Morocco and the United Kingdom of Great Britain and Northern Ireland account for most of the projected increase and are seen offsetting production declines anticipated in Australia, Canada, the Russian Federation and several countries in Asia.

Ample wheat supplies and tightening coarse grain markets are expected to drive global wheat utilization up 2.5 percent in 2021/22. Accounting for most of this growth, a robust 7.5 percent rise in feed demand for wheat is anticipated, largely in Asia and Europe, as well as North America, due to increased price competitiveness of wheat relative to maize. Food consumption and industrial use are also projected to increase.

As a result of large carryover stocks and the foreseen increased production in 2021, world wheat stocks by the close of seasons in 2022 are forecast to rise above their high opening levels for a third consecutive year. The global wheat stocks-to-use ratio is expected to register a small increase in 2021/22 to 38.0 percent, exceeding the five-year average level. Although the greatest rise in stocks is expected to occur in China, global wheat stocks excluding China are also forecast to rise, mostly on account of likely inventory buildups in Australia, the European Union, India, Morocco and Ukraine.

The preliminary forecast for world trade in wheat in 2021/22 (July/June) points to a small increase from the 2020/21 level, reaching a new record level. The expected growth reflects larger anticipated imports by several countries in Asia, mostly driven by reduced domestic production and increased demand. On the export side, the Russian Federation is expected to maintain its position as the world's leading exporter, and production rebounds are seen supporting larger sales by Argentina, the European Union, and Ukraine. By contrast, smaller exports are forecast for Australia, Canada and the United States of America.

Contact:

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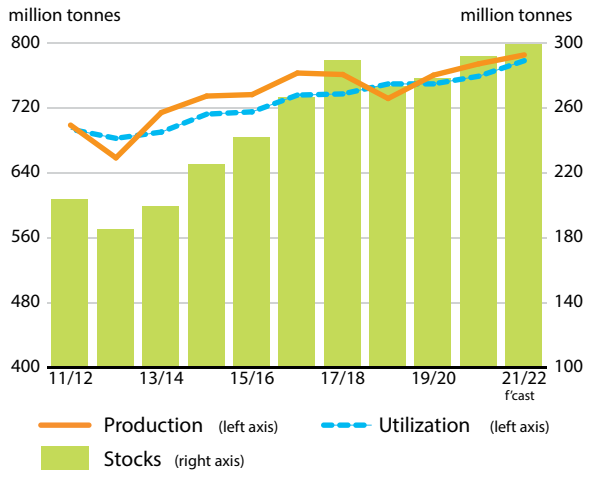
Jonathan Pound (Production)

WHEAT PRODUCTION, UTILIZATION AND STOCKS



WORLD WHEAT MARKET AT A GLANCE

	2019/20	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
	million tonnes			%
WORLD BALANCE				
Production	**760.8**	**774.8**	**785.8**	**1.4**
Trade[1]	**184.2**	**186.2**	**187.2**	**0.5**
Total utilization	**750.0**	**759.5**	**778.6**	**2.5**
Food	518.0	524.7	530.9	1.2
Feed	139.6	144.7	155.5	7.5
Other uses	92.5	90.1	92.2	2.2
Ending stocks[2]	**277.7**	**291.0**	**298.7**	**2.6**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	67.1	67.3	67.4	0.2
LIFDC (kg/yr)	49.6	49.6	49.6	0.1
World stocks-to-use ratio (%)	*36.6*	*37.4*	*38.0*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*15.4*	*16.5*	*17.1*	

FAO WHEAT PRICE INDEX[4] **(2014-2016=100)**	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	95	101	119	20.5

[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, European Union, Kazakhstan, Russian Federation, Ukraine and the United States of America.
[4] Derived from the International Grains Council (IGC) wheat index.

COARSE GRAINS

FAO's preliminary forecasts for world coarse grain markets in 2021/22 point to another season of tight supplies. Despite expectations of a sizeable increase in production, continued strong utilization growth is seen lowering stocks below opening levels for the fourth consecutive season.

At a record 1 516 million tonnes, world coarse grains production in 2021 is forecast to increase by 36 million tonnes (2.5 percent) from 2020, almost exclusively due to higher maize production. A large expansion in maize production in the United States of America accounts for the bulk of the expected global increase, in addition to greater outputs anticipated in China, the European Union and Ukraine. World production of sorghum is also foreseen to rise in 2021/22, while barley production is set to decline, largely on expected reduced output in Australia.

World utilization of coarse grains is forecast to increase in 2021/22 by 1.4 percent, reaching an all-time high of 1 526 million tonnes. The main driver of this growth is a rise in industrial use, stemming from expected greater utilization of maize for the production of ethanol in Brazil and, especially, the United States of America, as well as starch in China, as economies begin to recover from the COVID-19 pandemic. Increased feed use of both maize and sorghum, especially in China, is also seen lifting coarse grains utilization in 2021/22.

With the 2021/22 utilization forecast exceeding the global production forecast, coarse grains stocks are expected to contract by the close of seasons in 2022, falling by 1.7 percent below their opening levels. This decline is largely attributed to a likely further drawdown of maize inventories in China. In combination with the forecast rise in utilization, the expected fall in global coarse grain inventories would lower the world stocks-to-use ratio to its lowest level since 2012/13.

Larger shipments of maize and sorghum are seen balancing an expected reduction in barley trade, keeping global trade in coarse grains in 2021/22 near the 2020/21 record level. Continued strong import demand from China is anticipated to remain an important driver of the expected growth in trade for maize and sorghum, in addition to expectations of increased maize purchases by the European Union, Mexico, and Turkey. On the export side, larger shipments of maize are forecast for Argentina and Ukraine and increased sorghum exports are expected from the United States of America.

Contact:

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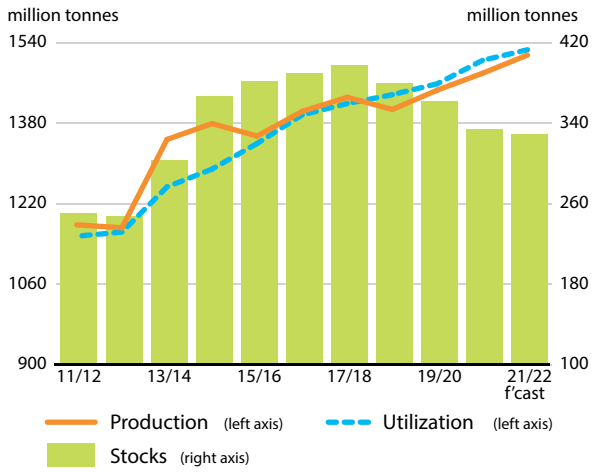
COARSE GRAIN PRODUCTION, UTILIZATION AND STOCKS



WORLD COARSE GRAIN MARKET AT A GLANCE

	2019/20	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
		million tonnes		%
WORLD BALANCE				
Production	**1 447.0**	**1 479.7**	**1 516.1**	**2.5**
Trade[1]	**210.4**	**233.8**	**234.2**	**0.1**
Total utilization	**1 459.3**	**1 505.5**	**1 526.5**	**1.4**
Food	219.2	224.5	225.9	0.6
Feed	851.6	888.3	895.4	0.8
Other uses	388.6	392.7	405.3	3.2
Ending stocks[2]	**361.6**	**333.9**	**328.2**	**-1.7**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	28.4	28.8	28.7	-0.4
LIFDC (kg/yr)	37.7	38.2	37.9	-0.9
World stocks-to-use ratio (%)	*24.0*	*21.9*	*20.8*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*14.6*	*11.4*	*12.1*	

FAO COARSE GRAIN PRICE INDEX (2014-2016=100)	2019	2020	2021 *Jan-May*	Change: Jan-May 2021 over Jan-May 2020 %
	95	101	143	53.3

[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, European Union, Russian Federation, Ukraine and the United States of America.

RICE

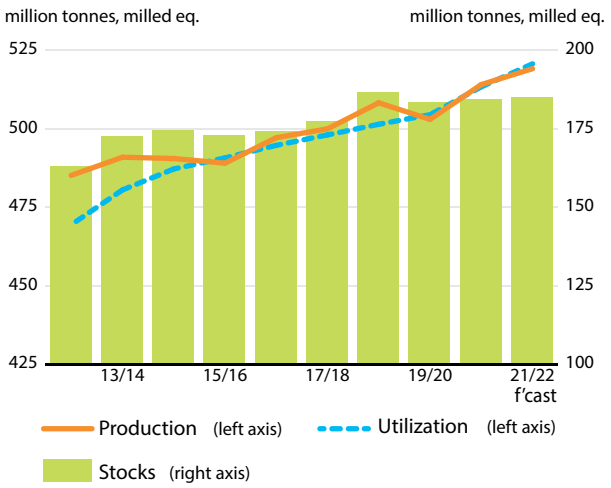
Assuming normal growing conditions, world rice production is forecast to expand by 1.0 percent in 2021 to an all-time high of 519.1 million tonnes (milled basis). Asia is anticipated to sustain this growth, as strong government support to the sector in the region may attenuate pressure from higher input costs and heightened competition by other crops. Western Africa countries and Australia are also forecast to produce more, while unconducive weather or less attractive margins will likely cause output to stagnate or contract elsewhere.

World rice trade is predicted to expand by 5.6 percent in 2021 to 48.0 million tonnes. A revival of Asian purchases and strong import demand from Africa look set to support the expansion on the import side, while on the supply side, much of the growth is expected to be captured by an expansion in Indian sales. Little global trade growth is tentatively forecast for 2022, as continued strong demand from Africa and the Near East may be insufficient to outweigh a retrenchment in Far Eastern purchases.

World rice utilization is anticipated to reach a record 520.6 million tonnes in 2021/22, up 1.4 percent year-on-year, primarily on the back of expanding food use, but also on rising use of rice for feed. At a forecast level of 184.6 million tonnes, global rice inventories at the close of 2021/22 marketing years are seen only marginally above their opening levels, as accumulations in the major rice exporters, as well as in Bangladesh and Indonesia, may be largely offset by another drawdown in China.

The FAO All Rice Price Index averaged 110.6 points in May 2021, down just 0.7 percent from December, but 4.5 percent below its year-earlier value. Although supply concerns in California have raised Japonica values since December, a slowdown in demand, in tandem with new crop arrivals and currency movements, has kept prices in the other market segments in check or under pressure.

RICE PRODUCTION, UTILIZATION AND STOCKS



WORLD RICE MARKET AT A GLANCE

	2019/20	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
	million tonnes, milled equivalent			%
WORLD BALANCE				
Production	**502.9**	**514.0**	**519.1**	**1.0**
Trade[1]	**45.4**	**48.0**	**47.9**	**0.0**
Total utilization	**504.4**	**513.3**	**520.6**	**1.4**
Food	414.3	421.6	427.1	1.3
Ending stocks[2]	**183.0**	**183.9**	**184.6**	**0.4**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	53.7	54.1	54.2	0.3
LIFDC (kg/yr)	65.0	65.9	65.9	0.1
World stocks-to-use ratio (%)	*35.7*	*35.3*	*35.1*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*24.5*	*24.9*	*26.0*	

FAO RICE PRICE INDEX (2014-2016=100)	2019	2020	2021 *Jan-May avg.*	Change: Jan-May 2021 over Jan-May 2020 %
	101	110	113	3.8

[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.

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Shirley Mustafa

OILCROPS

FAO's 2020/21 forecasts continue to point towards a tight market situation for oilseeds and oilseed products, with resumed production growth foreseen insufficient to meet world demand. In 2020/21, global oilcrop production is expected to recover from the previous season's reduced level, with an area-driven rebound in soybean and rapeseed production more than offsetting a weather-induced contraction in world sunflower seed output. While global supplies of meals/cakes are set to recover, global consumption is forecast to continue expanding, led by increasing consumption in China. With global meal uptake expected to surpass world supplies, global carry-out stocks of meals/cakes are anticipated to contract for a second consecutive season, possibly dropping to a seven-year low and entailing a further decline in stocks-to-use ratios.

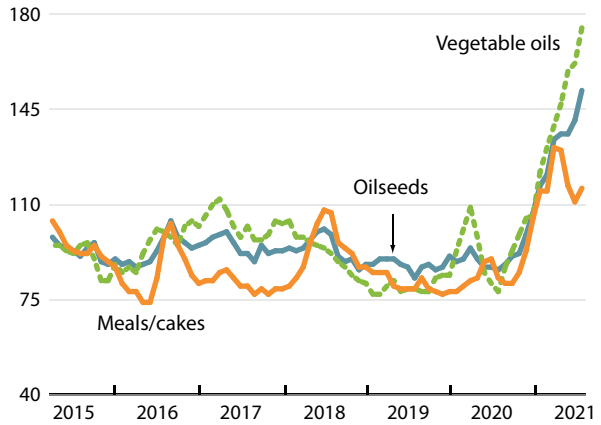
As for oils/fats, global output is expected to recover from the previous season's exceptional contraction, largely underpinned by gains in palm and soyoil production. Meanwhile, global utilization of vegetable oils is seen expanding modestly, with below-average growth in both food and non-food uses, linked to the protracted COVID-19 crisis and record-high vegetable oil prices. With total oils/fats production poised to fall short of utilization, global inventories of oils/fats are forecast to drop to an 11-year low, while stocks-to-use ratios would also fall markedly.

With regard to the forthcoming 2021/22 season, tentative forecasts suggest a slight improvement in the global supply-demand conditions, possibly including a moderate replenishment in stocks. Initial crop forecasts point to a likely significant expansion in global output of oilmeals and vegetable oils, while growth in total utilization of oilcrop products is anticipated to accelerate somewhat. Accordingly, moderate stock replenishments could take place for both meals and oils, although stocks-to-use ratios would still linger below the levels observed in recent years, pointing to persistent supply-demand tightness. However, this outlook remains subject to major uncertainties, notably with regard to weather conditions in key growing regions, the evolution of the COVID-19 pandemic and vaccination campaigns, and national policy measures that could affect global trade flows of oilseeds and derived products, as well as the implementation of biodiesel admixture mandates.

Contact:

Peter Thoenes
Di Yang

FAO MONTHLY INTERNATIONAL PRICE INDICES FOR OILSEEDS, VEGETABLE OILS AND MEALS/CAKES (2014-2016=100)



WORLD OILCROP AND PRODUCT MARKET AT A GLANCE

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/21 over 2019/20
	million tonnes			%
TOTAL OILCROPS				
Production	613.0	588.0	610.1	3.8
OILS AND FATS				
Production	242.2	234.2	241.2	3.0
Supply	284.5	274.8	275.6	0.3
Utilization	243.3	242.4	244.1	0.7
Trade	132.3	134.9	135.8	0.7
Global stocks-to-use ratio (%)	*16.7*	*14.2*	*12.5*	
Major exporters stocks-to-disappearance ratio (%)	*13.4*	*10.7*	*8.3*	
MEALS AND CAKES				
Production	158.7	149.9	157.6	5.1
Supply	189.6	183.6	187.5	2.1
Utilization	153.2	157.3	159.9	1.7
Trade	98.7	105.4	106.6	1.2
Global stocks-to-use ratio (%)	*22.0*	*19.0*	*16.2*	
Major exporters stocks-to-disappearance ratio (%)	*16.2*	*11.8*	*7.9*	

FAO PRICE INDICES (Jan-Dec) (2014-2016=100)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
Oilseeds	88	97	140	57.6
Meals/cakes	80	92	121	41.7
Vegetable oils	83	99	156	73.5

Note: Kindly refer to footnote 1 on page 31 and to table 2 on page 34 for further explanations regarding definitions and coverage.

SUGAR

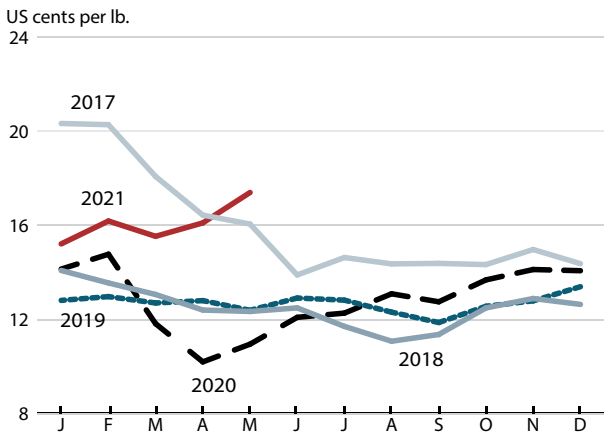
FAO foresees world sugar production to decline for the third consecutive season in 2020/21 (October/September), albeit slightly. The current production forecast of 170.3 million tonnes falls short of the predicted world sugar consumption, resulting in a global shortfall of 1.7 million tonnes. Unfavourable weather conditions have led to lower output in Brazil, the European Union, the Russian Federation and Thailand, which more than offsets an expansion in China, India and the United States of America.

On the demand side, world sugar consumption is foreseen to rebound, mainly reflecting the expected resumption of economic growth in 2021, after the COVID-19-driven global economic contraction in 2020.

The forecast for world sugar trade in 2020/21 (October/September) is pegged at 60.4 million tonnes, slightly down from the 2019/20 estimated volume. The contraction is the result of reduced exportable supplies anticipated in key exporter Thailand, combined with foreseen drops in exports by the Russian Federation and other European countries. India's exports are also anticipated to be slightly down from the record highs of last year. On the import side, lower imports by the United States of America and India are expected to more than compensate for an increase in purchases by China, the world's largest sugar importer. In Indonesia, imports are also anticipated to drop slightly from the previous year, although demand is expected to remain strong, driven by the beverage and food processing industries.

After falling to multiyear lows in April 2020, international prices of sugar generally increased in the past year, reaching in May their highest level since early 2017. The hike in prices was prompted by continued concerns over tighter global supplies in 2020/21, following production declines in key producing countries, and sustained import demand from Asia. The weakening of the US dollar against the currencies of key sugar exporting countries, combined with the rally in crude oil prices has put further upward pressure on sugar prices. However, prospects of large exportable supplies and a recovery in global production have so far prevented larger price surges.

INTERNATIONAL SUGAR PRICES*



* as measured by the International Sugar Agreement (ISA)

WORLD SUGAR MARKET AT A GLANCE

	2019/20	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
	million tonnes			%
WORLD BALANCE				
Production	**175.2**	**171.9**	**170.3**	**-0.96**
Trade*	**57.2**	**62.3**	**60.4**	**-3.08**
Total utilization	**169.2**	**168.7**	**172.0**	**1.91**
Ending stocks	**93.8**	**96.4**	**94.6**	**-1.87**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	22.2	21.9	22.1	0.91
LIFDC (kg/yr)	16.2	16.1	16.5	2.48
World stocks-to-use ratio (%)	**55.4**	**57.1**	**55.0**	**-3.71**

ISA DAILY PRICE AVERAGE (US cents/lb)	2019	2020	2021 *Jan-May*	Change: Jan-May 2021 over Jan-May 2020 %
	12.70	12.84	16.06	29.69

* Trade figures refer to exports

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Elmamoun Amrouk
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MEAT AND MEAT PRODUCTS

World meat output in 2021 is forecast to expand by 2.2 percent, to 346 million tonnes, reflecting an anticipated rebound in meat production in China, with notable expansions in Brazil, Viet Nam, the United States of America and the European Union, partially offset by likely contractions in Australia, the Philippines and Argentina.

The anticipated meat production growth in China reflects likely output expansions across all meat types, especially pig meat, driven by large investments in enhancing meat value chains and biosafety. Seemingly swift recovery from ASF-induced output contraction is also anticipated in Viet Nam. Although narrowed due to rising production, the large pig meat deficit persists in China, inducing production expansions in all animal production systems, including in key supplier regions, especially Brazil and the European Union. Production expansion in Europe and North America is also supported by slowly reviving food services sales in line with successful COVID-19 vaccinations, much improved sanitary conditions, and government assistance provided to the livestock sector under COVID-19 market stabilization efforts. By contrast, meat production is likely to fall in Australia, underpinned by high herd rebuilding demand, and in Argentina, on lower cattle supplies. In parts of Africa, Asia and Latin America and the Caribbean, meat value chains remained under strain due to continued COVID-19 market restrictions, coupled with rising feed costs, limited cattle supplies or droughts.

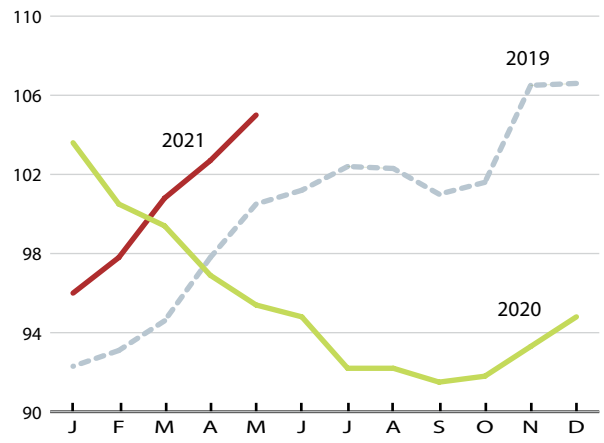
World trade in meat products in 2021 is forecast to reach 42 million tonnes (carcass weight equivalent), nearly unchanged from 2020, as expected expansions in bovine and poultry meat trade are likely to be almost entirely offset by likely declines in pig and ovine meat trade. The overall global meat trade is forecast to be driven by China, with its total meat purchases exceeding 11 million tonnes, induced by the continued large meat supply deficit and demand for replenishing the strategic stocks, despite rising domestic production.

International meat prices rose from January to May, reflecting solid import demand, especially from East Asia and the Middle East, amid limited expansion in global export supplies despite recovering production in key producing regions.

Contact:

Upali Galketi Aratchilage

FAO INTERNATIONAL MEAT PRICE INDEX (2014-2016 = 100)



WORLD MEAT MARKET AT A GLANCE

	2019	2020 *estim.*	2021 *f'cast*	Change: 2021 over 2020
	million tonnes (carcass weight equivalent)			%
WORLD BALANCE				
Production	**337.2**	**338.1**	**345.6**	**2.2**
Bovine meat	72.4	71.6	72.4	1.2
Poultry meat	131.6	133.4	135.2	1.3
Pigmeat	110.1	109.8	114.4	4.2
Ovine meat	16.2	16.2	16.5	1.3
Trade[1]	**36.6**	**41.7**	**41.9**	**0.4**
Bovine meat	11.3	11.8	12.0	1.1
Poultry meat	14.2	15.4	15.6	0.9
Pigmeat	9.6	12.9	12.8	-0.6
Ovine meat	1.0	1.1	1.1	-0.8
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	43.3	43.0	43.5	1.2
Trade - share of prod. (%)	*10.8*	*12.3*	*12.1*	*-1.7*

FAO MEAT PRICE INDEX (2014-2016=100)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	100	96	100	1.3

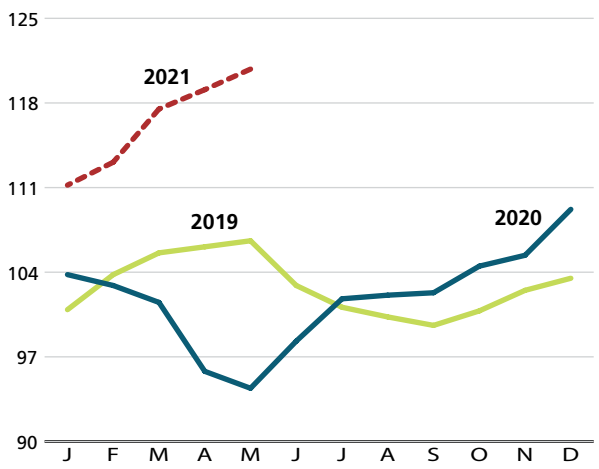
[1] From 2020, the United Kingdom of Great Britain and Northern Ireland is treated as a separate country from the European Union when aggregating trade data.

MILK AND MILK PRODUCTS

FAO's current forecasts point to expansions in production and trade in milk and milk products in 2021, despite the likely dampening effects of the COVID-19 pandemic on output and trading activities in parts of the world. Global milk output in 2021 is forecast at 921 million tonnes, an increase of 1.6 percent from 2020, with Asia accounting for the highest volume, followed by North America, Europe, South America, Oceania, Central America and the Caribbean, and Africa. Increases in dairy cattle numbers in India and Pakistan and expanding large-scale farms in China sustain Asia's milk output growth. Increasing dairy cattle and milk yields, together with improvements to farming technology, underpin the likely output expansions in most countries in the Americas. Favourable weather and pasture improvements could lessen the rising costs of feed, lifting milk production in the European Union and Oceania.

World trade in dairy products is forecast at 88 million tonnes (in milk equivalents) in 2021, a rise of 2.6 percent from 2020, with a higher import concentration in Asia, especially China. Strong economic growth prospects for 2021 and the real appreciation of the Yuan that would increase per capita consumption and expand the consumer base are behind much of the anticipated import demand growth in China. Brazil, Mexico, Indonesia and Malaysia, among others, are also expected to import more milk products. Nevertheless, widespread import curtailments elsewhere are likely, stemming from continued COVID-19 market disruptions and associated economic downturns. With the anticipated increase in dairy import demand and the implied product mix and changes in trade directions, dairy exports are forecast to increase significantly from the European Union, the United States of America, New Zealand and Australia.

FAO INTERNATIONAL DAIRY PRICE INDEX (2014-2016 = 100)



WORLD DAIRY MARKET AT A GLANCE

	2019	2020 *estim.*	2021 *f'cast*	Change: 2021 over 2020
	million tonnes. milk equiv.			%
WORLD BALANCE				
Total milk production	**888.1**	**906.2**	**921.1**	**1.6**
Total trade[1]	**77.8**	**85.7**	**87.9**	**2.6**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	115.1	116.1	116.8	0.6
Trade - share of prod. (%)	*8.8*	*9.5*	*9.5*	*0.9*

FAO DAIRY PRICE INDEX (2014-2016=100)	2019	2019	2021 *Jan-May*	Change: Jan-May 2021 over Jan-May 2020 %
	103	102	116	16.7

[1] From 2020, the United Kingdom of Great Britain and Northern Ireland is treated as a separate country from the European Union when aggregating trade data.

Contact:

Upali Galketi Aratchilage

FISH AND FISHERY PRODUCTS

As vaccine roll-out programmes continue across the world, fisheries and aquaculture businesses are now faced with a transformed market landscape that offers both opportunities and continuing challenges. For both fishers and aquaculture operators, a weak market environment and a range of operational difficulties affecting labour, financing, input procurement and logistics all contributed to output contraction in 2020. Tight supply is expected to continue in 2021 for several key species, including cephalopods, pangasius and salmon, although global fish production is expected to return to positive growth. The majority of producers have been quick to adapt to the new circumstances, and the outlook for traditional suppliers to the restaurant sector is steadily improving as restrictions ease.

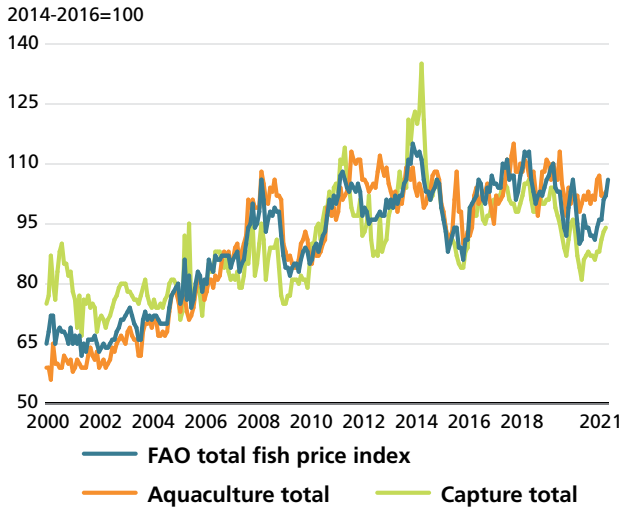
All nodes of the fishery and aquaculture value chains have been fundamentally affected by the economic and social upheavals that have taken place since initial lockdowns began. Heavy financial losses have been incurred, but the pandemic has also given rise to new market opportunities. Newly developed distribution channels, an increase in products designed for home consumption and operational adaptations are likely to remain key features of the industry in the years to come. For several species, the pivot towards retail during the pandemic has opened up previously untapped customer segments.

Stakeholders are anticipating a significant demand boost as the reopening of food services supplements the newly strengthened retail business, making increases in fish prices likely for the rest of 2021. However, for some categories such as small pelagics and canned tuna, the return of food services may put a dampener on the market growth observed in 2020. Stricter sanitary requirements and inspection protocols have already increased logistical costs for exporters, particularly those exporting to China. Total trade in fish products is forecast to increase only marginally in 2021 in volume and value terms, due to the lingering effects of the pandemic and other trade-related challenges concerning the industry. These include the remaining tariffs on fisheries and aquaculture products traded between the United States of America and China, and the delays and administrative obstacles faced by traders in the United Kingdom of Great Britain and Northern Ireland as the phased process of the country's exit from the European Union continues.

Contact:

Felix Dent
Audun Lem
Stefania Vannuccini

FAO FISH PRICE INDEX (2014-2016 = 100)



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

WORLD FISH MARKET AT A GLANCE

	2019	2020 *estim.*	2021 *f'cast*	Change: 2021 over 2020
	million tonnes (live weight)			*%*
WORLD BALANCE				
Production	**177.8**	**174.6**	**177.3**	**1.5**
Capture fisheries	92.5	90.5	92.3	2.0
Aquaculture	85.3	84.1	85.0	1.1
Trade value (exports USD billion)	**160.8**	**149.4**	**149.8**	**0.3**
Trade volume (live weight)	**65.5**	**63.3**	**63.4**	**0.2**
Total utilization	**177.8**	**174.6**	**177.3**	**1.5**
Food	158.3	154.7	157.1	1.6
Feed	15.5	16.1	16.4	1.6
Other uses	4.0	3.8	3.8	0.0
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
Food fish (kg/yr)	20.5	19.8	20.0	0.5
From capture fisheries (kg/year)	9.5	9.1	9.2	1.2
From aquaculture (kg/year)	11.1	10.8	10.8	0.0

FAO FISH PRICE INDEX (2014-2016=100)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	102	95	100	3.5

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

MARKET ASSESSMENTS

WHEAT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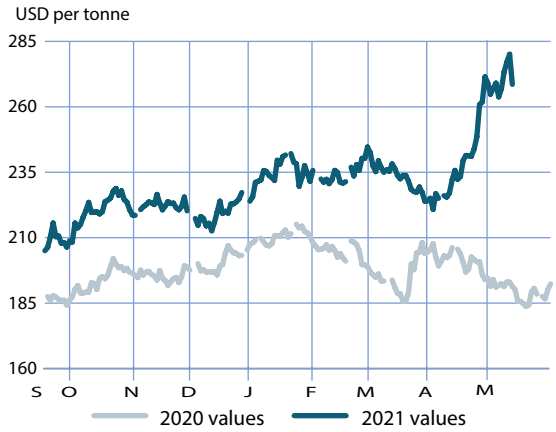
PRICES

International wheat prices higher than last year

International wheat prices rose quickly at the start of the 2020/21 season, increasing for six consecutive months between August 2020 and January 2021, reaching a seven-year high by May 2021. This increase mostly reflected brisk trade activity to meet strong demand at the start of the season amid crop condition concerns, including in parts of Argentina, Europe and the United States of America (United States), as well as tightening export availabilities, especially in the European Union. Strong rises in international maize prices, and the resulting shift in feed demand to wheat, along with uncertainty regarding the impact of an export quota and tax implemented by the Russian Federation, also added upward pressure on wheat prices. While international wheat prices dampened towards the end of May in response to generally good production prospects for 2021 and a decline in maize prices, for the month as a whole, **the IGC Wheat Price Index**, a trade-weighted price measure of major export quotations, was still 28.5 percent higher on a yearly basis. The benchmark **US wheat, No.2 Hard Red Winter (f.o.b. Gulf)**, which sets the benchmark

Figure 1. IGC Wheat Price Index

Figure 2. CBOT wheat futures for September



price for global wheat markets, averaged USD 299 per tonne in May, up 34 percent year-on-year.

Reflecting these trends, wheat futures also rose in May 2021 with the **September Chicago Board of Trade soft red winter futures** averaging USD 259 per tonne, up 5.3 percent from April and 37 percent higher than the same month last year. More detailed analysis of the futures markets can be found in the *Market indicators* section of this report.

PRODUCTION

World wheat production to hit a new record in 2021

Global wheat production is forecast at 785.8 million tonnes in 2021, the highest level on record and an increase of 1.4 percent (11.0 million tonnes) compared with the outturn in 2020.

The positive global production outlook is mainly related to expected year-on-year production gains in Europe, particularly in the **European Union,** where production is forecast to recover to 134.0 million tonnes, up 7.0 percent from last year's weather-stricken harvest. The increase in 2021 reflects both a price-driven expansion in the wheat planted area and a foreseen upturn in yields, owing to generally beneficial weather conditions, despite a recent cold spell in April. Wheat production in the **United Kingdom of Great Britain and Northern Ireland (the United Kingdom)** is also forecast to rebound sharply to 14.5 million tonnes in 2021, predominantly due to an increase in plantings. In addition, a larger proportion of wheat crops was reported to be in good-to-excellent conditions in 2021 compared with the previous year, implying an increased likelihood of improved yield levels. In **Ukraine**, wheat production is forecast to increase by 10.5 percent to 27.5 million tonnes in 2021, driven by both larger plantings and expected higher yields. By contrast, wheat production in the **Russian Federation** is foreseen to fall by 4.4 million tonnes to 81.5 million tonnes in 2021, despite a record area sown, as less-than-ideal weather conditions have diminished yield prospects; nevertheless, the 2021 wheat output is still foreseen to exceed the previous five-year average.

In North America, total wheat production in the **United States** is forecast to increase to 51 million tonnes, 2.5 percent higher on a yearly basis. The foreseen modest growth is primarily based on a price-driven expansion in plantings, the first in three years, mainly related to larger winter sowings that are expected to more than compensate for a likely contraction in the spring

Table 1. World wheat market at a glance

	2019/20	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
		million tonnes		%
WORLD BALANCE				
Production	**760.8**	**774.8**	**785.8**	**1.4**
Trade[1]	**184.2**	**186.2**	**187.2**	**0.5**
Total utilization	**750.0**	**759.5**	**778.6**	**2.5**
Food	518.0	524.7	530.9	1.2
Feed	139.6	144.7	155.5	7.5
Other uses	92.5	90.1	92.2	2.2
Ending stocks[2]	**277.7**	**291.0**	**298.7**	**2.6**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	67.1	67.3	67.4	0.2
LIFDC (kg/yr)	49.6	49.6	49.6	0.1
World stocks-to-use ratio (%)	*36.6*	*37.4*	*38.0*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*15.4*	*16.5*	*17.1*	

FAO WHEAT PRICE INDEX[4] **(2014-2016=100)**	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	95	101	119	20.5

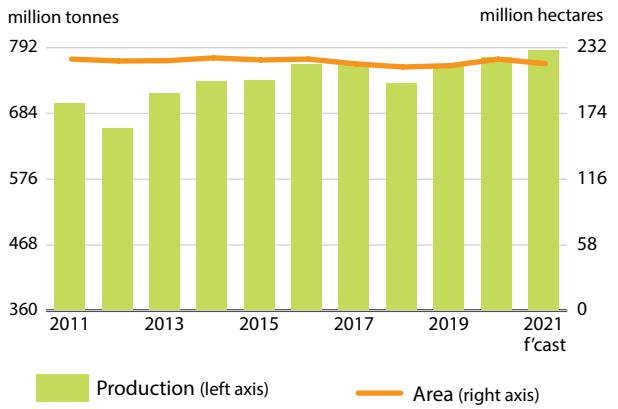
[1] Trade refers to exports based on a common July/June marketing season.
[2] May not equal the difference between supply (defined as production plus carryover stocks) and total utilization due to differences in individual country marketing years.
[3] Major exporters include Argentina, Australia, Canada,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

Table 2. Wheat production: leading producers*

	2019	2020 *estim.*	2021 *f'cast*	Change: 2021 over 2020
		million tonnes		%
European Union	155.7	125.3	134.0	7.0
China (mainland)	133.6	134.2	136.4	1.6
India	103.6	107.6	109.2	1.5
Russian Federation	74.5	85.9	81.5	-5.1
United States	52.6	49.7	50.9	2.5
Canada	32.3	35.2	31.1	-11.7
Ukraine	28.3	24.9	27.5	10.5
Australia	15.2	33.3	30.0	-10.0
Pakistan	24.4	25.3	26.2	3.8
Turkey	19.0	20.5	20.0	-2.4
Argentina	19.8	17.6	19.2	9.1
Iran (Islamic Republic of)	14.5	14.0	13.5	-3.6
Kazakhstan	11.5	14.3	14.0	-1.8
Other countries	75.9	87.1	92.3	5.9
World	**760.8**	**774.8**	**785.8**	**1.4**

* Countries listed according to their position in global production (average 2019-2021).

Figure 3. Global wheat production and area



acreage. Notwithstanding the adverse impact of recent freezing temperatures in several states in the Plains and Midwest, yields are also forecast to increase in 2021, further bolstering the production outlook. By contrast, wheat production is forecast to decline in **Canada** to 31.1 million tonnes in 2021, resting on a contraction in plantings and lower yields, following the highs of 2020.

In Asia, wheat production in **India** is officially forecast at a record 109.2 million tonnes in 2021, driven by a large area sown to wheat, as farmers have been incentivized by continued government support policies and remunerative prices. Similarly, in **Pakistan**, record high domestic prices have encouraged farmers to increase sowings, and given the overall conducive weather conditions that are supporting good yield prospects, production is expected to increase by 3.8 percent year-on-year to 26.2 million tonnes in 2021. In **China**[1], wheat production in 2021 is pegged at 136.4 million tonnes, moderately higher on a yearly basis, reflecting overall beneficial weather conditions. Production outlooks for wheat in Near East Asian countries are less favourable, as abnormal dryness has curbed yield prospects, thereby lowering production forecasts for several countries, compared with the previous year, including for the leading producer Turkey.

Wheat production across North Africa is expected to recover strongly compared with the previous year's drought-reduced outturns. The wheat harvest in **Morocco** is forecast at 7.2 million tonnes in 2021, nearly three times the 2020 level, underpinned by a beneficial distribution of seasonal rains. **Tunisia** is also expected to harvest a larger wheat crop in 2021. However, in **Algeria**, poor rains in the minor-producing wheat areas have cut back overall prospects and, consequently, a below-average output is forecast for this year.

In the Southern Hemisphere countries, planting of the 2021 wheat crop is under way. In **Australia**, production is forecast to decline from the 2020 record output, but to remain above average in 2021. The expected yearly reduction is anchored in a likely return to trend yields following the highs registered in 2020, with competitive wheat prices and prevailing good soil moisture levels expected to help maintain a similar-sized planted area in 2021. In South America, reflecting highly favourable price prospects that are expected to encourage an expansion in sowings, combined with a likely increase in yields following the low levels of 2020, **Argentina**'s wheat production is forecast at an above-average level in 2021. Larger plantings in Brazil are also expected to support a small production upturn in 2021.

TRADE

Slight increase in wheat trade foreseen in 2021/22

Early forecasts for world wheat trade in 2021/22 (July/June) point to a marginal increase of 0.5 percent (1.0 million tonnes) from the 2020/21 level, reaching a new record of 187.2 million tonnes. The small increase would largely reflect expected increased imports by Asia.

In *Asia*, wheat imports are forecast to increase by 2.1 percent in 2021/22 to 99.4 million tonnes. After nearly doubling its wheat imports year-on-year in 2020/21, **China** is expected to further increase its wheat purchases in 2021/22 by 1 million tonnes, becoming the largest wheat importer in Asia and the second largest in the world. Driven by high feed demand and wheat's price competitiveness relative to maize, this increase would bring China's wheat import forecast to 11 million tonnes in 2021/22. Larger imports in 2021/22 are also forecast for the **Islamic Republic of Iran** (up by 1 million tonnes) on account of increased demand, as well as for **Afghanistan** (up by 800 000 tonnes) and **Iraq** (up by 1 million tonnes) to compensate for reduced domestic production forecasts. Wheat purchases by **Indonesia** and **Turkey**, now lagging China as the second and third largest importers in Asia, respectively, are likely to increase marginally year-on-year. By contrast, following a year of exceptionally high imports incentivized by the suspension of the wheat import duty by the Government to replenish stocks, and in expectation of a bigger wheat harvest in 2021, **Pakistan's** wheat imports could fall by as much as 2.5 million tonnes to 1.0 million tonnes.

[1] China in this section is restricted to the mainland of China.

Table 3. Top 10 wheat importers*

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
Egypt	12.7	13.3	5.0
China (mainland)	6.6	11.0	67.1
Indonesia	10.7	10.2	-4.7
Turkey	9.4	10.0	6.2
Algeria	7.1	7.6	7.5
Brazil	7.0	6.5	-7.3
Bangladesh	6.0	6.4	6.3
Philippines	6.5	6.1	-5.8
Nigeria	5.2	5.5	5.1
Japan	5.6	5.5	-1.5

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

Table 4. Top 10 wheat exporters*

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
Russian Federation	36.3	39.0	7.6
European Union	28.9	29.5	2.1
United States	26.2	25.5	-2.7
Canada	24.9	22.0	-11.7
Australia	13.3	19.0	42.8
Ukraine	17.7	17.0	-4.1
Argentina	11.9	13.0	9.1
Kazakhstan	7.5	7.5	0.5
Turkey	4.4	5.0	12.5
India	1.0	2.3	123.9

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

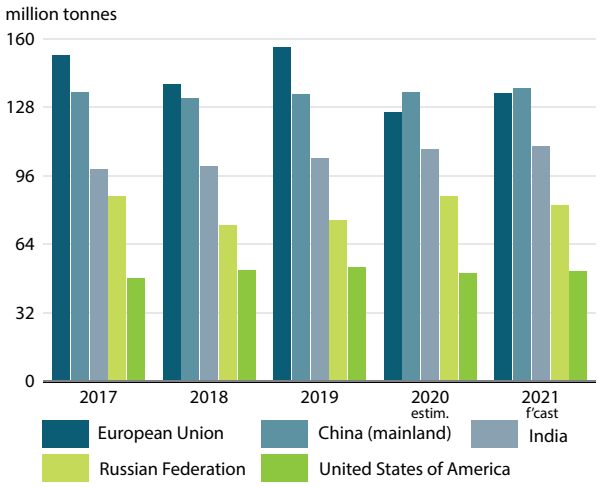
At around 50 million tonnes, aggregate wheat imports in Africa in 2021/22 points to a decline of 3.7 percent compared with 2020/21. Accounting for the bulk of this decline, imports by **Morocco** are expected to fall by 2.3 million tonnes from last year's record level, as domestic supplies are set to recover, resting on a probable triple increase in domestic production this year. Furthermore, imports are likely to be deterred by the reinstatement of wheat import duties in mid-May 2021, which had been suspended since January 2020. By contrast, a reduced production forecast and tightening stocks are expected to boost imports by **Algeria** by 1.1 million tonnes in 2021/22, to 7.6 million tonnes. Wheat imports by **Egypt**, the world's largest wheat importer, are also projected to rise in 2021/22, albeit marginally, to a record 13.3 million tonnes. While production is forecast to remain steady, the higher projected imports by Egypt are mostly to help with stock build-up following a drawdown in 2020/21. In **Nigeria**, the third-largest importer in Africa, wheat imports could fall marginally from last year's record as a result of larger opening stocks. The Central Bank of Nigeria has recently indicated its plan to close the US dollar funding for wheat imports in an effort to reduce the country's imports by 60 percent over the next two years.

In *Latin America and the Caribbean*, total wheat imports in 2021/22 are forecast to remain near the 2020/21 level of 23.7 million tonnes. Import demand is expected to be generally steady year-on-year in **Brazil** and **Mexico**, the region's largest and second largest wheat importers, at 6.5 million tonnes and 5.0 million tonnes, respectively, with adequate supplies to meet demand.

Imports in *Europe* in 2021/22 are forecast at 9.4 million tonnes, down marginally from 2020/21. Accounting for the biggest share, imports by the **European Union** are likely to remain unchanged year-on-year at 5.0 million tonnes, with increased utilization, higher exports and replenishing stocks expected to be balanced by a strong rebound in production. Elsewhere in Europe, a likely strong increase in wheat production in the **United Kingdom** is expected to reduce the country's imports.

Regarding exports, sales by the **Russian Federation** – the world's leading wheat exporter – are anticipated to remain unchanged at 39.0 million tonnes as large domestic supplies and competitive export prices are seen offsetting the impact of a floating export tax imposed in June 2021. In **Argentina**, despite increased information and registration requirements, in place as of April 2021, exports are forecast to increase by 37 percent in 2021/22 to

Figure 4. Wheat production in major wheat producers



13.0 million tonnes on expectation of higher production, as well as competitive export prices due to a weaker currency relative to the US dollar. A rebound in production is also expected to boost wheat shipments from the **European Union** by 9 percent to 29.5 million tonnes, and in **Ukraine** by 5 percent to 17.0 million tonnes. By contrast, expected declines in production are anticipated to reduce shipments from **Australia** and **Canada** by 5 percent and 19 percent, respectively, compared with their export volumes in 2020/21. Exports from the **United States** are also forecast to decline in 2021/22, by 3 percent, as a result of strong domestic demand tightening export availabilities.

UTILIZATION

Higher feed use to boost total wheat utilization in 2021/22

Global wheat utilization in 2021/22 is forecast to increase by 2.5 percent (19.1 million tonnes) from the 2020/21 estimated level, to reach an all-time high of 778.6 million tonnes, with year-on-year increases expected in food, feed and industrial uses. Leading the expected growth in wheat consumption, global **feed use** of wheat is forecast to rise considerably, by 7.5 percent (10.8 million tonnes) from the 2020/21 level to a record 155.5 million tonnes in 2021/22, marking the greatest annual increase since 2011/12. After falling in 2020/21, feed use of wheat in the European Union, the biggest market for feed wheat, is expected to rebound in 2021/22, increasing by 9.0 percent, with an anticipated rebound in wheat production increasing domestic supplies and lowering prices. A likely narrow wheat-to-maize price differential in the first half of 2021/22 is also seen to support a strong rise in feed use of wheat in the United States, pointing to a predicted 70 percent growth in wheat feed utilization, taking it to its highest level since 2013/14. Competitive prices of wheat relative to maize are expected to boost feed use of wheat in the United Kingdom and several countries in South America, as well as in China, now the world's second largest market for feed wheat, where feed demand continues to rise. At 531 million tonnes, representing nearly 70 percent of the expected total wheat utilization, wheat for direct **human consumption** is forecast to increase by 1.2 percent (6.3 million tonnes) in 2021/22. At this level, per capita wheat consumption would remain nearly unchanged at the global level (at 67.4 kg per annum), as well as for developing countries (at 62.4 kg per annum), but it could rise slightly in developed countries, from 92.6 in 2020/21 to 93.0 kg per annum in 2021/22. Total **industrial use** of wheat is also projected to increase in 2021/22, marking a rebound after two consecutive years of decline. Most of this growth is seen in the European Union, driven by greater ethanol production, in the United Kingdom, due to a rise in ethanol and starch production, and in India, as a result of higher expected starch production.

STOCKS

Global wheat inventories could rise for a third consecutive season

Based on the preliminary forecasts for 2021 production and 2021/22 utilization, world wheat stocks are forecast to increase by 2.6 percent (7.7million tonnes), to reach a new all-time high of 299 million tonnes by the close of seasons in 2022. The expected year-on-year increase would mark

Figure 5. Wheat exports from the Black Sea

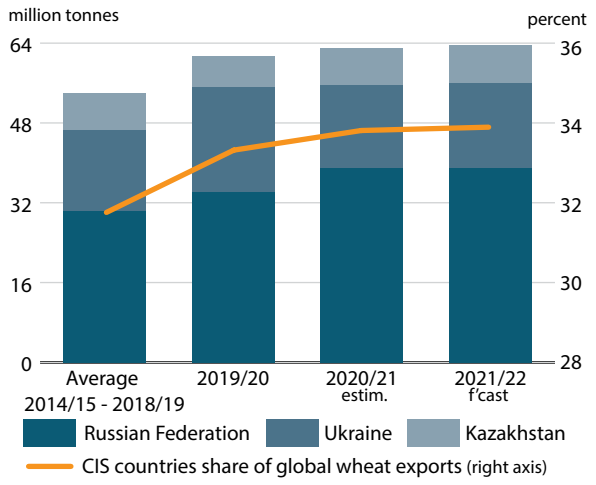


Figure 6. Global wheat utilization

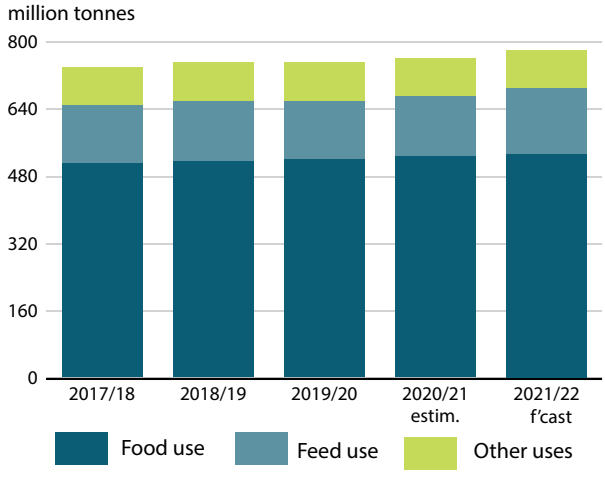


Figure 7. Top 10 feed consumers

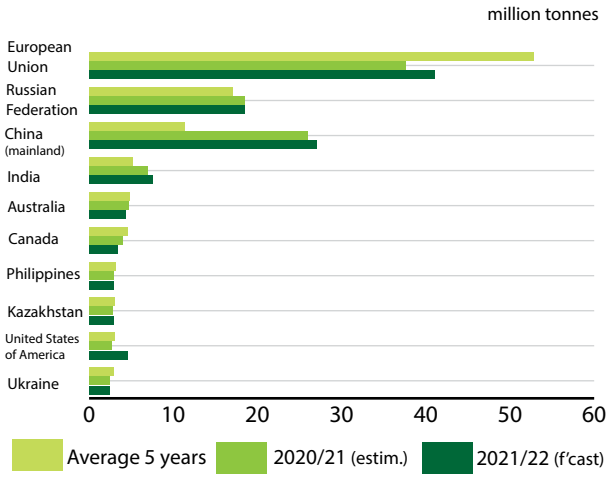
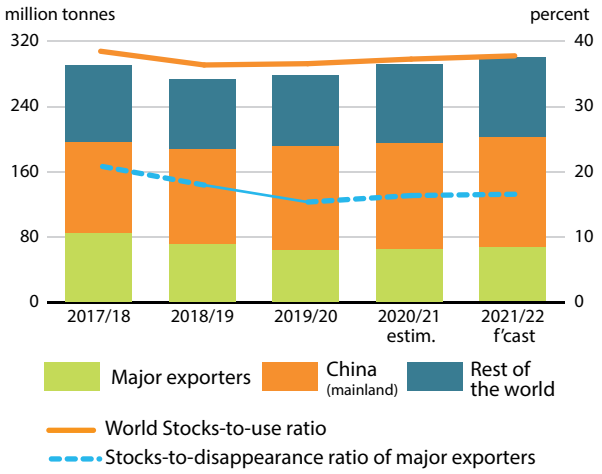


Figure 8. Wheat stocks and ratios



the third consecutive annual rise in global wheat stocks. In combination with the expected growth in utilization, the forecast for global stocks points to a **world wheat stocks-to-use ratio** of 38.0 percent in 2021/22, up marginally from 37.4 percent in 2020/21 and a four-year high. The largest increase in inventories is forecast to occur in China, where higher production and record imports could push inventories up 3.4 percent above opening levels to just over 134 million tonnes, accounting for approximately 45 percent of world wheat stocks in 2021/22. Excluding China, global stocks are forecast to increase by 2.1 percent above opening levels, supported by foreseen increases in the European Union, India, Morocco and Ukraine, as a result of higher expected domestic production, as well as in Australia due to high carryover stocks and reduced exports. Suggesting a slightly tighter market supply, the **ratio of major wheat exporters' closing stocks to their total disappearance** (defined as domestic utilization plus exports), which provides a good measure of availability in global markets, is forecast at 17.1 percent, mildly up from 16.5 percent in 2020/21, but still below the past five-year average. Among the major exporters, offsetting the expected inventory buildups in the European Union and Ukraine, strong demand and low opening stocks (following a below-average output in 2020/21) are seen pushing stocks down in the United States by 11.2 percent (2.7 million tonnes) to their lowest level since 2014/15. With an expected decline in production and a second consecutive year of near-record exports, wheat inventories in the Russian Federation are also forecast to contract year-on-year, by 8.9 percent (900 000 thousand tonnes).

COARSE GRAINS*

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

PRICES

International prices of major coarse grains remain above last year's levels

Tightening global supplies and strong import demand drove up international prices of coarse grains in almost every month of the 2020/21 (June/July) season. After falling to a three-year low in May 2020, international prices of coarse grains rose sharply for the first eight months of the season, reaching in February 2021 their highest point since June 2013. Continued downward revisions to supplies in the United States amid robust export demand sustained the rise in international maize prices. China[1] was a dominating market driver with its unprecedented volume of coarse grain imports, up 182 percent year-on-year, accounting for nearly all the growth in world coarse grain

[1] China in this section is restricted to the mainland of China.

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

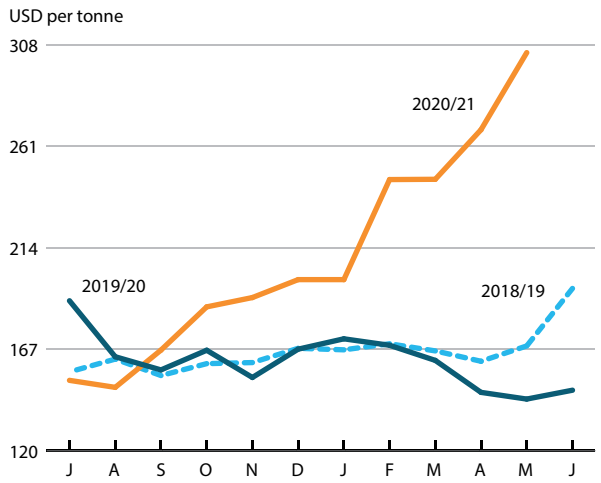
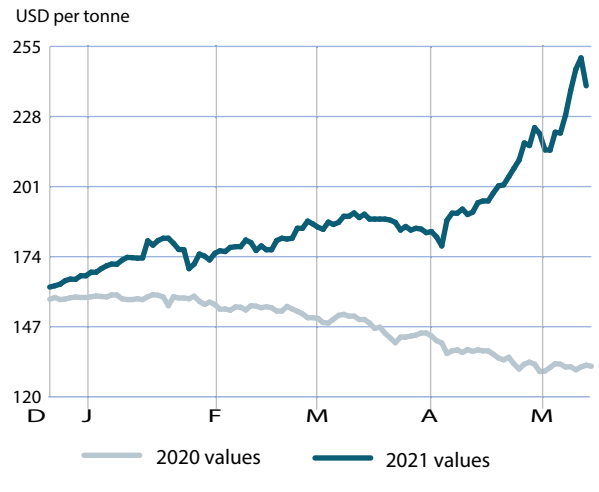


Figure 2. CBOT maize December futures



trade in 2020/21. A temporary suspension of maize export registrations by Argentina in early 2021 and spillover effects from strong increases in soybean prices also added to the upward price momentum. Although maize prices began to fall towards the end of May 2021, as preliminary 2021 production prospects indicated a likely sizeable increase in global production, they remained elevated on account of an expected further contraction in export availabilities and global inventory levels in the coming season.

Leading the increase in international export prices, the benchmark US maize prices (yellow, No. 2, f.o.b.) averaged USD 304 per tonne in May 2021, up by 111 percent from May 2020. Similarly, despite the seasonal increase in supplies from the new harvest, Argentina (up River, f.o.b.) maize prices were up in May by 86 percent year-on-year. In line with maize price trends, international prices of barley and sorghum remained above their values of a year ago, influenced by strong feed demand, especially from China.

Maize futures prices also surged, reflecting tightening export availabilities, especially in the United States, rising purchases by China, and expectations of continued strong global demand based on projected economic recovery from the COVID-19 pandemic in many countries. The Chicago Board of Trade (CBOT) maize futures for delivery in December 2021, which is the benchmark delivery month for the new US crop, peaked to an 8-year high by mid-May. Despite a slightly weaker price sentiment in late May on improved production prospects, CBOT futures averaged 283 per tonne for the month, still up 90 percent from May 2020. More detailed analysis of the futures markets can be found in the Market Indicators section of this report.

PRODUCTION

Record output forecast for 2021

Global production of coarse grains is forecast at a record level of 1 516 million tonnes in 2021, 36 million tonnes (2.5 percent) above the previous year's output. Expected increases in maize and, to a lesser extent, sorghum production are seen more than outweighing a decline in the world barley outturn.

World maize production is forecast at 1 198 million tonnes in 2021, up 3.7 percent on a yearly basis. The bulk of this year's growth is expected in the **United States**, where the maize output is forecast at 384 million tonnes, 6.6 percent above the outturn in 2020. The positive outlook is underpinned by expectations of a modest expansion in plantings and a likely return to above-average yields following last year's lows. A sharp upswing in maize prices since the release of the initial planting estimate in March could, however, spur a greater increase in sowings that would further bolster production prospects; field observations in May already indicated that plantings were progressing at a faster rate than average. In **Canada**, production is forecast to increase moderately in 2021 on a larger planted area and a likely upturn in yields.

In Europe, the maize production forecast for the **European Union** is pegged at 71.6 million tonnes in 2021, nearly 10 percent above last year's level. Despite unconducive weather that slowed plantings, a yearly upturn in the area sown is forecast due to good price prospects, which together with an expected increase in yields underpin the current positive production outlook. Harvests in Bulgaria and Romania are forecast to recover strongly from the weather-reduced levels in 2020, accounting for the largest proportion of the foreseen aggregate production increase among **European Union** countries. In **Ukraine**, with high maize prices expected, at the minimum, to ensure a similar sized planted area relative to the level in 2020, and yields returning to above-average levels following the lows in 2020, maize production is foreseen to climb to 35 million tonnes, up 16 percent from the previous year. The maize harvest in the **Russian Federation** is forecast to remain broadly unchanged at 14 million tonnes in 2021.

In Asia, maize production in **China,** by far the largest producer on the continent, is forecast to increase by 3.6 percent to 270 million tonnes, as farmers respond positively to the high prices and the government support policies by increasing plantings. Elsewhere in Asia, maize outputs in 2021 are foreseen to remain mostly unchanged on a yearly basis and generally above the five-year averages.

Figure 3. Major maize producers

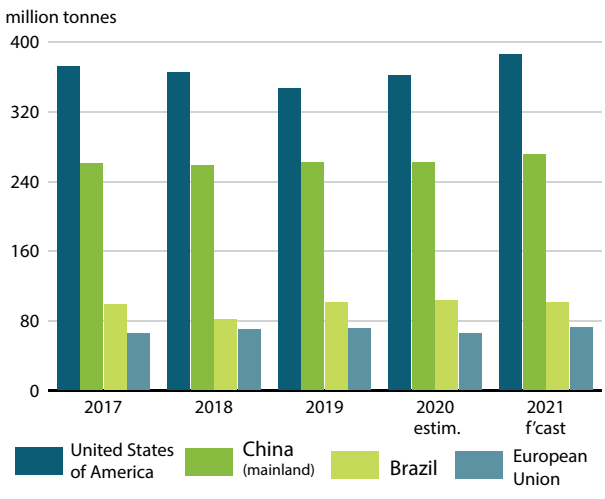


Table 1. World coarse grain market at a glance

	2019/20	2020/21 *estim.*	2021/22 *f'cast*	Change: 2021/22 over 2020/21
	million tonnes			%
WORLD BALANCE				
Production	**1 447.0**	**1 479.7**	**1 516.1**	**2.5**
Trade[1]	**210.4**	**233.8**	**234.2**	**0.1**
Total utilization	**1 459.3**	**1 505.5**	**1 526.5**	**1.4**
Food	219.2	224.5	225.9	0.6
Feed	851.6	888.3	895.4	0.8
Other uses	388.6	392.7	405.3	3.2
Ending stocks[2]	**361.6**	**333.9**	**328.2**	**-1.7**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	28.4	28.8	28.7	-0.4
LIFDC[3] (kg/yr)	37.7	38.2	37.9	-0.9
World stocks-to-use ratio (%)	*24.0*	*21.9*	*20.8*	
Major exporters stocks-to-disappearance ratio[4] (%)	*14.6*	*11.4*	*12.1*	

FAO COARSE GRAIN PRICE INDEX (2014-2016=100)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	95	101	143	53.3

[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] Low-Income Food-Deficit countries.
[4] Major exporters include Argentina, Australia, Brazil, Canada, European Union, Russian Federation, Ukraine and the United States of America.

Table 2. Coarse grain production: leading producers*

	2019	2020 *estim.*	2021 *f'cast*	Change: 2021 over 2020
	million tonnes			%
United States	359.9	374.9	399.8	6.6
China (mainland)	269.9	269.9	279.2	3.4
European Union	166.6	155.1	159.5	2.8
Brazil	103.8	106.3	104.1	-2.0
Argentina	63.3	65.8	66.4	0.9
India	44.1	49.1	48.5	-1.3
Ukraine	46.4	39.7	45.0	13.3
Russian Federation	42.3	43.1	41.9	-2.8
Mexico	32.6	33.1	32.2	-2.7
Canada	28.7	29.8	31.0	4.0
Ethiopia	24.2	23.1	23.1	0.0
Indonesia	22.6	22.5	22.7	0.9
Nigeria	21.3	21.0	20.4	-2.8
South Africa	12.3	16.8	17.5	4.1
Turkey	14.4	15.6	14.7	-5.8
Other countries	194.5	214.0	210.2	-1.8
World	**1.447.0**	**1.479.7**	**1.516.1**	**2.5**

* Countries listed according to their position in global production (average 2019-2021).

In South America, where harvesting of the 2021 maize crop has begun, prospects point to another bumper regional output. In **Argentina**, despite high maize prices, increasing costs of production have curbed producer profit margins, and this has caused a modest contraction in the area sown; nonetheless, the maize acreage is still set to remain near the record high of 2020. Incorporating a foreseen upturn in yields, production in Argentina is forecast at 58 million tonnes in 2021, unchanged on a yearly basis. In **Brazil**, total maize production is forecast to decline slightly to 100 million tonnes in 2021, albeit remaining at a level above the five-year average. Despite an estimated record area planted, instigated by high grain prices, dry weather conditions during the minor and main seasons have dented yield expectations, which accounts for the anticipated production decrease this year.

In Africa, the 2021 maize crops are being harvested in countries south of the Equator. **South Africa**, the continent's leading producer, is forecast to harvest a crop of 16.7 million tonnes, just short of the record output of 2017. The large output primarily reflects a price-driven expansion in sowings and expectations of above-average yields, due to almost ideal weather conditions throughout the season. Production in neighbouring countries is also forecast at high levels, notably in **Zimbabwe**, where the output is expected to recover substantially following two years of drought-reduced outturns to reach 2.7 million tonnes. Planting of the 2021 maize crop is ongoing in West Africa and East Africa.

The forecast for global barley production in 2021 stands at 157.2 million tonnes, 1.8 percent (nearly 3 million tonnes) below last year's record. This outlook primarily reflects an expected decline in **Australia's** harvest, where reduced trade prospects are expected to instigate a reduction in plantings. The lower output in Australia is anticipated to more than outweigh expected production increases in Canada, the **European Union** and Morocco.

World sorghum production is forecast at 62.6 million tonnes in 2021, 2.6 percent above the previous year's average level. Large outputs are projected in **Australia** and the **United States**, where high prices and robust trade prospects are set to encourage area expansions.

TRADE

Coarse grains trade seen remaining stable in 2021/22

Following a year of robust growth, world trade of coarse grains in 2021/22 (July/June) is expected to remain

Figure 4. Global trade of coarse grains by type

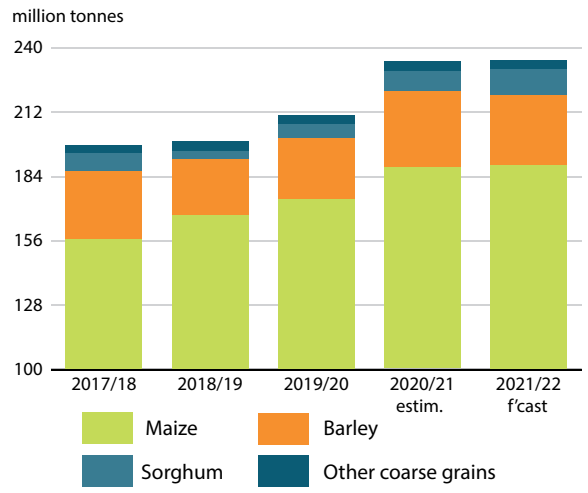
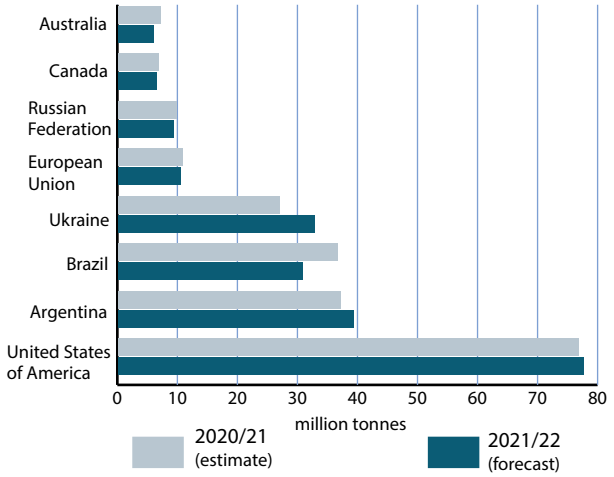


Figure 5. Coarse grain exports: major exporters



generally close to the 2020/21 estimated record level of 234 million tonnes. Larger shipments of maize and sorghum are seen balancing a reduction in global barley trade in 2021/22.

Global maize trade is forecast to expand only marginally, by 0.6 percent (1.1 million tonnes), in 2021/22 (July/June), reaching 189 million tonnes. For the second consecutive season, the greatest increase in demand is expected to come from **China**. After quadrupling its imports year-on-year in 2020/21 and rising from the ninth largest importer to the world's top maize importer, China is forecast to further increase its maize purchases from international markets by 9.1 percent (2 million tonnes) in 2021/22, to 24 million tonnes. Rising demand for animal feed and industrial use, as well as efforts to replenish stocks, on top of high domestic prices, are seen sustaining China's maize import levels well above the 7.2 million tonne tariff-rate-quota for 2021. **Turkey** is also expected to increase its maize imports by as much as 48 percent (1.2 million tonnes), following a dip in 2020/21, to compensate for this year's anticipated reduced production. Despite a rise in production, the **European Union** could increase imports by 7.4 percent (1.1 million tonnes) from 2020/21 levels to meet domestic demand and replenish inventories, which fell to low levels in the previous season. Tight stocks as a result of reduced production and rising consumption are seen pushing **Mexico's** imports up by 6.1 percent (1 million tonnes) in 2021/22. By contrast, adequate domestic supplies with a reduced export forecast for **Brazil** are expected to reduce imports by 50 percent (1 million tonnes). **The Islamic Republic of Iran** is also expected to make smaller purchases in 2021/22 on account of high carryover stocks following last year's record import volumes.

On the export side, larger maize shipments are forecast for **Ukraine**, up 24.4 percent (5.5 million tonnes) from 2021/22, reaching 28 million tonnes, due to an expected production recovery. Maize exports by **Argentina** are also expected to rise in 2021/22 to a new record level of 35.2 million tonnes, up 3.5 percent (1.2 million tonnes) year-on-year, supported by a near-record production forecast and competitive currency. Weighing against these increases, sales from **Brazil** are forecast to decline by 15.6 percent (5.7 million tonnes) from last year's level, falling to a three-year low of 30.8 million tonnes in 2021/22 as a result of reduced production. Low carryover stocks and expectations of higher industrial and, to a lesser extent, feed consumption levels than in 2020/21 are seen slightly lowering shipments from the **United States** by 1.1 percent (750 thousand tonnes) to 68 million tonnes in 2021/22. Despite this decline, however, the United States would maintain its position as the world's top maize exporter.

Similar to maize trade, global trade in sorghum is forecast to expand in 2021/22 (July/June), by 26.2 percent (2.4 million tonnes), to 11.4 million tonnes, driven almost exclusively by a foreseen 29-percent (2 million tonne) increase in **China's** purchases to meet higher expected feed use demand following official guidelines encouraging greater use of sorghum, and other coarse grains, in feed rations. **Mexico** is also seen increasing sorghum purchases in 2021/22, by 500 000, to compensate for an expected fall in production. This greater global import demand is likely to be mostly met by increased shipments from the **United States**, which are forecast to rise by 21.5 percent (1.6 million tonnes) in 2021/22.

Table 3. Top 10 maize importers

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
China (mainland)	10.6	24.0	126.2
Mexico	16.6	17.5	5.3
Japan	16.1	16.0	-0.9
European Union	19.5	16.0	-18.1
Viet Nam	11.3	12.8	13.0
Korea Rep. of	11.2	11.3	0.7
Egypt	10.1	10.5	3.6
Iran (Islamic Republic of)	9.8	9.5	-2.9
Colombia	6.0	5.9	-0.9
Algeria	5.0	5.3	5.3

Table 4. Top 10 maize exporters

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
United States	56.8	68.0	19.8
Argentina	33.9	35.2	3.9
Brazil	33.4	30.8	-7.8
Ukraine	27.5	28.0	1.7
Russian Federation	3.5	4.0	13.4
European Union	3.9	3.5	-10.0
Serbia	2.9	3.0	3.9
South Africa	1.9	2.8	46.7
Paraguay	2.4	2.7	11.8
Myanmar	1.2	1.8	49.5

Table 5. Top 5 sorghum importers

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
China (mainland)	3.5	9.0	154.5
Mexico	0.5	0.7	44.4
Japan	0.5	0.5	8.5
Sudan	0.3	0.3	12.5
Kenya	0.2	0.2	0.0

Table 6. Top 5 sorghum exporters

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
United States	4.8	9.1	89.0
Argentina	0.2	0.8	234.4
Australia	0.2	0.5	180.4
Ethiopia	0.5	0.5	0.0
Sudan	0.2	0.1	-33.3

Table 7. Top 10 barley importers

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
China (mainland)	7.2	10.3	43.1
Saudi Arabia	6.7	6.5	-3.2
Iran (Islamic Republic of)	2.3	2.0	-14.6
Japan	1.2	1.2	1.1
Libya	1.0	1.0	0.0
European Union	0.6	1.0	57.5
Turkey	0.8	0.8	5.3
Jordan	0.8	0.8	0.0
Algeria	0.5	0.8	42.2
Brazil	0.1	0.1	60.4

Table 8. Top 10 barley exporters

	2018/19-2020/21 *average*	2021/22 *f'cast*	Change
	million tonnes		%
European Union	6.6	6.5	-2.2
Australia	4.4	5.0	12.5
Russian Federation	5.0	5.0	-0.7
Ukraine	4.3	4.5	5.0
Canada	2.7	3.5	31.9
Argentina	2.7	3.3	23.9
Kazakhstan	-	1.0	-
United Kingdom	0.4	1.0	130.8
United States	0.2	0.3	41.6
Turkey	0.1	0.1	60.4

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

By contrast, global barley trade in 2020/21 (July/June) is expected to fall from the 2020/21 level by 8.5 percent (2.8 million tonnes) to 30.3 million tonnes. A predicted drop in purchases by **Morocco** of 700 000 tonnes (63.6 percent), on account of a large expected increase in production, is the main driver behind the anticipated contraction in global trade. Greater use of locally produced animal feed and a decline in the barley import subsidy are also expected to result in lower barley imports by **Saudi Arabia**. Imports by **China** in 2020/21 could fall by 4.6 percent (500 000 tonnes), but would still remain at an elevated level of more than 10 million tonnes, maintaining China's position as the world's largest importer of barley. On the export side, a sizeable drop in barley production may also reduce shipments from **Australia** in 2021/22, by as much as 23 percent (1.5 million tonnes). The **Russian Federation** is also forecast to reduce shipments year-on-year by 16.7 percent (1 million tonnes) due to slightly lower production prospects and tighter stocks following a record export level in 2020/21. Shipments will likely be further limited by the floating tax imposed on barley exports from the start of June 2021.

UTILIZATION

Total utilization of coarse grains reaching a new peak in 2021/22

World utilization of coarse grains is forecast to increase by 1.4 percent (21.1 million tonnes) in 2021/22 to a new record of 1 527 million tonnes. The increase is largely due to greater expected growth in **industrial use** as economies begin to recover from the COVID-19 pandemic, followed by increased global **feed use**. Among the major coarse grains, global utilization of maize is forecast to increase the most year-on-year, up 2.1 percent (25 million tonnes) to 1 209 million tonnes, followed by total sorghum utilization, up 2.1 percent (1.3 million tonnes) to 63.4 million tonnes, while the use of barley is seen falling by 1.1 percent (1.7 million tonnes) to 156.8 million tonnes.

Total **industrial use** of coarse grains is forecast to register a strong growth in 2021/22. The increase from 2020/21 reflects an expected greater industrial use of maize, marking a second year of recovery from its fall in 2019/20 caused by the dampening effects of COVID-19 restrictions on ethanol demand. In the United States, which accounts for nearly half of global industrial use of maize, higher ethanol demand with increased gasoline consumption as the economy recovers is seen boosting industrial use of maize by nearly 7 percent. In China, industrial use of maize is forecast to increase by just over 3 percent, mostly on greater starch production. An expected increase in ethanol production is also seen lifting industrial use of maize in Brazil by around 7 percent.

World **feed use** of coarse grains is also forecast to expand in 2021/22, albeit at a slower pace than in the past nine years of growth, rising by only 0.8 percent (7.1 million tonnes) to reach 895 million tonnes. The bulk of the foreseen increase is attributable to maize feed use, which is forecast to rise by 1.3 percent to 717 million tonnes, with greater use expected in all of the top four maize feed consumers: China, Brazil, the European Union and the United States. Accounting for nearly 30 percent of global maize feed utilization and the world's

Figure 6. Coarse grains top 10 importers

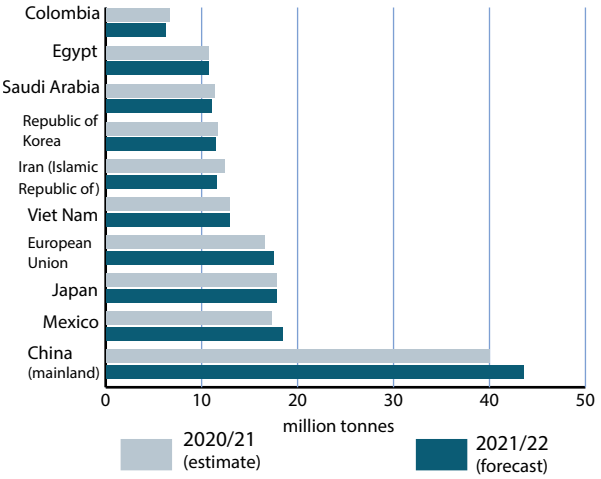
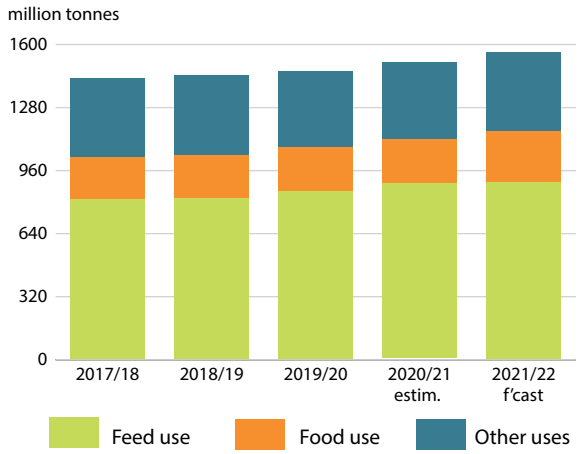


Table 9. Maize use for ethanol (excluding non-fuel) in the United States

	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21 estim.	2021/22 f'cast
Maize production	351.316	361.136	345.506	384.778	371.096	364.262	345.962	360.252	380.764
Ethanol use	130.155	132.085	132.695	137.978	142.373	136.607	123.373	126.370	132.085
Yearly change (%)	10.4	1.5	0.5	4.0	3.2	-4.0	-9.7	-7.5	7.1
As of production (%)	37.0	36.6	38.4	35.9	38.4	37.5	35.7	35.1	34.7

Source: WASDE-USDA 12 May 2021 and FAO estimates.

Figure 7. Coarse grains utilization



largest user of maize for feed, China is forecast to increase its use of maize for feed by 2.6 percent in 2021/22 to meet its rising feed demand with its swine herd now nearly fully recovered to its pre-African Swine Fever level. Increases in the use of maize for animal feed are also forecast for Brazil, the European Union and the United States. Global feed use of sorghum is expected to increase for a third consecutive season in 2021/22 by 9.5 percent, mostly on account of an anticipated rise of 1.8 million tonnes in China, the top global sorghum feed consumer. Feed use of sorghum is also expected to rise in Argentina. By contrast, global feed use of barley is forecast to decrease by 1.7 percent (1.9 million tonnes) in 2021/22, on weaker demand anticipated in the United Kingdom of Great Britain and Northern Ireland (down 15 percent), as well as in Saudi Arabia (down 10 percent), where grazing conditions are good and the diminishing barley import subsidy is expected to lead to greater use of locally produced animal feed.

At 226 million tonnes, world **food consumption** of coarse grains in 2021/22 is forecast to expand by 0.6 percent (1.4 million tonnes) from 2020/21, maintaining a steady level of global per caput consumption. The forecast growth is concentrated almost exclusively in developing countries, primarily in Africa, Asia and, to a lesser extent, Central America, and is almost entirely accounted for by increased consumption of maize, which is forecast to rise by 1.0 percent in 2021/22, mostly in Africa.

STOCKS

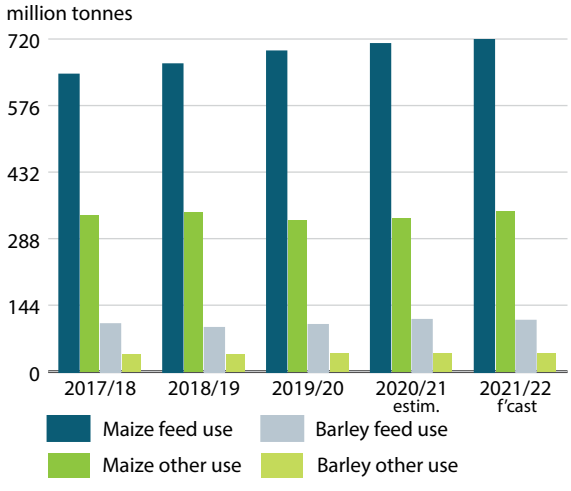
Coarse grains stocks likely to tighten further in 2021/22

World stocks of coarse grains by the close of seasons in 2022 are forecast to fall by 1.7 percent (5.7 million tonnes) below their opening levels, reaching an eight-year low of 328.2 million tonnes. This would mark the fourth consecutive season that global coarse grains fall below their opening levels. In combination with the forecast rise in utilization, the expected contraction in stocks would lower the **world-stocks-to-use ratio** of coarse grains further, from 21.9 percent in 2020/21 to 20.8 percent in 2021/22, the lowest level since 2012/13. However, the **ratio of major exporters' closing stocks to their total disappearance** (defined as domestic utilization plus exports) is set to increase, albeit slightly, from 11.4 percent in 2020/21 to 12.1 percent in 2021/22, indicating slightly improved global availability from a trade perspective.

The anticipated decline in coarse grain stocks is almost entirely attributed to a further drawdown of global maize inventories, which are forecast to fall by 2.7 percent (7.2 million tonnes) in 2021/22, largely stemming from an expected 8 percent (10.4 million tonnes) fall in maize inventories in China, despite record imports. On top of rising consumption and low carryover stocks, slightly reduced production is also seen lowering Mexico's maize inventories by 25 percent (1 million). By contrast, maize stocks in the European Union are forecast to recover in 2021/22, by 23.4 percent (2.8 million tonnes), after a sharp decline last year, due to a record production forecast and increased imports. Maize inventories in the United States are also expected to recover slightly in 2021/22, rising by 3.4 percent (1.2 million tonnes), on account of a projected near-record production this year and smaller exports. However, at 33 million tonnes, maize stocks in the United States would still be well below average.

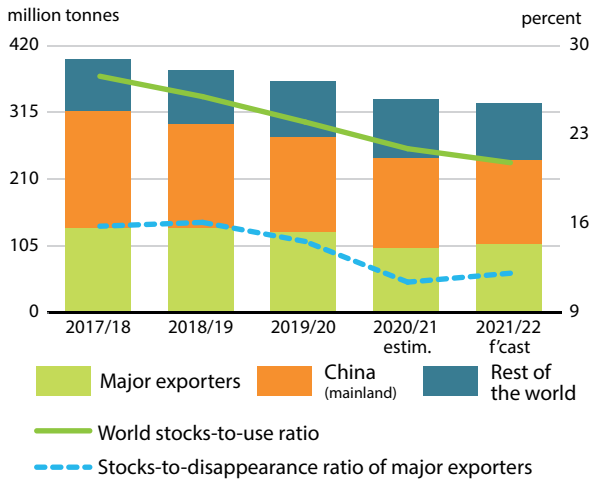
Global barley stocks are forecast to rise by 5.6 percent (1.8 million tonnes) year-on-year, mostly on likely increases in inventories in Canada, rising 140 percent

Figure 8. Global barley and maize consumption



(700 000 tonnes), and the EU, up 12.9 percent (1 million tonnes), as a result of increased production expectations. By contrast, sorghum inventories are likely to contract slightly, down 4.2 percent (340 000 tonnes) in 2021/22, almost exclusively on smaller stocks foreseen in several African countries.

Figure 9. Coarse grains stocks and ratios



RICE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PRICES

May prices little changed from December 2020 levels, but below their year-earlier highs

Contrasting trends across origins and market segments have kept the May 2021 value of the **FAO All Rice Price Index** at 110.6 points, down just 0.7 percent from December 2020 levels, but 4.5 percent below the five-and-a-half-year highs the Index touched in May 2020. As measured by their respective sub-indices, declines have primarily concerned aromatic and glutinous prices, which have continued to reel under the pressure of across-the-board harvest improvements in exporting countries, as well as weak demand, especially for Basmati rice from Near Eastern buyers. By contrast, output concerns in California due to limited water supplies for irrigation have propelled a 12.0 percent increase in Japonica prices since the start of the year. Quotations of the most widely traded Indica varieties have been more mixed. In the first months of the year, they drew support from the return of important buyers to the market, namely Bangladesh and Nigeria, although competition for markets, especially with India,

Figure 1. FAO rice price indices

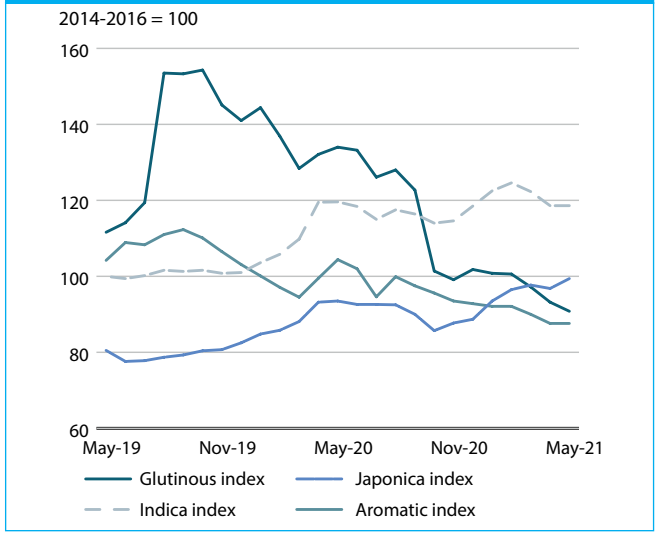
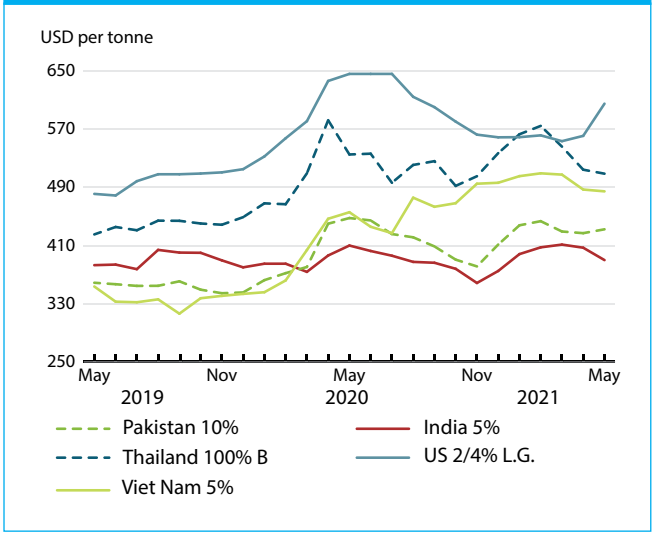


Figure 2. Export prices of higher-quality Indica rice



tended to cap gains in most Asian suppliers. Quotations have since subsided in all the major Asian exporters. Fresh crop harvests in Thailand and Viet Nam influenced these declines, as did currency movements and efforts by traders to attract new sales, which have been held back by container shortages and soaring shipping costs. Prices in the United States of America (United States) have been the only exception to this recent easing Indica trend, having taken an upturn in April, amid expectations of farmers in the US Delta shifting to cultivation of more profitable crops, namely maize and soybeans.

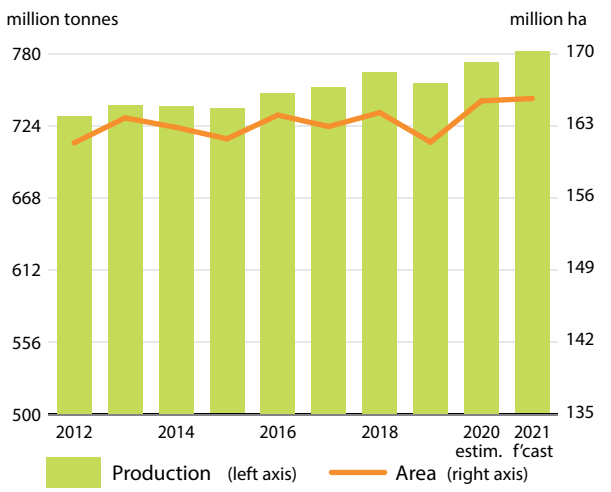
PRODUCTION

Global production to grow further in 2021, albeit at a slackened pace

Although countries located along and south of the Equator have already harvested their 2021 main crops, the 2021 season is still in its early stages in the Northern Hemisphere, where the first crop of the season has only just entered the planting stage. Assuming normal growing conditions, FAO forecasts global rice production in 2021 to reach 519.1 million tonnes (milled basis). This level would imply a 1.0 percent annual expansion to a new record high. At the same time, it suggests a likely deceleration in the pace of global output growth, as expectations of sustained strong advances in plantings, such as those witnessed in 2020, are restrained by increases in the prices of basic inputs, such as fertilizers and fuel, as well as uncertainties surrounding the resurgence of COVID-19 outbreaks in South and Southeast Asia and heightened competition by other crops.

In *Asia*, where the 2021 harvest is seen rising by 1.1 percent year-on-year to 465.4 million tonnes, the

Figure 3. Global paddy production and area



combined impact of these factors may be allayed by the continuance of government assistance programmes targeting the sector and often taking the form of input subsidies, producer price support measures, or broader initiatives seeking to enable the continuation of agricultural activities during lockdowns. For instance, in **China**[1], downcast prospects in northeastern Japonica producing provinces, due to heightened competition with maize, are tempered by the prevailing strength of local Indica prices, reinforced by another increase in government purchase prices for this type of rice. These could support a 1.0 percent overall production expansion in 2021 to 146.6 million tonnes. In **India,** which is seen replicating the 2020 record performance with a 123.1 million tonne harvest, prospects are underpinned by official forecasts of a normal monsoon performance, which coupled with strong public purchases of rice under the minimum support price system, may keep the area under paddy at comparatively high levels. After two successive years of weather-induced output drops, production is also forecast to recover in **Indonesia**, aided by a much improved performance of the seasonal rains, alongside official input and irrigation expansion schemes, which since last year have been furthered by plans to open wetlands and peatlands for paddy cultivation. Provided more normal growing conditions prevail over the season, high prices could also support production expansions in **Bangladesh** and **Thailand**, with an additional boost in the former expected to result from official efforts to promote mechanization and expand coverage under hybrid varieties. Most other Asian producing countries are similarly seen stepping up production in 2021, or keeping it close to the abundant levels seen in 2020. Exceptions to this trend could be **Japan**, where poor price prospects may stimulate greater participation in state programmes encouraging a shift away from rice cultivation, as well as **Afghanistan**, **Taiwan Province of China**, the **Islamic Republic of Iran**, **Iraq** and **Myanmar**, where poor water supplies for irrigation or high input prices may depress plantings.

In *Africa,* current prospects point to the 2021 harvest growing by 1.0 percent year-on-year to 25.6 million tonnes. Gains are anticipated to be concentrated in the western parts of the continent, especially **Nigeria**, but also in **Côte d'Ivoire, Ghana** and **Senegal**, mirroring expectations of yield recoveries from the 2020 weather-affected outcomes and an accelerated pace of area expansions spurred by strong domestic prices and ongoing input assistance programmes. Output expectations are more downcast elsewhere on the continent. For instance, **Egypt**

[1] China in this section is restricted to the mainland of China.

Table 1. World rice market at a glance

	2019/20	2020/21 estim.	2021/22 f'cast	Change: 2021/22 over 2020/21
	million tonnes, milled equivalent			%
WORLD BALANCE				
Production	**502.9**	**514.0**	**519.1**	**1.0**
Trade [1]	**45.4**	**48.0**	**47.9**	**0.0**
Total utilization	**504.4**	**513.3**	**520.6**	**1.4**
Food	414.3	421.6	427.1	1.3
Ending stocks[2]	**183.0**	**183.9**	**184.6**	**0.4**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	53.7	54.1	54.2	0.3
LIFDC (kg/yr)	65.0	65.9	65.9	0.1
World stocks-to-use ratio (%)	*35.7*	*35.3*	*35.1*	
Major exporters stocks-to-disappearance ratio[3] *(%)*	*24.5*	*24.9*	*26.0*	

FAO RICE PRICE INDEX (2014-2016=100)	2019	2020	2021 Jan-May avg.	Change: Jan-May 2021 over Jan-May 2020 %
	101	110	113	3.8

[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.

Table 2. Rice Production: leading producers*

	2019	2020	2021 f.cast	Change: 2021 over 2020
	million tonnes. milled equivalent			
China (mainland)	143.6	145.1	146.6	1.0
India	118.9	123.0	123.1	0.1
Bangladesh	36.5	37.4	37.8	1.2
Indonesia	35.0	35.0	37.1	6.1
Viet Nam	28.3	27.7	27.9	0.4
Thailand	18.9	20.1	20.8	3.4
Myanmar	15.1	15.1	14.9	-0.8
Philippines	12.4	12.9	13.0	1.1
Pakistan	7.4	8.2	8.3	1.2
Brazil	7.1	7.6	7.9	3.9
Japan	7.4	7.4	7.3	-0.9
Cambodia	6.5	6.6	6.8	1.8
United States of America	5.9	7.2	6.5	-10.5
Nigeria	5.1	4.9	5.3	7.4
Egypt	4.5	4.5	4.3	-3.7
World	**502.9**	**514.0**	**519.1**	**1.0**

* Countries listed according to their position in global production (average of 2019-2021).

could see its 2021 harvest contract by 3.7 percent to 4.3 million tonnes as reduced profit margins, in the context of intensified efforts to enforce water-saving cultivation limits, should encourage producers to shift to greater cotton cultivation. Prospects of reduced profitability are also dampening output expectations for the **United Republic of Tanzania**, as are a delayed and poor start to the seasonal rains in **Madagascar**. This scenario is likely, even if rainfall improvements occurring since the start of 2021, coupled with a reduced incidence of storm damage, may help mitigate production losses in the latter country.

In *Latin America and the Caribbean,* prospects for 2021 production growing beyond the 18.7 million tonnes harvested in 2020 were dampened by unseasonable dryness and short water supplies for irrigation, often associated with La Niña conditions. These limited the ability of producers in **Argentina**, **Brazil** and **Uruguay** to respond to attractive producer prices by expanding plantings or caused area under paddy to fall, as was the case of **Paraguay** and **Peru**. Nevertheless, conducive temperatures and good sunshine conditions provided respite, supporting some production gains in Argentina, Uruguay and especially Brazil. These increases may help to offset anticipated contractions in **Colombia**, prompted by producer price falls and efforts to reduce surplus production, in **Cuba**, **Haiti** and **Venezuela (Bolivarian Republic of)**, due to heightened shortages of basic inputs, and in **Bolivia (Plurinational State of)** due to erratic rains. Meanwhile, various Central American and Caribbean countries, such as **Costa Rica**, the **Dominican Republic** and **Honduras**, could recover losses incurred in 2020 following successive storms, with gains also expected in **Mexico**, driven by planting incentives provided by guaranteed producer prices.

In the *other regions,* the outlook points to a marginal output increase in Europe, as gains in the **European Union**, driven by improved water supplies in Portugal and fewer weather disruptions in Italy, are offset by a likely contraction in the **Russian Federation**, where producers may respond to rising water and fertilizer costs by reducing plantings. Prospects are also negative for the **United States**, which may harvest 11 percent less than in 2020, or some 6.5 million tonnes, as producers in the Delta substitute rice with maize and soybeans and limited water supplies curb plantings in California. By contrast, attractive profit margins and improved water allocations have permitted plantings in **Australia** to undergo an eightfold increase from the 12-year low that they touched in 2020 due to drought. Australian production is therefore set to increase from a mere 35 200 tonnes last year to 305 000 tonnes in 2021.

TRADE

As Asian and African imports underpin 2021 trade expansion, India's global market share could top 33 percent

After staging a 2.8 percent annual recovery in 2020, international trade in rice is expected to continue growing, with a total 48.0 million tonnes anticipated to be traded globally during the course of **2021** (January-December), up 5.6 percent from 2020. On the import side, growth prospects come in the context of increases in domestic prices in various countries, which have spurred interest in more affordably priced rice from abroad. In Asia, which looks set to drive the year's forecast trade expansion, this has especially been the case of **Bangladesh**, where following the approval of duty remissions and efforts to refurbish state stockpiles through imports, 2021 purchases may surge to a 4-year high of 1.8 million tonnes. Price differentials have also enticed global rice suppliers such as **Viet Nam** and **China** to step up 2021 purchases, part of which are destined for the feed and industrial sectors. These gains come alongside expectations of greater deliveries to **Iraq**, associated with the resumption of public purchases from abroad for the country's rationing system, and to African countries, spearheaded by **Côte d'Ivoire**, **Senegal** and **Nigeria.** In Nigeria, gains are expected to be facilitated by the December lifting of border closures. Together, greater imports from these countries may compensate for anticipated reductions by **Afghanistan**, **Nepal** and **Saudi Arabia,** and for historically low purchases by **Indonesia**, where higher domestic public procurement may rule out the need for state imports in 2021. The import outlook is more downcast outside Asia and Africa, amid expectations of diminished broken rice shipments to the **European Union** and of Basmati rice to the **Unites States**. In Latin America and the Caribbean, improved harvests in various **Central American and Caribbean** countries, together with the weakness of the *real* in **Brazil,** may also translate into a slowdown in the region's 2021 purchases.

The past year's dynamic international trade in rice has occurred notwithstanding the COVID-19 pandemic, which posed numerous logistical challenges to the execution of deliveries, including reduced milling and port operations at suppliers' end, which have been more recently compounded by container shortages and soaring freight rates. The cost implications of these factors for importers have tended to amplify interest in affordably priced rice, particularity from **India**, where ample exportable availabilities coupled with official initiatives, such as the opening of the Kakinada deep-water and Paradip ports to rice exports, have also helped to expedite deliveries.

Figure 4. Rice imports by region

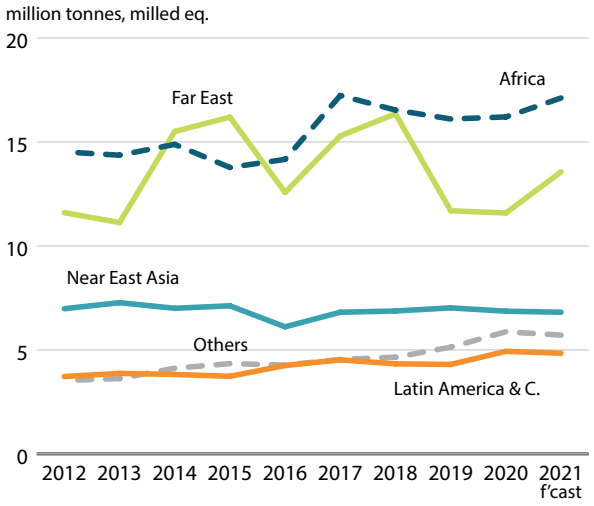


Figure 5. Rice exporters' shares in global trade

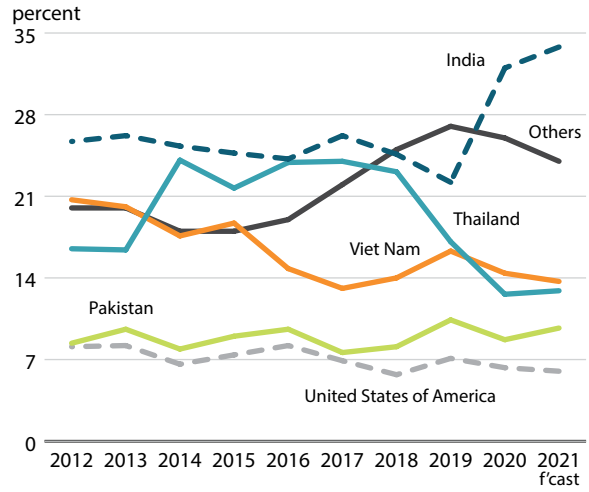
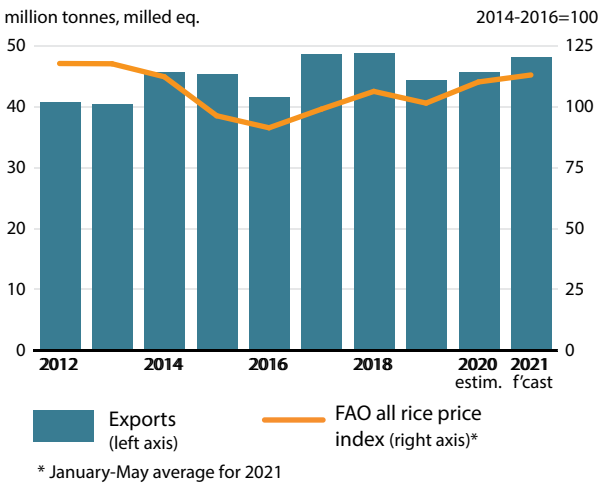


Figure 6. World rice trade and FAO all rice price index



Although the latest wave of COVID-19 outbreaks has not been without repercussions on rice milling and transport in India, assuming a gradual improvement in logistics, the competitive advantage endowed by these factors are forecast to lift India's exports to a fresh peak of 16.2 million tonnes. This would position India's share in the global export market at 34 percent, up from 32 percent in 2020 and from 13 percent a decade earlier. Although heightened competition for markets may limit their sales expansion, improved harvests are also expected to enable some export recoveries in **Thailand, the United States** and **Viet Nam** in 2021, with demand from China and competitive prices providing a more decisive boost to shipments by **Pakistan**. By contrast, lingering supply tightness may undermine deliveries by **Argentina**, **Brazil**, **Paraguay** and **Uruguay**, whereas forecast reductions for **Myanmar** are linked to disruptions in transport, communication and banking channels associated with political turmoil in the country, which have hindered the progress of seaborne shipments.

Although still tentative at this stage, **global trade in rice in 2022** is forecast to remain close to the 2021 level, at 47.9 million tonnes. Given the prospects of overall abundant 2021 harvests, various Asian countries, such as China, Malaysia and Viet Nam, may be in a position to cut reliance on imports next year. Bangladesh is foremost among these, as refurbished stockpiles and reduced price pressure may encourage officials to reinstate border protective measures, thus returning imports by the country to the near negligeable volumes registered in 2019 and 2020. This is likely to be the case even through strong domestic demand is expected to keep imports by African countries on an expansionary trend, while lower harvests raise Near Eastern purchases. Among exporters, ample and affordable exportable availabilities are envisaged to enable India to keep shipments largely unvaried in 2022, while greater Indica availabilities are anticipated to enable Thailand to improve its competitive edge in this market. These tendencies are predicted to affect deliveries by Viet Nam the most, although Brazil, Cambodia, Pakistan and the United States are also seen shipping less in 2022.

UTILIZATION

Food use to remain the driving force of global use expansion, but continued growth in feed use also expected

Based on preliminary expectations for 2021 crops, FAO tentatively forecasts global rice utilization in 2021/22 to exceed its year-earlier level by 1.4 percent, to reach a new peak of 520.6 million tonnes (milled basis). Food use is anticipated to account for 82 percent of this volume and drive the forecast utilization growth by staging a 5.6 million tonne annual expansion to 427.1 million tonnes. This increase would be sufficient to keep pace with projected world population growth, thus keeping global per capita food intake largely stable at 54.2 kg per person. The relative stability largely mirrors expectations of per caput food use in Asia remaining close to 8-year highs of 77.3 kg per person, as reductions in some Far Eastern consumers due to long-term dietary shifts away from rice consumption take place alongside gains elsewhere, supported by ample supplies and the continuation of public distribution programmes. In the other regions, average rice intake is forecast to remain little changed year-to-year, or even to accelerate its pace of expansion, as is anticipated to be the case of Latin America and the Caribbean and of Africa.

On the other hand, combined volumes destined for seed, non-food industrial uses and post-harvest losses will likely stabilize at around 74.2 million tonnes in 2021/22. As for uses of rice for animal feed,[2] these normally constitute a small share (close to 3 percent) of global rice use, but increases in grain and soybean prices occurring since late 2020 have stimulated greater interest in diverting surplus rice to commercial animal feed production. This is especially the case in Far Eastern countries, such as China, where the bulk of global feed use of rice concentrates and, where traditionally, use of rice for feed has been largely confined to the on-farm context. While these factors may keep feed use upbeat in the short term, it remains to be seen whether the appeal of rice as a commercial feed ingredient will endure thereafter, given the current positive expectations for the usually more cost-effective maize and wheat crops in China and beyond. As a result, global feed use of rice in 2021/22 is forecast at 19.3 million tonnes, which, while implying a 10 percent annual rise, would still represent only 4 percent of total expected utilization over the season.

WORLD RICE STOCKS

Global inventories to stage a modest rise in 2021/22, as continued drawdowns in China are expected to temper gains

Since reaching an all-time high of 186.1 million tonnes in 2018/19, global rice reserves have seen scant increases, if not fallen, largely because of production setbacks in traditional rice importing countries and inventory cuts

[2] FAO's rice supply and demand balance sheets are expressed on a milled rice basis. For feed use, this implies that the rice balance only accounts for volumes fed to animals in the form of paddy and husked rice (both in milled equivalent), or milled rice (including fully broken supplies). Rice husks and bran are not considered in the balance sheet.

in China. Nevertheless, global reserves have remained at ample levels, underpinned by accumulations elsewhere, especially in India due to growing procurement of rice under the minimum support price system. These tendencies are expected to extend into the upcoming season, with world rice stocks at the close of 2021/22 marketing years forecast at 184.6 million tonnes, just 0.4 percent above their opening levels, but still the second highest level on record.

Indeed, developments in the feed and livestock sector in **China** raise expectations of rice releases from public granaries continuing to target the feed sector in 2021/22, which could result in reserves in the country falling for the third successive season to a 5-year low of around 100 million tonnes. At the same time, much uncertainty surrounds these developments going forward, with the cost-effectiveness of rice as a feedstuff in the country likely to remain dictated by developments in alternative feed markets and policy decisions regarding the pricing of stock releases and the size of domestic public procurement and of state stockpiles.

Carryover expectations are more buoyant for other countries, largely mirroring efforts by various Far Eastern countries to reconstitute state reserves through domestic procurement and/or imports. This is the case of **Indonesia**, **Sri Lanka** and especially **Bangladesh**. In the wake of a bumper 2021 harvest and a rebound in imports, Bangladesh is envisaged to expand reserves by 10 percent to 6.6 million tonnes. Although still short of the highs registered in 2015/16, carryovers are also predicted to register some recoveries in **Brazil** and the **Republic of Korea**, with an upturn in output and imports similarly leading to some replenishments in **Nigeria**.

Combined, the **five major rice exporters** are predicted to end their 2021/22 seasons with 48.5 million tonnes in store, up 4.9 percent from their opening levels, the highest level since 2013/14.[3] Within the group, only **Pakistan** and **the United States** are envisaged to necessitate drawdowns in the face of little, if not negative, output growth and fairly sizeable export volumes. Nevertheless, these cuts may be overshadowed by further stock build-ups in **India** and **Thailand**. As a result, the major exporters' stock-to- disappearance ratio is seen rising from 24.9 percent in 2020/21 to 26.0 percent in 2021/22.[4]

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

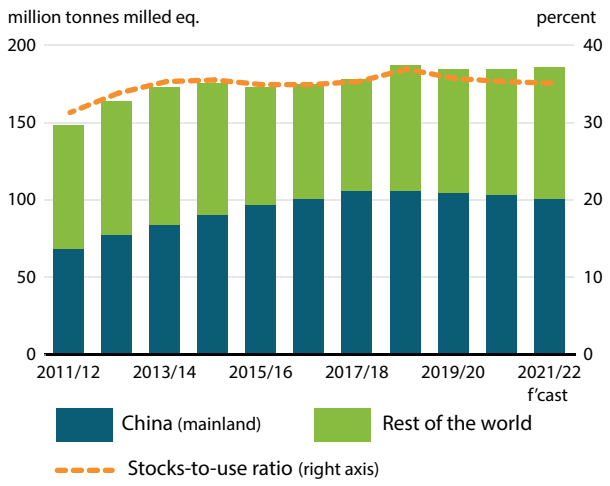
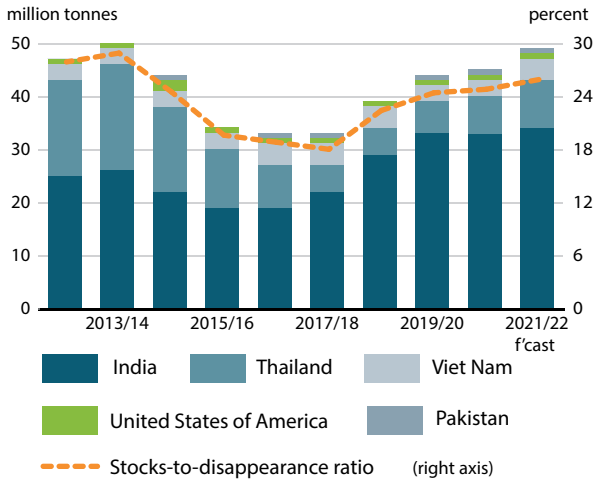


Figure 8. Stocks held by the five major rice exporters and stocks-to-disappearance ratio



[3] India, Pakistan, Thailand, the United States and Viet Nam.
[4] Defined as the sum of domestic utilization and exports.

OILCROPS, OILS AND MEALS[1]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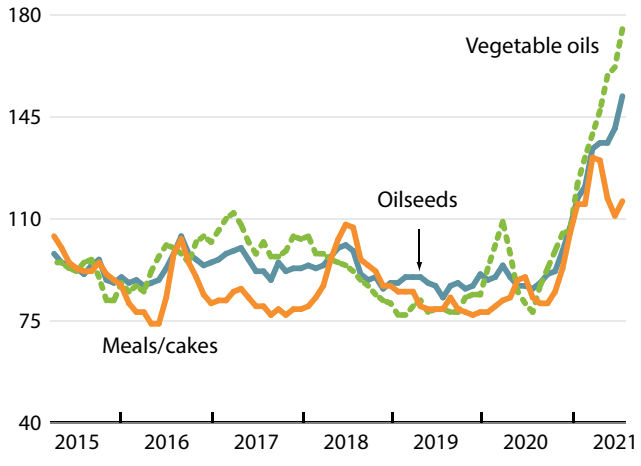
PRICES[2]

In 2020/21, prices of oilseeds and derived products climbed to multiyear highs

After embarking on an upward trajectory in mid-2020, international prices of oilseeds and derived products continued rising steadily into the 2020/21 season (October/September), despite uncertainties concerning the impact of COVID-19 on global demand. Underpinned by a tightening supply-demand outlook, in May 2021 FAO's price indices for oilseeds, oilmeals and vegetable oils were markedly above their respective year-earlier levels.

FAO's price index for oilseeds has increased uninterruptedly since June 2020, climbing to multiyear highs. The steady rise mainly reflects firming international soybean values, linked primarily to sustained imports by China[3], as the country has continued restocking its pig herds following past outbreaks of African swine fever (ASF). Furthermore, during the first half of 2020/21, protracted dry weather threatened South America's soybean crops, resulting in another poor harvest in Argentina. More recently, evidence of robust global crushing demand and reports of below-average temperatures and low soil moisture levels at the onset of the 2021/22 campaign in the United States of America (United States) lent additional support to world soy prices. Meanwhile, international rapeseed and sunflower-seed quotations also climbed to multiyear highs on account of global supply tightness.

Figure 1. FAO monthly international price indices for oilseeds, vegetable oils and meals/cakes (2014-2016=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.

[3] China in this section is restricted to the mainland of China.

Figure 2. FAO monthly price index for oilseeds (2014-2016=100)

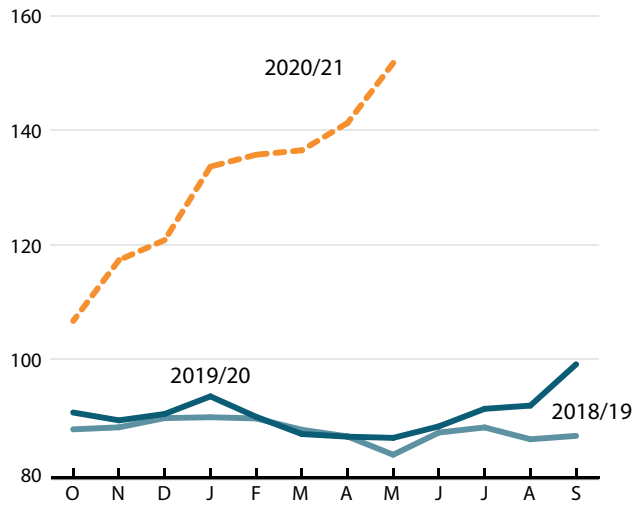


Figure 3. FAO monthly price index for oilmeals/ cakes (2014-2016=100)

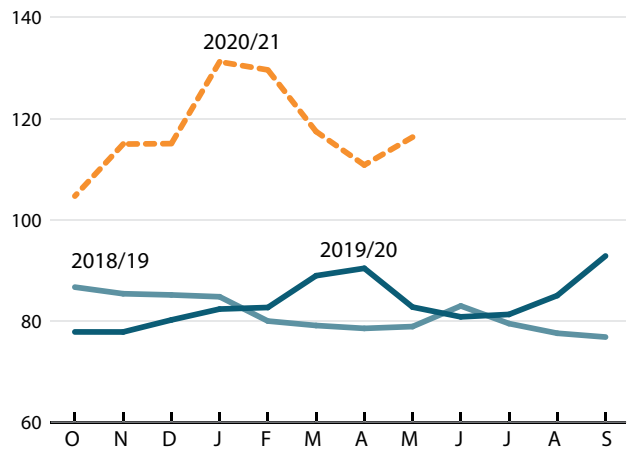
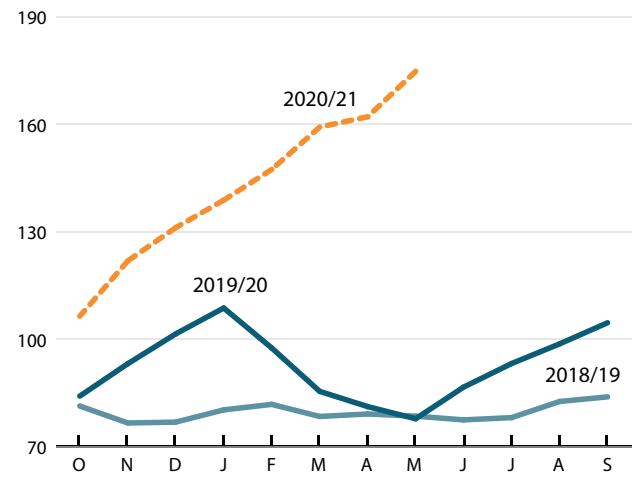


Figure 4. FAO monthly price index for vegetable oils (2014-2016=100)



As for oilmeals, FAO's price index showed prolonged strength entering the 2020/21 season, reflecting both rising feed demand in China, tied to the country's pig restocking efforts, and limited exportable soymeal supplies from Argentina, due to a slow pace of crushings. Since February 2021, however, international oilmeal values have started to falter on seasonal pressure stemming from the arrival of new crop supplies in South America, as well as reports of fresh ASF cases in China, which raised doubts about the country's prospective feed demand.

FAO's vegetable oil index has increased sharply since June 2020 – following a pronounced decline in early 2020, when the COVID-19 outbreak weighed on global demand. By May 2021, the price index stood twice as high as its corresponding 2020 value. The exceptional strength of the index primarily reflected record-high palm oil prices due to protracted supply tightness, as below-potential outputs in major producing countries coincided with reviving global import demand. At the same time, soyoil values were supported by tightening global supplies amid prospects of firming demand, including from biodiesel producers, while rapeseed and sunflower oil prices were underpinned by, respectively, recovering demand from both the biodiesel and food sectors in the European Union (EU) and dwindling export availabilities in leading producing countries.

OILSEEDS

Oilseed production to rebound in 2020/21

Falling short of the record-high output recorded in Following a marked drop in 2019/20, total oilseed production is expected to recover in 2020/21, reaching 610.1 million tonnes. The increase primarily stems from a rebound in harvested areas and, to a lesser extent, higher yields in key growing countries. More specifically, a rise in global soybean and rapeseed production is expected to more than offset a reduction in world sunflower seed output.

Global soybean production is pegged at 363.4 million tonnes, recovering from last season's pronounced decline and slightly below the all-time high recorded in 2018/19. In the Northern Hemisphere, 2020/21 production is set to increase across major producing countries. Production in the **United States** is reported at 112.5 million tonnes, mostly reflecting a rebound in plantings, while yields also recovered on generally favourable weather conditions. In **China**, soybean output rose for a seventh consecutive season, as plantings expanded further amid continued supportive policy measures. Production in **India** also registered a sharp recovery, propelled by gains in both yields and harvested

Table 1. World production of major oilcrops

	2018/19	2019/20 *est.*	2020/21 *f'cast*	Change 2020/21 over 2019/20
		million tonnes		%
Soybeans	364.6	338.2	363.4	7.5
Rapeseed	75.3	72.1	75.0	4.0
Cottonseed	42.7	43.0	40.7	-5.5
Groundnuts (unshelled)	41.2	42.5	42.7	0.5
Sunflower seed	53.0	57.1	51.3	-10.1
Palm kernels	18.2	17.8	18.6	4.9
Copra	6.2	5.6	6.2	9.9
Total	**601.2**	**576.3**	**597.9**	**3.8**

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.

area. In the Southern Hemisphere, where harvesting is about to conclude, mixed results are expected. Despite suboptimal growing conditions, **Brazil** is set to harvest a record crop, driven by both a further expansion in plantings due to attractive margins and continued yield improvements, whereas production in **Argentina** is seen declining further as a result of both below-average plantings and unusually dry weather conditions linked to La Niña.

As for rapeseed, global production is projected to rebound modestly. The output of the **European Union**[4] fell for a third consecutive season,as productivity gains were offset by continued area contractions. Production in **Canada** dropped to a five-year low, as dry conditions during the growing season resulted in a decline in yields, while plantings also decreased. By contrast, **Australia** reported a steep production rebound, stemming from gains in both area and yields.

In the case of sunflower seed, global output is set to drop to a three-year low, reflecting contractions in **Ukraine**, the **Russian Federation** and the **European Union** – the world's leading producers. Although plantings expanded across the region, these were insufficient to compensate for sharply lower yields resulting from detrimental weather conditions in pockets of major growing regions.

[4] Please note that from the 2020/21 season onwards the European Union (EU) is defined as EU27 rather than EU28, to take account of Brexit.

OILS AND FATS[5]

World oils/fats production set to recover in 2020/2021

The above crop forecasts are expected to translate into a year-on-year increase in the production of oils/fats to 241.2 million tonnes, only slightly below the all-time high recorded in 2018/19. With regard to individual oils, gains in palm, soy and, to a lesser extent, rapeseed, palm kernel and copra oils are expected to more than offset an anticipated drop in sunflower oil output. As for palm oil, global output is forecast to recover from the exceptional decline registered in 2020, although a below-potential production is expected due to a number of constraints. In **Indonesia**, while COVID-19 has had a negligible impact on palm oil production, the growing number of aged (less productive) oil palm trees, combined with reduced expansion in harvested area, is expected to slow the sector's growth. In **Malaysia**, besides facing similar issues, plantations are also suffering from protracted labour force shortages – a problem accentuated by COVID-19-related measures that restrict the movement of migrant workers. In the case of sunflower oil, the expected sizeable decline in global output is largely tied to reduced harvests notably in the Black Sea region.

Global supplies of oils/fats, which comprise 2019/20 carry-out stocks, are forecast to increase fractionally year-on-year. Domestic availabilities are expected to rise in **Indonesia**, the **United States** and **Brazil**, as production gains are anticipated to more than offset low

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

Figure 5. Global production and utilization of oils/fats

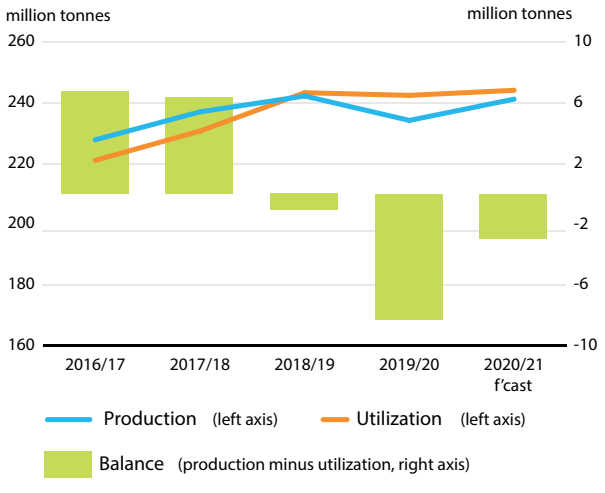


Table 2. World oilcrops and product market at a glance

	2018/19	2019/20 estim.	2020/21 f'cast	Change: 2020/21 over 2019/20
		million tonnes		%
TOTAL OILCROPS				
Production	613.0	588.0	610.1	3.8
OILS AND FATS[1]				
Production	242.2	234.2	241.2	3.0
Supply[2]	284.5	274.8	275.6	0.3
Utilization[3]	243.3	242.4	244.1	0.7
Trade[4]	132.3	134.9	135.8	0.7
Global stocks-to-use ratio (%)	*16.7*	*14.2*	*12.5*	
Major exporters stocks-to-disappearance ratio (%)[5]	*13.4*	*10.7*	*8.3*	
MEALS AND CAKES[6]				
Production	158.7	149.9	157.6	5.1
Supply[2]	189.6	183.6	187.5	2.1
Utilization[3]	153.2	157.3	159.9	1.7
Trade[4]	98.7	105.4	106.6	1.2
Global stocks-to-use ratio (%)	*22.0*	*19.0*	*16.2*	
Major exporters stocks-to-disappearance ratio (%)[7]	*16.2*	*11.8*	*7.9*	
FAO PRICE INDICES (Oct-Sept) (2014-2016=100)	**2019**	**2020**	**2021** *Oct-May*	**Change: Oct-May 2021 over Oct-May 2020 %**
Oilseeds	88	90	130	46.2
Oilmeals/cakes	81	84	118	41.8
Vegetable oils	80	93	143	56.5

Note: Kindly refer to footnote 1 on page 31 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, the United States and Uruguay.

opening stocks. By contrast, supplies in **Argentina** and the **European Union** are seen declining for a second consecutive season, tied to contractions in both production and carry-in stocks.

Global oils/fats consumption to grow marginally in 2020/21

While income losses associated with the ongoing COVID-19 pandemic continue to weigh on global demand for oils/fats, 2020/21 world consumption is forecast to recover marginally from the exceptional decline observed in 2019/20.

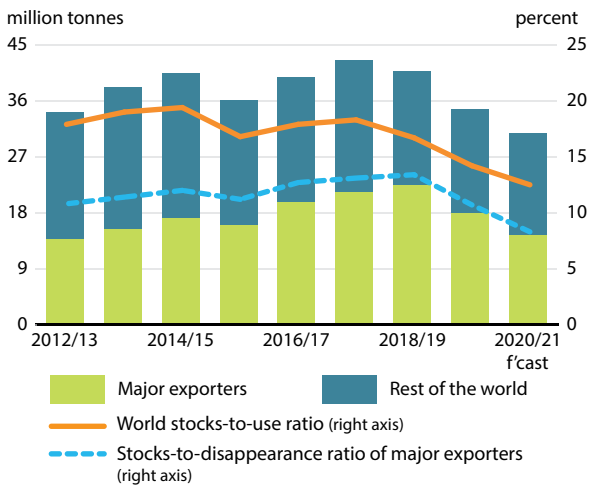
Growth would be driven by palm and soy oil, while utilization of sunflower oil and, to a lesser extent, cottonseed oil may contract, based on reduced availabilities. As a group, developing countries in Asia, notably **China** and **Indonesia**, would be key drivers of global consumption growth, whereas **India**'s consumption is expected to stagnate at last season's reduced level, due to successive lockdown measures to contain the spread of COVID-19. Elsewhere, utilization in the **United States** would rebound moderately, while consumption is forecast to grow at a below-average rate in **Brazil** and to fall markedly in the **European Union**, in part due to sluggish uptake from biodiesel producers.

In several countries, rallying international vegetable oil prices could ration demand for both food and non-food uses. Particularly, uptake from the biodiesel sector has been affected by continued large price gaps between mineral oil and major vegetable oils. While discretionary blending would remain at minimal levels as a result of the reduced competitiveness of biodiesel, growth in mandatory blending is also set to slow. For instance, in **Indonesia**, the planned shift in the national admixture rate from 30 percent to 40 percent has been postponed from 2021 to 2022 at the earliest. Likewise, the implementation of **Malaysia**'s higher blending mandates for palm oil-based diesel is yet to be fully realized, while authorities in **Argentina** and **Brazil** have decided to temporarily lower their respective blending requirements.

Global inventories of oils/fats likely dropping to multiyear lows

With the expectations of global production falling short of utilization, world ending stocks (including the oil contained in stored oilseeds) in 2020/21 are tentatively pegged at

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



an 11-year low of 30.6 million tonnes. Commodity-wise, inventories of soy, rapeseed and sunflower oils are all expected to fall, outweighing a partial recovery in palm oil stocks. Among the main stockholding countries, inventory drawdowns are forecast for the **United States**, **Canada**, **Argentina** and the **European Union**, whereas **China** is expected to expand its stocks, while inventories in **Indonesia** and **Malaysia** are also anticipated to increase after both countries destocked for two consecutive seasons.

Based on these forecasts, the global stocks-to-use ratio for oils/fats would decline for a third consecutive season, dropping to a multiyear low, while the stocks-to-disappearance ratio for the major exporting countries should also record a similar decline. [6,7]

Expansion in global oils/fats trade could remain subdued

After last season's subdued growth, international trade in oils/fats is forecast to increase by no more than 1 percent in 2020/21, reaching 135.8 million tonnes (including the oil contained in traded oilseeds). The anticipated growth is mainly tied to a rebound in palm oil transactions, stemming from improved global production and recovering demand. World trade in soy and rapeseed oils is also expected to increase, whereas that in sunflower oil could drop substantially, reflecting sharply reduced sunflower seed production. The market share of palm oil is set to return to around 40 percent, confirming the oil's leading position.

On the import side, growth is expected to be concentrated in Asia, notably **China**, in order to meet

[6] Disappearance is defined as domestic utilization plus exports.

[7] The group of major exporting countries consists of 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)

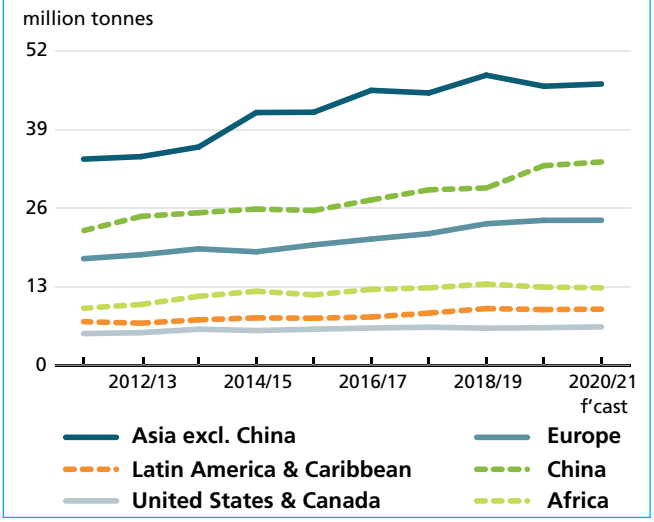
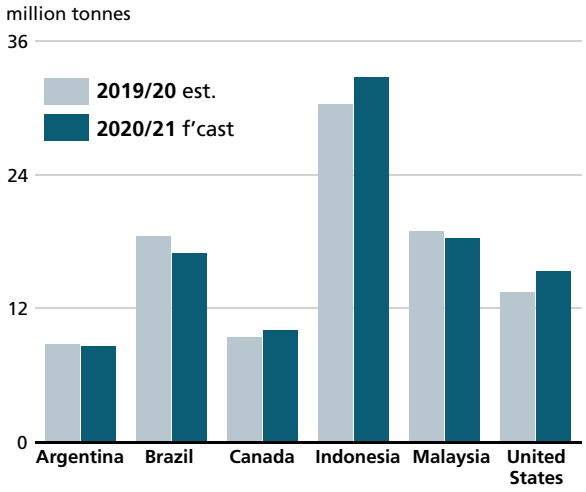


Figure 8. Oils/fats exports by major exporters (including the oil contained in seed exports)



the rising domestic consumption, although purchases from **India** are seen declining marginally, tied to forecasts of stagnating national uptake amid the protracted COVID-19 crisis. Similarly, in the **European Union**, lower utilization is anticipated to contribute to a contraction in import demand.

Regarding exports, oils/fats shipments by **Indonesia** and the **United States** are set to expand, underpinned by rising supplies in both countries. In Indonesia, however, the revision of the export levy scheme for palm oil – aimed at boosting fundraising in support of the country's biodiesel programme – may contain the country's export growth. On the other hand, consignments from **Ukraine**, the **Russian Federation** and **Brazil** are anticipated to contract.

MEALS AND CAKES[8]

Global meals/cakes production to contract strongly in 2020/21

Following a marked contraction in the preceding season, 2020/21 is expected to register a partial recovery in the global production of meals/cakes to 157.6 million tonnes (expressed in protein equivalent). As for individual meals, an anticipated increase in soy and rapeseed meal production is expected to outweigh reductions in sunflower-seed and cottonseed meals.

Likewise, global meals/cakes supplies are forecast to grow moderately by 2.1 percent, as expected gains in total meal production are somewhat offset by lower carry-in stocks, as in the case of **Brazil** and the **United States**.

[8] This section refers to meals of all origins. In addition to products derived from the oilcrops discussed under the section on oilseeds, fishmeal and meals of animal origin are included.

In **China** and **India**, nevertheless, a rebound in domestic availabilities appears likely due to both higher outputs and opening stocks. By contrast, in **Argentina**, the **European Union** and **Canada,** production declines as well as lower carry-in inventories should lead to a second successive drop in domestic supplies.

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

After growing at below-average rates for two consecutive seasons, expansion in global meals/cakes utilization is forecast to remain subdued in 2020/21, tied to the limited growth in world supplies and mixed outlooks for animal feed uptake.

Growth in global consumption is expected to be led by **China**, where, following major ASF outbreaks, the rebuilding of domestic hog inventories is expected to continue, notwithstanding the detection of new cases, while the poultry and aquaculture sectors are also growing at a steady pace. On the other hand, in the **United States**, demand from livestock sectors could stagnate, as production margins tend to shrink amid rising feed costs, while meal utilization in the **European Union** is anticipated to decline for a second consecutive year, due to COVID-19-related lockdowns and persisting supply tightness.

Global meals/cakes inventories set to contract further

As in 2019/20, with consumption of meals/cakes forecast to exceed global production, world end-of-season stocks (including the meal contained in seed stocks) are expected to contract significantly in 2020/21, possibly declining to a 7-year low of 25.9 million tonnes (expressed in protein equivalent). Inventories of soy, rapeseed and sunflower-seed meals are all set to fall significantly year-on-year.

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

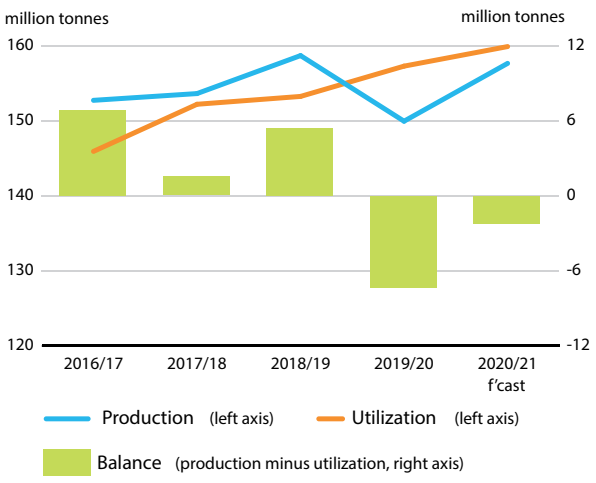
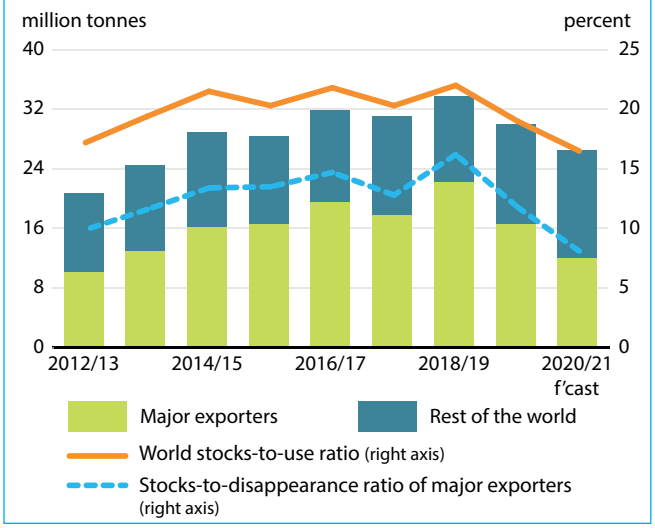


Figure 10. World stocks and ratios of meals/cakes (in protein equivalent and including the meal contained in seeds stored)



Much of the drawdown is expected to take place in the **United States**, where the concurrence of reduced carry-in stocks and an anticipated sharp rise in exports could lead to the release of two-thirds of the country's inventories. In the meantime, stocks in **Argentina**, **Canada** and the **European Union** are also forecast to decline, reflecting reductions in both carry-in inventories and domestic production, whereas further stock accumulation is expected in **China**, tied to continued growth in imports.

Based on the above forecasts, both the global stocks-to-use ratio and the stocks-to-disappearance ratio for the major exporters would decline for a second consecutive season to multiyear lows, which tallies with the rise in meal prices observed since mid-2020.[9]

Global meals/cakes trade could expand marginally

In 2020/21, international trade in meals/cakes (including the meal contained in traded oilseeds) is forecast to expand marginally – in sharp contrast with the previous season's surge. The slowdown primarily reflects an expected weak growth in soymeal transactions, which would be partially offset by a substantial contraction in sunflower-seed meal shipments.

On the import side, the anticipated global growth

[9] The group of major exporting countries consists of Argentina, Brazil, Canada, India, Indonesia, Malaysia, Paraguay, the Russian Federation, Ukraine, the United States and Uruguay.

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

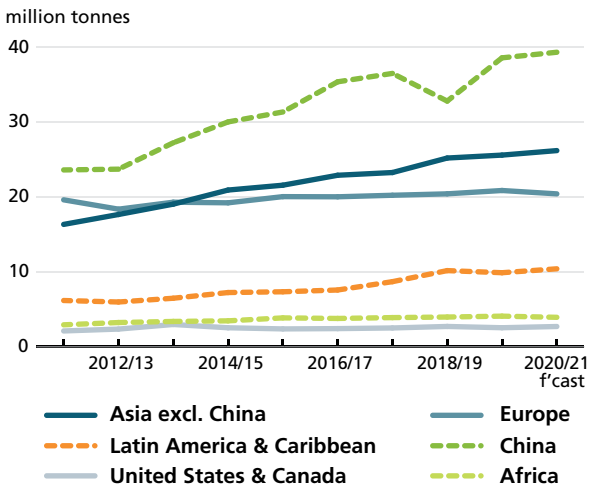
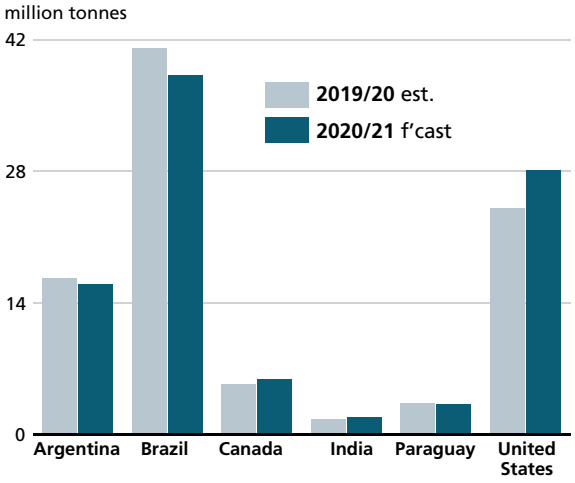


Figure 12. Meal/cake exports by major exporters (in protein equivalent and including the meal contained in seed exports)



primarily hinges on continued expansion in **China**'s purchases to support the ongoing rebuilding of domestic hog herds. Conversely, imports by the **European Union** are expected to contract on waning domestic demand tied to COVID-19, while stagnating or declining purchases by some Southeast Asian nations are in part attributed to lingering ASF issues.

As for exports, shipments by the United States are anticipated to expand strongly, possibly reaching an all-time high, facilitated by a sizeable rebound in production. By contrast, shipments from **Brazil** and **Argentina** will likely decline, thus allowing the **United States** to regain market share. In **Argentina**, in addition to a poor soybean harvest and reserved farmer selling, export availabilities have also suffered from logistical problems caused by repeated strikes of port workers. Elsewhere, consignments from **Ukraine** and the **Russian Federation** are expected to contract, due to sharply reduced domestic sunflower seed supplies.

EARLY PRODUCTION OUTLOOK FOR 2021/22

With the 2020/21 season still ongoing, it is early to make concrete world supply and demand forecasts for 2021/22. At present, only limited information regarding the new crops is available for selected Northern Hemisphere countries, where plantings are currently under way, while in the Southern Hemisphere, sowings will only commence in the last quarter of 2021. With oilseed prices ranging at multi-year highs, total plantings will likely continue expanding, which, combined with expectations of robust yield gains assuming normal growing conditions, should result in global oilseed output possibly achieving a new record in 2021/22.

With regard to individual crops, global soybean, rapeseed, groundnut, palm kernel and copra production could rise to all-time highs, while production of sunflower seed and cottonseed could rebound from their reduced 2020/21 levels. The anticipated increase in global soybean production largely hinges on expectations of higher plantings in **Brazil** and the **United States** due to attractive profit margins, while a rebound in productivity levels would facilitate a sizeable output recovery in **Argentina**. By contrast, plantings in **China** are seen declining for the first time since 2013/14, as farmers are expected to switch to maize because of appealing prices and more attractive subsidies. As for rapeseed, the continuing growth in global production would be driven by a further expansion in plantings and, to a lesser extent, higher yields, especially in **Canada**, the **European Union** and **China**. An above-average crop is also anticipated in **Australia**, although a repeat of last season's record harvest is unlikely, with yields assumed to revert to average levels. In the case of sunflower seed, global production is forecast to rebound sharply from the reduced level registered in 2020/21, possibly climbing to a record high on account of yield recoveries in **Ukraine**, the **Russian Federation** and the **European Union**. While global groundnut, cottonseed and copra production may see yield-driven growth, higher palm kernel output would be aided by a marginal expansion in area.

The above highly tentative crop forecasts, together with modest palm oil production growth prospects, would translate into sizeable year-on-year increases in outputs of both oils and meals. Meanwhile, growth in global utilization of oilcrop products is expected to resume,

albeit probably below the average rate recorded in the pre-COVID-19 period. With global oils/meals output anticipated to exceed world consumption, a moderate stock replenishment could be expected for both oils and meals. If this were to materialize, the resulting stock-to-use ratios would rebound slightly from the multiyear lows expected for the current season. However, the ratios would be likely to remain below the levels observed in recent years, pointing to a continuation of a rather tight market situation. As usual, this outlook remains subject to a number of uncertainties, notably with regard to weather conditions in key growing regions, the evolution of the COVID-19 pandemic and vaccination campaigns, and national policy measures that could affect global trade flows of oilseeds and derived products, as well as the implementation of biodiesel admixture mandates.

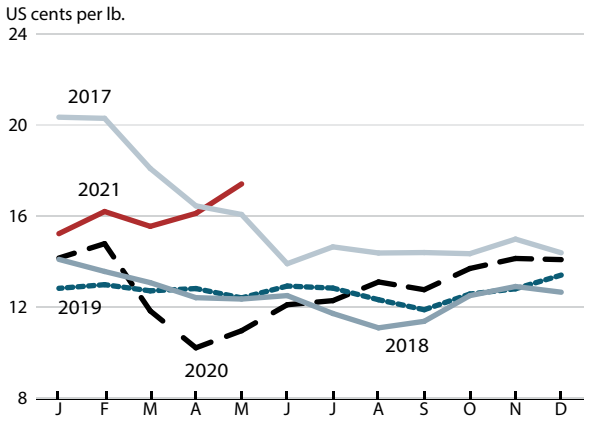
SUGAR

PRICES

International sugar prices surge to multiyear highs

Since the release of the last issue of the Food Outlook report in November 2020, international sugar prices, as measured by the **International Sugar Agreement's daily prices** for raw sugar, have generally increased, continuing the upward trend that started in May of last year. Quotations increased from US 14.1 cents per pound (USD 310.4 per tonne) in December 2020 to reach US 16.2 cents per pound (USD 356.9 per tonne) in February 2021, the highest level since April 2017. After retreating in March, prices rebounded in April and May, when they reached a new multi-year high of US 17.3 cents per pound (USD 380.5 per tonne), about 60 percent above their levels in May 2020.

Figure 1. International sugar prices*



* as measured by the International Sugar Agreement (ISA)

Tighter global supplies in 2020/21, following production declines in key producing countries, have exerted continued upward pressure on prices. Further support has been provided by the global economic recovery, boosting consumption, as the sector is sensitive to economic performance, given that the bulk of demand comes from the food and beverages industries. Despite a slight contraction in global imports, sustained demand from traditional importers in Asia, particularly China[1] and Indonesia, have contributed to the increase in prices. The weakening of the US dollar against the currencies of key sugar exporting countries and the rally in crude oil prices in the past year have also contributed to the upward pressure on sugar price quotations. However, the upward pressure on prices was somewhat limited by prospects of large exports from India, despite logistical constraints hampering trade flows. Early indications pointing to a global production recovery in 2021/22 also prevented further price surges.

The prospect for healthier global economy in 2021, along with firm, if not firmer energy prices, are likely to persist as supportive factors in the sugar market. In addition, international sugar prices are largely influenced

[1] China in this section is restricted to the mainland of China.

by movements in the Brazilian currency, which affect producer selling decisions. In 2020, the Brazilian *real* depreciated significantly against the US dollar, spurring exports, while it showed significant volatility in the past months, depreciating in the first quarter of 2021 but rebounding in April and May. Finally, current economic conditions point to higher profitability for Brazilian millers when using sugarcane for sugar rather than domestic ethanol production, and this could pressure sugar prices in international markets.

PRODUCTION[1]

World sugar production to decline for the third consecutive season in 2020/21

World sugar production in 2020/21 (October/September) is forecast by FAO at 170.3 million tonnes, down 1.6 million tonnes, or another 1.0 percent, from the already reduced level of 2019/20. The anticipated contraction, which results in a global shortfall of 1.7 million tonnes, mostly reflects expectations of production declines in **Brazil,** the **European Union**, the **Russian Federation** and **Thailand**.

In *South America*, latest indications point to a production decline in 2020/21, mainly reflecting reduced output in **Brazil**, the world's largest producer and exporter of sugar, due to drier-than-normal weather conditions affecting crops in key growing areas. A shift to more profitable crops, namely maize and soybeans, also contributed to the decline in output. Production is forecast to fall to 37.5 million tonnes, 6 percent down from 2019/20. However, Brazil's sugar output is also influenced by changes in the ethanol parity price – the price of raw sugar below which it becomes more profitable to produce ethanol instead of sugar. Based on current market conditions, FAO estimates the parity price to be below the current level of international raw sugar prices, indicating the higher profitability of producing sugar compared to ethanol. In the key producing area of São Paulo, around 43.6 percent of the sugarcane harvest was used to produce sugar since the start of the season, against 43.7 percent in 2019/20. Elsewhere in South America, sugar production is anticipated to increase in **Argentina**, while it is forecast to remain relatively stable in **Colombia**, the region's second largest producer.

In *Central America and the Caribbean*, 2020/21 sugar production in **Mexico** is forecast to recover from the

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

Figure 2. World sugar production by region

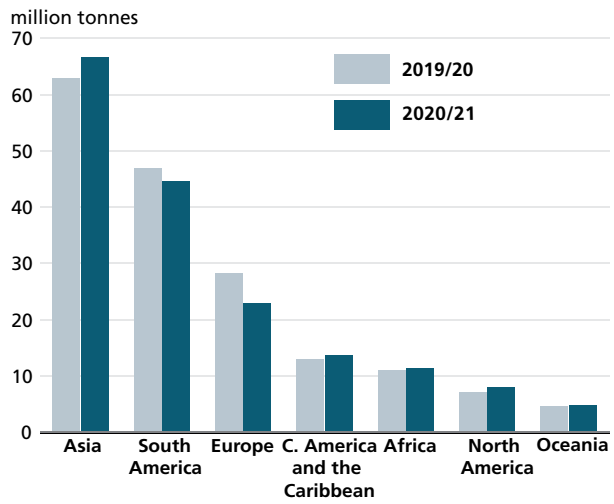


Figure 3. World sugar prices and Brazil ethanol prices, in raw sugar equivalent

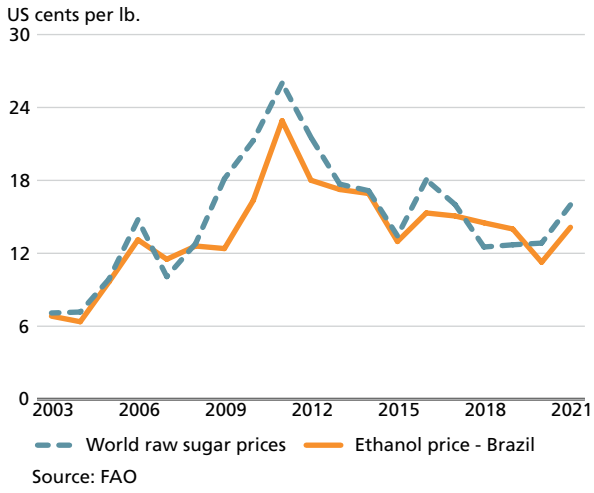


Figure 4. Sugar production in major producing countries

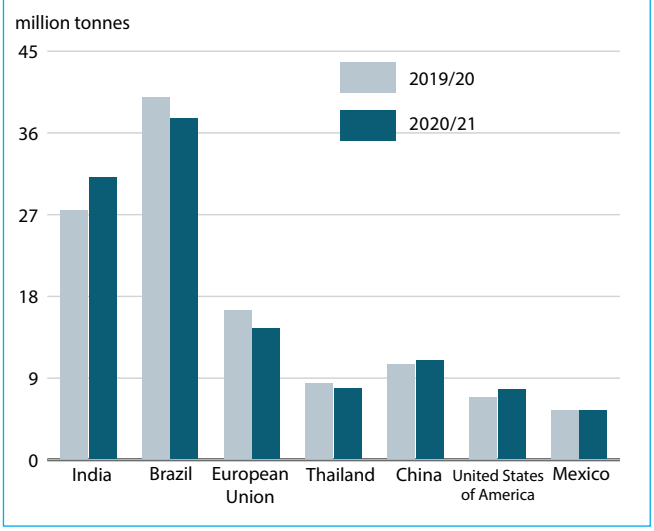


Table 1. World sugar market at a glance

	2018/19	2019/20 *estim.*	2020/21 *f'cast*	Change: 2020/19 over 2019/20
	million tonnes			%
WORLD BALANCE				
Production	**175.2**	**171.9**	**170.3**	**-0.96**
Trade	**57.2**	**62.3**	**60.4**	**-3.08**
Total utilization	**169.2**	**168.7**	**172.0**	**1.91**
Ending stocks	**93.8**	**96.4**	**94.6**	**-1.87**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/yr)	22.2	21.9	22.1	0.91
LIFDC (kg/yr)	16.2	16.1	16.5	2.48
World stocks-to-use ratio (%)	**55.4**	**57.1**	**55.0**	**-3.71**
ISA DAILY PRICE AVERAGE (US cents/lb)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	12.70	12.84	16.06	29.69

drought-reduced level in 2019/20, on account of improved weather conditions. By contrast, in **Guatemala**, sugar output is expected to decline for the second consecutive year, due to a reduction in area and weather factors affecting yields. In **Cuba**, the Government continues to support the industry. Good weather conditions and attractive prices for export should also boost production, although input shortages and logistical constraints could affect the final output.

In *Africa*, total sugar production for 2020/21 is set to rise, mainly as a result of the significant output forecast in **Egypt**, the continent's largest producer. The increase mostly rests on expected larger plantings of sugarbeet, supported by good procurement prices and government investments in the sector. Higher outturns are also expected in other countries, while in the region's second largest producer, **South Africa**, production is forecast to decline for the second consecutive year. The contraction follows a combination of lower crop yields and a stagnant area, amid increases in input costs. In late 2020, the Government signed the Sugar Industry Masterplan, which seeks to ensure the sustainability and profitability of the country's sugar sector.

In *Asia*, total sugar production in 2020/21 is forecast to rebound from the reduced level in the previous season. Most of the increase stems from a significant recovery expected in **India**, while output is also set to increase in **China**, **Indonesia, Pakistan** and **Turkey**. By contrast, a further reduction is anticipated in **Thailand**, where production is forecast to decline to a multiyear low of 7.8 million tonnes. The decline is driven by prolonged dry weather conditions and the shift to more profitable crops, notably rice and cassava. In **India**, the world's second largest sugar producer, production is forecast at 31 million tonnes, 13 percent up from the drought-reduced level in 2019/20. The sharp recovery is the result of conducive weather conditions, with abundant monsoon rains and adequate water levels in reservoirs, boosting plantings and crop yields in the key growing areas of Maharashtra and Karnataka. In addition, the Fair and Remunerative Price of sugarcane payable by sugar mills for the 2020/21 season was increased by 3.6 percent on an annual basis. In **China**, the ongoing expansion of the beet industry, which triggered an increase in acreage and beneficial precipitation in the key cane growing region of Guangxi, is expected to lead to an increase in production in 2020/21. Output is also set to expand in **Turkey**, on account of favourable weather conditions, and in **Pakistan**, as a result of larger plantings, spurred by higher domestic prices, compared to alternative crops. **Indonesia's** sugar output is forecast to rise from the 2019/20 level following beneficial rain and a slight expansion in area, with new mills contributing to improved production capacity.

In *Europe*, the latest forecast points to a near 20-percent fall in production due to a sharp drop in output in the **European Union** and the **Russian Federation**. Latest official estimates for the **European Union** point to a cutback of more than 10 percent in sugar production in 2020/21, marking the third consecutive year of falling production. The drop was underpinned by a near 4-percent yearly decline in beet area, mainly due to low domestic prices affecting profitability and prolonged dry weather conditions and widespread damage from the Beet Yellow Virus (BYV), particularly in **France**, which are expected to cause a 7 percent decline in yields. In the **United Kingdom of Great Britain and Northern Ireland (United Kingdom)**, production in 2020/21 is anticipated to fall by 24 percent to 900 000 tonnes. Despite an increase in plantings, crop yields are forecast to drop significantly, due to a combination of adverse weather conditions and BYV infection. In the **Russian Federation,** production in 2020/21 is expected to be sharply down from last year's bumper crop, on account of a likely weather-induced decline in yields and a significantly reduced acreage, due to low domestic prices. Similarly, sugar production in **Ukraine** is set to decline for the third consecutive year, as the planted area has shrunk further in reaction to low prices and yields are lower.

In the *rest of the world*, production in the **United States of America (United States)** is forecast to recover from last year's reduced level, following larger beet and cane harvests, which benefited from good weather conditions and a slight expansion in area. In **Australia**, 2020/21 sugar production is anticipated to increase only slightly from the reduced level of 2019/20, driven by higher yields.

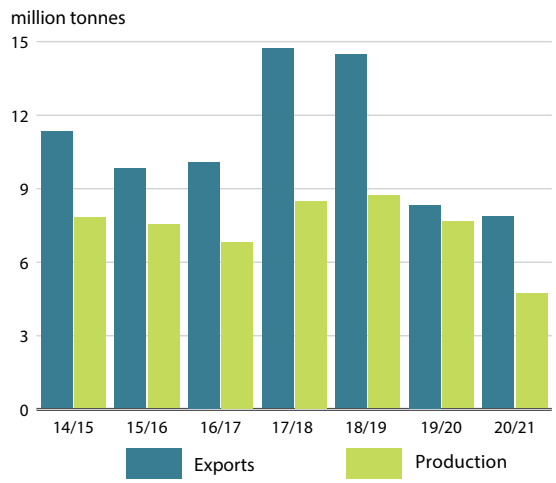
UTILIZATION

Consumption anticipated to rebound in 2020/21

Global sugar consumption is forecast to reach 172.0 million tonnes in 2020/21, up 3.2 million tonnes, or 1.9 percent, from 2019/20. The increase mostly stems from the expected recovery in the global economy, after the downturn in the past season because of the COVID-19 pandemic. According to the April 2021 issue of the World Economic Outlook of the International Monetary Fund (IMF), the global economy is expected to grow by 6 percent in 2021 after an estimated contraction of -3.3 percent in 2020. Economic growth usually increases derived demand for sugar, as beverages and food processing sectors – which account for the bulk of aggregate sugar use – are positively influenced by favourable economic conditions. **India**, the world's largest sugar consumer, and African countries are expected to drive the global increase in sugar consumption. However, tighter global supplies and higher world and domestic sugar prices are foreseen to limit further increases in per capita sugar intake in 2020/21. In **Brazil**, domestic prices of sugar in April 2021 were 40 percent above those registered in the corresponding month last year, after sharp increases in the second half of 2020. Similarly, in the **Russian Federation**, domestic prices increased substantially in the second half of 2020 and despite some decline later in the year, in early 2021 they remained well above their year-earlier levels. In an attempt to curb sugar prices, the Government recently extended until 1 June 2021 the price ceilings introduced in December 2020. It also removed the USD 340 per tonne tax on imports of up to 350 000 tonnes of white sugar between 15 May and 30 September 2021. Under current prospects, world per capita sugar consumption is estimated at 22.1 kg, about 1 percent above the level in 2019/20. In developing countries, aggregate sugar use is anticipated to expand from 127 million tonnes to 130.5 million tonnes, equivalent to 76 percent of the world's total use. In the generally saturated markets of the developed countries, consumption is foreseen to remain broadly stable.

However, elements of uncertainty underpin the prospects for sugar consumption. Current forecasts will depend on the future development of the health crisis across the world and the challenges that the global recovery faces. While greater progress with vaccinations is likely to boost recovery prospects and thus sugar consumption, the spread of new virus variants, combined with continued or new containment measures, may dampen it. This is the case of India, where the situation has recently aggravated and new movement restrictions have been imposed. In addition, the extent of the overall global recovery also depends on the policy actions implemented at country level to avert the health crisis and boost economic activity. Finally, the developments in world and domestic sugar prices, combined with movements in the value of currencies with respect to the US dollar, will be the major driving factors for the level of sugar consumption.

Figure 5. Thailand sugar production and trade



TRADE

World sugar trade to contract slightly in 2020/21

The FAO forecast for world trade in sugar in 2020/21 (October/September) is currently pegged at 60.4 million tonnes, 3 percent down from the previous season. The anticipated contraction is the result of reduced exportable supplies in key exporters in *Asia* and *Europe*, which more than offset foreseen greater shipments from *Latin America and the Caribbean*.

Brazil's exports in 2020/21 are foreseen to expand by 11 percent from the previous season's level prompted by sizeable sugar supplies, despite the lower production expected in 2020/21. The country is set to account for

about 48 percent of world exports in 2020/21. The bulk of Brazilian sales is in raw form, which in the current season have been shipped mainly to **Algeria**, **Bangladesh, China** and **Indonesia**. The final volume of Brazilian exports will depend on the quantity of sugarcane processed into ethanol, with current market conditions pointing to the higher profitability of producing sugar. In addition, currency movements will affect producer selling decisions. The Brazilian *real* appreciated in April and May, and any further appreciation of the currency against the US dollar could affect exports.

Following the further contraction in output and depletion of inventories, **Thailand** is set to lose its rank as the world's second largest sugar exporter, with shipments forecast to total 4.7 million tonnes in 2020/21, a near 40 percent drop from the already reduced level last year. Around 60 percent of Thailand's exports are expected to be shipped in raw form to neighbouring countries, including **Cambodia**, **Indonesia** and **Viet Nam**.

India is expected to surpass Thailand and become the world's second largest sugar exporter, with sales foreseen reaching 5.8 million tonnes in 2020/21. Large exportable supplies are the result of abundant domestic availabilities combined with government export subsidies approved in December 2020, amounting to INR 3 500 billion (USD 480 million) for the export of up to 6 million tonnes of sugar. However, logistical constraints are likely to restrain shipments, which may not reach the record volume shipped in the past season. In addition, this year's export subsidies are lower than those of the previous season. A final decision from the World Trade Organization (WTO) with respect to India's export subsidy programme as a factor of distortion to world sugar trade is not expected before the end of second quarter of 2021. Deliveries from **Australia**, the world's fourth largest raw sugar exporter, are forecast to increase modestly to 3.4 million tonnes in 2020/21, triggered by slightly larger output. Nearly 80 percent of the sugar produced in Australia is exported, mostly in raw form, with traditional markets being **Indonesia**, **Japan** and the **Republic of Korea**, although in the current season, large volumes are also being exported to **Bangladesh**.

Exports by **Guatemala**, the second largest sugar exporter in *Latin America and the Caribbean*, are foreseen to fall by 8 percent in 2020/21, due a decline in domestic production. By contrast, sales by **Mexico** and **Cuba** are anticipated to expand significantly, reflecting larger domestic availabilities. **European Union** sugar exports are likely to retreat for the third consecutive year in 2020/21 and fall by more than 20 percent year-on-year, on the back of successive declines in production.

On the import side, purchases by *Asian* countries are forecast to decrease by 2 percent in 2020/21, compared to 2019/20, reflecting lower imports by **India**, **Indonesia**, the **Philippines** and **Viet Nam**, which are expected to more than offset larger purchases by **China**. Imports by **India** are forecast to drop markedly on account of large domestic availabilities. A slight decline is also anticipated in key importer **Indonesia**, although purchases are foreseen to remain strong overall, sustained by robust domestic demand from the beverage and food processing industries. By contrast, **China** is expected to consolidate its position as the world's largest sugar importer, with purchases anticipated to expand in 2020/21, spurred by sustained domestic demand and following the expiry of the safeguard duty on out-of-quota sugar imports in May 2020. In the first six months of the season, imports of sugar by China were more than double the volume imported in the corresponding period in 2019/20.

In *Europe*, imports by the **European Union** are forecast to expand compared to the previous season, on the back of the consecutive reductions in domestic sugar production. Similarly, imports by the **United Kingdom** are expected to be larger than in the previous year. Nonetheless, the outlook remains tentative, as following Brexit, trade between the **European Union** and the **United Kingdom** is likely to be affected by the introduction of the Rules of Origin (RoO). These only allow duty-free access to sugar that is produced domestically, and not to sugar processed from imported raw sugar, which mainly consists of raw sugarcane both in the United Kingdom and the EU. The application of the RoO is likely to have a stronger impact on trade flows out of the United Kingdom compared to the EU, given that around one-quarter of the United Kingdom's refined sugar output is produced from imported raw sugarcane, while in the EU, the share of sugar processed from imported raw sugarcane represents only about 5 percent of the total. In addition, official data show that from October to April 2021, preferential duty-free imports to the **European Union** and the **United Kingdom** from Everything-but-Arms and Economic Partnership Agreement countries were lower compared to the same period of last year. Imports under tariff rate quotas are expected to remain broadly stable, while the WTO's CXL quotas may be used by **European Union** importers.[2] In the **Russian Federation**, imports are anticipated to expand by 10 percent in 2020/21 in view of the expected sharp drop in domestic production.

[2] CXL quotas result from a compensation agreement following the 1995 European Union enlargement to account for traditional sugar imports from Austria, Finland and Sweden. The countries of origin of the sugar are mainly Brazil and Cuba.

In the *rest of the world*, imports by the **United States** are set to fall significantly and amount to 2.9 million tonnes, down 22 percent from last year, reflecting higher domestic sugar production, while imports by *African* countries are expected to continue to expand, driven by expectations of strong internal demand.

Figure 6. World sugar exports by region

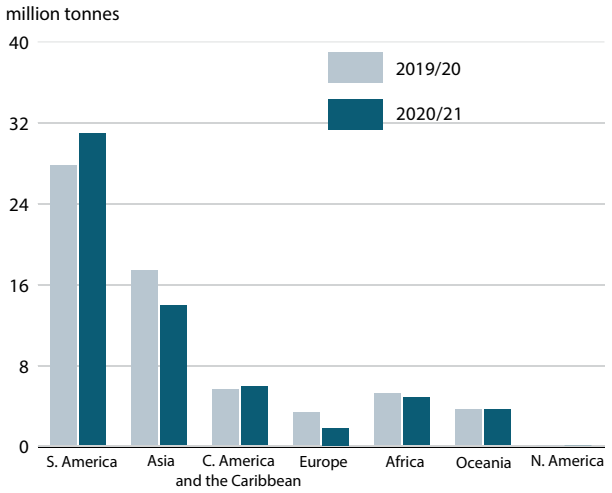
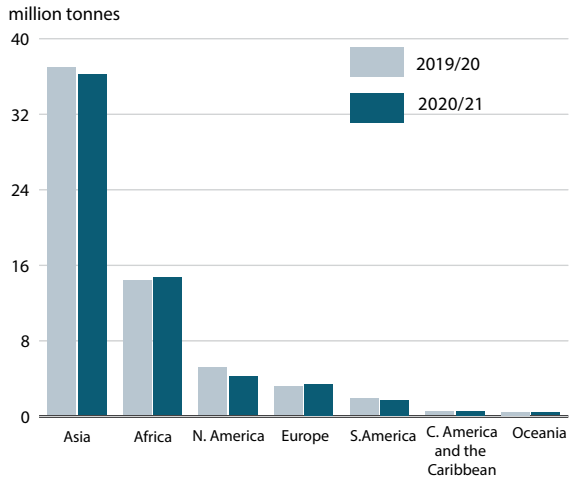


Figure 7. World sugar imports by region



MEAT AND MEAT PRODUCTS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PRICES

Solid demand from East Asia strengthen international meat prices

International meat prices in May, measured by the **FAO Meat Price Index**, were up by 9.0 points (9.4 percent) from January 2021, with pig meat prices registering the sharpest increase (11.3 percent), followed by poultry meat (9.3 percent), bovine meat (8.6 percent) and ovine meat (6.7 percent).

International meat prices rose from January to May, reflecting solid global meat import demand induced by the continued meat deficit in East Asia, mainly China[1] but also Viet Nam, despite the expanding domestic production in key producing regions. Furthermore, demand for replenishing the strategic pig meat stock in China, which was depleted due to various interventions by the Government to keep a lid on domestic prices, also added to the high meat import demand. Meanwhile, meat imports by some countries in the Middle East and North Africa region rose, driven by increasing petroleum prices, rising demand from the hospitality industry and high interest for halal-certified meat. The slowly recovering food services sales and associated intermediate demand in the Americas also contributed to the rise in meat import demand.

On the supply side, exports continued to increase from key global suppliers, especially Brazil and the European Union. Brazil's exports continued to rise, supported by increased national production, coupled with somewhat

Figure 1. FAO monthly meat price index (2014-2016 =100)

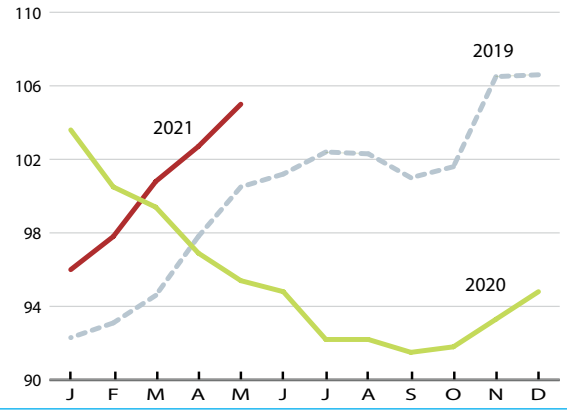


Figure 2. FAO monthly international price indices for bovine, ovine, pig and poultry meats (2014-2016 =100)

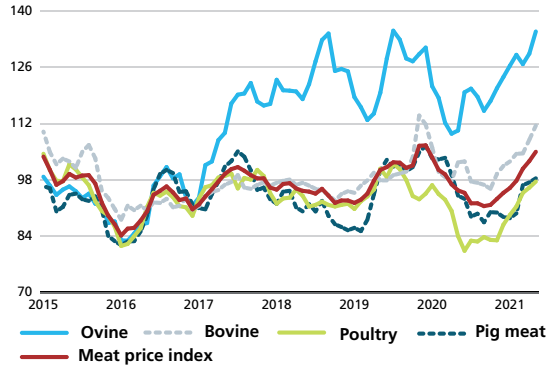


Table 1. World meat market at a glance

	2019	2020 estim.	2021 f'cast	Change: 2021 over 2020
	million tonnes (carcass weight equivalent)			%
WORLD BALANCE				
Production	**337.2**	**338.1**	**345.6**	**2.2**
Bovine meat	72.4	71.6	72.4	1.2
Poultry meat	131.6	133.4	135.2	1.3
Pig meat	110.1	109.8	114.4	4.2
Ovine meat	16.2	16.2	16.5	1.3
Trade[1]	**36.6**	**41.7**	**41.9**	**0.4**
Bovine meat	11.3	11.8	12.0	1.1
Poultry meat	14.2	15.4	15.6	0.9
Pig meat	9.6	12.9	12.8	-0.6
Ovine meat	1.0	1.1	1.1	-0.8
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	43.3	43.0	43.5	1.2
Trade - share of prod. (%)	*10.8*	*12.3*	*12.1*	*-1.7*
FAO MEAT PRICE INDEX (2014-2016=100)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	100	96	100	1.3

[1] From 2020, the United Kingdom of Great Britain and Northern Ireland is treated as a separate country from the European Union when aggregating trade data.

muted growth in internal demand. The depreciation of national currencies also added to the export strength, but export growth remained limited because of lower cattle herd numbers. Exports from the European Union also expanded, benefitting from market access gained by Spain in China, although Germany remained barred from that market over ASF concerns. Meanwhile, in North America, an increase in internal demand constrained export supplies, whereas, in Oceania, bovine and ovine meat exports remained limited due to lower cattle supplies for slaughter amid high herd rebuilding demand. Export supplies from parts of Africa, Asia and Latin America and the Caribbean were also limited, owing to meat processing constraints caused by rising COVID-19 infections, despite significant improvements to sanitary conditions in meat processing plants. Highly pathogenic avian influenza (HPAI) outbreaks also restrained poultry meat exports from Africa and Europe.

In summary, international meat prices rose from January to May, principally underpinned by inadequate expansion in global meat supplies amid solid import demand, especially from East Asia and the Middle East.

OVERALL PRODUCTION AND TRADE

World meat output to expand in 2021

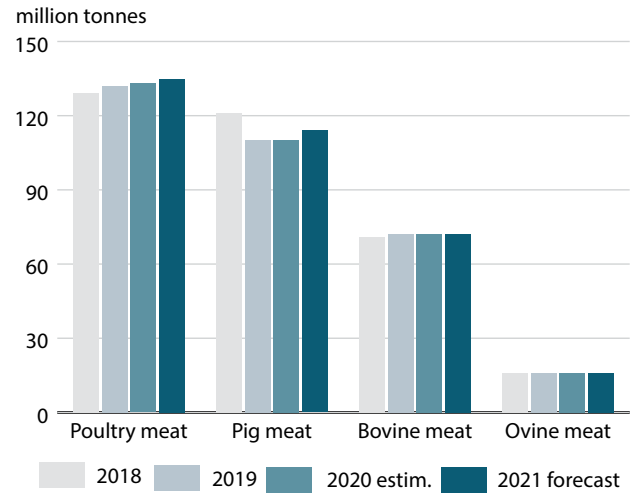
World meat output in 2021 is forecast to expand by 2.2 percent, to 346 million tonnes, primarily driven by a sharp rebound in meat production in **China**, with notable expansions in **Brazil**, **Viet Nam**, the **United States of America** (**United States**) and the **European Union**, partially offset by anticipated declines in **Australia**, the **Philippines** and **Argentina**. In **China**, overall meat production is forecast to exceed 83 million tonnes, 5 million tonnes or 6.5 percent, more than last year, with all meat types registering increases. Pig meat is forecast to account for over 80 percent of the overall meat production expansion in China, facilitated by high investments in the pig meat value chain and efforts to control the spread of the African swine fever (ASF) virus. Notwithstanding the anticipated expansion, China's total meat production is forecast to remain 5.7 million tonnes below the level in 2018 before ASF began spreading widely, inducing import purchases and supporting production expansions in key producing regions, especially **Brazil** and the **European Union**. Seemingly swift recovery from ASF-induced production contractions is also anticipated in **Viet Nam**.

East Asia's large pig meat deficit is likely to spill over into other meat production systems, particularly the poultry meat sector, driven by its relative affordability amid higher demand from households, affected by economic downturns, job losses, reduced remittances or shrunken tourism-related incomes. A part of the anticipated increase in meat output is also attributable to the slowly resuming demand from hotels, restaurants, and institutional food services, partially offset by likely declines in home-cooking demand and retail sales. However, food deliveries and purchases through E-commerce channels are likely to continue for the foreseeable future in regions where such services have become popular, including in China, the European Union and North America, sustaining meat production growth. Government assistance provided to minimize COVID-19-induced production and demand fluctuations, including resources allocated for purchasing and distributing livestock products, debt forgiveness, strengthening livestock value chains, direct aid to producers and flexibility for applying national competition laws, may sustain meat production stability in many countries. While some countries, including the European Union and the United States, have extended the assistance programmes until the end of 2021, meat production systems in parts of Africa, Asia and Latin America and the Caribbean remain exposed to market disturbances, probably leading to sub-optimal production levels. Meanwhile, rising feed costs

also constrain meat production expansions, with more substantial impacts in regions facing droughts and hence limited roughage available. While logistical bottlenecks and port backlogs have subsided, the limited availability of containers limits the east-west meat trade.

By contrast, notable production declines are likely in **Australia** due to the limited supply of animals for slaughter because of the ongoing herd rebuilding demand and lower cattle herd, and in the **Philippines**, owing to the continued impacts of ASF outbreaks. In **Argentina**, a reduction in bovine meat production is likely due to limited cattle supplies for slaughter.

Figure 3. Global meat production, by type

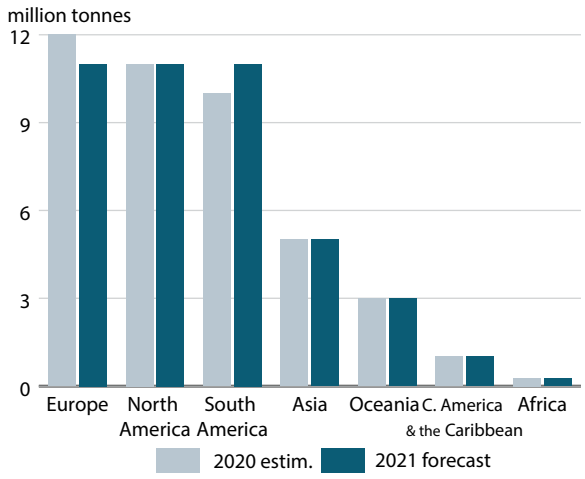


Global trade likely to stagnate in 2021

World trade in meat products is forecast to reach 42 million tonnes (carcass weight equivalent) in 2021, marking a stagnation, as anticipated import declines primarily concentrated in **China**, the **United States of America** (**United States**), the **United Kingdom of Great Britain and Northern Ireland** (the **United Kingdom**), **South Africa** and the **Russian Federation** are likely to offset widespread import expansions, most notably in the **Philippines**, the **Republic of Korea**, **Saudi Arabia**, **Japan** and the **United Arab Emirates**.

In **China**, although the total import volume in 2021 is forecast to remain as high as 11 million tonnes, this year's imports are likely to be 250 000 tonnes, or 2.2 percent, lower than last year, reflecting a much improved domestic supply situation with production increases across all meat types and sharply lower domestic prices. In the **United States**, rising domestic supplies are likely to reduce import demand, and the **United Kingdom** is facing logistical challenges to trade with the European Union,

Figure 4. Global meat trade, by region



despite postponing sanitary and phytosanitary checks and controls, reducing meat imports in 2021. In **South Africa**, the increased tariff on poultry meat imports is mainly behind the anticipated decline in meat imports, while in the **Russian Federation**, increased domestic availabilities and limited internal demand may lower import purchases. Among the other countries with higher imports, notable expansions are expected in the **Philippines** and the **Republic of Korea** due to likely declines in domestic outputs, while in **Saudi Arabia**, **Japan**, **United Arab Emirates** and **Mexico**, increases are mainly attributed to the possible revival of food services sales. In **Saudi Arabia** and the **United Arab Emirates**, rising petroleum prices, an anticipated increase in tourism and higher inbound movement of expatriate workers would raise imports.

Regarding exports, the likely revival of food services sales due to the relaxation of physical distancing requirements could increase demand for meat products, especially in countries with higher COVID-19 vaccination rates, enabling meat exporting countries to ship more meat products. **Brazil**, the **United States** and **Thailand** are among those that may benefit from higher import demand, given their exportable surpluses and competitive prices. **Brazil** and the **United States** received market access through export licenses and permits from China and Viet Nam, enabling higher meat sales. The record of animal disease-free status is helping **Brazil** to secure access to more markets, whereas **Uruguay** is forecast to ship more meat, especially high-quality beef products, to China, the United States and Canada. The **Russian Federation** has secured market access in China and Viet Nam, allowing more shipments in 2021.

In most countries where meat export contractions are foreseen, especially **Argentina**, **Australia** and **New Zealand**, the anticipated declines are due to limited export availabilities, stemming from lower cattle supplies. A slight decline in exports from the **European Union** is expected due to import curtailments by some trading partners, although exports to high-value markets such as Canada and Japan should increase following recent trade agreements.

POULTRY MEAT

Production to grow at a steady pace

Global poultry meat output in 2021 is forecast to expand by 1.3 percent to 135 million tonnes, mainly driven by gains in **China**, **Brazil** and the **European Union**, with moderate expansions anticipated worldwide.

China's higher production stems primarily from increased consumer demand, including those looking for affordable meat to replace expensive red meat products. Significant investments that went to the sector, especially to build large-scale farms and processing operations, are also supporting production growth in China. In **Brazil**, solid foreign demand, especially from East Asia and the Middle East, drives production growth, but less buoyant internal demand is likely to constrain the pace of expansion. A possible relaxation of travel and physical distancing restrictions may induce higher meat production in the **European Union**, although rising feed costs and efforts to reduce excess use of nutrients (especially nitrogen and phosphorous) may constrain production growth.

Production increases are anticipated worldwide due to high demand for relatively affordable meat, especially where household incomes continue to be lower than the pre-COVID-19 levels, impacted by economic downturns, loss of employment, reduced remittances and shrunken tourism-related incomes.

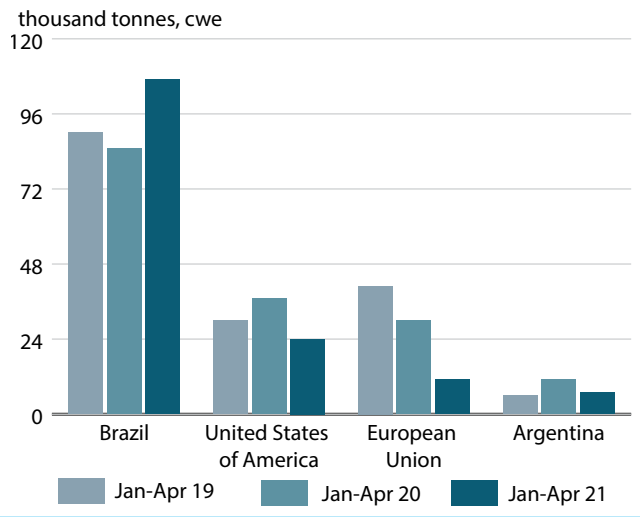
Moderate expansion is likely

World poultry meat exports are forecast to expand moderately, growing by 0.9 percent to 15.6 million tonnes in 2021, which would mark the sixth year of uninterrupted expansion. Increased imports by **Saudi Arabia**, **United Arab Emirates**, **Ukraine**, **Japan**, **Mexico** and the **European Union** are foreseen to drive this expansion, which is likely to be partially offset by declines in purchases by **China**, **South Africa**, the **Russian Federation** and the **United Kingdom**.

In **Saudi Arabia** and the **United Arab Emirates**, the possible revival of tourism and an increase in inbound workers could lead to higher poultry imports, given that the hotels, restaurants and foreign workers consume about 60 percent of imported meat products. Imports by **Japan** are likely to recover from last year's drop, reflecting increases in consumer demand amid somewhat strengthening prices of locally produced poultry products. Elsewhere, lower household income may drive consumers to purchase poultry meat, which is more affordable, triggering higher imports. In countries where poultry meat imports are likely to fall, including **China**, **South Africa** and the **Russian Federation**, the declines are likely to be precipitated by rising national production, outpacing growth in consumer demand. In **South Africa**, besides higher production, the increased tariff on poultry meat may depress imports. Meanwhile, still limited food services sales limit poultry meat imports by the **United Kingdom**.

Brazil, **Thailand** and the **European Union** are likely to supply much of the increased global demand for poultry meat. **Brazil** is benefiting from its competitive poultry export prices, the HPAI-free status, and its capacity to supply halal-certified meat products demanded by some countries in the Middle East, East Asia, and Africa. Moreover, the relaxation of some restrictions, allowing more food services to function, including extended hours of restaurants opening in the European Union and Japan, may increase demand for ready-to-eat poultry products, supplied mainly by **Thailand**. Exports from the **European Union** may recover moderately, benefitting from higher demand from some African countries and Ukraine. However, significant headwinds remain, including the threat of additional anti-dumping duties in South Africa and likely export bans due to HPAI outbreaks. By contrast, poultry exports by the **United Kingdom**, the **United States**, **Ukraine**, **Republic of Korea** and **Belarus** are anticipated to decline. These anticipated drops stem from economic

Figure 5. Main sources of South Africa's poultry meat imports



downturns, combined with increases in domestic production in key trading partners, slimmer profit margins and HPAI outbreaks.

BOVINE MEAT

High growth among three large producers to lift production

World bovine meat production is forecast to register a partial recovery in 2021, growing by 1.2 percent from 2020 to 72 million tonnes. The favourable outlook reflects significantly high growth anticipated in the **United States**, **Brazil** and **China**, with moderate expansions in **Mexico**, **Uruguay**, **Canada**, **Pakistan**, **Colombia** and **South Africa**, but partially offset by likely contractions in **Australia**, **Argentina**, the **European Union** and the **United Kingdom**.

In the **United States**, demand for meat products is expected to be stronger than last year as the economy is recovering from the year-long pandemic's impact, possibly leading to a faster recovery in food services sales. In **Brazil**, an increase in output is likely due to rising cattle supplies, and carcass weight, especially cattle in feedlots and farms that use improved genetics and animal feed. However, the ongoing drought, rising input costs, coupled with COVID-19 market restrictions, may reduce profit margins and limit production. In **China**, production is likely to increase, driven by rising cattle numbers and selling off the cattle retained last year in anticipation of high bovine meat prices. Government support and the relaxation of some environmental regulations may also support production expansion. In **Mexico**, **Uruguay**, and **Colombia**, solid global import demand underpins the expected expansion, while strong internal demand may induce production growth in **Canada**.

By contrast, lower bovine meat production is forecast for **Australia**, **Argentina**, the **European Union**, the **United Kingdom** and **New Zealand**. In **Australia** and **New Zealand**, limited cattle supplies due primarily to drought-induced off-take in previous years, which brought herd numbers to historic lows, are behind the declines in production. Moreover, recent good rains have fostered the retention of animals for restocking, limiting cattle supplies in the immediate future. Lower slaughter inventory and rising production costs are causing **Argentina**'s bovine meat output to fall below the 2020 level, while in the **European Union**, the decline stems mainly from low herd numbers.

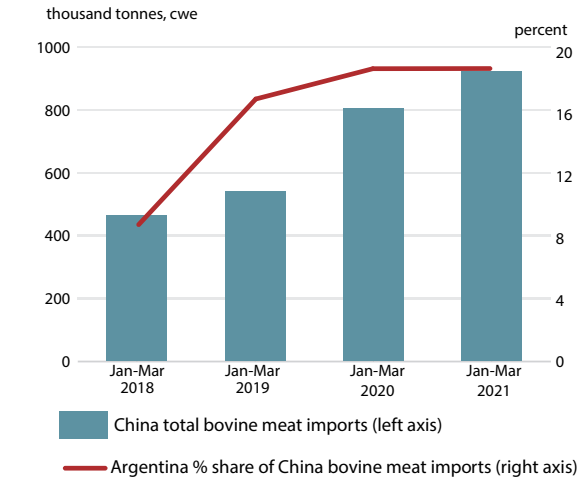
Import demand is recovering

World bovine meat exports are forecast to hover around 12 million tonnes in 2021, up 1.1 percent year-on-year, driven mainly by more robust import demand from **China,** the **Islamic Republic of Iran**, the **United Kingdom,** the **Republic of Korea,** and the **United Arab Emirates**.

In **China**, despite the likely increase in production in 2021, imports are likely to increase due to the anticipated expansion in demand for ready-to-cook products and quick service delivery and the likely swapping of pig meat with bovine meat by some consumers given the narrowing gap between prices of the two red meat types. Furthermore, better economic prospects and the real appreciation of the Yuan are also likely to induce more bovine meat imports. In the **Republic of Korea**, an increase in consumer demand, further stimulated by import duty reductions, is likely to lead to more imports. The **United Arab Emirates** may also increase imports, given the potential for higher tourist arrivals and inbound workers. By contrast, imports by the **United States**, **Canada**, **Indonesia** and the **Russian Federation** are likely to fall, principally due to higher domestic supplies and softer internal demand, although a partial recovery is still possible.

On the export side, **Brazil**, the **United States**, **Uruguay** and **Canada** are forecast to meet much of the projected increase in global import demand in 2021. A sharp increase in demand from China is mainly behind the expected export expansions of many of the countries mentioned above, with country-specific supply conditions determining the volumes. In **Brazil**, bovine meat exports benefit from the country's competitive prices and increased export availabilities. In the **United States**, exports to China could increase at the expense of other destinations,

Figure 6. Bovine meat imports by China



benefitting from the trade agreement signed in 2019. In the **European Union**, exports of high-value meat products are likely to increase, benefiting from trade agreements with Canada and Japan, although they may drop to other destinations. By contrast, bovine meat exports by **Australia**, **Argentina** and **New Zealand** are forecast to fall significantly. The import ban imposed by China and production constraints would reduce shipments from **Australia**, while supply limitations may limit **New Zealand**'s overall exports. In **Argentina**, besides lower production, the 30-day export ban, imposed on 17 May to contain beef price increases in domestic markets, is likely to reduce exports further.

PIG MEAT

Faster recovery of production in China is likely

Recovering from two years of decline, world pig meat output is forecast to expand by 4.2 percent, to 114 million tonnes in 2021, but still falling 6.5 million tonnes (5.4 percent) below the level in 2018, when ASF began rapidly spreading in East Asia, especially China. Much of the expected global expansion would be due to likely output expansion in **China**, with moderate increases in **Viet Nam**, the **European Union**, the **Russian Federation**, **Brazil** and **Mexico**, albeit partially offset by declines anticipated in the **Philippines**, **Republic of Korea** and the **United States**.

The current production growth trends indicate that **China**'s pig meat production in 2021 would reach about 85 percent of its pre-ASF level, totalling 46 million tonnes, up by nearly 10 percent from 2020. The relatively rapid recovery stems principally from massive investments in expanding hog breeding, production and slaughter, as well as subsidized loans and biosafety improvements in farms and processing operations. More recently, China also set up a regional control system for ASF and other animal diseases. Meanwhile, in **Viet Nam**, higher investments in the swine production value chain are behind the anticipated faster recovery, although sporadic ASF outbreaks continue to recur. In some **European Union** member countries, especially Spain, production growth is driven by investments in improving production facilities, animal welfare and sustainability. In the **Russian Federation**, high import demand from East Asia and bilateral market access agreements encourage a production expansion.

The possible decline in pig meat output in the Philippines would be mainly due to the continued adverse impact of ASF outbreaks. Meanwhile, in the **Republic of Korea** and the **United States**, the foreseen drops reflect deliberate reductions of sow inventory and breeding sows to curb production in anticipation of limited demand.

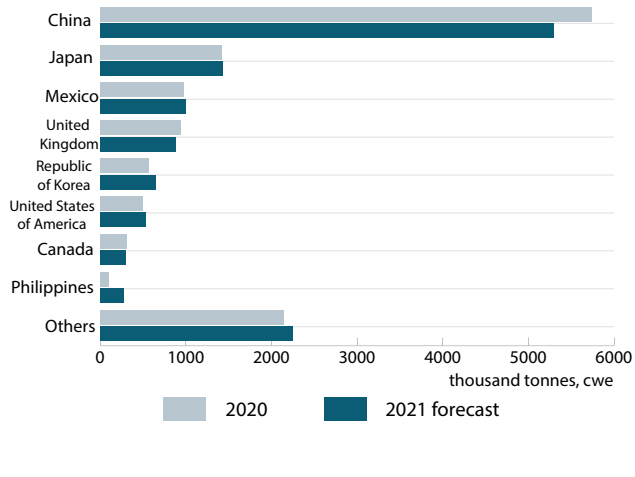
Asia's import volume remains high, but growth may falter

World pig meat exports are forecast at 12.8 million tonnes in 2021, down 0.6 percent from 2020, primarily due to expectations of a fall in imports by **China**, along with moderate import drops by the **United Kingdom**, **Viet Nam** and **Canada**. By contrast, noticeably higher purchases are forecast for the **Philippines**, **Republic of Korea**, the **United States**, **Mexico** and **Japan**.

In **China**, pig meat imports are forecast at 5.3 million tonnes in 2021, down almost 8 percent year-on-year, primarily due to a likely increase in domestic production and high inventories. Despite this anticipated drop, China's total pig meat imports would account for 42 percent of total global import demand in 2021. In **Viet Nam**, the likely production growth amid subdued demand is expected to discourage imports, although the total annual imports in 2021 could still exceed 200 000 tonnes. Pressured by ample domestic supplies and lower food services demand, the **United Kingdom** is likely to import less pig meat in 2021 than in 2020. By contrast, in the **Philippines**, the recent government decision to reduce tariffs on pig meat imports and increase tariff rate quota from 54 000 to over 250 000 tonnes would lead to a significant rise in pig meat imports in 2021. Meanwhile, the **Republic of Korea** may step up purchases to meet higher demand from the food services sector. In the **United States**, continued strong consumer demand and a probable stagnation in domestic production would encourage higher imports, primarily from Canada, the European Union and Mexico.

With an anticipated reduction in world pig meat imports in 2021, exports are forecast to fall from the **European Union**, the **United Kingdom**, **Chile** and **Canada**.

Figure 7. Pig meat imports by leading importers



However, the **United States**, **Brazil** and the **Russian Federation** may register higher sales, mainly destined to East Asian markets, especially China, Viet Nam and the Philippines, reflecting higher demand because of the continuing ASF-induced supply deficit in pig meat and market access received through export licenses and permits.

OVINE MEAT

Continued growth in China

World ovine meat output is forecast to expand by slightly more than 1 percent in 2021, to 16 million tonnes. **China** is likely to account for much of this expansion, with production in **Australia** also foreseen to expand moderately. By contrast, production declines are forecast for the **United Kingdom**, **New Zealand**, the **European Union** and some countries in Africa.

Ovine meat output in **China**, the world's largest producer, accounting for 30 percent of global production, is expected to grow by 1.8 percent, to more than 5 million tonnes, primarily resulting from production increases by small-scale producers, responding to high ovine meat prices. Following a 13 percent decline last year, **Australia**'s ovine meat output is predicted to rebound by 6 percent to 695 000 tonnes, helped by a rise in the national herd, attributed to improvements in seasonal conditions, although supplies are likely to remain tight, as producers continue to retain their core breeding stock and ewe lambs.

In the **United Kingdom**, the expected decline in production stems from a lower breeding flock last year, whereas, in **New Zealand**, the anticipated drop is mainly due to a lower lamb crop and a higher off-take of ewes during the drought in 2020.

Trade to contract again amid tight supplies

World trade in ovine meat is forecast to contract by 0.8 percent in 2021, to just over 1 million tonnes, partly due to supply constraints in **New Zealand**, which is partially offset by an expected rise in exports from **Australia** on the back of rising production. Supply limitations would also limit ovine meat exports from the **United Kingdom**. A moderate increase in **China** is expected on the import side, partially offset by likely declines in the **United States** and the **European Union**. Ovine meat purchases by nearly all countries in the Middle East that import sizeable volumes under normal conditions are expected to fall, primarily due to sourcing challenges.

MILK AND MILK PRODUCTS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PRICES

Rising international dairy prices since the start of the year

International dairy prices in May, measured by the **FAO Dairy Price Index**, were up by 9.6 points (8.6 percent) since January 2021, with whole milk powder (WMP) prices registering the sharpest increase (20.9 percent), followed by butter (15.4 percent), skim milk powder (SMP) (11.3 percent) and cheese (1.6 percent).

Solid import demand from Asia, mainly China[1], primarily underpinned the increase in international dairy prices between January and May this year. In China, the fast pace of economic growth and the real appreciation of the Yuan induced a surge in consumption and widen consumer base, leading to higher dairy imports. In addition, the rapid recovery in the national pig herd led China to purchase more whey powder. In many dairy importing countries, more home cooking and baking during lockdowns increased retail sales of milk products such as butter and cheese, partially offsetting lower food services sales. Import purchases by some countries in the Middle East and North Africa also increased, reflecting the strengthening petroleum prices, the likely revival of economic activities and tourism and an increase in inbound movement of expatriate workers. In recent months, demand for spot supplies from Oceania rose sharply due to concerns over short-term sourcing challenges amid limited container availability in Europe and North America, providing further

Figure 1. FAO monthly dairy price index (2014-2016=100)

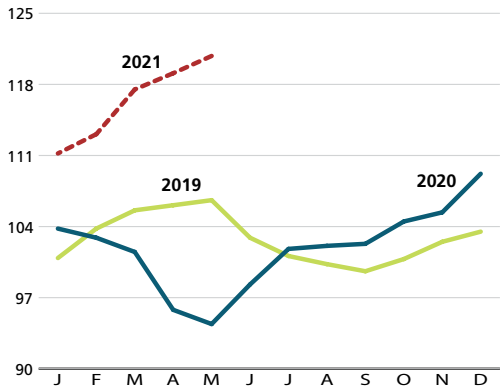


Figure 2. FAO monthly international price indices for butter, cheese, SMP and WMP (2014-2016=100)

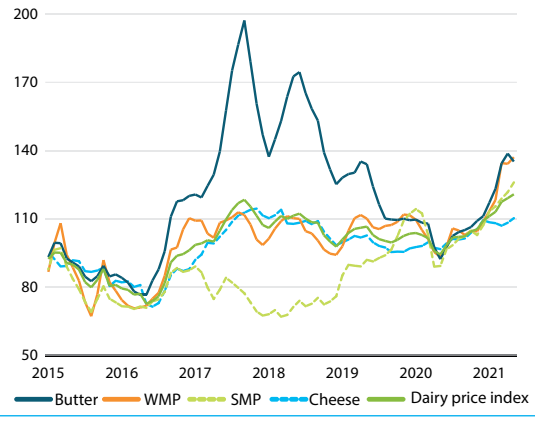


Table 1. World dairy market at a glance

	2019	2020 estim.	2021 f'cast	Change: 2021 over 2020
	million tonnes. milk equiv.			%
WORLD BALANCE				
Total milk production	**888.1**	**906.2**	**921.1**	**1.6**
Total trade[1]	**77.8**	**85.7**	**87.9**	**2.6**
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
World (kg/year)	115.1	116.1	116.8	0.6
Trade - share of prod. (%)	*8.8*	*9.5*	*9.5*	*0.9*
FAO DAIRY PRICE INDEX (2014-2016=100)	**2019**	**2020**	**2021** *Jan-May*	**Change: Jan-May 2021 over Jan-May 2020 %**
	103	102	116	16.7

[1] From 2020, the United Kingdom of Great Britain and Northern Ireland is treated as a separate country from the European Union when aggregating trade data.

support to international prices.

Tight spot supplies in some of the world's largest dairy exporting regions provided further price support during the first five months of the year. In Oceania, the January heatwave in Australia and the March to April dry weather in New Zealand aggravated the seasonally declining milk production, tightening export supplies and driving up dairy prices, especially for butter and WMP. In Europe, milk production fell slightly below last year's levels between January and February, while in mid-March and the first half of April, extreme cold spells in parts of Europe made trucking more difficult, further restraining milk deliveries to processing centres. As a result, producers focused their supplies on buyers with long-term contracts or internal sales, limiting spot supplies and supporting export prices of butter and milk powders. In summary, international dairy prices rose from January to May, reflecting solid import demand amid tight spot supplies from leading dairy exporting regions.

MILK PRODUCTION

World milk output to increase in 2021

World milk production is forecast to reach 921 million tonnes in 2021, rising by 1.6 percent from 2020, as a result of expected output expansions in all geographical areas, with Asia accounting for the highest volume, followed by North America, Europe, South America, Oceania, Central America and the Caribbean and Africa.

In *Asia*, milk output in 2021 is pegged at 388 million tonnes, up 2.5 percent from 2020, with more than 80 percent of the projected expansion originating in **India**, **China**, **Pakistan** and **Turkey**, in order of volume expansion.[1] In **India**, rising dairy cattle numbers and milk yields, coupled with favourable monsoon rains and fodder availability, are foreseen to result in milk output reaching 199 million tonnes, up 2.2 percent year-on-year. However, the rapidly deteriorating COVID-19 infection situation in India may pose a challenge to the pace of expansion, given hurdles to collecting milk from farms scattered over vast areas. **China**'s milk production will likely reach 38 million tonnes, up 6.1 percent from 2020, underpinned by a rise in milk yields of large-scale, intensive farms, which increasingly use advanced genetics, mechanical milking and mix feed rations and feed quality management techniques. Above all, rising consumer trust in local milk due to stringent enforcement of quality requirements and the establishment of a supply traceability system may also help production expansions. Underpinned by rising dairy cattle numbers, **Pakistan**'s milk production is likely to expand at a record annual pace of 3 percent, elevating total output to 59 million tonnes in 2021. Milk production expansions are possible in several other countries in Asia, including **Kazakhstan**, **Uzbekistan**, the **Islamic Republic of Iran** and **Japan**, buoyed by rising consumer demand and government assistance for stabilising markets and modernising dairy farms.

In *Europe*, total milk output is forecast to increase by 0.6 percent to 237 million tonnes in 2021, with the highest increase anticipated in the **European Union**, followed by the **Russian Federation** and **Belarus**. Strong milk yield growth and favourable spring and summer weather supporting farm-grown feed and good quality grass are likely to support milk output expansion in the **European Union**, despite declining dairy cattle numbers and cold weather earlier in the year, which constrained milk production and deliveries. Current low milk pay prices and increases in feed costs may also hold some producers from expanding production. High milk yields on new farms, better farmgate prices and state-supported loans at lower interest rates encourage milk output expansion in the **Russian Federation**. Furthermore, rising consumer trust, following the introduction of a milk quality management system, including tracing and removing products that defy regulatory requirements from the market and an electronic certification system, is likely to continue to boost milk consumption and production. In **Belarus**,

[1] Countries are listed in the order of the anticipated expansion of the volume of quantity throughout this chapter, unless otherwise stated.

farm management improvements, increased use of better-quality feed and solid demand from neighbouring countries, mainly the Russian Federation, supporting production growth. By contrast, **Ukraine**'s output is forecast to fall, reflecting declining dairy cattle numbers and farm profitability amid increasing feed costs and weak import demand.

In *North America*, milk output is set to reach 113 million tonnes in 2021, up 1.9 percent year-on-year, with nearly all the volume increase originating in the **United States of America** (**United States**). Much of the anticipated increase in milk production in the **United States** is attributable to higher dairy cattle numbers and milk yields. The second stage of the Coronavirus Food Assistance Program 2, starting from 5 April 2021, is likely to keep farmgate milk prices steady, while the national COVID-19 vaccination drive may lead to increased sales through the food services sector, boosting milk production. **Canada**'s milk production is likely to increase slightly, given the butter support price increase, effective 1 February 2021, and possible increases in internal and external demand, especially for butter and SMP.

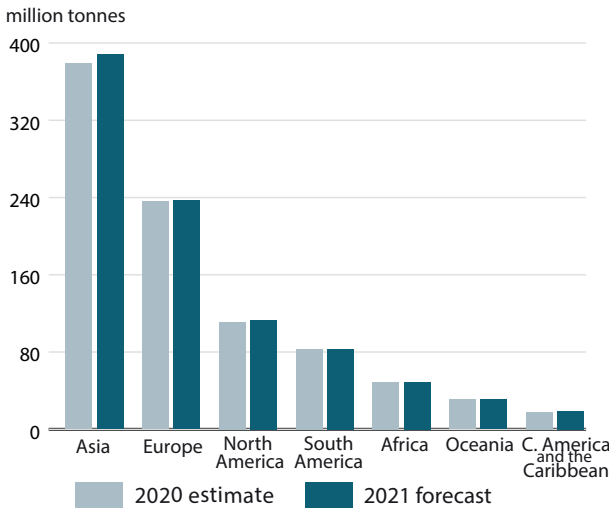
In *South America*, milk production is forecast to rise by 1.1 percent to 83.5 million in 2021, with much of the projected increase due to higher outputs expected in **Brazil, Colombia** and **Argentina**. **Brazil**'s milk output could increase by 1 percent, a slower pace than the 2.1 percent annual growth registered last year, to nearly 37 million tonnes, on a slight increase in dairy cattle numbers and high milk yields, especially on large-scale dairy farms. However, milk production in 2021 is challenged by dry weather conditions, especially in the country's southeastern and central-western regions, and rising production costs due to high prices of animal feed, especially maize, which would hamper feed usage and encourage cow slaughter. In **Colombia**, milk output is likely to expand, supported by the government decision to increase milk pay prices by 3.5 percent from March 2021. In **Argentina**, milk production is rising, sustained by potentially high foreign sales and competitive prices on offer, given the country's currency depreciation. As an early indication of production prospects, Argentina's farmgate prices hovered above last year's levels until April 2021. Elsewhere in *South America*, milk production in **Uruguay** is likely to rise on favourable rainfall and pasture conditions, but growing production costs may affect the pace of expansion. Milk production is forecast to expand slightly in **Chile**, helped by possible improvements in demand.

In *Oceania*, milk output is forecast to increase by 1.2 percent in 2021, nearly the same rate as last year, to 31.5 million tonnes. In **Australia**, milk output could exceed 9 million tonnes, up 1.2 percent from 2020, reflecting improvements in pasture and fodder availability, following recent rains, and increased feed availability, due to a record grain harvest. Government assistance to drought-affected farming households and more relaxed COVID-19 containment measures are expected to contribute to stability in production. Still, labour shortages, farm exits, and fewer dairy cattle numbers and lower milk yields may weigh on production prospects. Following a slight increase in 2020, **New Zealand**'s milk output is forecast to rise in 2021 by 1.2 percent, to 22 million tonnes, due to increasing productivity, compensating for declining dairy cattle. Moreover, increased milk pay prices and reduced need for feed amid improved pastures, coupled with government freight support under COVID-19 assistance, would increase milk margins and production.

In *Central America and the Caribbean*, milk production could reach 19 million tonnes, up 1.8 percent year-on-year, primarily driven by better production prospects in the region's largest milk producer, **Mexico**. Improvements in farming technology and genetics and increased animal feed production are seen as the main factors behind **Mexico**'s expected milk production growth. However, this continued trend rests on the revival of economic activities and job growth. Elsewhere, favourable weather conditions tend to support milk output expansions.

Milk output in *Africa* is forecast to reach 49 million tonnes, similar to 2020, underpinned by a likely rise in production in **Algeria**, among others, offsetting anticipated output contractions in several countries, especially **South Africa**. In **Algeria**, milk production is forecast to rise due to government efforts since 2020 to encourage farm modernisation and increase the use of

Figure 3. World milk production by region



locally produced milk in the food processing industry. By contrast, in **South Africa**, milk production may decline due to rising feed costs amid low milk pay prices.

WORLD TRADE IN DAIRY PRODUCTS

World dairy trade is heading for another expansion in 2021

World exports of dairy products in 2021 are forecast at 88 million tonnes (in milk equivalents),[2] up 2.6 percent from 2020, driven by anticipated larger imports by **China**, **Brazil**, **Mexico**, **Indonesia** and **Malaysia**. Strong economic growth prospects for 2021 and the real appreciation of the Yuan that would increase per capita consumption and expand the consumer base are behind much of the import demand growth in **China**. In **Brazil** and **Mexico**, while consumer demand for fresh milk and products remains somewhat subdued, demand for packaged and processed products is driving higher imports. In the **Middle East** and **North Africa**, rising petroleum prices, the likely revival of economic activities and tourism and an expected rise in inbound expatriate workers are mainly behind the anticipated increase in dairy imports in many countries. The potential revival of transhipment trade underpins probable import expansions in **Malaysia** and supports high trade volumes in **Saudi Arabia**.

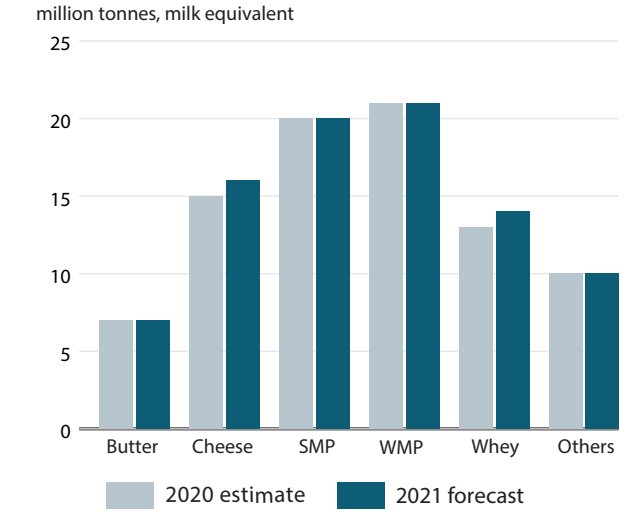
By contrast, dairy imports by the **United Kingdom of Great Britain and Northern Ireland** (**United Kingdom**), **Australia**, the **United Arab Emirates**, the **European Union** and the **Russian Federation**, among many others, are forecast to decline. The anticipated contraction by the **United Kingdom** reflects market uncertainty stemming from port delays and regulatory controls at European Union-United Kingdom customs following Brexit and lower food services demand due to continued market restrictions. In **Australia**, the **European Union** and the **Russian Federation**, expected growth in domestic availabilities, in line with production expansions and lower demand from food services sales, may reduce dairy imports. Elsewhere, dairy imports are forecast to decline, including in **Thailand**, **Viet Nam** and **Sri Lanka,** underpinned by economic downturns, virtually non-existent tourism revenues, and weakened remittances from migrant workers.

On the export side, much of the expected rise in global demand for dairy products in 2021 is likely to be supplied by the **European Union**, the **United States**, **New Zealand**, **Australia** and **Belarus**. Several countries are emerging as dairy exporters — namely **India**, the **Islamic Republic of Iran, Turkey**, **Mexico** and the **Russian**

Table 3. Trade in dairy products: Principal exporting countries

	Average 2017-19	2020 *prelim.*	2021 *f'cast*	Change 2021 over 2020
	thousand tonnes (product weight)			
WHOLE MILK POWDER				
World	**2 541**	**2 731**	**2 755**	**0.9**
New Zealand	1 416	1 533	1 543	0.7
European Union	342	345	339	-1.6
Argentina	101	148	158	6.3
Uruguay	127	138	142	3.2
SKIM MILK POWDER				
World	**2 514**	**2 576**	**2 626**	**1.9**
European Union	852	830	863	4.0
United States	676	819	828	1.2
New Zealand	377	356	369	3.6
Australia	147	130	129	-0.9
BUTTER				
World	**926**	**1 065**	**1 060**	**-0.5**
New Zealand	452	425	433	1.7
European Union	181	314	321	2.2
Belarus	83	84	74	-11.6
United Kingdom	-	61	55	-9.7
United States	40	29	29	1.9
CHEESE				
World	**2 593**	**3 441**	**3 532**	**2.7**
European Union	847	1 401	1 453	3.7
United States of America	351	359	366	2.1
New Zealand	333	327	341	4.3
Belarus	215	274	291	6.3
United Kingdom	-	193	170	-11.5

Figure 4. Composition of global dairy exports



[2] This includes exports of butter, casein, cheese, fresh milk, milk cream, skim milk, skim milk powder, whole milk powder, whey powder, whole condensed evaporated milk and yoghurt, expressed in milk equivalents, calculated using standard conversion factors.

Federation — induced by rising output and a likely decline in internal demand.

By volume of quantities, global exports of cheese are forecast to expand the most, with a 2.7 percent growth in 2021, followed by SMP (1.9 percent) and WMP (0.9 percent), but those of butter may fall slightly (0.5 percent).

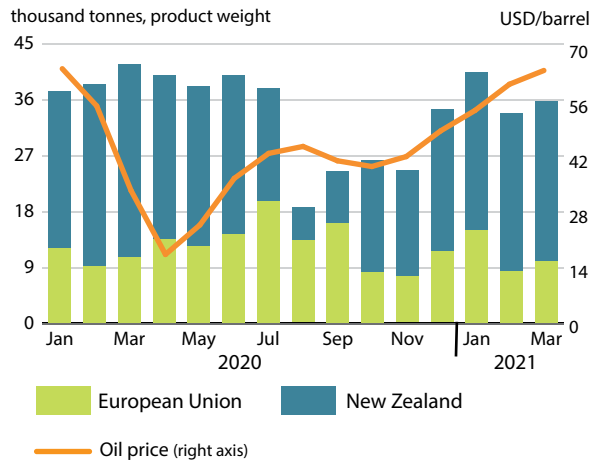
Whole milk powder

High imports from Asia and the Middle East to lift world WMP trade in 2021

World WMP exports are forecast to approach 2.8 million tonnes in 2021, up 0.9 percent from 2020, primarily due to anticipated import expansions by **China**, **Brazil**, the **Russian Federation**, **Saudi Arabia** and **Malaysia**. After an 8.5 percent dip in 2020, **China**'s WMP imports are forecast to rise by 5.2 percent to 770 000 tonnes in 2021, reflecting growing demand from the food processing industry, supported by rising household incomes. While China's production growth remains slow, high demand from some consumer groups and the food processing industry is likely to drive **Brazil**'s WMP imports to more than 98 000 tonnes, 22 percent more than last year. WMP imports may recover partially in the **Russian Federation**, helped by a possible upturn in domestic supplies, although volumes could remain below historical highs. Increasing petroleum prices may stimulate WMP imports by the Middle East and North Africa region, especially **Saudi Arabia**, **Oman**, **Nigeria** and **Iraq**. The potential revival of the transhipment business may spur WMP imports by **Malaysia**. However, due to likely increases in domestic milk production, lower food services sales, or both, coupled with economic downturns, WMP imports may fall significantly in **Australia**, **United Arab Emirates**, and to a lesser extent in **Algeria**.

Underpinned by rising milk production and below-average internal demand, **New Zealand**, **Argentina**, **Australia**, **Mexico**, **Uruguay**, **Belarus** and the **United States** are expected to supply much of the increased global import demand for WMP.

Figure 5. Monthly WMP exports by the European Union and New Zealand to countries in the Middle East and North Africa region



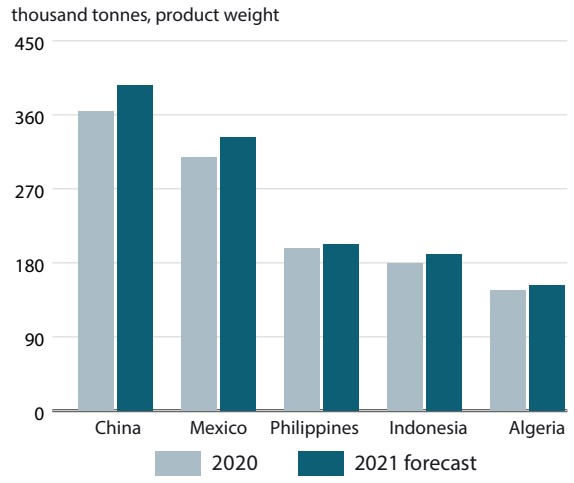
Skim milk powder

International SMP trade may rise in 2021

World SMP exports are forecast to reach 2.6 million tonnes in 2021, up 1.9 percent from 2020, resulting from foreseen increases in purchases, mainly by **China**, **Mexico**, the **Philippines**, **Malaysia**, **Algeria** and **Indonesia**, albeit partially offset by widespread import curtailments, especially by **Viet Nam**, **Thailand**, **Kazakhstan**, **Egypt** and the **Russian Federation**. In **China**, a faster pace of economic growth and the real appreciation of the Yuan against the US dollar, coupled with growing demand for pastry and bakery products and reprocessed dairy and other beverages, are behind the anticipated upturn in SMP imports, projected to rise by 9 percent to 396 000 tonnes. **Mexico**'s anticipated SMP import expansion reflects the revival of the food processing sector, which went through a challenging year in 2020. Meanwhile, burgeoning domestic supply shortages may continue to spur higher SMP imports by **Indonesia**. By contrast, formidable market disruptions and economic downturns may lead to noticeable slumps in SMP purchases by **Viet Nam**, **Thailand**, **Kazakhstan** and **Egypt**.

Concerning exports, the **European Union**, **India**, **New Zealand**, the **United States** and **South Africa** are forecast to supply much of the anticipated increase in global SMP import demand in 2021. Although the **European Union** had a slightly slow start to production, annual SMP production and exports are forecast to rise, given the high profitability of producing butter-SMP mix under the current prices and solid global demand. Meanwhile, possible strengthening of SMP prices may reduce the existing gap between high production costs and export prices, enabling India to increase SMP shipments, mainly targeting neighbouring countries. In the **United States**, rising production and competitive prices should lead to higher SMP exports. By contrast, particularly sharp declines in SMP exports are forecast for **Canada**, the **United Kingdom**, **Belarus** and **Saudi Arabia**.

Figure 6. SMP imports by leading importers

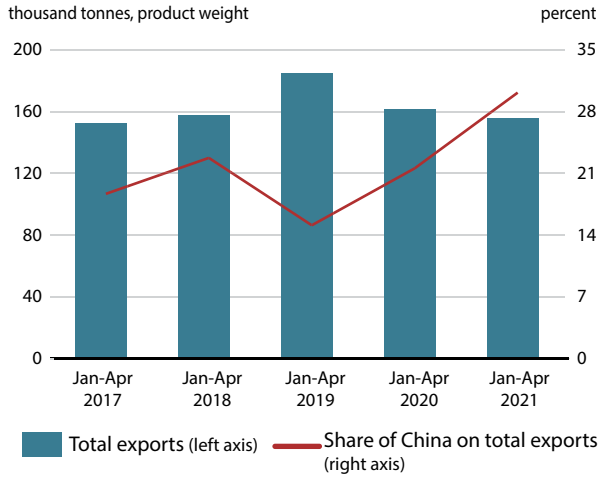


Butter

Butter exports to decline slightly

World butter exports are forecast at 1.1 million tonnes in 2021, down 0.5 percent from 2020, caused by expected increases in imports by **China**, **Mexico**, **Saudi Arabia**, the **United States** and the **Philippines**, offset by likely contractions in the **Russian Federation**, the **United Kingdom**, the **United Arab Emirates** and **Australia**. Induced by growing demand for bakery and pastry products, while national production remains insufficient to meet domestic requirements, **China**'s butter imports could exceed 154 000 tonnes, a record volume by historical standards. Despite reeling under the twin crises of unemployment and the COVID-19 pandemic, partial economic recovery in **Mexico** is likely to lift butter imports, though still not reaching the pre-pandemic levels. Butter imports are forecast to expand in 2021 in **Saudi Arabia** on accelerated growth in global energy demand and higher oil prices, whereas in the **United States**, a moderate increase in food services sales and steady retail sales may lead to higher butter imports. By contrast, reinforced by increases in national production, the **Russian Federation**, the **United Kingdom** and **Australia** may reduce their imports. **New Zealand**, the **European Union**, **Australia**, and **India** are forecast to meet the bulk of the expected global demand for butter. **New Zealand**'s butter exports may increase to 433 000 tonnes, rising by 1.7 percent in 2021, benefiting from buoyant demand from Asian markets, mainly China. A possible increase in imports by East Asian and Middle Eastern markets may enable the **European Union** to sustain butter export growth at nearly 2 percent, with a total of 321 000 tonnes. **Australia**'s butter export growth prospects are positive due to the increasing demand from China and other Southeast Asian countries. By contrast, exports from **Belarus** and the **United Kingdom** may fall, reflecting lower imports from the Russian Federation in the case of the former and Brexit-related trade setbacks in that of the latter.

Figure 7. New Zealand's total butter exports and its share of exports to China



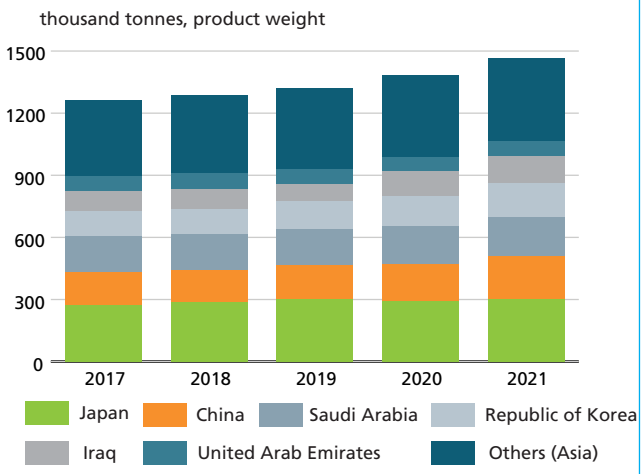
Cheese

Asian imports continue to drive the global cheese trade

World cheese exports in 2021 are forecast at 3.5 million tonnes, up 2.7 percent from 2020, marking the sixth consecutive year of expansion, driven by strong import demand by **China**, the **Russian Federation**, **Iraq**, the **Republic of Korea**, **Japan**, **Saudi Arabia** and **Mexico**, overweighing anticipated contractions in the **United Kingdom** and **Australia**. In **China**, fast-expanding food services sales, western-style restaurants and bakery products are behind the 18-percent foreseen increase in imports. Following significant increases last year, the **Russian Federation** and **Iraq** are on track to import more cheese in 2021. Given the growing popularity of cheese, as well as tariff reductions or larger tariff rate quotas, the **Republic of Korea** and **Japan** are forecast to purchase more cheese products this year. The anticipated partial economic recovery may re-energise the food processing sector and some food services sales in **Mexico**, inducing higher cheese imports. By contrast, the higher national output may depress cheese imports by **Australia**. At the same time, unresolved trade regulatory issues and border control measures with the European Union are impeding cheese imports by the **United Kingdom**.

Much of the increased global demand for cheese is forecast to be supplied by the **European Union**, **Belarus**, **Australia,** the **Islamic Republic of Iran**, **New Zealand**, and the **United States**, with possible declines in exports by the **United Kingdom** and **Argentina**.

Figure 8. Asia's cheese imports, by country



FISH AND FISHERY PRODUCTS

THE SECTOR EMERGES FROM THE PANDEMIC MORE RESILIENT THOUGH OPERATIONAL DIFFICULTIES CONTINUE

For fisheries and aquaculture businesses, the pandemic has had a pronounced impact on all nodes of the value chains, while simultaneously being the catalyst for some far-reaching changes that in many cases are likely to be permanent.

For producers, the problems associated with a market environment characterized by low prices, processing difficulties and poor demand have been compounded

Figure 1. FAO Fish Price Index (2014-2016=100)

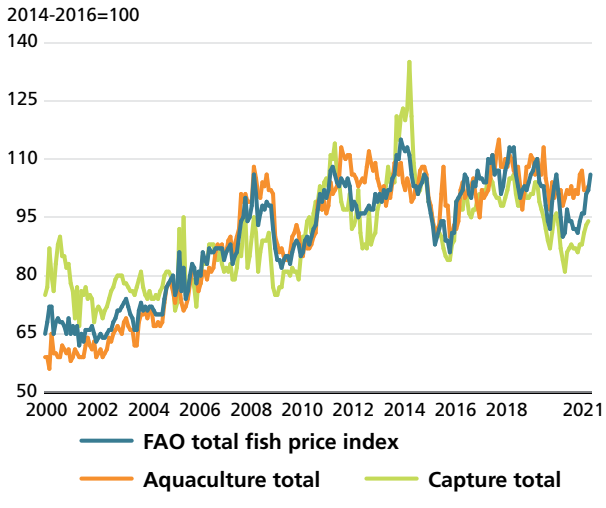


Table 1. World fish market at a glance

	2019	2020 *estim.*	2021 *f'cast*	Change: 2020 over 2021
	million tonnes (live weight)			%
WORLD BALANCE				
Production	**177.8**	**174.6**	**177.3**	**1.5**
Capture fisheries	92.5	90.5	92.3	2.0
Aquaculture	85.3	84.1	85.0	1.1
Trade value (exports USD billion)	**160.8**	**149.4**	**149.8**	**0.3**
Trade volume (live weight)	**65.5**	**63.3**	**63.4**	**0.2**
Total utilization	**177.8**	**174.6**	**177.3**	**1.5**
Food	158.3	154.7	157.1	1.6
Feed	15.5	16.1	16.4	1.6
Other uses	4.0	3.8	3.8	0.0
SUPPLY AND DEMAND INDICATORS				
Per caput food consumption:				
Food fish (kg/yr)	20.5	19.8	20.0	0.5
From capture fisheries (kg/year)	9.5	9.1	9.2	1.2
From aquaculture (kg/year)	11.1	10.8	10.8	0.0
FAO FISH PRICE INDEX (2014-2016=100)	**2018**	**2019**	**2020** *Jan-May*	**Change: Jan-May 2020 over Jan-May 2021 %**
	102	95	100	3.5

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

by various operational challenges. Restrictions on the movement of people, together with reduced availability of credit, difficulties obtaining the necessary inputs, logistical issues and the introduction of various sanitary measures all contributed to a contraction of production in 2020. A similar tight supply is expected in 2021 for several key species.

At the same time, products, logistics, sales channels, marketing strategies and consumer behaviour have all been fundamentally affected by the economic and social turmoil that has taken place since the initial lockdowns in early 2020. Although these changes have been accompanied by heavy financial losses in many cases, they have also created a more resilient seafood sector and extensive new market opportunities. Newly developed distribution channels, products oriented towards home consumption, and operational adaptations are likely to remain key features of the industry, increasing the ability of businesses to respond to future crises of a similar nature and opening new routes for innovation.

Now, with vaccine roll-out programmes well under way in several key markets, stakeholders are anticipating a significant boost once food service demand recovers to supplement the newly strengthened retail business. Price increases are likely for several species as a result, although the economic damage inflicted has been substantial and it is not yet evident what the long-term effects will be. Stricter sanitary requirements and inspection protocols have already increased logistical costs for some suppliers, particularly those exporting to the Chinese market. There are also other trade-related challenges concerning the industry in 2021, such as the remaining tariffs on fisheries and aquaculture products traded between the United States of America (United States) and China[1], and the long delays and administrative difficulties affecting seafood traders in the United Kingdom of Great Britain and Northern Ireland (United Kingdom) as the country moves into the final phases of its exit from the EU.

In 2021, container shipments by ship have continued to experience delays and higher costs due to congestion in major ports, reduced shipping schedules and a limited availability of containers.

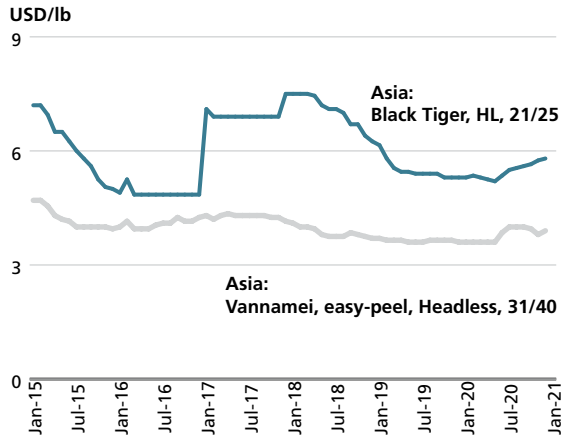
SHRIMP

Supplies of farmed shrimp in India will be lower year-on-year during the first half of 2021, as surging COVID-19 caseloads are taking their toll on the sector. Industry forecasts are for a decline of as much as 20–30 percent in the 2021 harvest compared with 2020. Several other producer countries have seen aquaculture activities slow significantly following a resurgence in virus cases and subsequent lockdown measures. However, the positive production outlook still holds for Indonesia and Viet Nam. Meanwhile, Ecuador continues to lead the global supply of farmed shrimp in 2021, despite facing its own pandemic-related challenges. Ecuador's shrimp exports during Quarter 1 (Q1) of 2021 exceeded last year's volume in the same period, particularly to the United States and China, although total shrimp imports by China contracted during this period. The US shrimp market has been relatively strong in 2021, boosted by the 4.3 percent year-on-year rise in Q1 gross domestic product and improving employment numbers. Over the January–March period, US imports were already 10 percent ahead of the same period in 2020, with increased supplies from Indonesia, Ecuador, Viet Nam and Thailand. This trend is likely to persist throughout 2021 if prices remain stable.

TUNA

The three-month Fish Aggregating Device fishing closure in the Western and Central Pacific will be in force during July–September 2021 and raw material supplies from that region will be lower during this period. Based on current inventories, however, supplies of canned tuna are expected to be stable in 2021. During the summer, improved tourist numbers and a long-awaited return to outdoor dining will likely translate into a sharp uptick in restaurant sector sales in the large North American and European Union markets. In the case of canned products, recovery of food service demand will be partially at the expense of the strong retail

Figure 2. US prices of frozen shrimp*



*Ex-warehouse prices of Asian shrimp in New York, USA
Source: INFOFISH TRADE NEWS

[1] China in this section is restricted to the mainland of China.

sales observed over the course of the pandemic. In fact, a return to relative normality is likely to be a net loss for the preserved tuna segment, which is already evidenced by a drop in US imports of canned tuna in the first quarter of 2021.

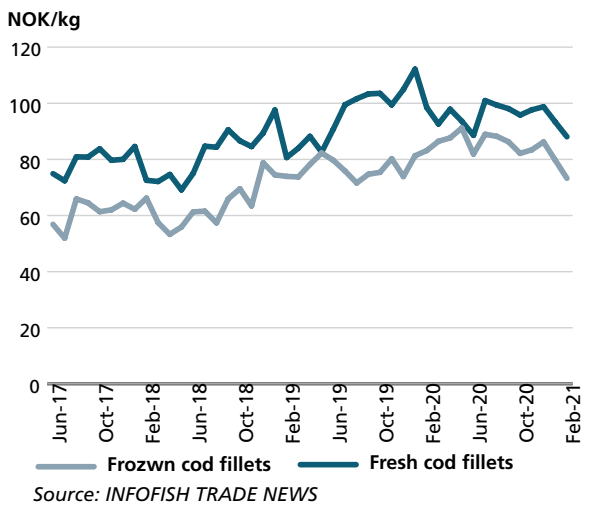
GROUNDFISH

Supplies of pollock were down early in 2021 compared with the same period in 2020, as catches were lower than expected. Meanwhile, cod supplies from the Barents Sea have been strong, but the pandemic has hampered transport and market access. In terms of trade, the EU's access to the Svalbard region is subject to heated discussions between the European Union and Norway, translating into uncertain supplies to European Union markets. Norway's loss of its Marine Stewardship Council (MSC) certification for cod is also affecting trade, as exporters have to look for alternative markets for non-MSC cod, which is likely to affect price developments. The appreciation of the Norwegian krone is another driver of price trends, making Norwegian groundfish more expensive from the importer perspective. Meanwhile, trade relations between the United States and China remain somewhat strained, despite some optimism for improvement in the medium term. On the market side, retail and home delivery sales of groundfish have increased and this may become a permanent trend.

CEPHALOPODS

Supplies of octopus are expected to be flat year-on-year in 2021, with quotas for Morocco increasing by 19 percent, but dropping by 50 percent in Mexico. Meanwhile, demand is generally increasing in major markets. However, the demand outlook in Europe depends to a large extent on whether tourism restarts in the Mediterranean region in time for the peak summer season. The economic overhang from the pandemic has also affected purchasing power, although this is more evident in the case of squid and cuttlefish than octopus. For many other fisheries products, there has been an increase in retail sales and a sharp decline in restaurant sales, but for cephalopods this change has been less pronounced.

Figure 3. Norwegian cod export prices



Source: INFOFISH TRADE NEWS

PANGASIUS

While considerable difficulties remain, the general consensus of the pangasius industry is that the worst effects of the pandemic are now past, and the outlook for the remainder of 2021 is more positive. Following a sharp reduction in farming activities in 2020, the concern now is that the boom-and-bust cycle that has characterized the pangasius sector in recent years will enter the boom phase as returning demand pulls against tight supply and lifts prices. New sanitary and documentation requirements affecting Viet Nam's trade with China have introduced additional costs and constraints, and potentially represent an opportunity for Chinese domestic producers, but indications for other markets are more favourable. In particular, the recently established free trade agreement between Viet Nam and the European Union will see the EU's duties on pangasius products gradually reduced and likely allow for expansion in this key market.

TILAPIA

Positive output growth is expected to resume for the global farmed tilapia sector in 2021, although there is some discrepancy in forecasts for Chinese production. Whereas some analysts had predicted an increase in production as the market recovery continues, more recent reports point to a further contraction this year due to rising production costs and a particularly cold winter, affecting fish survival rates in Guangdong. The US market will remain challenging from the Chinese perspective, as long as the import tariff remains in place. However, the domestic market interest from retail and food service buyers should be sufficient to keep prices from falling too far back after spiking in early 2021.

SEABASS AND SEABREAM

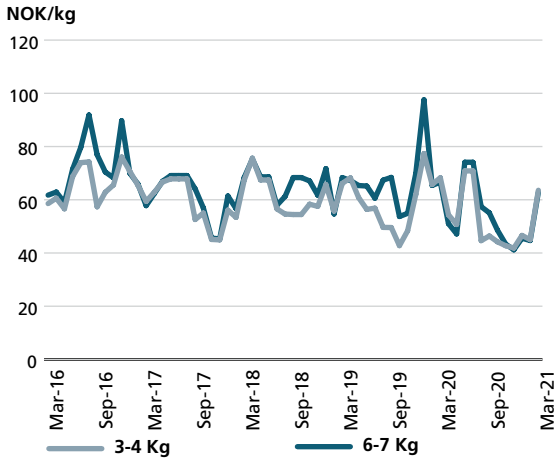
Greek production is forecast to increase by around 12 percent in 2021, while Turkish bass and bream

production is expected to drop by an estimated 10–15 percent. This equates to a continuation of the tight supply situation of 2020, which combined with the anticipated recovery in food service demand in Europe, should lift prices in the major markets in 2021. As expansion resumes, the industry as a whole will need to ensure that a stable supply growth trajectory is maintained to ensure consistent profitability and to prevent a repeat of the damaging price swings that have characterized the sector for many years.

SALMON

In Chile, regulatory limits on smolt stocking, a surplus of large fish and the frozen inventories built up over the course of 2020 have all contributed to the forecast decline in farmed Atlantic salmon output in 2021. The magnitude of the contraction is not yet clear, but estimates range from 10–20 percent, concentrated towards the second half of the year. In Europe, Norwegian supply is expected to increase by around 3–5 percent, with a similar growth forecast in the United Kingdom. For overall global farmed Atlantic salmon production, the outlook is for flat or marginal growth. This should see prices lift somewhat, but they are not expected to return to the exceptionally high levels achieved in recent years. On the demand side, the outlook is dependent firstly on the speed with which people return to restaurant dining and other pre-pandemic consumption patterns, and secondly on how long the changes that have taken place throughout the lockdown period will persist. Certainly, innovations in e-commerce sales, convenience products and delivery platforms are here to stay, and the salmon market should be more resilient

Figure 4. Norweigan salmon prices "Free on board"



Source: INFOFISH TRADE NEWS

Table 3. Seabass and seabream production

	Top global producers of seabass				
	2016	2017	2018	2019	2020*
Turkey	80.85	99.97	116.92	137.42	123.00
Greece	42.83	44.53	47.19	41.55	40.00
Egypt	24.81	30.99	25.21	30.56	32.00
Spain	23.53	18.26	21.78	25.84	20.00
Croatia	5.32	5.63	6.23	6.11	6.40
Italy	7.16	7.04	5.94	5.89	6.30
Iran (Islamic Rep. of)	…	…	4.70	5.40	5.70
Others	12.60	14.15	12.92	15.66	15.00
Total	**197.08**	**220.56**	**240.88**	**268.42**	**248.40**
	Top global producers of seabream				
	2016	2017	2018	2019	2020*
Turkey	58.75	61.68	77.22	100.29	97.00
Greece	50.00	56.33	56.76	55.96	63.00
Egypt	27.58	36.15	31.80	37.96	40.00
Tunisia	14.14	18.69	20.11	19.84	20.00
Spain	13.53	18.23	14.65	13.12	7.50
Italy	8.45	8.66	8.36	8.00	8.35
Others	24.43	28.72	28.25	31.85	33.00
Total	**196.88**	**228.46**	**237.15**	**267.01**	**268.85**

*Estimate refers to European seabass and Gilthead bream only
Source: FAO

in the longer term as a result. Aside from issues related to COVID-19, European Union buyers, the Scottish industry and the UK Government will be actively seeking to smooth out the multitude of problems being faced at the newly created EU-United Kingdom border, with some stakeholders concerned that requirements yet to be introduced would see the situation worsen.

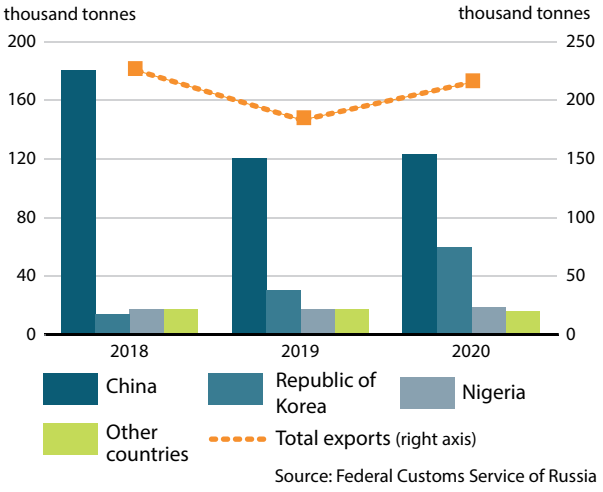
SMALL PELAGICS

Supplies of small pelagics are expected to be strong in 2021. Herring and mackerel supplies are up, and the capelin fishery around Iceland has returned. The economic downturn associated with the pandemic has generally increased consumer demand for small pelagic fish, which tend to be less expensive than competing products, but overall, international trade has been mixed. Chinese imports of frozen mackerel have declined, while Russian exports of frozen herring have been increasing. The Russian embargo on food imports from some Western countries, including major fish exporters such as Norway, remains in place and is not likely to be lifted any time soon. Exports of sardines from Morocco to Europe are up significantly, reflecting the shift in buyer preference towards inexpensive fish. In Asia, while consumer preferences appear to be relatively stable for small pelagic fish, demand for capelin roe is strong and interest in Atlantic mackerel is increasing in countries such as Thailand and Taiwan Province of China.

FISHMEAL AND FISH OIL

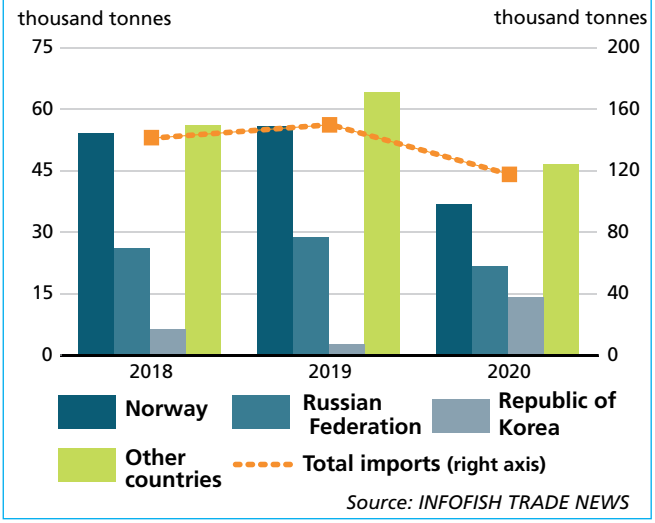
Even though the COVID-19 pandemic is still dragging on the global economy, the fishmeal and fish oil industry has weathered the associated challenges relatively successfully. In Peru, the Government has implemented a number of preventative measures to sustain normal operations. The quota for the first anchovy fishing season in the north-central area of Peru in 2021 was recently announced, with an allowable catch totaling 2.5 million tonnes, which will ensure a stable supply until roughly the end of this year. The reopening of the Chinese economy, combined with its upcoming aquaculture season and the recovery of its hog farming sector, will boost demand for fishmeal and fish oil. At the same time, easing restrictions in Europe and the United States in line with vaccine roll-out programmes will contribute to a stable market balance. Stable prices for fishmeal and fish oil are forecast to continue in 2021.

Figure 6. Russian Federation herring exports



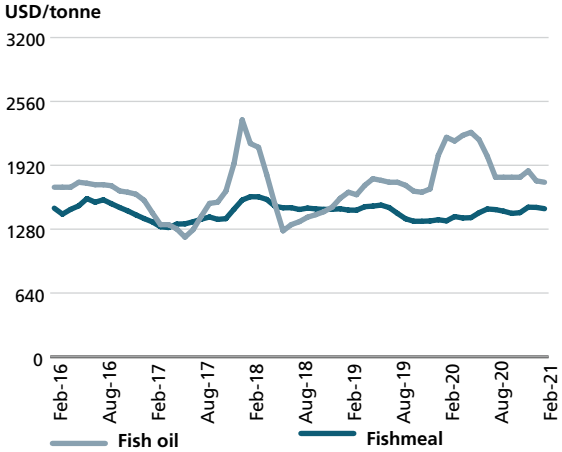
Source: Federal Customs Service of Russia

Figure 5. Chinese mackerel imports



Source: INFOFISH TRADE NEWS

Figure 7. Prices of fish oil in Europe



Source: INFOFISH TRADE NEWS

CRAB

The supply outlook for crab in 2021 is varied. In Alaska, the snow crab season started late, in contrast with the Canadian province of Newfoundland and Labrador, where processors are facing challenges dealing with high catch volumes. Demand has been growing strongly in North America and China, and this trend should continue in line with the gradual post-pandemic economic recovery. Retail demand and corresponding prices have been boosted by the shift in consumer preferences due to widespread lockdowns.

BIVALVES

Despite the ongoing pandemic crisis, the outlook for bivalves is positive. Ongoing vaccine roll-out is likely to translate into a rebound in bivalve production, a recovery of demand and a return to the positive business climate that had characterized the sector in the years prior to the pandemic. The pent-up desire of consumers to return to restaurant dining after a long lockdown period is already evident in countries where restrictions are being eased. Prices are likely to rise, as demand pulls against limited supply.

LOBSTER

North American supplies of lobster have been constrained due to catch limits and regulations relating to the protection of right whales, as well as discussions around the maximum harvest size of lobsters. As a result, supplies are expected to remain tight. As with other commodities, lobster sales during the pandemic shifted from food service to retail and home delivery channels, which command considerably lower end-user prices compared with distribution through restaurants. In terms of trade, relations between the United States and China are still strained, although improvement is likely. Australian supplies of lobster to China have been severely affected by the relationship between the two countries, and this is likely to raise prices.

SPECIAL FEATURES

Surging trade, record import bills and rising food prices: how the international food system kept a lid on a global health crisis

Contributed by:
Josef Schmidhuber
Bing Qiao

With the benefit of new data published on global trade flows, spanning the COVID-19 pandemic – from its onset to the first quarter of 2021 – this special feature provides a quantitative "reality check" on the status of global trade, both at the total merchandise level and at the food and agriculture sector level.

Why it matters? At the onset of the pandemic, considerable alarm was raised at the prospect of the global food system significantly contracting in the wake of collapsing international supply chains as well as demand faltering due to the recessionary impacts of the pandemic. Even today, alarmist views linger on, continuing to cast doubt on the resilience of food systems to the effects of COVID-19. This Special Feature seeks to allay these fears, by presenting data-driven evidence and corroborative analysis.

The Special Feature is divided into two parts, with each drilling-down into the dimensions of trade and those factors that have shaped these dimensions, and which continue to do so. In setting the stage, the first part examines the degree to which global trade has held up – its overall resilience – to the initial shock of the COVID-19 outbreak, and how that trade is responding, as the effects of the pandemic continue to reverberate. The second part looks at trends in food import bills, particularly examining on whether record rises in bills are driven by higher value (i.e., prices) or higher volume (i.e., demand). Emphasis is placed on economically vulnerable countries, since they are most exposed to rising import expenditures, especially in their fiscal and macroeconomic capacity to meet higher expenditures. With international food prices currently gaining rapid momentum that is contributing to higher import costs, attention is also paid on the merits of price indicators, in capturing the true scale and scope of the price rises from an importers' perspective.

Resilience and resurgence – a portrayal of international trade developments amid the pandemic

Shortly after the outbreak of the COVID-19 pandemic, the outlook for global trade appeared bleak. The predictions by authoritative agencies indicated a contraction in global total merchandise trade (TMT) exceeding that of the precipitous fall during the deep global financial crisis of 2008–2009 and a slow recovery path drawn out over many years.[1,2] Trade in food and agriculture was not expected to escape the weight of the pandemic, with contractions foreseen at the time to reach or even exceed those predicted for TMT, followed by a similarly protracted recovery.

More than one year further into the pandemic, have these predictions materialized? With the benefit of quantitative evidence from post-outbreak trade data,[3] this section seeks to assess how global trade has actually fared. With food and agricultural trade benchmarked against TMT, emphasis is placed on identifying the factors driving changes in regional and product flows, on what could be the trajectory for trade for the remainder of 2021, and finally, on the importance of changes in the share of agriculture in total merchandise imports as an early warning indicator.

The big picture – what we can expect

Based on evidence to date, the picture for TMT is one of a sharp contraction and an equally sharp recovery. The initial pandemic-induced contraction in TMT was remarkably shallow and short-lived, and characterized by an exceptionally narrow I-shaped rebound. In both value

[1] Economic Commission for Latin America, 2020. The effects of the coronavirus disease (COVID-19) pandemic on international trade and logistics, Special Report Number 6.

[2] https://unctad.org/en/PublicationsLibrary/ditcmisc2020d2_en.pdf.

[3] Trade data reported in this special feature may deviate from those shown in 'Agricultural trade & policy responses during the first wave of the COVID-19 pandemic in 2020' (www.fao.org/3/cb4553en/cb4553en.pdf). While both studies are based on the same primary data source (Trade Data Monitor), their underlying data processing methodologies differ. Importantly, all data presented in this document have been subjected to outlier detection and error correction procedures; they have also been supplemented by numerous imputation techniques, include unit value imputation and trade flow mirroring'

(measured in current US dollars) and volume terms (values in constant prices of 2015),[4] TMT has already exceeded pre-pandemic levels and has embarked on a rapid expansion path that portends further growth (see Figures A1 and A2). This is supported by the fact that for the first half of 2021 compared with the same period in 2020, growth in total merchandise trade has nearly returned to its pre-COVID-19 trajectory, which amounts to an extraordinary development in view of the slump in real overall economic activity.[5] Beyond the initial outbreak, successive waves of the pandemic that have taken their toll in many major import destinations, the retrenchment in global trade is firmly anticipated to be much shallower, and the recovery much faster than model-based approaches foresaw.[6]

While global merchandise trade remained remarkably resilient to the impacts [logistical (supply) and economic (demand)] of the COVID-19 outbreak, of all the sectors, trade in agricultural products emerged as the most robust to the effects of the pandemic. This is exemplified in Figures A3 and A4, where it is seen that at the onset of the pandemic, i.e. in the second and third quarters (Q2 and Q3) of 2020, the (nominal) value of global agricultural imports and exports did not falter, and similarly, there was no discernible slowdown in values at the product level. However, a mild consolidation was observed for traded volumes. During Q4 of 2020, driven by a gradual edging up in trade prices of agricultural products on the back of accelerating recovery of the global economy, a strong expansion in agricultural trade in both nominal values and volumes was observed. Moving in to 2021, the pace in the growth of volumes has begun to moderate mostly on continued upward price momentum and higher freight costs.

[4] Volumes are arguably a better indicator for the overall trade development, as they eliminate swings in prices and can function as a good barometer of overall economic activity driving trade and as a sound predictor of potential resource constraints, including shortages in transport vessels and containers.

[5] There are a number of factors that could have contributed to the recovery in total merchandise trade. Arguably the most important contribution has arisen from the various economic stimulus packages provided by many large economies, notably by high-income countries. A combination of general fiscal expansion, targeted unemployment benefits, and further monetary easing has kept consumer spending in high-income countries at relatively elevated levels, helping to avert a deeper demand shock following the supply shock exerted by the lockdown measures. The aggregate fiscal expansion of advanced economies since the pandemic started is estimated to have reached USD 15.9 trillion (USD 9.6 trillion on above the line measures (ATL) and 6.3 on below the line measures (BTL)), or 25.3 percent of the GDP (15.3 percent on ATL and 10 percent on BTL) of these countries, compared with USD 2.5 trillion or 7.9 percent of the GDP from emerging markets, and USD 52 billion or 2.3 percent of the GDP from LIDCs.

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

Why has trade in food and agriculture been so resilient to the effects of COVID-19?

Numerous reasons can be put forward for the strong resilience of agricultural trade to COVID-19-related shocks. Some of these apply in general, while others are specific to the circumstances of the pandemic. The general reasons point to the low-income elasticities of demand (i.e. import demand less susceptible to income changes) for food and agricultural products, at least at global level. At country level, considerable contractions in demand for internationally traded products are of course possible, and in fact are very real. More specifically to COVID-19, transport systems and supply chains appear more resilient than previously assumed, reflecting the dominance of bulk shipments for non-perishables, which are highly capital-intensive and labour-saving. Also specific to the COVID-19 pandemic is the fact that large commodity exporters in general, and the leading agricultural exporters in particular (e.g. Argentina, Brazil), experienced a sharp depreciation of their exchange rates, thereby sustaining their exports through improved competitiveness. By contrast, some of the most prominent agricultural importers (e.g. China) saw their exchange rates appreciate, speeding up the pace of their purchases in the international marketplace.

There is a growing body of research suggesting that most exporting countries use the US dollar as the currency of choice,[7] and that exchange rate changes therefore only affect trade with the United States of America. Trade with other countries is not affected (or at least less so); the trade data available for 2020 and 2021, however, do not support this finding. On the contrary, the data suggest that those countries (especially in Latin America) that saw a depreciation of their currencies relative to the US dollar in 2020 also saw a strong rise in their global exports, beyond the borders of the United States of America, both in values and volumes (see Figure 4b and Figures A5-A12). The effects of exchange rate changes on trade flows consequently warrant a deeper analysis.

Does resilience at global level translate to regions and countries?

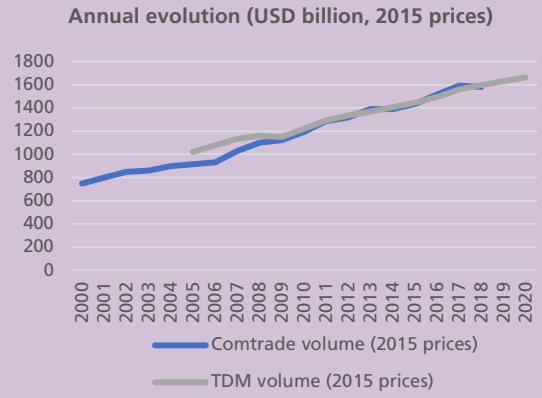
Focusing on major trading countries, as reported in the TDM database, comparisons of changes in absolute terms (nominal values in US dollars) capture the importance of

[7] Boz, E., Gopinath, G. & Plagborg-Møller, M, 2017. Global trade and the dollar. NBER Working Paper No. 23988; and Boz, E., Gopinath, G. & Plagborg-Møller, M. 2019. Dollar invoicing and the heterogeneity of exchange rate pass-through AEA papers and proceedings, Vol. 109. An overview of the rationale and the key arguments put forward by Boz et al. is provided in 'Global trade's dependence on dollars lessens its benefits', The Economist, 29 August 2020.

Box. Is the recovery in agricultural trade on-trend?

An important question to address is the extent to which the COVID-19 shock has affected the longer-term trajectory of world agricultural trade (in terms of imports). From Figure 1 and the adjacent table, the results are telling. Using combined datasets, those of UN Comtrade and Trade Data Monitor (TDM) – since the latter commences from 2005 and encompasses the COVID-19 era, while Comtrade spans pre-2005 but has yet to publish data post-2019 – it can be seen that the growth in the value of global agricultural trade, which prior 2011 was particularly vibrant, has since lost its vigour.

Figure 1: The evolution of trade volumes of world agricultural imports (constant prices of 2015) from Jan 2005 to the COVID-19 era.



Source: UN Comtrade, Trade Data Monitor (TDM), authors' calculations

Geometric growth rate (%), before vs after 2011

	Comtrade		TDM	
	Value	Volume	Value	Volume
2000-2011	10.8%	5.0%		
2005-2011	12.0%	5.8%	10.8%	4.0%
2011-2015	-1.0%	2.8%	-0.1%	2.8%
2011-2018	1.5%	3.0%	1.7%	3.0%
2011-2020			1.6%	2.8%

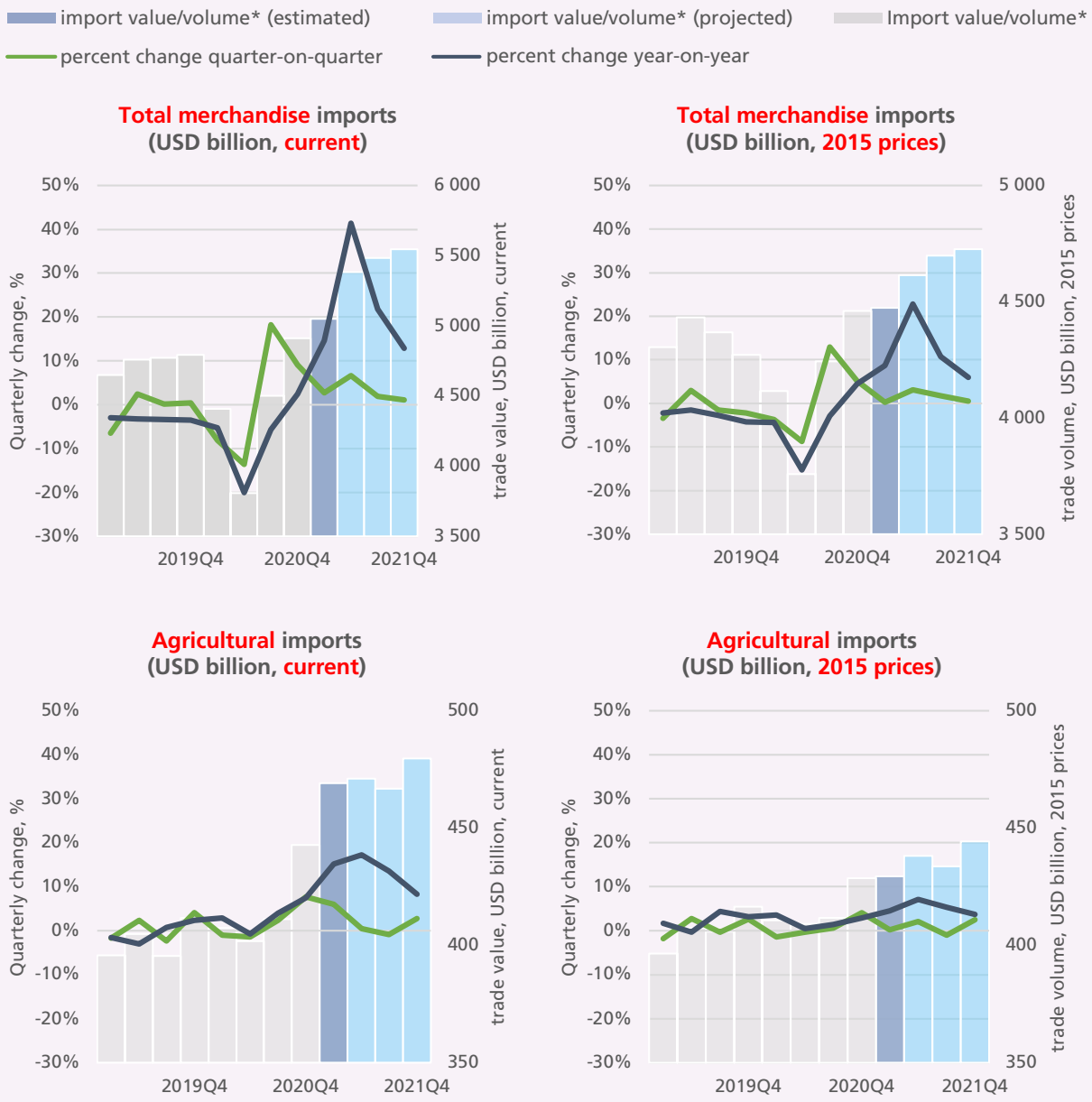
In more detail, prior to the end of 2011, including the periods from 2000–2011 and 2005–2011, growth in the value of agricultural trade reached double digit rates (reflected in both TDM and Comtrade data), while volumes grew at a more moderate pace, reaching 5.8 percent according to Comtrade and 4.0 percent when measured by TDM. Since 2011, however, Comtrade and TDM concord in depicting the near cessation of growth in the value of world agricultural trade, while growth in volumes or demand has held up somewhat more.

Despite widespread predictions that the pandemic would stymie growth in world trade in agriculture, the reality is that trade activity had already slowed considerably in the past decade or so and is now on a flatter annual trajectory. In other words, contrary to earlier predictions by many, the upshot is that COVID-19 shocks to trade have not resulted in any noticeable change to this trajectory.

individual countries in the global context. By contrast, the assessment of percentage (relative) changes illustrates the degree of recovery/resilience from the perspective of an individual country.

Dissecting the global changes observed for TMT on an annual basis (2020 vs 2019) – see Figure 3 – indicates that many countries have undergone considerable absolute contractions in trade. The densely populated lower left quadrant suggests that merchandise imports and exports have contracted for the majority of countries. The countries that saw the largest contraction in TMT, measured in absolute values, include the United States of America, followed by France, Germany, India and United Kingdom of Great Britain and Northern Ireland. Given their importance in global trade, as well as the fact that these countries were profoundly affected by COVID-19, such contractions are not surprising and, at the same time, explain a good part of the global merchandise trade contraction. Very few countries saw either their exports or imports expand, while fewer experienced a rise in both. Those countries that did manage to expand trade were small economies depicted in the upper quadrants of Figure 3. The noticeable and near ubiquitous contraction in merchandise trade is fully consistent with, and arguably indicative of, the global economic contraction, notably the GDP contraction in high-income countries.

Figure 2. Evolution of the value and volume of total merchandise imports versus agricultural imports from Q1 2019 to the COVID-19 era



Source: Trade Data Monitor (TDM), authors' calculations

Furthermore, there are two distinct groups of countries that are unlikely to participate in the expansion process, either as far as trade or overall economic activity is concerned. The first group includes those countries with a significant exposure to commodities whose demand failed to recover, notably the exporters of hydrocarbons. The second group includes those with a large exposure to tourism, a substantial hospitality sector, or a large non-cargo surface transport sector, such as a large aviation industry. Some of these countries are exposed to all these channels of transmission affecting demand, most evidently the Gulf Cooperation Countries. On the basis of such economy structure, countries will unlikely to see a V-shaped recovery path, either for trade or for overall economic activity.

As shown in Figure 5, only a very small number of countries saw noticeable changes in agricultural trade activity in 2020 and most of these changes are explained by very few, but large-scale shifts for individual commodities. What is more, there are reasons to assume that these changes are not even related to the COVID-19 pandemic, or at best are indirectly related to the outbreak.

On the export side, only Canada, Brazil, Indonesia, the Russian Federation and the United States of America saw significant changes in their exports, all of which drew a massive expansion in shipments in 2020. The counterpart to much of this trade is China, the world's largest net importer of agricultural products, which vastly expanded its imports in 2020.

A number of factors may explain the rapid growth of China's agricultural imports during the pandemic. Firstly, China was the first country affected by the COVID-19 outbreak and also among the first that managed to contain it. Secondly, China's agricultural imports were subdued in 2019, reflecting 'non-COVID-19 factors' such as the outbreak of African Swine Fever (ASF) and the trade conflict with the United States of America. Thirdly, many Latin American exporters experienced sharp depreciations of exchange rates at the onset of the COVID-19 crisis, which boosted their competitiveness, and hence appeal to China, *vis-à-vis* North American exporters.[8]

Figure 5 also shows that there is a distinct group of countries that saw their agricultural trade decline after the COVID-19 outbreak. In the lower left quadrant of the scatterplot are those countries where both agricultural imports and exports shrank; interestingly, in many European Union member countries, including Belgium, France and Italy, and also the United Kingdom of Great Britain and Northern Ireland, both agricultural imports and exports contracted in the first half of 2020 (see annex Figures), then in the second half of the year recovered above the pre-crisis level.

While a comparison of the changes in absolute trade positions provides a useful basis for a clearer understanding of global flows, a comparison in percentage terms helps to analyse the shifts from the country perspective. For many individual countries, changes in trade positions are too small to affect global changes and are also swamped when analysing absolute changes. From their national perspective, however, changes can be important and have therefore been shown separately. Figures 4 and 6 capture the changes in percentages terms, again using a comparison between 2020 and 2019.

The takeaway messages that emerge from the above include:

- Large changes in absolute terms may be few and apply only to a very limited number of trading partners and even products (as is the case in agriculture), but the effects for an individual country, i.e. the percentage change relative to 2019, can be substantial.
- Changes in trade of major trading countries (measured in absolute terms) do not necessarily lead to a massive boost or contraction of their agricultural surpluses or deficits in percentage terms; e.g. China, the Russian Federation and Canada saw a noticeable expansion of their imports and exports in both absolute and relative terms.
- The distribution of countries with rising and shrinking agricultural imports and exports is largely unchanged. The overall distribution of imports and exports remained largely unaffected by the COVID-19 shock (as shown in Figure 6).
- Many small countries experienced sharp declines in imports, which may have been caused by ample domestic supplies and/or global logistic constraints. These cases would again warrant a more detailed investigation.

In addition, as these comparisons are annual – 2020 versus 2019 – they cannot fully capture impacts observed during the year. The country comparisons may therefore appear to be in contradiction with, or less significant than, the global developments depicted and discussed earlier. Recalling the rapid global recovery that characterized the second half (H2) of 2020 (see annex figures), there is compelling evidence to suggest that countries did partake in such recovery.

What about at the product level?

The impacts of COVID-19 also affected the commodity composition of agricultural trade in both the pandemic years of 2020 and 2021.[9] Tables 1 (exports) and 2 (imports) capture year-on-year changes for major country groups, from which a number of important developments have materialized, and are expected to do so in the future.

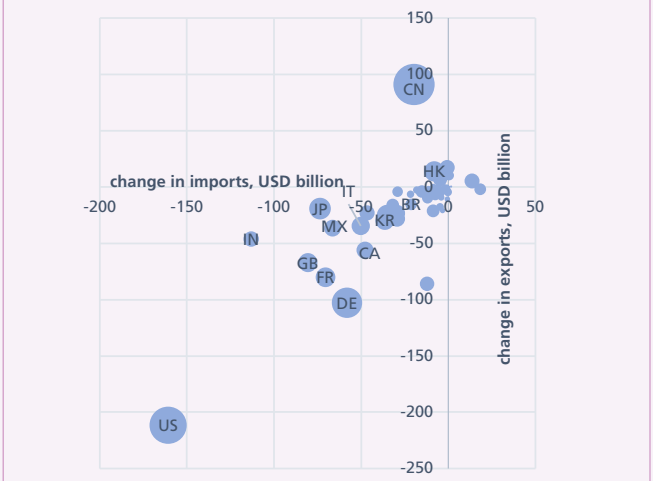
Changes in food and agricultural exports in 2020

At the global level, food and agricultural exports continued their trend expansion, rising by almost USD 52 billion (or 3.2 percent) from 2019 to 2020. The sustained increase of agricultural exports by developing countries contributed more than USD 21 billion to the global increase, with the remainder accounted for by developed countries. The steady annual growth, however, masks a notable swing that occurred within 2020, when a considerable contraction of agricultural exports marked the first half of

[8] While in contrast with recent research presented by Boz et al., practically all countries experiencing currency depreciations saw increasing agricultural exports and contracting imports.

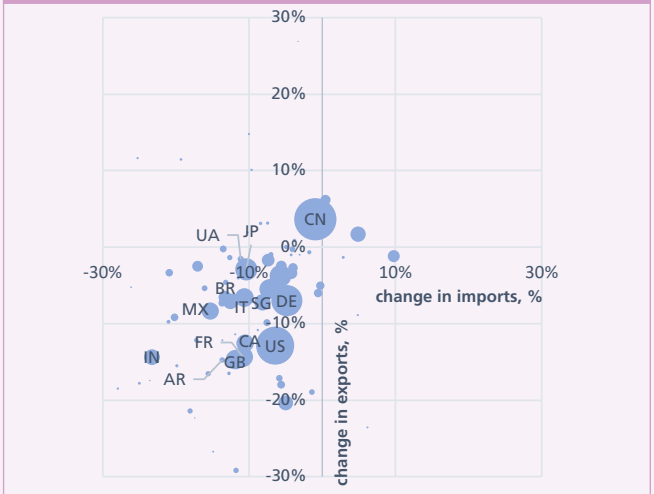
[9] The focus here is on food imports rather than total agricultural imports, to capture possible food security concerns.

Figure 3. Changes in total merchandise trade 2020 vs 2019, absolute values, bubble size propotional to total merchandise trade



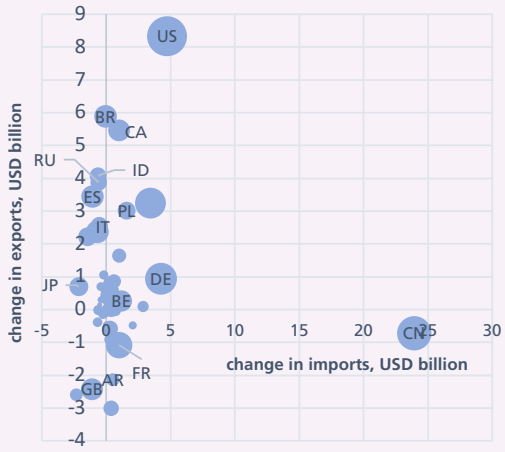
Source: Trade Data Monitor (TDM), authors' calculations

Figure 4. Changes in total merchandise trade 2020 vs 2019, percent, bubble size propotional to total merchandise trade



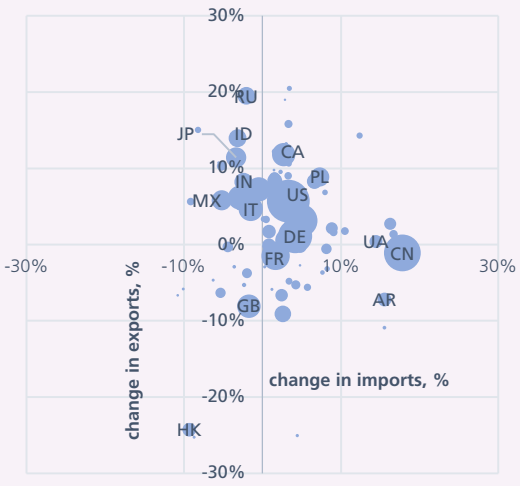
Source: Trade Data Monitor (TDM), authors' calculations

Figure 5. Changes in agricultural trade 2020 vs 2019, absolute values, bubble size propotional to total trade in agriculture



Source: Trade Data Monitor (TDM), authors' calculations

Figure 6. Changes in agricultural trade 2020 vs 2019, percent, bubble size propotional to total trade in agriculture



Source: Trade Data Monitor (TDM), authors' calculations

2020, but was followed by an even swifter recovery in the second half of the year.

Within the developing regions, Latin America saw an outright boom in additional exports of about USD 10 billion. This surge was underpinned by only a few commodities, above all by oilseeds and sugar products, followed by fruits and vegetables. Oilseed trade, mostly soybeans, registered a substantial increase, with exports from Latin America to China soaring, fuelled by a number of different factors largely unrelated to the COVID-19 pandemic. These include the protein meal needed to rebuild China's pig inventory, which was ravaged by the outbreak of ASF. They were augmented by the extra requirements to maintain all other forms of meat production, notably poultry, eggs and aquaculture, which had grown in parallel to compensate for lower pork supplies.

In addition, China's real exchange rate appreciated in 2020, while those of Latin American exporters generally depreciated, which on balance boosted exports from the region to China. Importantly, this included meat exports from Latin American suppliers to East Asia, which rose by nearly USD 7 billion in 2020, again mainly destined to cover China's domestic deficits. Exports of food and agriculture from many developed countries, by contrast, shrank in the first half of 2020. A particularly notable case concerned shipments from the United States of America, which

were heavily affected by the trade dispute with China.[10] However, as trade tensions between the two subsided in the second half of 2020, trade flows rebounded in tandem.

Changes in food and agricultural imports in 2020

At the global level, demand for fish and beverages declined considerably during the first six months of 2020, compared with the same period of last year, and had not recovered to pre-crisis level by the end of 2020. Alcoholic beverages that tend to command high prices, and are often levied with high import tariffs, were likely prone to import substitution. The same rationale applied to fishery products, which were also subject to high transport costs (namely, refrigeration), as well as delays in customs clearance at port entry due to COVID-19. Likewise in the case of exports, developing countries provided the mainstay in sustaining global inflows of food and agricultural products, countering faltering demand in developed countries. By implication, developing country exports to other developing nations adds credence to the growing importance of South-South trade in supporting global trade. That said, only a few product lines gained prominence in negating a (coincidental) COVID-19 trade contraction. Meat, as well as products in the oilseed complex, was notable in fuelling import demand in developing countries, especially shipments of these products from South America to China. Again, and as previously mentioned, these newfound flows were a result of a diversion of trade away from the United States of America in the first half of 2020, due to the evolving trade relations between the United States and China, and satisfying immediate demand for meat in China in the wake of the ASF outbreak.

Projected changes in food and agricultural trade in 2021

The data (TDM) reported so far in 2021 put the value of global agricultural trade (measured by exports) firmly on an upward trajectory, reaffirming the resilience of this sector to COVID-19 impacts. As shown in Table 1b, the annual increase in world exports from 2020 is projected at USD 137 billion or 8 percent – more than double the percentage increase of 2020 over 2019. The forecast growth in 2021 in percentage terms is distributed uniformly across all product groups, bar static growth in meat and sugar. In absolute terms, non-food (agricultural) items are expected to rise the most, followed by cereals, vegetables and fruits, and edible products in the oilseed complex. These products along with non-food items alone could account for USD 99 billion of the USD 138 billion projected rise in the value of global agricultural exports.

Developed countries are again foreseen to meet the rise in world demand in 2021, but much more so than was the case in 2020. Their share of the global export expansion in 2021 amounts to 57 percent, compared with a 59 percent share in the expansion last year. Notable changes among developing regions concern Latin American exporters, who in 2020 were instrumental in meeting international demand for oilseeds, as well as for sugar. While the upward trend in oilseeds exports continues, 2021 tells a different story for sugar, with exports forecast to fall markedly in value terms, and developed regions expected to assume this mantle.

Developing countries, especially those situated in East Asia, once more constitute the dominant import destinations for food and agricultural products in 2021. While absolute growth in food inflows to East Asia is expected to match the growth observed in 2020, changes in the composition of food imports is projected to change significantly in 2021. Underpinning this development would be the recovery of China's livestock sector from ASF, to the extent that meat imports could amount to a small increase of just USD 4 billion in 2021, compared with a more noticeable surge of USD 15 billion in 2020. Compensating for the slowdown in meat imports are greater expenditures on beverages, fruits and vegetables, and vegetable oils.

More generally, with economic recovery expected to gather considerable pace in 2021, global demand for commodities that tend to be more income-elastic could significantly rebound, especially for beverages and fish. Last year's sharp decline of USD 20 billion in import expenditures registered for both product groups combined could turn into positive territory in 2021, with an increase of USD 21 billion foreseen. However, growth in export revenues and import expenditures must be put in the context of sharply rising prices that have thus far characterized 2021, and as such may not reflect actual increases in demand (measured by import volumes). As evidenced in the next section of this special feature, food import volumes are expected to remain robust in 2021.

[10] By June 2020, US exports of soybeans had fallen to a 16-year low (https://in.reuters.com/article/us-usa-grains-braun-idUKKBN23C0RB).

Table 1a. Changes in agricultural exports, 2020 vs 2019

2020 over 2019

Change in agricultural export revenues, values, USD billion

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	13.1	3.8	9.3	0.2	5.8	1.6	1.2	0.3	0.2	-0.3	0.4	0.2
Beverages	-6.2	-4.9	-1.3	0.0	-1.5	-0.1	0.4	-0.1	0.0	0.1	0.0	0.0
Cereals and cereal preparations	12.2	11.9	0.4	0.1	-1.0	0.1	-1.0	1.4	0.7	0.2	2.4	0.7
Coffee, tea, cocoa, spices and products	2.8	1.1	1.7	0.0	0.3	0.1	1.6	0.2	-0.5	-0.1	0.1	-0.5
Dairy products and birds' eggs	0.2	0.5	-0.3	-0.1	-0.1	-0.1	0.2	-0.2	0.0	0.0	-0.1	0.0
Meat and meat preparations	-0.8	-0.5	-0.3	0.0	-0.5	-0.1	0.6	-0.3	0.0	0.0	-0.2	0.0
Miscellaneous edible products and preparations	4.6	2.8	1.8	0.1	1.2	0.0	0.2	0.1	0.2	0.0	0.3	0.2
Oilseeds and oleaginous fruits	12.7	11.4	1.3	0.1	-0.1	-1.2	2.5	0.1	0.0	0.0	0.0	0.0
Sugar, sugar preparations and honey	3.8	0.4	3.4	0.2	-1.3	0.1	4.0	0.7	-0.3	-0.2	1.0	-0.3
Vegetables and fruits	10.0	3.4	6.6	0.0	0.8	0.9	1.6	0.8	2.5	0.9	2.8	2.5
nonFood	-0.7	0.8	-1.6	0.1	-0.5	0.2	-1.4	-0.1	0.1	0.1	-0.5	0.1
Total	**51.8**	**30.8**	**21.0**	**0.6**	**3.1**	**1.6**	**9.9**	**2.9**	**2.9**	**0.7**	**6.2**	**2.9**

Change in agricultural export revenues, percent

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	14.9	11.2	17.2	9.8	17.3	24.0	12.8	21.3	17.5	-50.3	14.5	17.5
Beverages	-5.3	-5.4	-5.1	8.3	-17.4	-5.7	3.4	-13.0	-2.3	26.5	-5.3	-2.3
Cereals and cereal preparations	6.5	10.1	0.5	4.7	-7.1	0.8	-4.0	12.7	52.7	24.5	19.2	52.7
Coffee, tea, cocoa, spices and products	2.5	2.1	2.9	1.4	1.5	5.0	9.8	3.0	-3.4	-2.9	0.5	-3.4
Dairy products and birds' eggs	0.2	0.6	-2.8	-3.4	-7.6	-2.6	7.1	-21.5	13.3	39.2	-15.1	13.3
Meat and meat preparations	-0.5	-0.5	-0.7	-6.8	-6.7	-2.6	2.1	-7.2	1.4	-7.8	-4.7	1.4
Miscellaneous edible products and preparations	4.6	3.9	6.4	6.2	6.2	3.0	4.1	15.8	19.1	5.9	16.5	19.1
Oilseeds and oleaginous fruits	14.8	30.1	2.7	6.8	-7.4	-22.3	6.7	4.5	2.4	2.4	0.1	2.4
Sugar, sugar preparations and honey	8.2	2.0	12.8	13.3	-17.5	9.3	34.2	22.4	-16.4	-29.9	27.9	-16.4
Vegetables and fruits	3.6	2.4	4.8	-0.5	1.8	6.9	3.2	9.1	22.0	18.3	16.3	22.0
nonFood	-0.3	0.4	-1.6	2.4	-1.7	2.1	-3.6	-1.2	1.2	0.7	-3.1	1.2

Table 1b. Changes in agricultural exports, 2021 vs 2020

2021 over 2020

Change in agricultural export revenues, values, USD billion

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	17.7	7.8	10.0	0.1	4.5	1.3	2.3	0.8	0.9	0.2	1.1	0.9
Beverages	9.8	6.7	3.0	0.0	1.0	0.5	1.2	0.1	0.3	0.1	0.8	0.3
Cereals and cereal preparations	22.7	20.9	1.8	0.4	0.0	0.8	-1.2	1.6	0.1	0.2	3.2	0.1
Coffee, tea, cocoa, spices and products	7.7	3.1	4.5	0.0	1.3	0.2	1.6	0.2	1.3	0.3	1.9	1.3
Dairy products and birds' eggs	5.9	5.2	0.7	0.0	0.1	0.3	0.0	0.1	0.1	0.1	0.6	0.1
Meat and meat preparations	6.1	4.6	1.4	0.0	0.4	0.1	1.5	-0.7	0.1	0.0	0.3	0.1
Miscellaneous edible products and preparations	7.2	4.4	2.8	0.0	2.0	0.2	0.2	0.3	0.0	0.1	0.1	0.0
Oilseeds and oleaginous fruits	10.8	-0.9	11.7	0.2	0.0	-0.2	10.6	0.4	0.7	0.9	0.3	0.7
Sugar, sugar preparations and honey	1.4	1.5	-0.2	0.1	-0.3	0.3	-0.2	0.1	-0.1	0.0	3.4	-0.1
Vegetables and fruits	11.6	3.8	7.8	-0.2	2.2	0.9	2.5	1.8	0.7	0.4	2.1	0.7
nonFood	36.4	20.8	15.6	-0.2	4.1	0.7	6.2	1.8	3.1	1.0	10.2	3.1
Total	**137.1**	**78.0**	**59.1**	**0.2**	**15.4**	**5.1**	**24.6**	**6.5**	**7.2**	**3.3**	**23.9**	**7.2**

Change in agricultural export revenues, percent

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	17.6	20.9	15.7	6.2	11.4	16.1	21.5	49.1	57.9	75.8	31.2	57.9
Beverages	8.8	7.7	12.6	3.0	13.8	22.9	9.4	20.2	21.3	25.2	99.6	21.3
Cereals and cereal preparations	11.3	16.1	2.5	17.0	0.4	4.6	-5.4	13.0	6.3	19.7	21.3	6.3
Coffee, tea, cocoa, spices and products	6.6	5.6	7.6	-2.8	7.7	10.8	8.5	2.6	9.3	8.9	8.4	9.3
Dairy products and birds' eggs	6.2	6.2	6.1	-0.7	8.0	8.9	-0.7	14.7	33.8	52.1	79.8	33.8
Meat and meat preparations	3.9	4.0	3.4	-4.0	5.9	5.5	5.4	-18.9	9.3	21.3	6.2	9.3
Miscellaneous edible products and preparations	6.9	5.9	9.3	-1.1	10.0	12.8	4.7	28.0	3.4	24.2	8.0	3.4
Oilseeds and oleaginous fruits	10.9	-1.7	23.5	18.4	-0.2	-4.2	26.7	22.8	43.2	45.3	8.2	43.2
Sugar, sugar preparations and honey	2.7	7.5	-0.5	3.9	-5.0	16.4	-1.0	1.6	-5.6	-0.3	70.5	-5.6
Vegetables and fruits	4.0	2.6	5.4	-2.5	4.6	6.5	4.9	19.5	4.7	7.1	10.6	4.7
nonFood	12.5	10.7	15.9	-6.4	14.4	6.7	16.5	20.6	31.1	11.9	62.3	31.1

Table 2a. Changes in food import expenditures, 2020 vs 2019

2020 over 2019

Changes in food import expenditures, values, USD billion

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	12.5	4.6	7.9	0.5	3.1	0.6	0.9	1.4	1.5	2.5	2.1	1.5
Beverages	-6.7	-2.7	-4.1	0.2	-2.3	-0.1	-0.9	-0.3	-0.7	-0.4	-0.9	-0.7
Cereals and cereal preparations	13.7	2.6	11.2	4.6	5.9	-0.4	0.3	1.0	-0.2	1.0	-0.5	-0.2
Coffee, tea, cocoa, spices and products	3.1	2.1	0.9	0.3	0.2	0.3	-0.1	0.3	0.0	-0.1	0.1	0.0
Dairy products and birds' eggs	0.2	-0.7	0.9	1.1	0.9	0.2	0.0	-1.3	-0.1	0.3	0.0	-0.1
Fish, crustaceans, molluscs and products	-13.6	-6.8	-6.8	-0.4	-5.8	0.0	-0.6	0.0	0.0	0.6	0.3	0.0
Meat and meat preparations	6.9	-4.8	11.7	-0.9	14.9	-0.1	-1.1	-0.7	-0.4	0.2	0.1	-0.4
Miscellaneous edible products and preparations	5.1	2.5	2.6	0.6	1.7	0.2	0.1	0.0	0.1	0.4	0.0	0.1
Oilseeds and oleaginous fruits	11.2	3.2	8.0	0.5	5.5	0.4	1.1	0.6	0.0	-0.2	1.6	0.0
Sugar, sugar preparations and honey	4.0	0.5	3.5	0.4	2.2	0.1	-0.2	1.1	-0.2	1.0	0.8	-0.2
Vegetables and fruits	10.7	7.3	3.4	1.2	1.4	0.1	0.3	0.5	-0.1	0.0	0.1	-0.1
Total	**47.2**	**7.8**	**39.4**	**7.9**	**27.8**	**1.3**	**-0.2**	**2.6**	**0.0**	**5.2**	**3.8**	**0.0**

Changes in food import expenditures, percent

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	13.9	10.8	16.6	10.1	19.9	24.2	17.3	9.5	30.4	43.3	12.1	30.4
Beverages	-5.5	-2.8	-14.2	8.1	-15.1	-2.6	-16.8	-37.1	-25.0	-22.3	-18.8	-25.0
Cereals and cereal preparations	7.0	2.9	10.5	14.9	24.3	-4.1	1.3	11.2	-1.7	8.0	-3.5	-1.7
Coffee, tea, cocoa, spices and products	2.8	2.6	3.3	3.9	1.9	6.3	-2.9	10.7	0.4	-5.6	2.6	0.4
Dairy products and birds' eggs	0.2	-1.2	2.5	11.1	6.9	12.1	0.4	-39.4	-3.0	13.0	0.0	-3.0
Fish, crustaceans, molluscs and products	-7.8	-5.6	-12.8	-9.4	-15.4	-0.3	-11.4	3.4	-0.2	79.7	3.8	-0.2
Meat and meat preparations	4.2	-4.5	20.4	-8.3	49.7	-5.3	-11.3	-56.7	-13.3	12.5	0.8	-13.3
Miscellaneous edible products and preparations	5.3	4.3	6.7	11.5	9.4	5.0	1.2	-3.6	2.0	11.9	0.3	2.0
Oilseeds and oleaginous fruits	11.6	10.6	12.0	9.4	12.2	10.4	13.2	13.0	10.2	-9.3	28.2	10.2
Sugar, sugar preparations and honey	8.8	2.1	17.0	7.7	32.8	8.7	-5.6	73.2	-5.1	31.4	24.1	-5.1
Vegetables and fruits	3.7	3.5	4.3	7.3	3.9	2.0	3.7	5.4	-2.9	-0.2	1.0	-2.9

Table 2b. Changes in food import expenditures, 2021 vs 2020

2021 over 2020

Changes in food import expenditures, values, USD billion

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	33.1	4.7	28.4	1.4	5.9	0.8	0.9	18.9	0.6	0.0	5.3	0.6
Beverages	9.1	4.8	4.3	0.0	2.1	0.2	1.5	0.1	0.3	0.4	0.9	0.3
Cereals and cereal preparations	37.6	7.9	29.6	12.0	9.6	1.3	4.8	0.1	1.8	1.8	1.9	1.8
Coffee, tea, cocoa, spices and products	9.8	5.8	4.0	0.4	2.0	0.3	0.3	0.9	0.1	0.2	1.8	0.1
Dairy products and birds' eggs	9.1	3.7	5.4	0.8	3.6	0.1	0.4	0.2	0.2	0.2	0.8	0.2
Fish, crustaceans, molluscs and products	11.8	9.9	2.0	0.4	-0.1	0.4	0.9	-0.1	0.5	0.0	1.3	0.5
Meat and meat preparations	7.3	0.9	6.4	0.6	3.7	0.1	1.9	-0.2	0.2	0.1	-0.2	0.2
Miscellaneous edible products and preparations	9.0	5.4	3.6	0.8	1.5	0.4	0.5	0.2	0.3	0.1	0.5	0.3
Oilseeds and oleaginous fruits	31.5	2.7	28.8	10.2	7.4	0.2	9.8	1.2	0.1	-0.4	-0.7	0.1
Sugar, sugar preparations and honey	2.6	1.2	1.3	0.8	0.7	0.0	0.1	-0.4	0.2	-0.6	0.7	0.2
Vegetables and fruits	24.2	11.3	12.8	4.0	5.2	0.4	0.8	2.2	0.2	0.0	5.9	0.2
Total	**184.9**	**58.2**	**126.7**	**31.6**	**41.6**	**4.2**	**21.9**	**22.9**	**4.5**	**1.8**	**18.3**	**4.5**

Changes in food import expenditures, percent

Commodity group/ Country group	World	Developed	Developing	UNDP developing regions						Special interest		
				Arab States	East Asia and the Pacific	Europe and Central Asia	Latin America and the Caribbean	South Asia	Sub-Saharan Africa	LDCs	LIFDCs	SSA
Animal and vegetable oils, fats and waxes	32.3	9.9	51.1	25.6	31.9	27.5	14.8	114.7	9.2	0.0	26.8	9.2
Beverages	7.9	5.3	17.5	2.0	16.3	8.0	34.9	15.2	15.6	25.6	22.6	15.6
Cereals and cereal preparations	17.9	8.6	25.2	34.1	31.6	15.2	22.4	0.8	14.8	13.1	13.6	14.8
Coffee, tea, cocoa, spices and products	8.6	6.9	13.7	5.8	20.5	7.9	9.4	26.6	5.5	9.5	44.4	5.5
Dairy products and birds' eggs	9.2	6.0	14.6	7.6	25.2	5.1	7.7	9.9	10.6	6.2	18.5	10.6
Fish, crustaceans, molluscs and products	7.3	8.5	4.3	9.9	-0.3	17.4	20.0	-24.3	18.2	3.9	14.7	18.2
Meat and meat preparations	4.3	0.8	9.3	6.5	8.3	4.3	22.0	-39.0	8.9	3.5	-1.8	8.9
Miscellaneous edible products and preparations	8.7	8.8	8.5	12.8	7.1	13.2	6.3	16.9	6.9	3.5	9.0	6.9
Oilseeds and oleaginous fruits	29.1	7.9	38.6	178.5	14.8	3.9	107.9	22.7	25.5	-23.8	-8.9	25.5
Sugar, sugar preparations and honey	5.1	4.9	5.4	15.5	7.5	-2.7	2.4	-14.6	5.2	-15.7	15.5	5.2
Vegetables and fruits	8.1	5.3	15.5	23.2	13.9	5.5	8.6	24.1	7.6	0.7	50.1	7.6

Source: Trade Data Monitor (TDM), authors' calculations

Shifting agricultural trade shares and relative prices: a typical manifestation of a global economic crisis

Rising food imports in total merchandise imports – an early warning indicator for a crisis

As food importing countries saw their export revenues dwindle in 2020, their import structure also changed. Lower foreign exchange availability in conjunction with lower overall economic activity resulted in a shift in imports away from income-elastic goods to sustain inflows of income-inelastic goods, notably food and agricultural products. Countries with rapidly deteriorating terms-of-trade were hardest hit; above all, the food import-dependent and oil and gas exporters of North Africa, such as Algeria, saw their agricultural imports rise rapidly relative to total merchandise imports. The share of agricultural imports in total imports not only rose sharply for individual countries, but these shifts were also strong enough to leave a mark at global level.

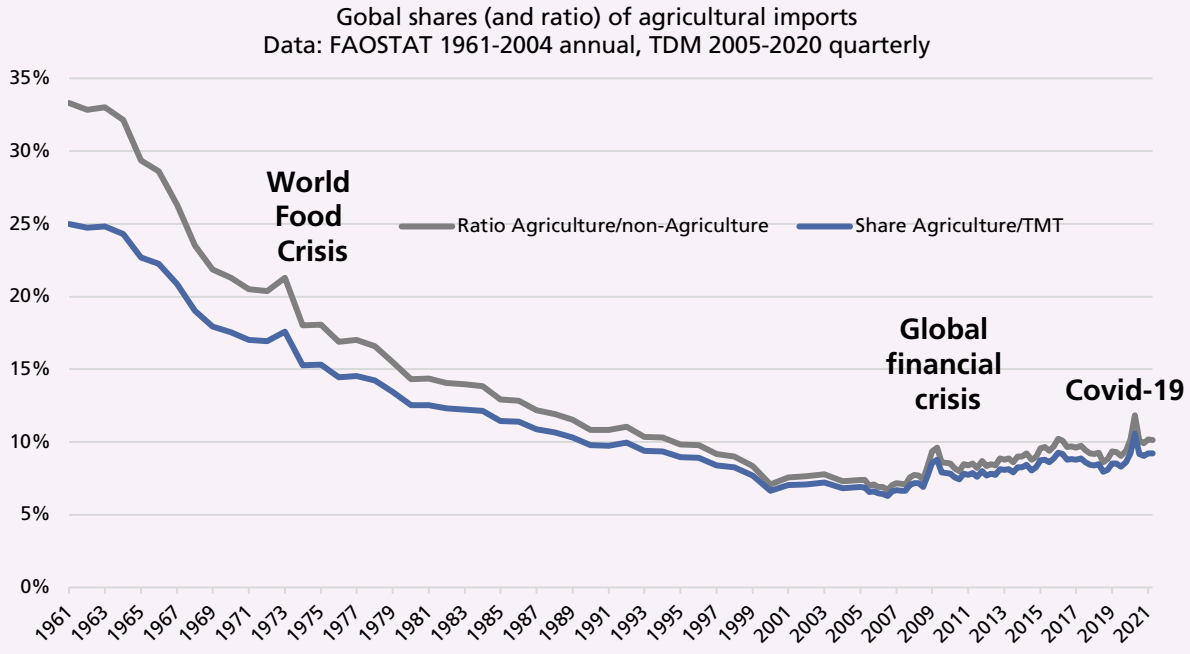
As shown in Figure 7, over the long run, the global share of agriculture in total trade exhibits a secular decline.[11] The ratio of agricultural to non-agricultural trade fell steadily from more than 33 percent in the early 1960s to 6.5 percent in 2007, its lowest level on record. Since 2007, the share edged up again to reach 8.5 percent in 2017, and further accelerated to reach almost 11 percent in the first half of 2020 (see Figure 8a). The longer view suggests that the share of agriculture in total trade has effectively doubled since 2007. While it may be premature to proclaim that this secular decline has come to a halt, or even reversed, the fact that the share is foreseen to rise strongly in 2021 does provide strong support.

Over and above the context of the current public health crisis, rapid increases in the share of food and agricultural imports in total merchandise imports (notwithstanding domestic production shortfalls) can serve as an early indicator or barometer for overall economic problems. In the event of a contraction in overall economic activity, imports of income-elastic goods tend to contract first and most significantly, whereas demand for income-inelastic goods, such as food and agricultural products, tend to remain relatively unaffected.

The same holds for individual countries. In Lebanon (see Figure 8b), for instance, that share rose prior to the COVID-19 pandemic, reflecting the country's financial

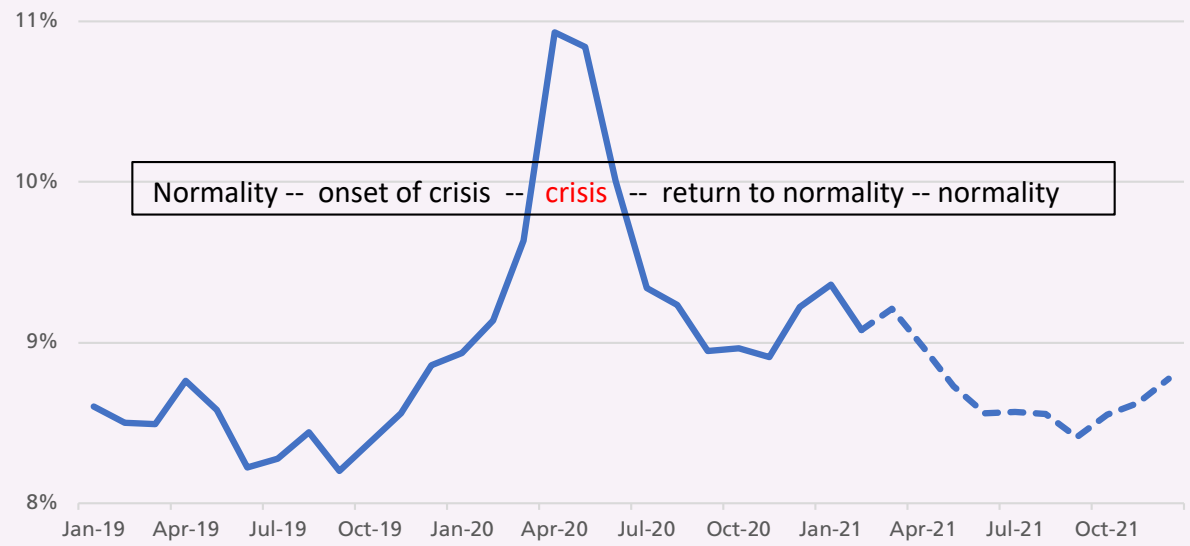
[11] The secular decline in the share of agricultural products is fully consistent with the longer-term deterioration in the terms-of-trade (TOT) for agriculture. As global incomes rose, demand for income-inelastic agricultural products increased less rapidly than demand for income-elastic manufactured goods, resulting in (i) declining TOT for agricultural exporters, and (ii) a declining share of agricultural products in total trade. It could be seen as a special case of the Prebish-Singer hypothesis, in which the analysis is limited to agricultural commodities rather than primary products more generally.

Figure 7. World agricultural imports as a share of total merchandise imports



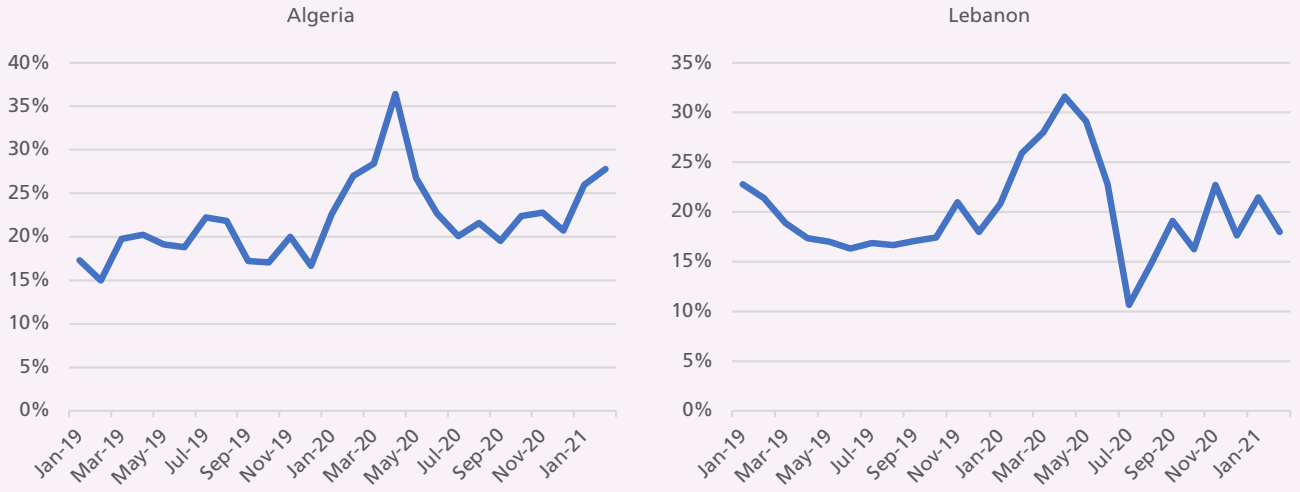
Source: FAOSTAT, Trade Data Monitor (TDM), authors' calculations.

Figure 8a. World agricultural imports as a share of world total merchandise imports during COVID-19



Source: Trade Data Monitor (TDM), authors' calculations

Figure 8b. National agricultural imports as a share of world total merchandise imports prior to and during COVID-19



Source: Trade Data Monitor (TDM), authors' calculations

crisis (hyperinflation and capital flight) in late 2019 and early 2020. This was exacerbated by COVID-19, before the country moved back to its pre-crisis level by late-2020. Algeria, in common with many other food import-dependent countries, went through a similar process. Its food import share, however, rose again as of late 2020/ early 2021, reflecting sharply higher prices for the food items that it imports.

Agricultural exporters often benefit from global economic crises

Rising relative prices of agricultural to non-agricultural goods

The combination of rebounding prices for agricultural products and lower prices at, or even before the beginning of the crisis for manufactured goods, resulted in substantially higher relative prices for agricultural products. This upturn in relative prices appears not only substantial, but also abrupt compared with its smooth prior evolution, such that the shift translated into an outright spike in

agricultural prices relative to prices of manufactured goods (see Figure 9). Indeed, from January 2020 to the same month in 2021, the overall change in agricultural prices relative to manufactured goods reached nearly 10 percent, one of the sharpest increases in the past 15 years.

Rising relative prices of agricultural to non-agricultural primary commodities

The most pronounced shift in relative prices appeared within the primary sector. Immediately apparent from Figure 10 is the fact that the rebound in relative prices for agricultural products was even more pronounced, culminating in May 2020. Given the higher interdependence of the primary sectors, notably the high energy dependence of agriculture, with both forward linkages (biofuels) and backward linkages (fertilizer, fuels, lubricants), the resulting upswing is telling.

Figure 9. Ratio of prices of agricultural products to non-agricultural products

Source: Trade Data Monitor (TDM), authors' calculations

Figure 10. Ratio of prices of agricultural products to non-agricultural primary commodities

Source: Trade Data Monitor (TDM), authors' calculations

Annex figures

Figure A1. Evolution of the value of total merchandise imports from Q1 2005 to the COVID-19 era

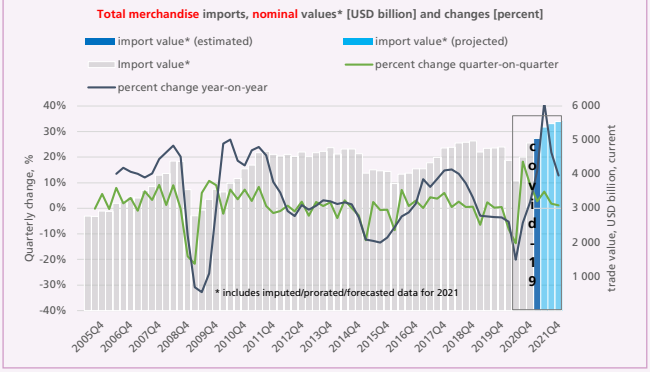


Figure A3. Evolution of the value of world agricultural imports from Q1 2005 to the COVID-19 era

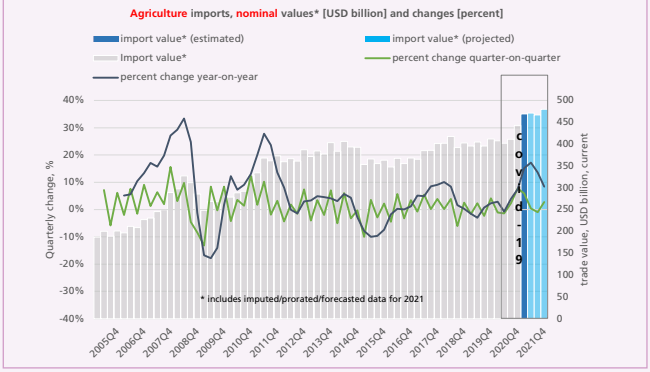


Figure A2. Evolution of the volume of total merchandise imports from Q1 2005 to the COVID-19 era

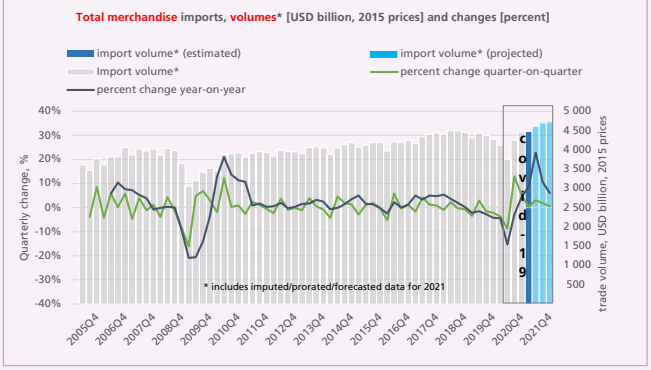


Figure A4. Evolution of the volume of world agricultural imports Q1 Jan 2005 to the COVID-19 era

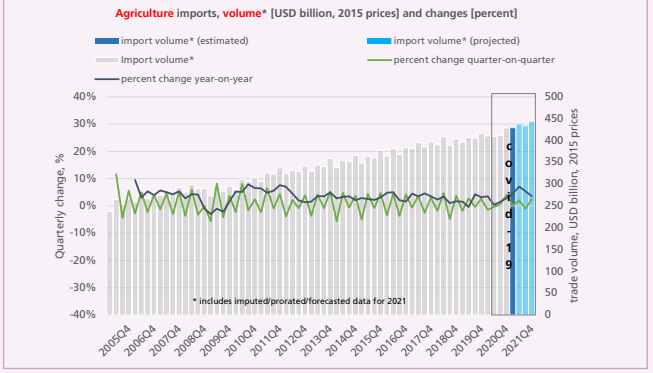
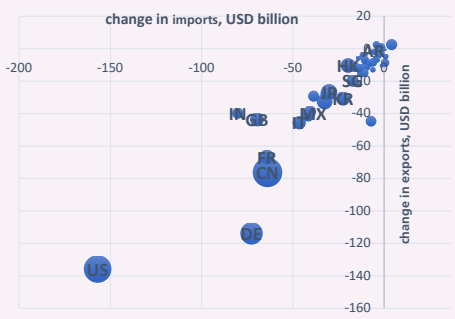


Figure A5-A6. Evolution of the value of world agricultural imports from Q1 2005 to the COVID-19 era

Changes in **total merchandise** trade
H1 2020 vs **H1** 2019, **absolute** values, bubble size propotional to total merchandise trade



Changes in **agricultural** trade
H1 2020 vs **H1** 2019, **absolute** values, bubble size propotional to total trade in agriculture

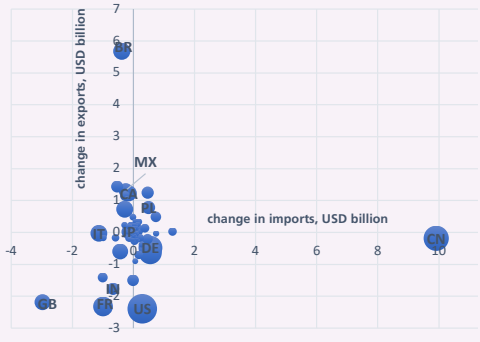
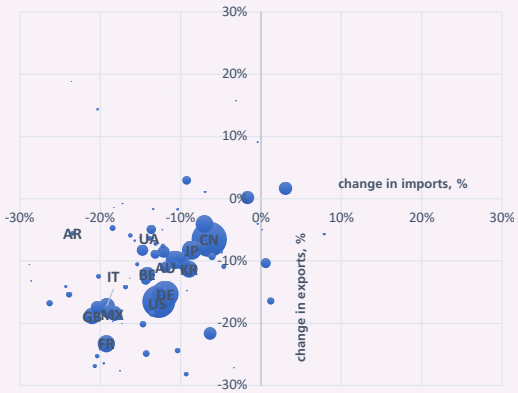


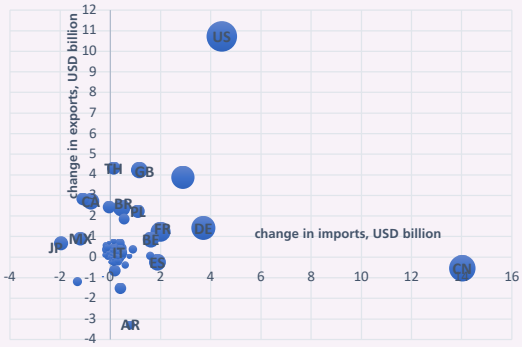
Figure A7-A12. Evolution of the value of world agricultural imports from Q1 2005 to the COVID-19 era

Changes in total merchandise trade
H1 2020 vs H1 2019, percent, bubble size
propotional to total merchandise trade

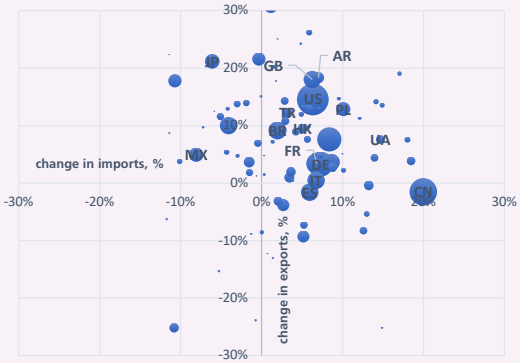


Changes in agricultural trade
H1 2020 vs H1 2019, percent, bubble size
propotional to total trade in agriculture

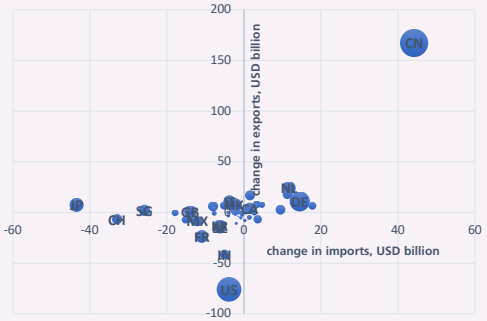
Changes in agricultural trade
H2 2020 vs H2 2019, absolute values, bubble
size propotional to total trade in agriculture



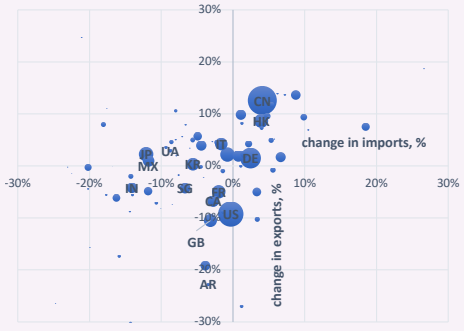
Changes in agricultural trade
H2 2020 vs H2 2019, percent, bubble size
propotional to total trade in agriculture



Changes in total merchandise trade
H2 2020 vs H2 2019, absolute values, bubble
size propotional to total merchandise trade



Changes in total merchandise trade
H2 2020 vs H2 2019, percent, bubble size
propotional to total merchandise trade



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Food import bills

World food import bill set to reach new heights in 2021

The provisional forecast for the world food import bill in 2021 points to a record USD 1.715 trillion, which would suggest a rise of 12 percent from the previous year. The economic impacts of COVID-19 are not expected to hinder global demand for foodstuffs in 2021, nor did the pandemic curtail growth in the bill in 2020, the level of which stood as the previous record. Indeed, the year-on-year expansion of the bill in 2020 was mainly on account of a steadfast increase in imported volumes, especially those of staples; while in 2021, volumes are anticipated to remain robust, increased unit costs (international quotations and freight rates) are set to underpin overall growth in the world bill compared with last year (see Box).[1] The sustained demand for imported foodstuffs during the pandemic years also masks supply chain disruptions within countries that turned, and continue to turn, to the international marketplace to fulfil domestic requirements. For instance, when EU supply chains for citrus were disrupted at the beginning of the pandemic, Egypt was able to fill the supply gap and make major inroads into the EU market. Likewise, Kenya managed to step up exports of vegetables to the EU, when problems occurred due to COVID-19-related labour shortages in the vegetable sector.

[1] Unlike trade in non-essential merchandise products, imports of food have largely been unaffected by the pandemic, hence leaving less pent-up demand to further boost food import volumes.

Trends in import bills of food groups

The COVID-19 pandemic has exerted a pronounced income shock on the global economy, with negative growth rates experienced across all regions, albeit at different depths of decline and expected speeds and shapes of recovery. These income swings have left characteristic imprints on import demand across different food groups. The realized and foreseen changes in food import bills mainly reflect the diverging responsiveness of import demand to changes in income.

Table 1. Import bills of total food and food products by region (USD billion)

	World			Developed			Developing		
	2019	2020	2021*	2019	2020	2021*	2019	2020	2021*
Animal and vegetable oils, fats and waxes	90	103	136	42	47	52	48	56	84
Beverages	123	116	125	94	91	96	29	24	29
Cereals and cereal preparations	196	210	248	90	92	100	106	118	147
Coffee, tea, cocoa, spices and products	111	114	124	82	85	90	28	29	33
Dairy products and eggs	99	99	108	63	62	66	36	37	43
Fish, crustaceans, molluscs and products	175	162	174	122	116	125	53	46	48
Meat and meat preparations	163	170	177	106	101	102	57	69	75
Miscellaneous products and preparations	98	103	112	58	61	66	40	42	46
Oilseeds and oleaginous fruits	97	108	140	30	34	36	67	75	103
Sugar, sugar preparations and honey	46	50	52	25	26	27	21	24	26
Fruits and vegetables	286	297	321	207	214	225	80	83	96
Total	**1 483**	**1 530**	**1 715**	**920**	**927**	**986**	**564**	**603**	**730**
	LDC			**LIFDC**			**SSA**		
	2019	2020	2021*	2019	2020	2021*	2019	2020	2021*
Animal and vegetable oils, fats and waxes	6	8	8	18	20	25	5	6	7
Beverages	2	2	2	5	4	5	3	2	2
Cereals and cereal preparations	12	13	15	15	14	16	12	12	14
Coffee, tea, cocoa, spices and products	2	2	2	4	4	6	1	1	1
Dairy products and eggs	2	3	3	4	4	5	2	2	3
Fish, crustaceans, molluscs and products	1	1	1	9	9	10	3	3	4
Meat and meat preparations	2	2	2	9	9	9	3	3	3
Miscellaneous products and preparations	3	4	4	6	6	6	4	4	4
Oilseeds and oleaginous fruits	2	2	1	6	7	7	0	0	0
Sugar, sugar preparations and honey	3	4	3	3	4	5	3	3	3
Fruits and vegetables	4	4	4	12	12	18	3	3	3
Total	**39**	**44**	**46**	**89**	**93**	**111**	**39**	**39**	**44**

Source: Trade Data Monitor (TDM), authors' calculations.

Box. Food for thought? the evolution of global food import unit values

With yet another bout of rising international food prices, which has marked the past nine months and shows no sign of abating, an opportunity is presented to reflect on the widely regarded yardstick metric – the FAO Food Price Index (FFPI) – that is often used as an indicator for potential crises, for food security or simply as a barometer of food market sentiment. The FFPI can be contrasted with the development of a supplementary metric, one that is based on a monthly index of food import unit values (IUVs) - the Import Unit Value (IUV) index. This Box looks at the relevance of both indices with respect to objectives and usage.

Launched in 1996, the FAO Food Price Index is built on monthly indices of benchmark export prices for five intermediate basic food groups (cereals, vegetable oils, dairy, meat and sugar), which are weighted by share in export value for the base period, currently set at the average of 2014–2016, meaning that the composition of trade is assumed to be fixed and does not change from the base period (i.e., Laspeyres in construct). While these five commodities have strategic importance for global, food security, however, when combined, their share in the global value of food exports currently amounts to just over 30 percent.

The IUV index constitutes a considerable departure from the FFPI in virtually all areas – from index methodology, to commodity coverage, to information content and ultimately to interpretation and objective. As the name suggests, the IUV index incorporates import unit values, which are simply the US dollar value of transactions divided by the quantities transacted for food commodities by the importing country, and are aggregated by (current) weight to arrive at a global index. Importantly, IUVs are indicative of the prices of foodstuffs that importing countries actually pay at their border (excluding tariffs). Needless to say, IUVs are different from the benchmark export prices (free-on-board or FOB) used in the FFPI construct, in that IUVs reflect the export price of the commodity plus the cost of freight in delivering the commodity (carriage, insurance and freight or CIF), as well as premia or discounts that may reflect quality differentials in the imported product or the degree of bargaining power of the importer. The IUV index does not suffer from incompleteness, since all foodstuffs are covered.

Fundamentally, the availability of near contemporaneous monthly trade data allows the IUV index to exploit current trade weightings (i.e. permitting a Paasche construct), and importantly, allows changes in import preferences (i.e. the composition of food trade) to be captured. For example, consumers/importers will tend to purchase less (more) of an imported food item whose current price has risen (fallen) relative to another foodstuff. In other words, the IUV index does not suffer from substitution bias. On the contrary, the IUV index fully captures the current substitution that could take place between and within food groups. This is especially the case when consumers suffer a loss in income, such as during the COVID-19 pandemic, e.g, faced with lower incomes, consumers may shift from meat to cereals, from beef to poultry and from fragrant rice (like Basmati) rice to a cheaper imported rice variant (like regular long-grain).

Figure 1 plots the (all-food) IUV index against the FFPI, and for further comparability, a subset of the IUV index is included in the figure, which limits food coverage to the food groups of the FFPI (FFPI-foodstuffs). All indices are depicted in nominal terms. While the indices positively track one another, it can be seen in the figure that the IUV index of all food reached its highest level in March 2021, exceeding the peaks of the prior food (price) crises of 2006–2008 and 2010–2012, as so markedly depicted by the FFPI (February 2011 was its highest level). In terms of the IUV index of FFPI-foodstuffs, the figure also suggests that the most recent bout of increasing food prices that began in the second half of 2020 was less steep than the FFPI would suggest. In addition, the IUV index of FFPI foodstuffs correlates more closely with the FFPI, suggesting the importance of commodity coverage in index level and change. Indeed, the difference in levels and changes between the FFPI and the IUV indices is a reflection of commodity inclusion, evolving commodity weights and price conveyance (FOB versus CIF). In recent months, index convergence has been observed, which, in the context of the IUV index, can be attributed to the fact that

prices have risen across the board, exhausting substitution possibilities between foodstuffs. Indeed, it can be shown that when substitution is no longer possible, price and quantity changes become positively correlated, leading to convergence from the Paasche (IUV) index to the Laspeyres (FPI) index.

Figures 2 and **3** show the same sets of indices, but in real terms. Figure 2 uses the world consumer price index (CPI) published by the World Bank, thereby taking into account the effects of **inflation**, so that the indices are expressed in terms of purchasing power in the base year. On the other hand, Figure 3 employs the manufactures unit value (MUV) index, again from the World Bank. The rationale for Figure 3 is that the nominal FFPI is in tandem published as a MUV-deflated series. The MUV deflator is a composite index of prices for manufactured exports from the five major (G5) industrial countries to low- and middle-income economies, valued in US dollars. Traditionally, it is viewed as the **terms-of-trade** of commodity-dependent developing countries, owing to the assumption that their economies are strongly delineated by exports of primary commodities and imports of manufactured goods. It is duly noted that this is a potentially outdated assumption, given the evolving current import/export structure of many developing economies, especially those in East and Southeast Asia.

Without dwelling on the merits of each deflator, it must be noted that the choice of deflator yields different trajectories. This is not surprising given the different meaning of each. For instance, the CPI-deflated indices show a marked long-term downward path, while the MUV-deflated series show a more upward trajectory. In contrast to the nominal series, when adjusted for inflation, March/April 2008 constitutes the peak for all three indices, while deflating via the MUV, the three peaks at different intervals (December 2010 for the FFPI, August 2008 for the IUV FFPI food index, and March 2021 for the IUV all-food index). However, both deflators capture the upturn in the price of internationally traded food that began in the latter half of 2020, especially the MUV deflator, which adds credence to the closing discussion in Section 1 of this special feature.

The takeaway message here is that prices expressed in real terms provide the basis for decision-making and resource allocation, especially in investment decisions, so that 'money illusion' is discounted. This is certainly true when applying the CPI deflator, while application of the MUV deflator simply casts commodities in terms of the degree to which they can be exchanged for manufactured goods. Clearly, the choice of deflator depends ultimately on what is most appropriate for the objective.

Figure 1. Nominal: IUV index versus the FAO Food Price Index, FPI (Jan 2005 to Mar 2021)

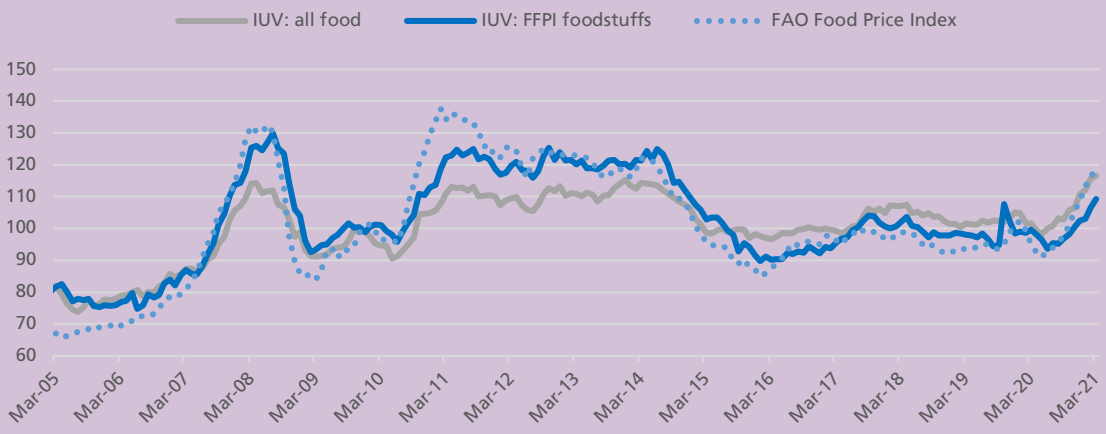


Figure 2. Real (CPI-deflated): IUV index versus the FAO Food Price Index, FPI (Jan 2005 to Mar 2021)

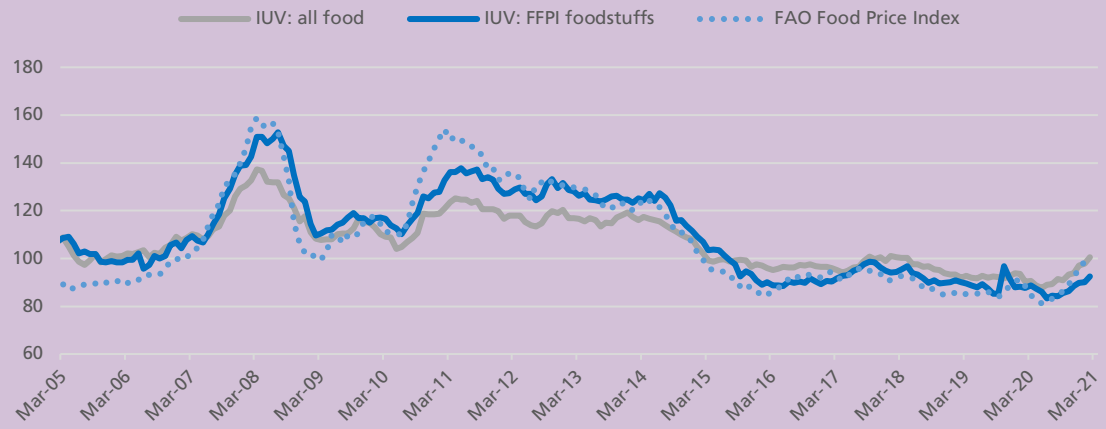
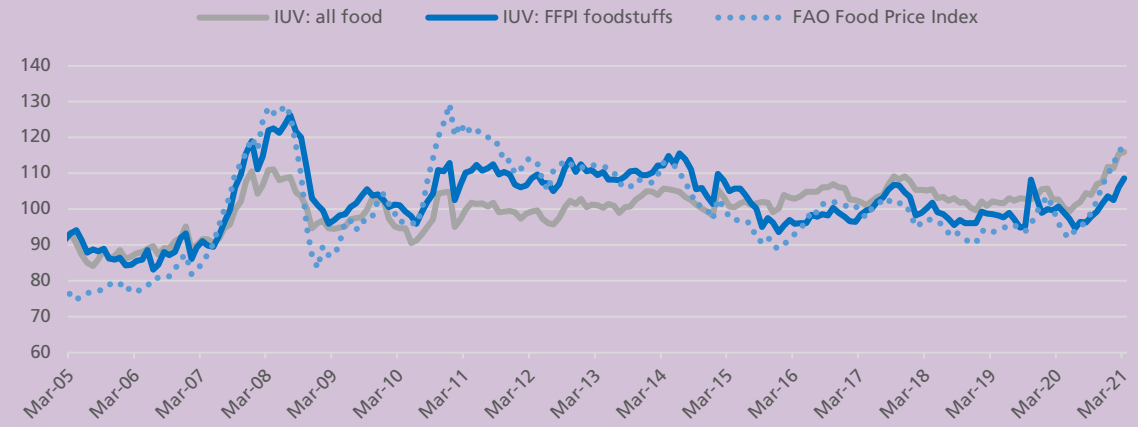


Figure 3. Real (MUV-deflated): IUV index versus the FAO Food Price Index, FPI (Jan 2005 to Mar 2021)



Source: FAO Food Price Index (FFPI), World Bank, Trade Data Monitor (TDM), authors' calculations.

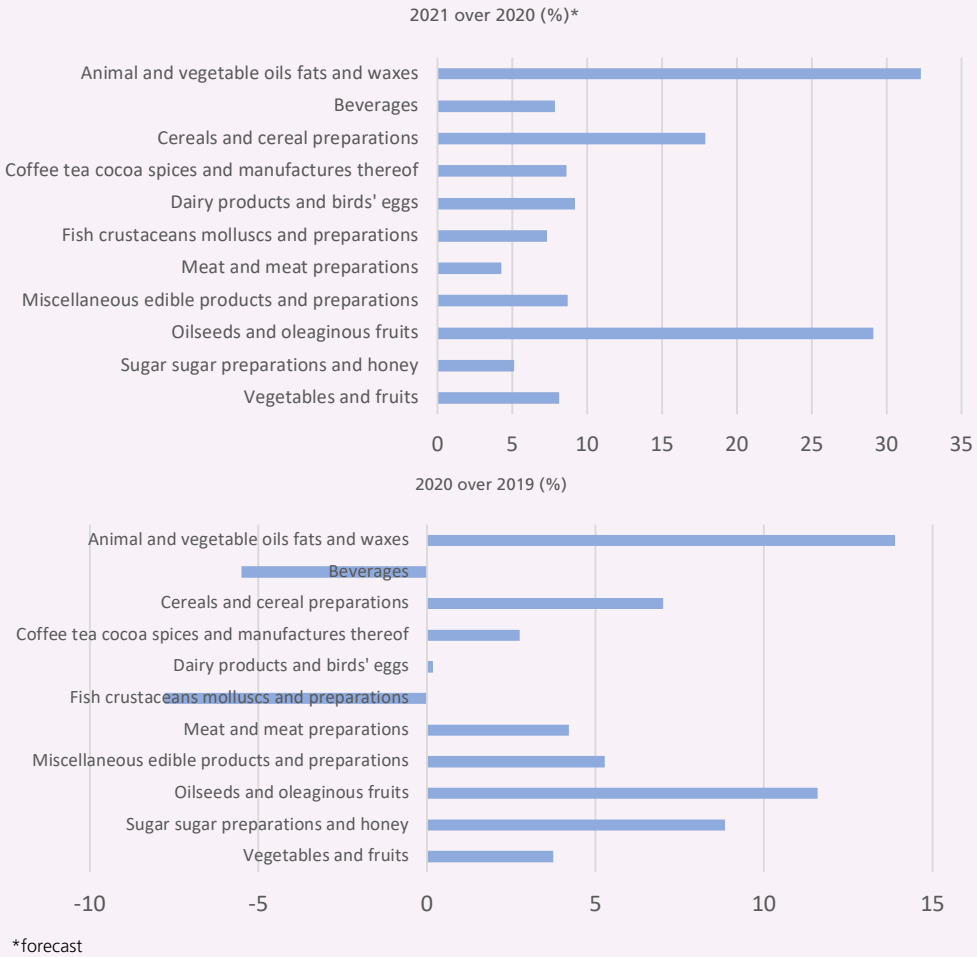
Against the backdrop of much higher international quotations predicted for 2021, as well as a strong upturn in world gross domestic product (GDP) growth, virtually all product bills are expected to increase in 2021. The largest *absolute* increases in the year are those foreseen for cereals (USD 37 billion), followed by vegetable oils (USD 33 billion), oilseeds (USD 31 billion) and fruits and vegetables (USD 24 billion). Combined, they would account for almost USD 126 billion of the USD 185 billion foreseen rise in the global bill in 2021 from last year. Again in 2020, these product groups dominated the dollar increase in the world bill of USD 48 billion from 2019, and were also supported by a substantial increase in international purchases of oilseeds. Such developments were to be expected, given the low-income responsiveness of staple foodstuffs. By contrast, purchases of fish products as well as beverages, which are typically sensitive to income changes, fell a collective USD 20 billion compared with 2019.

On a percentage basis, vegetable oils, cereals and oilseeds are noteworthy food groups that are set to be the most vibrant in terms of growth in 2021 (Figure 1). The consistency in the rise for most product bills at the global level was not shared in 2020. Changes in the bill of last year were diffuse, with percentage changes varying widely. At the extreme were vegetable oils and fish products, with import bills of the former rising by almost 14 percent, compared with a near 8 percent contraction in global fish purchases.

Do higher bills translate to more food delivered?

The aforementioned trends are not expected to be uniform across economic and geographical regions. With few exceptions over all food categories, developed regions, which dominate global food inflows, are expected to

Figure 1. Changes in global food import bills by product



*forecast

Source: Trade Data Monitor (TDM), authors' calculations.

import less food in 2021 at a greater cost than in 2020, such that prices (and freight costs) are expected to fuel a net increase in the food import bill to the tune of USD 58 billion in 2021.

By contrast, and in spite of higher global quotations, developing countries are anticipated to purchase more food in all categories. Rising demand for cereals, vegetable oils, oilseeds, and fruits and vegetables are by far the greatest within-drivers of the predicted increase in the food import bill of developing regions in 2021, with volumes accounting for almost 60 percent of the USD 127 billion increase. Such demand by developing regions is expected to underpin the overall increase in the global food bill in 2021. The decomposition of food import bill changes for 2021 into volume and price effects is provided in Table 2a while the decomposition for 2020 is provided in Table 2b[2].

[2] Factor decomposition of changes in Food Import Bills (FIB_{us}) in USD is calculated as follows:

$$\Delta FIB_{us} = \Delta Q \times P_{us,o} \quad \text{(volume effect)}$$
$$+Q_o \times \Delta P_{us} \quad \text{(price effect)}$$
$$+ [\, \Delta Q \times \Delta P_{us} \,] \quad \text{(mixed effect)}$$

Likewise in 2020, the growth in demand for imported foodstuffs by developing countries contributed an overwhelming 80 percent of the annual rise in the world food import bill. Only a decline in purchases of fish products and beverages and a stagnation of coffee, tea, cocoa and spice inflows were registered in 2020. Growth in the developed region food import bill was again dominated by price effects, with across-the-board declines in volumes.

Vulnerable countries pay the price

Food import bills of economically disadvantaged groups of countries, such as Least Developed Countries (LDCs), Low-Income Food-Deficit Countries (LIFDCs) and countries situated in sub-Saharan Africa (SSA) are expected to rise in 2021 by varying degrees. The bills of LDCs are forecast to increase with 4 percent, while those of SSA and LIFDCs could increase by 11 and 20 percent, in tandem with the global increase. However, growth in these aggregate bills is dominated by increases in the unit costs of importing food. Worryingly, as shown in Table 2b, LDCs are foreseen

Table 2a. Decomposition of changes in food product bills for global aggregates

2021 over 2020												
	World				Developed				Developing			
Food group	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change
	<---------- USD billion---------->											
Animal and vegetable oils, fats and waxes	19.1	11.7	2.3	**33.1**	5.2	-0.4	-0.1	**4.7**	13.2	12.1	3.2	**28.4**
Beverages	11.2	-2.0	-0.1	**9.1**	9.3	-4.1	-0.4	**4.8**	2.0	2.0	0.2	**4.3**
Cereals and cereal preparations	17.1	18.8	1.7	**37.6**	8.6	-0.6	0.0	**7.9**	8.9	19.1	1.6	**29.6**
Coffee, tea, cocoa, spices and products	7.3	2.4	0.2	**9.8**	5.6	0.2	0.0	**5.8**	1.6	2.3	0.1	**4.0**
Dairy products and eggs	7.9	1.1	0.1	**9.1**	4.8	-1.0	-0.1	**3.7**	3.1	2.1	0.2	**5.4**
Fish, crustaceans, molluscs and products	4.8	6.7	0.3	**11.8**	4.2	5.4	0.3	**9.9**	0.6	1.4	0.0	**2.0**
Meat and meat preparations	1.4	5.7	0.1	**7.3**	3.4	-2.5	0.0	**0.9**	-1.5	8.1	-0.2	**6.4**
Miscellaneous products and preparations	6.8	2.0	0.1	**9.0**	4.2	1.1	0.1	**5.4**	2.6	0.9	0.1	**3.6**
Oilseeds and oleaginous fruits	15.0	14.4	2.1	**31.5**	3.4	-0.6	-0.1	**2.7**	11.8	14.6	2.4	**28.8**
Sugar, sugar preparations and honey	3.0	-0.4	0.0	**2.6**	1.8	-0.5	0.0	**1.2**	1.2	0.1	0.0	**1.3**
Fruits and vegetables	12.4	11.3	0.5	**24.2**	9.8	1.5	0.0	**11.3**	2.8	9.7	0.4	**12.8**
Total	**105.8**	**71.7**	**7.4**	**184.9**	**60.1**	**-1.5**	**-0.4**	**58.2**	**46.3**	**72.4**	**8.0**	**126.7**

2020 over 2019												
	World				Developed				Developing			
Food group	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change
	<---------- USD billion ---------->											
Animal and vegetable oils, fats and waxes	8.5	3.7	0.4	**12.5**	2.8	1.7	0.1	**4.6**	5.7	2.0	0.3	**7.9**
Beverages	-1.1	-5.8	0.2	**-6.7**	-0.6	-2.2	0.1	**-2.7**	-0.6	-3.6	0.1	**-4.1**
Cereals and cereal preparations	-0.1	13.8	0.1	**13.7**	0.5	2.1	0.0	**2.6**	-0.4	11.5	0.0	**11.2**
Coffee, tea, cocoa, spices and products	4.6	-1.5	-0.1	**3.1**	3.6	-1.5	-0.1	**2.1**	0.9	0.0	0.0	**0.9**
Dairy products and eggs	0.7	-0.5	-0.1	**0.2**	0.6	-1.3	0.0	**-0.7**	0.1	0.8	0.0	**0.9**
Fish, crustaceans, molluscs and products	-4.3	-9.6	0.3	**-13.6**	-3.2	-3.9	0.2	**-6.8**	-1.3	-5.5	0.0	**-6.8**
Meat and meat preparations	1.4	5.2	0.2	**6.9**	1.2	-5.9	0.0	**-4.8**	0.3	11.1	0.3	**11.7**
Miscellaneous products and preparations	-3.4	9.1	-0.5	**5.1**	-2.3	5.2	-0.3	**2.5**	-1.1	3.9	-0.2	**2.6**
Oilseeds and oleaginous fruits	0.8	10.4	0.0	**11.2**	0.5	2.7	0.0	**3.2**	0.4	7.6	0.0	**8.0**
Sugar, sugar preparations and honey	1.0	3.0	0.0	**4.0**	0.7	-0.2	0.0	**0.5**	0.3	3.2	0.0	**3.5**
Fruits and vegetables	6.4	4.2	0.0	**10.7**	5.0	2.2	0.0	**7.3**	1.4	2.0	0.0	**3.4**
Total	**14.5**	**32.1**	**0.6**	**47.2**	**8.8**	**-1.1**	**0.0**	**7.8**	**5.9**	**33.0**	**0.5**	**39.4**

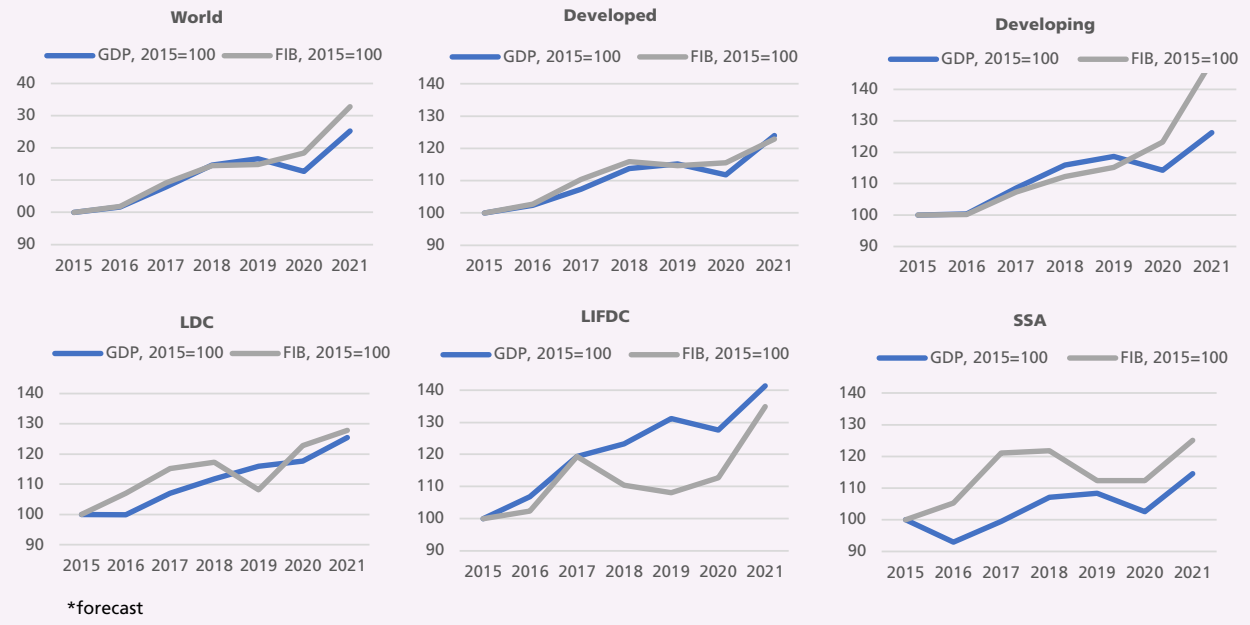
Table 2b. Decomposition of changes in food product bills for vulnerable countries

2021 over 2020												
	LDCs				LIFDCs				SSA			
Food group	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change
	<---------- USD million ---------->											
Animal and vegetable oils, fats and waxes	942	-825	-115	**1**	3 706	1 271	335	**5 312**	1 014	-313	-113	**588**
Beverages	149	202	31	**382**	263	589	35	**886**	141	159	21	**322**
Cereals and cereal preparations	141	1 626	-4	**1 763**	197	1 723	3	**1 923**	278	1 507	16	**1 801**
Coffee, tea, cocoa, spices and products	107	93	-2	**197**	684	980	176	**1 840**	55	9	2	**66**
Dairy products and eggs	115	38	4	**157**	503	261	38	**802**	149	80	8	**236**
Fish, crustaceans, molluscs and products	13	40	-5	**49**	-57	1 367	-10	**1 301**	41	486	4	**531**
Meat and meat preparations	12	65	1	**78**	213	-365	-6	**-158**	58	154	12	**224**
Miscellaneous products and preparations	88	36	1	**125**	291	196	10	**497**	185	72	5	**261**
Oilseeds and oleaginous fruits	59	-384	-28	**-353**	623	-1 152	-132	**-661**	14	73	-5	**83**
Sugar, sugar preparations and honey	127	-635	-130	**-638**	331	283	36	**651**	199	-2	-32	**165**
Fruits and vegetables	93	-77	8	**25**	591	4 968	315	**5 874**	97	84	6	**187**
Total	**1 847**	**180**	**-240**	**1 787**	**7 345**	**10 121**	**801**	**18 267**	**2 232**	**2 308**	**-76**	**4 464**

2020 over 2019												
	LDCs				LIFDCs				SSA			
Food group	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change
	<---------- USD million ---------->											
Animal and vegetable oils, fats and waxes	814	1 529	154	**2 497**	2 736	-573	-33	**2 131**	774	636	84	**1 494**
Beverages	17	-443	-1	**-427**	-49	-873	12	**-910**	-15	-687	16	**-686**
Cereals and cereal preparations	350	715	-76	**989**	327	-755	-86	**-513**	249	-398	-61	**-210**
Coffee, tea, cocoa, spices and products	19	-138	-5	**-123**	34	82	-13	**103**	22	-17	-1	**4**
Dairy products and eggs	-1	299	-5	**294**	101	-100	-3	**-2**	53	-118	-4	**-69**
Fish, crustaceans, molluscs and products	-32	628	-37	**559**	-102	426	3	**327**	-29	22	2	**-5**
Meat and meat preparations	-40	292	-4	**247**	4	32	32	**69**	-60	-338	12	**-386**
Miscellaneous products and preparations	67	323	-6	**383**	-32	58	-12	**15**	-14	99	-12	**73**
Oilseeds and oleaginous fruits	43	-141	-55	**-152**	-331	2 069	-110	**1 628**	5	39	-14	**30**
Sugar, sugar preparations and honey	70	1 160	-260	**970**	55	777	-14	**818**	25	-154	-41	**-170**
Fruits and vegetables	76	-71	-10	**-6**	376	-286	23	**113**	71	-139	-6	**-74**
Total	**1 383**	**4 153**	**-305**	**5 231**	**3 120**	**858**	**-200**	**3 778**	**1 082**	**-1 055**	**-26**	**2**

Source: Trade Data Monitor (TDM), authors' calculations.

Figure 2. GDP versus food import bills, 2015–2021*



Source: World Bank, Trade Data Monitor (TDM), authors' calculations.

to purchase barely the same total volumes of food but at a higher cost in 2021. Bills of cereals constitute one of the few product groups in which economically disadvantaged countries could benefit from greater import volumes at a lower unit cost. Purchases of vegetable oils – commodities that habitually rank second in terms of import dependency – are expected to decline considerably in volume terms for LDCs and SSA. A cursory examination of trends in GDP and food import bills (see Figure 2) reveals that bills have stagnated for LIFDCs and SSA during 2020. This is expected to explain lower demand by these country groups for livestock and sugar products, which are sensitive to changes in income.

A further worrying feature is that to the extent changes in import demand reflect changes in overall demand, the COVID-19 pandemic would have resulted in a shift from high- to low-value food products and most likely to a deterioration in the quality of diets. Indeed, the growth in international purchases of cereals by LDCS, LIFDCs and SSA, at the expense of more nutritionally diverse foodstuffs, bears testimony to this outcome.

With worsening macroeconomic fundamentals, the fiscal capacity of already vulnerable countries to import is becoming critical. Figures 4 to 6 highlight dimensions of selected LIFDCs, LDCs and countries in SSA, as well as other developing net food-importing countries, in their ability to import food. The selection of countries was based on criteria relating to exposure, such as high food import dependency ratios, large shares of food expenditure in GDP and large economic distances below median per capita world GDP.

As an example of these criteria, Figures 3a and 3b contrast food expenditure shares in GDP with per capita food import bills of countries in vulnerable regions, as well as those for developed countries. It is seen that food accounts for a relatively high percentage of GDP in vulnerable countries, averaging around one-third, but per capita food import bills reveal no tendency to correlate with the degree of food expenditure share, implying a high reliance on the ability of domestic production systems to deliver food.[3] With production shocks, or a lack of resource endowments to produce food, such countries will be exposed to the encumbrances of buying food from the international arena. By contrast, food expenditure shares in developed countries average about 10 percent, and it can be deduced from the figure that the lower the share, the higher the county's per capita food import bill – or higher dependence on imported food vis-à-vis domestic food systems.

Turning to the dimensions of affordability, Figure 4a shows changes in international purchasing power of currencies, as measured by real exchange rates. It is seen that numerous net food importers have experienced sharp depreciations of their real exchange rates, undermining their ability to buy food from the international arena. At the

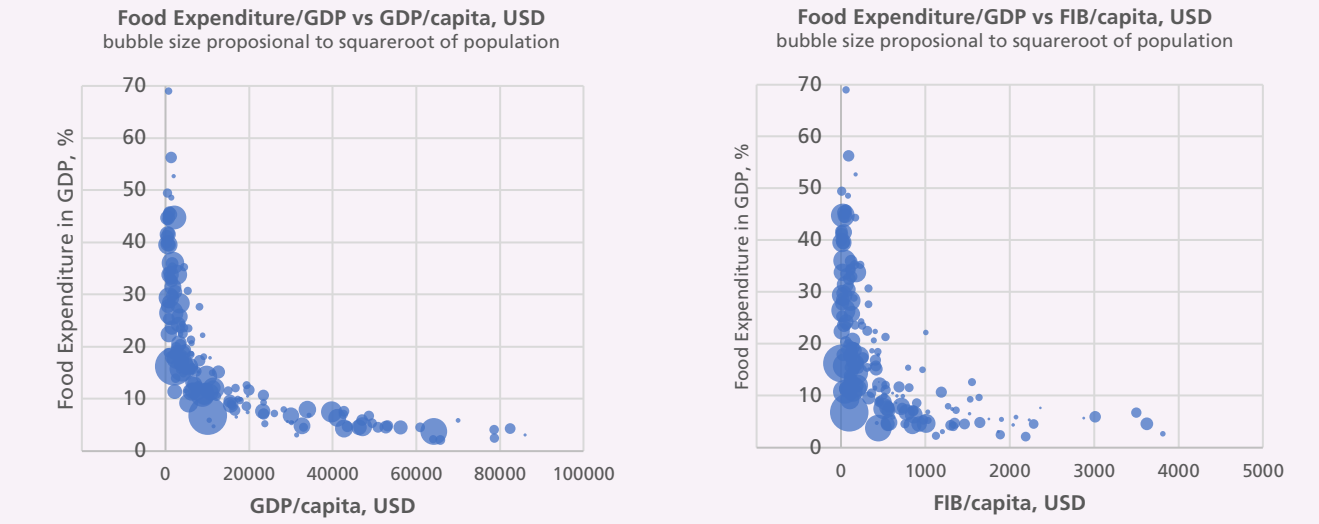
[3] While per capita levels of food import bills appear low in vulnerable countries, compared with median per capita GDP, import bills may assume a share as high as 16 percent.

same time, some agricultural exporters enjoyed even larger depreciations of their real exchange rates, making their produce more competitive internationally (Figure 4b). The well-established agricultural exporters from Latin America (Brazil, Chile or Uruguay) have particularly benefited from the decline in value of their valuta in 2020. While these countries also experienced higher inflation rates and therefore higher production costs, the depreciation of their nominal exchange rates exceeded the cost increase and boosted the competitiveness of their exports.

Figure 5 depicts the burden of importing food with respect to domestic foreign exchange reserves. Since international procurement is transacted in major convertible currencies, often the US dollar, sufficient foreign exchange reserves are a necessary prerequisite for countries to participate in trade. It is seen that for many vulnerable countries, food import bills consume a significant percentage of their foreign exchange earnings, as much as 90 percent of foreign exchange reserves in a particular instance. Such high shares expose countries to a potential failure to meet the cost of importing other necessities, such as energy and medical products.

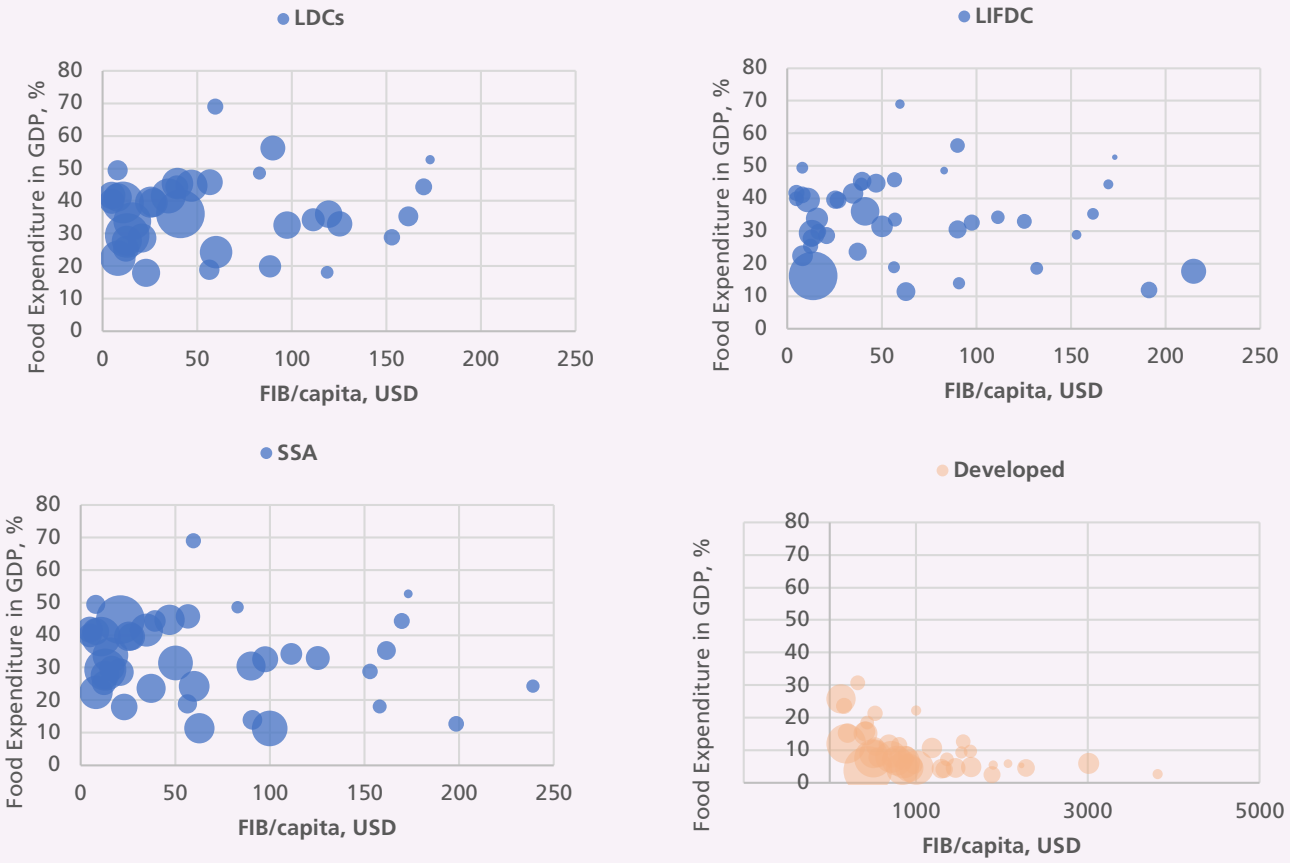
In a similar vein, Figure 6 measures the share of a country's food import bill in its total merchandise export earnings. In many cases, foreign exchange earnings from exports merely cover imported food needs, and in other instances, the cost of imported food far exceeds earnings from merchandise exports. In *normal times*, countries with a strong revenue stream from exporting services, notably tourism, are able to compensate for low proceeds from exporting merchandise goods. In *times of COVID-19*, however, many of these countries have been deprived of revenues from service exports, which puts them at an added risk of depleting their foreign exchange reserves. Among the most exposed countries are the Maldives, Cabo Verde and Sao Tome and Principe; in all three countries, the food import bill in 2020 exceeded revenues from total merchandise exports.

Figure 3a. Food expenditure in GDP vs per capita food import bills, globally



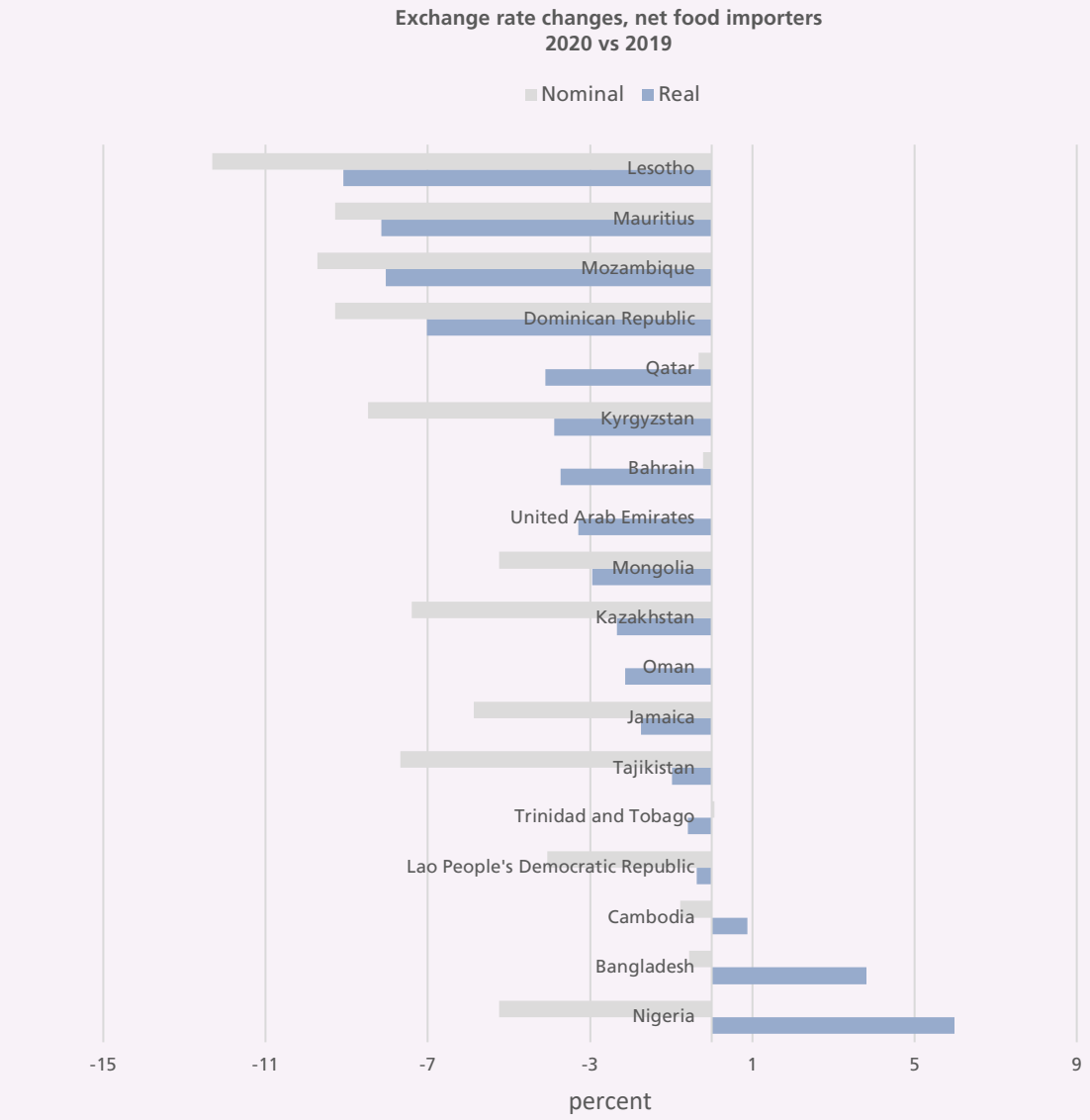
Source: World Bank, Trade Data Monitor (TDM), authors' calculations.

Figure 3b. Food expenditure in GDP vs per capita food import bills, by country group



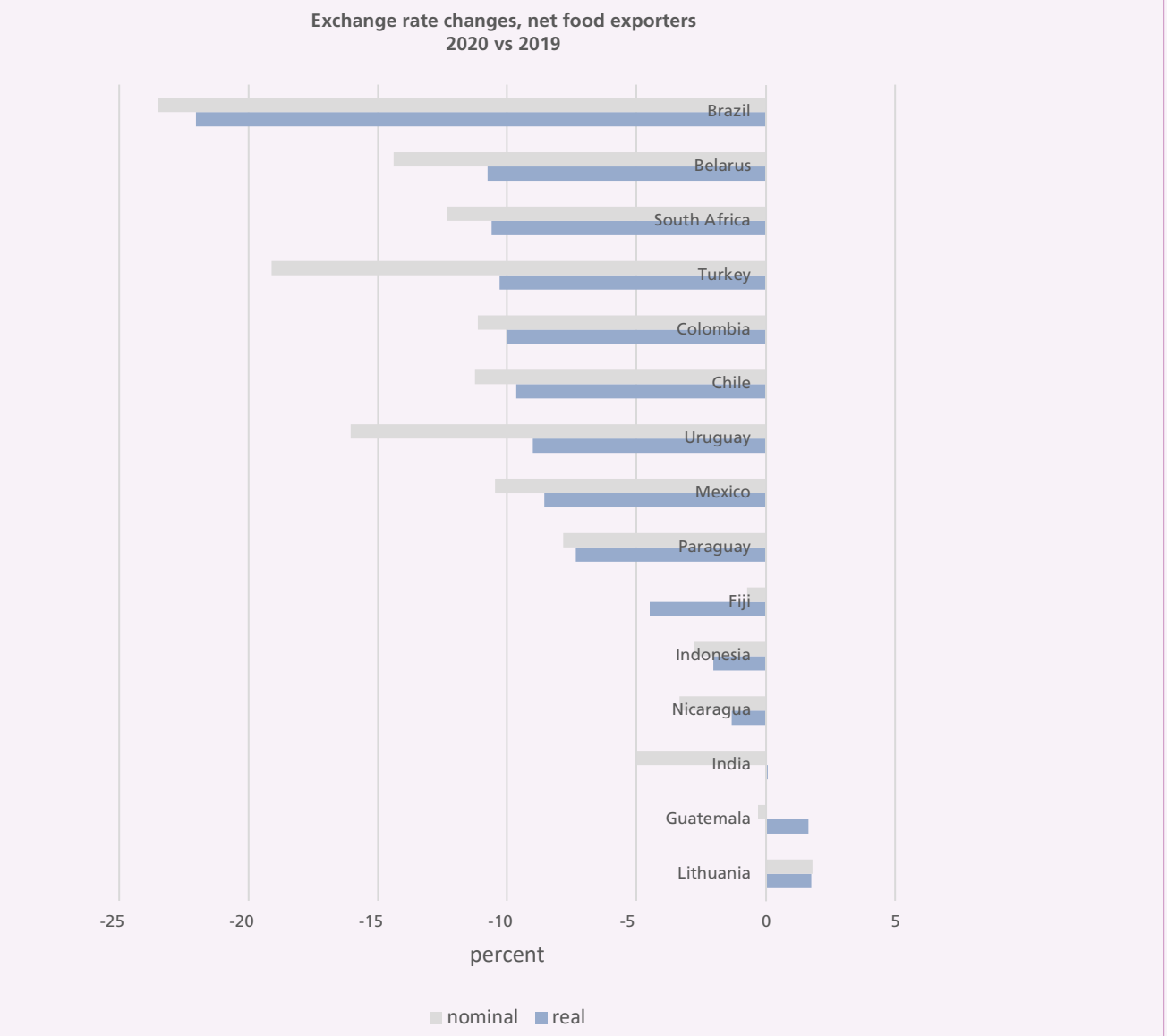
Source: World Bank, Trade Data Monitor (TDM), authors' calculations.

Figure 4a. Percentage changes in real exchange rates against the USD of food-importing and other vulnerable countries (2020/2019)



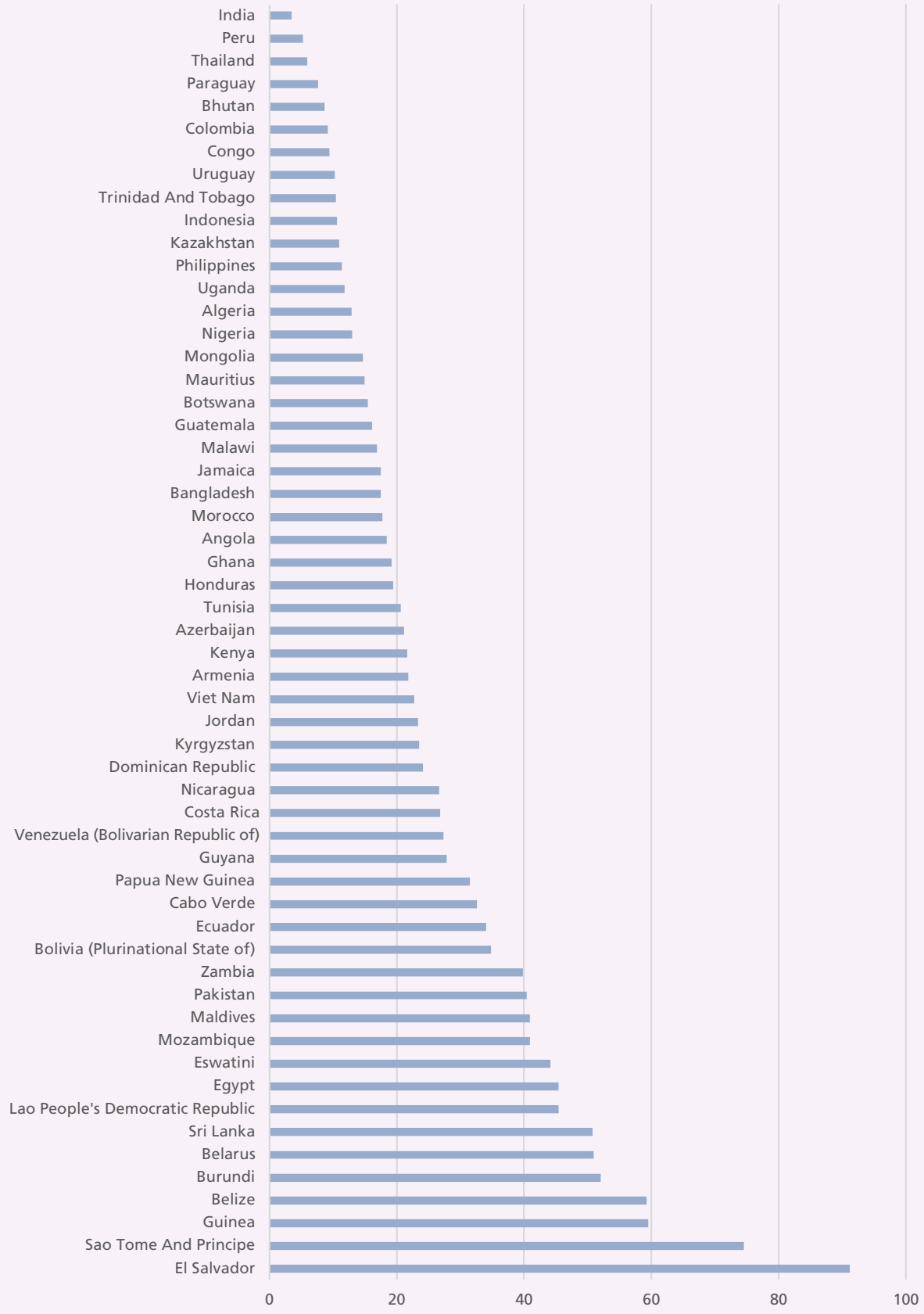
Source: World Bank, authors' calculations.

Figure 4b. Percentage changes in real exchange rates against the USD of food-exporting countries (2020/2019)



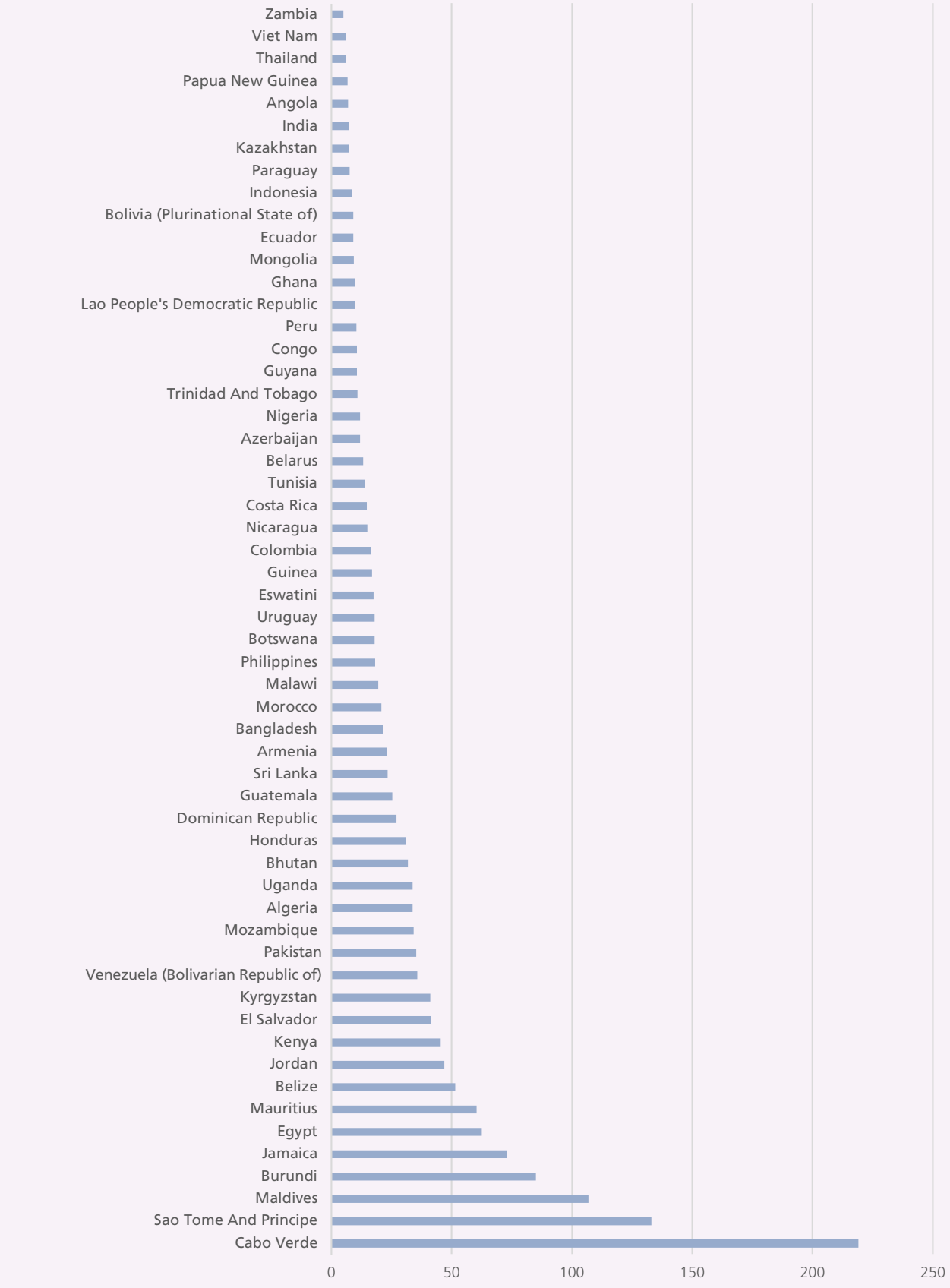
Source: World Bank, authors' calculations.

Figure 5. Food import bills as a ratio of foreign exchange reserves in food-importing and other vulnerable countries (percent, 2020)



Source: World Bank, Trade Data Monitor (TDM), authors' calculations.

Figure 6. Food import bills as a ratio of total merchandise exports in food-importing and other vulnerable countries (percentage, 2020)



Source: TDM, authors' calculations.

MARKET POLICY DEVELOPMENTS

GRAINS: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2020 TO MID-MAY 2021*

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Argentina	Maize	Dec-20	Export policy	Announced a temporary suspension of maize export registrations through 28 February 2021, in a bid to control domestic food prices amid a long recession.
	Maize	Jan-21	Export ban	Revoked the temporary export ban on maize, replacing it with a temporary export quota. The quota was in place until 28 February, and was set at 30 000 tonnes per day.
	Wheat	Apr-21	Export policy	Tightened grains exports through Resolution 60/2021. New information and registration requirements have been added in order to legally conduct trade. The measure is aimed at taming inflation.
Azerbaijan	Wheat	Nov-20	Food safety	Approved new quality standard for wheat in order to provide the population with healthy and high-quality flour and bakery products.
	Wheat	Feb-20	Import tax	Extended the period of exemption for wheat and wheat flour imports tax, as well as for the production and sale of wheat flour and bread. The exemption was initially introduced in January 2017 and the period has been extended from 5 to 7 years.
Bangladesh	Grains	Apr-21	Production support	Allocated BDT 3.2 million (USD 37.64 million) over the period 2021–2025 for the distribution of 52 000 units of farm equipment to support the development of modern agricultural practices.
	Grains	Apr-21	Production support	Announced that it will provide financial assistance to 100 000 farmers who have suffered from natural disasters. Each farmer will receive BDT 5 000 (USD 59).
Belarus	Grains	Apr-21	Export ban	Announced a temporary export ban of three months for wheat and meslin, rye, barley, oats, maize, buckwheat, millet and triticale. The ban will apply to the export of grain to the Eurasian Economic Union (EAEU), regardless of the country of origin, but will not apply to the export of grains for humanitarian aid.
Brazil	Wheat	Nov-21	Import policy	Announced that, effective from 3 November 2020, wheat shipments from Lithuania must be declared free of certain fungi and insects, based on official laboratory analysis.
	Maize	Nov-21	GMO policy	Issued Normative Instruction No. 60/2020 to facilitate imports of genetically modified (GM) maize and soybean from the United States of America (the United States) by recognizing the equivalence of the respective GM approval procedures.
	Wheat	Nov-21	Import quota	Renewed a 750 000 tonne non-Southern Common Market (Mercosur) tariff-free wheat import quota until 17 November 2021.
	Maize	Feb-21	Production support	The Federal Savings Bank increased the economic resources allocated to finance the expenses of livestock and agricultural producers, including maize. The available funds to cover anticipated costs for the summer harvest 2021/22 were increased from BRL 6.5 billion (around USD 1.2 billion) to BRL 12 billion (USD 2.2 billion).
	Maize	Feb-21	Production support	The Banco do Brasil announced that the budget allocated to the anticipated funding of agricultural activities for the 2021/22 harvest was increased to BRL 16 billion (USD 2.9 million). The funding will be available until the beginning of the 2021/22 harvest and mainly targets soybean, summer maize, cotton, rice, sugar cane and coffee crops.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Brazil	Maize and sorghum	Apr-21	Production support	Approved a new credit and marketing support mechanism to encourage the expansion of maize and sorghum production. The funding limit per producer for maize was increased from BRL 3 million (USD 565 000) to BRL 4 million (USD 753 000). Additional support measures under the Financing for Guarantee of Prices to the Producer for the acquisition of maize are capped at BRL 65 million (USD 12.2 million) per beneficiary. These measures will enter into force on 1 July 2021.
Chile	Wheat	Dec-20	Import tariff	Increased applicable discounts on customs duties on wheat and wheat flour from USD 135.89 to USD 136.15 per tonne and from USD 211.99 to USD 212.39 per tonne, respectively. The discounts had a two-month validity, from 16 December 2020 until 15 February 2021.
	Wheat	Feb-21	Import tariff	Increased applicable discounts on customs duties on wheat and wheat flour from USD 136.15 to USD 150.9 per tonne and from USD 212.39 to USD 235.41 per tonne, respectively. The discounts had a two-month validity, from 16 February 2021 until 15 April 2021.
	Wheat	Apr-21	Import tariff	Reduced applicable discounts on customs duties on wheat and wheat flour from USD 150.9 to USD 136.6 per tonne and from USD 235.41 to USD 213.12 per tonne, respectively. The discounts have a two-month validity, from 16 April 2021 to 15 June 2021.
China (mainland)	Barley	Nov-21	Trade policy	Halted shipments of Australian barley from export company Emerald Grain.
	Sorghum	Nov-21	Import policy	Approved food-grade sorghum imports from Mexico, after agreeing on phytosanitary protocols.
	Grains	Nov-21	Production support	Issued a directive to make grain production the top priority for all arable land to ensure food security. The Government will limit land use for non-food use and develop incentives for grain producing regions.
	Barley and wheat	Nov-21	Import policy	Amended its List of Countries/Regions Permitted to Export Grains and Raw Plant-based Fodder to China. In particular, it granted market access to wheat from Lithuania and to barley from the United States and the Russian Federation.
	Grains	Dec-20	Stocks policy	Issued a draft law for comment on the management and supervision of grain reserves, extending central control to provincial and regional reserves. The law establishes a centralized grain reserve and usage coordination mechanism to coordinate central, provincial and local reserves.
	Maize	Jan-21	GMO policy	Approved two GM maize varieties for import, following a surge in demand for animal feed.
	Grains	Jan-21	Stocks policy	Issued the Notice on Management Measures of Government Reserve Grain Storage, aiming to set clear rules, standards and technology requirements to safeguard government reserve storage.
	Maize and wheat	Feb-21	Government market intervention	Released the No. 1 Document, an annual policy guideline on agriculture and rural development. The document emphasizes the importance of increasing grain production, as well as efforts to maintain and improve the administration of the Minimum Support Price programme policy for rice and wheat, and to improve subsidy policy and income stability for maize and soybean producers.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
China (mainland)	Maize	Feb-21	Production support	Published guidelines on the country's rural development work for 2021. The document stresses efforts to push rural vitalization and accelerate the modernization of agricultural and rural areas. In this regard, the Government set a target of increasing maize acreage by more than 667 000 hectares in key growing areas in 2021, as part of a plan to maintain grain output above 650 million metric tonnes, to ensure food security.
	Wheat	Apr-21	Government procurement	Raised the floor price for wheat auctioned from state reserves at CYN 2 350 (USD 358.99) per tonne, up from CYN 2 290 (USD 349.8) set in 2019. The measure aims to dampen demand for the food grain.
	Grains	Apr-21	Government market intervention	Released new guidelines to reduce the amount of maize and soymeal used in meal for pig and chicken maize and soymeal feed. Alternative crop sources were proposed to substitute maize feed (e.g. wheat, sorghum, barley, rice and cassava) and soymeal (e.g. canola cake, rapeseed meal, cottonseed meal, peanut meal, sunflower meal, distillers' dried grains, palm meal, flax meal, sesame meal and other maize processing by-products).
	Maize and wheat	May-21	Government market intervention	Launched an Action Plan to reform commodity price review and control mechanisms. The plan aims to curb abnormal price fluctuations and ensure price stabilization. The minimum purchase and target price policies for rice, wheat and maize will be maintained and improved.
Egypt	Wheat	Mar-21	Government procurement	Set the local wheat purchasing price for 2021 ranges between EGP 705-725 per ardab (USD 299–307.5 per tonne), depending on its quality.
European Union	Grains	Feb-21	Subsidies support	Amid the ongoing COVID-19 pandemic, the European Commission extended the exemptions from competition rules that were initially instituted under the State Aid Temporary Framework until 31 December 2021. The level of assistance that individual European Union member states may grant to each agricultural firm was more than doubled, from EUR 100 000 to EUR 225 000 (USD 120 613 to USD 271 379).
France	Grains	Mar-21	Government market intervention	Announced a state aid measure of EUR 25 million (USD 29.8 million), approved by the EU, to provide compensation to horticulturalists for losses suffered in the context of the COVID-19 pandemic. Entitled beneficiaries are horticulturists who registered a loss of profit in 2020 of at least 30 percent of total value. The financial grant is available until 31 December 2021.
	Grains	Mar-21	Government market intervention	Signed a EUR 44 million (USD 51.6 million) loan with the European Investment Bank to support the development, registration, production and commercialization of new field crop seed varieties for use in agriculture. The investment aims to foster food security.
Germany	Grains	Feb-21	Pesticide regulation	Issued regulations to gradually phase out the sale and use of glyphosate-based herbicides by the end of 2023, to protect biodiversity and prevent water pollution from pesticide use (Insect Protection Act; and Plant Protection Application Ordinance).
Georgia	Wheat	Nov-21	Subsidies support	Allocated GEL 10 million (about USD 3 million) to subsidize the sale of wheat flour in an attempt to stabilize bread prices. Wheat flour is set at GEL 53 per 50 kg bag (USD 318 per tonne) and the state subsidy will amount to a maximum GEL 10 per 50 kg bag (USD 60 per tonne). The subsidy programme was in place until 31 March 2021.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
India	Grains	Feb-21	Government market intervention	The Indian Ministry of Finance and Corporate affairs announced a target of INR 16.5 trillion (USD 223 billion) in farm loans for the next fiscal year 2021/22 (compared with INR 15 trillion in the current fiscal year 2020/21). A series of measures to support an inclusive agriculture sector were also announced. Existing schemes are to be upgraded to bring transparency in property ownership. Farm credit allocations will reach INR 16.5 trillion (USD 223 billion) in financial year 2022 (primarily to animal husbandry, dairy and fisheries); the Rural Infrastructure Fund is increased by 33 percent to INR 400 billion (USD 5.5 billion); the Micro-Irrigation Fund will double to INR 100 billion (USD 1.37 billion); support to increase value addition and exports will be available to 22 perishable products, instead of 3, under the Operation Green Scheme.
	Grains	Apr-21	Government market intervention	Announced the provision of 5 kg of rice, wheat and coarse grains per person per month for the next two months. This will benefit around 800 million people who are beneficiaries of the National Food Security Act. The measure aims to mitigate the hardship faced by the poor due to the economic disruption caused by the COVID-19 outbreak.
	Wheat	May-21	Government procurement	Set the auction of good-quality wheat procured in 2021-22 marketing season at INR 21 500 (USD 293) per tonne. It set also the auction price for poor-quality wheat at INR 20 000 (USD 272.6) per tonne in the current marketing year against INR 18 480 (USD 251.9) in the prior year.
	Wheat	May-21	Government market intervention	Extended the deadline for wheat procurement by more 15 days so that a maximum number of national farmers can benefit from the minimum support price. The new wheat procurement deadline is set at 15 June 2021.
	Wheat	May-21	Subsidies support	Increased its subsidy for di-ammonium phosphate from INR 500 (USD 6.8) to INR 1 200 (USD 16.4) per bag. The higher subvention will help farmers to cut costs and increase the production of crops, including wheat.
Iran (Islamic Republic of)	Wheat	Apr-21	Government procurement	Doubled the wheat procurement price to IRR 50 000 per kg (USD 210 per tonne).
Japan	Grains	Jan-21	Subsidies support	Approved a JPY 1.05 trillion (USD 10.1 billion) supplementary budget of the Ministry of Agriculture, Forestry and Fisheries for the fiscal year 2020 (April–March), which may also be used for the following fiscal year. It includes JPY 353 billion (USD 3.3 billion) for COVID-19 support programmes, JPY 322 billion (USD 3.0 billion) for trade agreement countermeasures, and JPY 366 billion (USD 3.4 billion) for disaster preparedness and land reinforcement measures, as well as other objectives such as the diversion of table rice to other products. The budget for fiscal year 2021 is expected to be down by around 4.4 percent.
Kazakhstan	Grains	Feb-21	Government market intervention	Announced a ban on the sale or leasing of agricultural land to foreign individuals, foreign legal entities and/or legal entities with foreign shareholders.
	Wheat	Apr-21	Food aid	Announced the allocation of 10 000 tonnes of wheat flour as humanitarian aid to Kyrgyzstan to ensure food security.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Kyrgyzstan	Barley, maize and wheat	Nov-21	Export ban	Banned the export of agricultural products and food outside the EAEU, including wheat, barley, maize, rice and vegetable oils, for a period of six months. Re-exports, transhipments or humanitarian supplies are not included in the ban.
Malaysia	Wheat	Apr-21	Import policy	Effective from 1 April 2021, Malaysian importers will need to have a grain import licence issued by the Department of Veterinary Services, in order to be able to apply for the appropriate import permit through the E-Dagang system for each consignment of feed imported.
Malawi	Maize	Mar-21	Export ban	Announced a temporary lifting of the maize export ban, which had been in place since February 2018 to help stabilize national grain supplies amid concerns over the weather-reduced harvest in 2018.
Mexico	Maize	Dec-20	GMO policy	Published a decree to revoke and refrain from granting permits for the release of GM maize seeds into the environment.
Moldova	Wheat	Mar-21	Export ban	Banned export of wheat from state reserves from 31 March to 12 April 2021.
Morocco	Wheat	Dec-20	Import duty	Extended the suspension of the 35 percent milling wheat import duty, previously due to expire on 31 December 2020, to 31 May 2021. The measure aims to ensure regular supplies amid low domestic output.
	Wheat	Feb-21	Subsidies support	In response to rising wheat prices due to the COVID-19 pandemic and shipping costs, the Government subsidized bread wheat imports based on a fixed flat-rate premium, calculated every two weeks. The measure was valid until 30 April 2021.
	Wheat	Apr-21	Import duty	Announced that customs duties were to be reinstated in mid-May 2021 at 135 percent for wheat imports, while for durum wheat imports would be charged a duty of 170 percent from 1 June 2021. The measures follow predictions that domestic wheat production will fully recover after two consecutive years of drought.
Nigeria	Maize	Mar-21	Stocks release	Released 300 000 tonnes of maize in the domestic market, aiming to control prices.
	Wheat	Mar-21	Government market intervention	Announced the Central Bank's commitment to increase domestic wheat production and reduce imports by 60 percent over the next two years.
Pakistan	Wheat	Nov-21	Government procurement	Increased the 2021/22 minimum wheat support price by 18 percent from last year to PKR 1 650 per 40 kg (USD 259 per tonne).
	Wheat	Feb-21	Import quota	Approved the import of 300 000 tonnes of wheat exempted from Public Procurement Regulatory Authority rules.
	Wheat	Mar-21	Government procurement	Increased the minimum wheat support price to PKR 1 800 per 40 kg (USD 290.8 per tonne).
	Wheat	Mar-21	Import quota	Announced the import in the upcoming year of 3 million tonnes of wheat to ensure food security.
	Wheat	May-21	Import quota	Announced the import of 4 million tonnes of wheat to meet domestic consumption requirements – 1 million tonnes more than previously anticipated in March.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Philippines	Grains	Feb-21	Government market intervention	Released the Department of Budget and Management Special Allotment Release Order, under which PHL 27.5 billion (USD 572.1 million) will be provided in the form of equity participation to the Land Bank. This fund will target small and medium-sized enterprises that were impacted by the COVID-19 pandemic, providing direct loans.
Republic of Korea	Maize	Dec-20	Import quota	Published its annual list of adjustment tariffs and voluntary tariff rate quotas, effective through calendar year 2021. Maize for feed received additional volume allocations within the 2021 quota.
	Maize	Apr-21	Import tariff	Announced that the first 1.28 million tonnes of imported maize in the marketing year will enjoy a 0 percent tariff duty. The measure was to be effective from 23 April 2021 until the end of the year.
Russian Federation	Wheat	Dec-20	Export quota	Approved a total 17.5 million tonne export quota for the following agricultural commodities: wheat, barley, maize and rye, for the period between 15 February and 30 June 2021.
	Wheat	Dec-20	Export duty	Applied an export duty on wheat of EUR 25 (USD 30.44) per tonne between 15 February and 30 June 2021.
	Wheat	Dec-20	Government market intervention	Approved Federal Law N. 520 "on amendments to the Law of the Russian Federation 'on grain' and Article 14 of the Federal Law "on development of agriculture", which provide for the creation of a unified state-and-trace system for Russian grain and its products. The law will come into force on 1 January 2022.
	Barley, maize and wheat	Jan-21	Export tax	Approved a EUR 50 (USD 61) per tonne wheat export tax from 1 March to 30 June 2021, compared with the EUR 25 (USD 30.5) per tonne tax set for 15 February to 1 March. A barley and maize export tax is set at EUR 10 (USD 12.2) and EUR 25 (USD 30.5) per tonne, respectively, from 15 March to 30 June.
	Barley, maize and wheat	Feb-21	Export policy	Introduced a floating tax system for wheat, maize and barley exports, effective from 2 June 2021 (Decree 117). Under the new formula, the export tax will set at 70 percent of the difference between a calculated base price and USD 200 per tonne (for wheat) or USD 185 per tonne (for maize and barley). From 1 April, Russian grain exporters will be requested to declare the price of their contracts to the Moscow Exchange, which would then calculate the base price for the formula. The tax will be recalculated and published every week on the last working day of the week, and will be implemented from the third working day after publication
	Grains	Feb-21	GMO policy	Issued a draft law to ensure quality control of imported seeds for grain, vegetables and other crops, in particular to prevent the entry of genetically modified (GM) seeds into its territory.
	Grains	Mar-21	Production support	Adopted the draft law "on seeds production". The new law intends to create conditions for developing an efficient seed market in the country.
	Buckwheat	May-21	Export ban	Adopted a decree to temporary ban buckwheat exports from 5 June to 31 August 2021, in order to ensure food security.
Saudi Arabia	Barley	Nov-21	Government market intervention	Launched a unified platform which will provide authorisation for private sector business in order to facilitate imports of barley.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
South Africa	Wheat	Nov-21	Import duty	Decreased the import duties on wheat and wheaten flour (Notice R.1245) from 83.21 cents per kg (USD 54.1 per tonne) and 124.81 cent per kg (USD 81.1 per tonne) to 54.42 cents per kg (USD 35.4 per tonne) and 81.63 cents per kg (USD 53.1 per tonne) respectively.
	Wheat	Dec-20	Import duty	Decreased the import duties on wheat and wheaten flour (Notice R.87) from 54.42 cents per kg (USD 37.4 per tonne) and 81.63 cents per kg (USD 56.1 per tonne) to 10.27 cents per kg (USD 7.1 per tonne) and 15.41 cents per kg (USD 10.6 per tonne) respectively.
	Wheat	Mar-21	Import duty	Decreased the import duties to zero for wheat and wheaten flour (Notice R.190) from 10.27 cents per kg (USD 7.1 per tonne) and 15.41 cents per kg (USD 10.6 per tonne).
Tanzania (United Republic of)	Wheat	Jan-21	Government market intervention	Requested wheat millers, traders and processors to source 60 percent of their wheat from local producers at a premium price, starting the 2021/22 marketing year. Local buyers will be allowed to import only 40 percent of total wheat. The strategy seeks to encourage local farmers to increase wheat production and reduce the country's dependence on wheat imports.
Turkey	Barley, maize and wheat	Oct-20	Import tariff	Set zero tariffs on barley, maize and wheat imports from Ukraine until 1 January 2021.
	Barley, maize and wheat	Dec-20	Import tariff	Extended the zero import tariffs on wheat, barley and maize from 31 December 2020 to 30 April 2021.
	Barley and wheat	May-21	Procurement price	Announced an increase of 36 percent for the wheat minimum purchase price at TRY 2 250 (USD 270), and an increase of 38 percent for the barley purchase price, which now trades between TRY 2 100–2 150 (USD 252–258).
United Kingdom	Wheat	Dec-20	Trade policy	Signed the Trade and Cooperation Agreement (TCA) with the EU, after Brexit. Under the rules of origin in the TCA, there is a requirement that wheat used should be of UK or EU origin, with a maximum tolerance of 15 percent for grain from other countries such as Canada or the US. If the content of non-EU wheat is more than 15 percent, the full tariff of EUR 172 (USD 206) per tonne must be paid.
Ukraine	Grains	Dec-20	Import tariff	Lowered the value added tax (VAT) on certain agricultural products, including wheat, maize, barley, oats and rye, from 20 percent to 14 percent.
	Maize	Jan-21	Export policy	Agreed on a maize export cap set at 24 million tonnes to government exports through to 30 June 2021.
	Grains	Mar-21	Import tariff	Reduced the VAT rate from 20 percent to 14 percent on transactions for the domestic sales and imports of several types of agricultural products, including wheat and rye, barley, oats and maize.
	Wheat and rye	Mar-21	Import ban	Banned the import of wheat, rye and sunflower oil, and a number of non-food products from the Russian Federation. The decree came into force ten days after the publication.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
United States	Maize	Dec-20	GMO policy	Deregulated a GM-maize variety, DP202216, with enhanced yield potential and resistance to glufosinate-ammonium herbicides.
	Grains	Mar-21	Production support	Enacted an economic stimulus bill of USD 1.9 trillion to support the recovery of several agricultural sectors, including cereals, from the effects of the COVID-19 pandemic.
Uzbekistan	Wheat	Nov-21	Food security	Announced that the sale of high-grade flour without micronutrients will be banned from 1 April 2021.
Venezuela (Bolivarian Republic of)	Grains	Dec-20	Import policy	Announced that the exemption of tariffs, VAT and customs fees for several imported processed and some non-processed foods, including pasta and flour, would be in force until 30 April 2021.
	Grains	May-21	Import policy	Extended the exemption of imports, customs and VAT for a number of commodities, including cereals and cereal products, until the end of May 2021.
Zimbabwe	Maize	May-21	Import ban	Banned maize imports with immediate effect, suspending import licences for maize grain, maize meal and other maize products. The measure aims to support domestic farmers and millers, as the bumper harvest forecast in 2021 is estimated to more than cover national consumption needs in the 2021/22 (April/May) marketing year.

* 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 2020 TO MID-MAY 2021*

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Bangladesh	Oct-20 to May-21	Import plan	Instructed officials to promptly source 200 000 tonnes of rice from abroad in order to refurbish stockpiles and attenuate upward pressure on domestic prices, according to reports. News of the import plan were followed by a series of international tenders in successive months, upward revisions to the targeted import volume, as well as government-to-government deals with India and Myanmar for the supply of a combined 250 000 tonnes of rice.
	Oct-20	Government procurement	Announced that it would purchase 200 000 tonnes of paddy, 600 000 tonnes of parboiled rice and 50 000 tonnes of white rice from the 2020 Aman harvest. The procurement drive would be conducted between 7 November 2020 and 28 February 2021, respectively, offering BDT 26, 37 and 36 (USD 301, 429 and 417 per tonne) per kg of paddy, parboiled and white rice purchased.
	Dec-20	Import tariff	Announced that it had decided to reduce duties and charges on imported rice (including the Customs Duty, Regulatory Duty, Advanced Tax and Advanced Income Tax) from a total 62.5 percent to 25 percent, with imports being made subject to approval by the Ministry of Food. Subsequent issuances specified that the lower rates would be applicable to husked, broken and non-fragrant parboiled semi/wholly milled rice and that they would be effective until 30 April 2021. According to reports, purchases under the lower rates would be subject to importers opening a Letter of Credit within seven days of receiving official import approval, while traders with approval to purchase up to 5 000 tones would have to bring half of approved volumes within 10 days of opening the Letter of Credit and the full volumes within 20 days. For those traders approved to buy more than 5 000 tonnes, half of approved shipments would need to be executed within 15 days of opening the Letter of Credit and the full volume within 30 days. Successive decisions reportedly extended the deadline by which rice importers were obliged to open Letters of Credit.
	Mar-21	Import tariff	Lowered duties and charges on imported non-parboiled (white, non-fragrant) rice (including the Customs Duty, Regulatory Duty, Advanced Tax and Advanced Income Tax) from a total 62.5 percent to 25 percent, with immediate effect.
	Apr-21	Import agreement	Signed a memorandum of understanding with Thailand, under which Bangladesh would have the option to purchase up to 1.0 million tonnes of Thai rice per year under government-to-government channels, until 2026.
	Apr-21	Government procurement, purchasing prices	Decided that it would buy 650 000 tonnes of paddy from producers, as well as 1.0 million tonnes of parboiled rice and 150 000 tonnes of white rice, under the 2021 Boro procurement drive. The purchases would be conducted between 28 April and 31 August 2021 and would offer BDT 40 per kg of parboiled rice (USD 464 per tonne), BDT 39 per kg (USD 452 per tonne) of white rice and BDT 27 per kg of paddy (USD 313 per tonne).
Bolivia (Plurinational State of)	Apr-21	Government procurement, purchasing prices	Announced that the state enterprise EMAPA would pay USD 68–70 per 176.6 kg *fanega* (USD 385–396 per tonne) of paddy that it bought from the 2021 harvest, depending on the product's quality.
China (mainland)	Feb-21	Government procurement, support prices	Raised government procurement prices for 2021 Indica paddy by 0.8 percent to CNY 122 per 50 kg (USD 379 per tonne) in the case of early Indica paddy and to CNY 128 per 50 kg (USD 397 per tonne) for late/intermediate Indica paddy. For Japonica paddy, government purchase prices were left unchanged for the third successive season at CNY 130 per 50 kg (USD 404 per tonne). The ceiling on publicly procured volumes for the 2021 season was similarly left unvaried at 50 million tonnes, consisting of 20 million tonnes of Indica paddy and 30 million tonnes of Japonica paddy.
	Apr-21	Feed use guidelines	Issued guidelines calling on reduced use of maize and soybean meal in pig and poultry feed rations, with the aim of broadening sources of feed materials, improving their effective supply and utilization and creating a new formula structure suitable to the country's conditions. The document identifies paddy, husked and broken rice, among other commodities, as alternatives to maize in feed rations, further to suggesting new formulations based on these alternatives for the various broad geographical regions.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
China (mainland)	Mid Oct-20 to mid-May-21	Stock release	Sold 9.34 million tonnes of paddy from state reserves, out of a total of 44.92 million tonnes of paddy offered through 29 auctions held between 23 October 2020 and 14 May 2021.
Costa Rica	Dec-20	Import quota	Approved a duty-free import quota of 50 061 tonnes of paddy, to be brought into the country by 31 December 2021.
	Dec-20	Consumer prices	Amended floors/ceilings of wholesale and retail prices of rice, in the case of 80/20 rice lowering the retail price by 2.2 percent to CRC 612.3 (USD 1.0) per kg. The revised rates became effective on 1 January 2021.
Dominican Republic	Feb-21	Support prices	Set support prices for the 2021 crop at DOP 2 700–2 800 per 120-kg *fanega* of wet paddy (USD 393–407 per tonne) through the National Rice Commission.
	Feb-21	Consumer prices	Set the ceiling on ex-factory prices for type A *selecto* white rice at DOP 2 900 per 125-pound (lb) bag (USD 893 per tonne), so as to ensure that consumer prices for this quality remained under DOP 27 per lb (USD 1.04 per kg).
Egypt	Mar-21	Cultivation limits	Decided that fines levied on farmers exceeding rice cultivation limits would be reduced by 60 percent, if fine payments were completed before 30 June 2021, by 40 percent if completed between July and September 2021, and by 30 percent if completed between October and December 2021.
	Mar-21	Finance and credit facilities	Renewed the suspension of upfront cash payment requirements for imports of rice, lentils and fava beans for another year, effective until 15 March 2022.
European Union	Mar-21	Import tariff	Lowered tariffs on non-basmati husked rice imported outside of existing trade agreements from EUR 65 (USD 79) to EUR 30 (USD 36) per tonne, effective from 8 March 2021.
Gambia	Mar-21	Import licences	Announced that importers of essential commodities, including rice, would be required to obtain import licences from the Ministry of Trade, Industry, Regional Integration and Employment, as of 1 May 2021.
Honduras	Oct-20	Import quota	In line with its Dominican Republic-Central America Free Trade Agreement commitments, stipulated that 118 800 tonnes of paddy could be brought into the country, between 1 January and 31 December 2021, free of duties.
India	Dec-20	Stock release, biofuels	Decided that, for the remainder of the 2020/21 Open Market Sales Scheme, the reserve price of rice for state and central government schemes, including for ethanol production, would be set at INR 20 000 (USD 272) per tonne, while for private entities it would remain at INR 22 500 (USD 306) per tonne, with the exception of those destining supplies to ethanol production, for which the lower INR 20 000 (USD 306) per tonne reserve price would apply.
	Dec-20	Export requirements	Deferred, to 1 July 2021, the implementation of rules rendering exports of basmati and non-basmati rice to European countries (other than the European Union, Iceland, Liechtenstein, Norway and Switzerland) subject to the issuance of Certificates of Inspection by the Export Inspection Council/ Export Inspection Agency.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
India	Jan-21	Production support	Approved a five-year interest subvention scheme, including a one-year moratorium on bank loans at 6 percent annual interest or 50 percent of the bank interest rate (whichever is lower), for projects seeking to set up, convert to dual feed or expand facilities producing first-generation ethanol from various feedstocks, including rice.
	Feb-21	Export promotion, trade facilitation	Permitted usage of the Kakinada deep-water port for rice exports in Andhra Pradesh, so as to help decongest rice shipments through the Kakinada anchorage port.
	Apr-21	Food subsidies	Announced that 800 million people covered by the National Food Security Act (NFSA) would be provided with a per person monthly ration of 5 kg of rice or wheat, free of cost, under a new round of the Pradhan Mantri Garib Kalyan Ann Yojana programme. The scheme, which aims to assist people in coping with the impact of the COVID-19 pandemic, would be implemented for three months, starting on 1 May 2021, and would provide the said supplies in addition to existing assistance under the NFSA.
	Apr-21	Stock release, biofuels	Decided that, for the 2021/22 Open Market Sales Scheme (OMSS), a reserve price of rice of INR 20 000 (USD 272) per tonne would remain set for state and central government schemes, including for ethanol production, and for private entities participating in tenders to source supplies for ethanol production. For all other private entities participating in tenders, the reserve price would be set at INR 22 000 (USD 300) per tonne, down 2 percent from the level set during the 2020/21 OMSS run. A total of 5.0 million tonnes would be set aside for the OMSS, subject to review. Moreover, in view of the COVID-19 situation, States and Union Territories would be permitted to retrieve supplies, at the reserve price, with or without e-auctions.
	May-21	Export promotion, trade facilitation	Inaugurated rice shipments through the Paradip International Cargo Terminal in the state of Odisha.
Kyrgyzstan	Nov-20	Export restrictions	Prohibited exports of various commodities, including rice, to countries located outside the Eurasian Economic Union. The ban was to be upheld for a six-month period, starting from 19 November 2020, but did not extend to re-exports, transiting goods or humanitarian aid.
Liberia	May-21	Import tariff	Renewed the import tariff suspension on semi/wholly milled and broken rice, with immediate effect.
Madagascar	Dec-20	Price controls	Set a ceiling of MGA 1 925 (USD 0.5) per kg on retail prices of imported 25% broken rice.
	Jan-21	Consumer prices	Began distributing rice imported by the public entity State Procurement of Madagascar, in an effort to aid consumers cope with increases in domestic prices. Under the drive, households would be able to purchase up to 5 kg of state-imported rice at MGA 1 500 (USD 0.39) per kg. Successive moves lowered the price of the state-imported rice to MGA 1 200 (USD 0.31) per kg.
Malaysia	Nov-20	Budgetary allocations/ production support	Announced that MYR 960 (USD 233) million would be allocated to assist paddy production through basic input assistance, as part of its 2021 budgetary allocations. An additional MYR 570 (USD 138) million would go to paddy price subsidies and MYR 40 (USD 10) million would provide fertilizer support for hill-paddy production. Further assistance measures included the extension of the Community Farming Programme, the Organic Agriculture Project, as well as financial support for the purchase of agricultural equipment and technology based on the Internet-of-Things and Industrial Revolution 4.0 through the e-Satellite Farm Programme and the Agrofood Value Chain Modernization Programme.
	Dec-20	Import rights	Renewed the exclusive rights of Padiberas Nasional Berhad (BERNAS) to import rice for another 10 years, starting from January 2021.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Mali	Mar-21	Import policy	Issued statements indicating that, among the various measures being taken by the Government to quell increases in prices of basic foodstuffs, it would lower the customs tax base for 25% broken rice by 50 percent. The lower rate would be applicable for 250 000 tonnes of imported rice.
	Apr-21	Price controls	Set a ceiling on retail prices of non-fragrant broken rice of XOF 340 (USD 0.63) per kg. For wholesale prices of this quality, a cap of XOF 290 000 (USD 537) per tonne would apply.
Mexico	Dec-20	Production support, support prices	Issued operational rules for the Guarantee Prices for Basic Foodstuffs Programme (Programa precios de garantía a productos alimentarios básicos) during the 2021 fiscal year. According to the document, for the 2020/21 autumn-winter and 2021/22 spring-summer crop cycles, the guaranteed price for paddy would remain set at MXN 6 120 (USD 308) per tonne. Eligible producers would receive the difference between this guaranteed price and a reference price established by the state entity SEGALMEX (Seguridad Alimentaria Mexicana) for up to 120 tonnes. For volumes exceeding 120 tonnes, and up to 300 tonnes, producers would receive the equivalent of 50 percent of the difference between the guaranteed price and the reference price set by SEGALMEX.
Myanmar	Mar-21	Export licences, export taxes	Announced that it would suspend export licensing requirements for various commodities, including semi/wholly milled rice and brokens, between 8 March and 9 April 2021, in order to facilitate trade. Moreover, in view of private bank closures, the 2 percent withholding tax on exports would be waived until 31 March 2021.
Nepal	Oct-20	Support prices	Decided that it would extend an NPR 112 per quintal (USD 94 per tonne) subsidy to cooperatives that purchased paddy from producers at prescribed minimum support prices.
Nigeria	Dec-20	Import restrictions	Lifted the partial closure of borders with neighboring countries that had been in place since August 2019, reopening the Seme, Illela, Maigatari and Mfun land borders, with immediate effect. According to the decision, all other land borders were to reopen by 31 December 2020, but the cross-border import ban on rice would remain in place.
Philippines	Oct-20	Import restrictions	Suspended the application and issuance of Sanitary and Phytosanitary Import Clearance for commercial purposes to farmer cooperatives/associations and to irrigators' associations, until further notice.
	Nov-20	Import requirements	Required that rice consignments originating in a member country of the Association of Southeast Asian Nations (ASEAN), with the exception of Myanmar, depart their country of origin no later than 20 days and arrive in the Philippines no later than 35 days from the date of issuance of their Sanitary and Phytosanitary Import Clearance (SPSIC). For rice consignments originating in all other origins and in Myanmar, the cut-off was set at 65 days. This is down from previous requirements, which mandated that imports from any country should depart their country of origin within the date prescribed in the SPSIC and arrive in the Philippines within 60 days of the Must Ship Out date. The decision took immediate effect.
	Dec-20	Import requirements	Raised the cut-off date by which rice imports were obliged to arrive in the Philippines from 35 to 60 days for rice originating in ASEAN countries, except for Myanmar, and from 65 to 90 days for rice originating elsewhere and in Myanmar, with immediate effect.
	May-21	Import quota, import tariff	Decided that a uniform Most Favoured Nation (MFN) tariff rate of 35 percent would be applied to rice imports from non-ASEAN members (whether paddy, husked, milled or broken), which are conducted under Minimum Access Volumes quotas or outside them, effectively aligning import duty rates with those levied on rice originating in ASEAN countries. The reduced rates would be effective for one year, starting from 30 May 2021, after which the in-quota MFN rate would revert to its previous applicable level of 40 percent, while the out-of-quota MFN rate would revert to 50 percent.
Sri Lanka	Jan-21	Government procurement, purchasing prices	Approved the 2021 Maha procurement drive, which would see 300 000 tonnes of paddy absorbed by the Paddy Marketing Board (PMB). For supplies with up to 14 percent moisture content, the per kilo purchasing prices were set at LKR 50 (USD 252 per tonne) for Nadu paddy and at LKR 52 (USD 262 per tonne) for Samba varieties. It also stipulated that farmers receiving state subsidized fertilizer and cultivating rice in 1–1.5 hectares (ha) were to sell 1 000 kg per ha harvested to the PMB, while those cultivating between 1.5 and 2.0 ha and receiving state-subsidized fertilizer were to sell 1 500 kg per ha to the PMB.

COUNTRY	DATE	POLICY INSTRUMENT	DESCRIPTION
Taiwan Province of China	Nov-20	Cultivation limits	Announced that it would suspend irrigation for 19 000 ha of 2021 main-crop paddies in the Jianan Plain due to water shortages resulting from unseasonable dryness and suppressed typhoon activity in 2020. Affected producers would be extended a TWD 82 000–93 000 (USD 2 931–3 324) per ha outlay as compensation for losses incurred. Similar restrictions were successively announced for 56 000 ha of farmland, mostly consisting of paddies, in Hsinchu, Miaoli and Taichung and areas of Taoyuan.
Thailand	Nov-20	Production support, support prices	Approved a budget of THB 51.6 billion (USD 1.6 billion) to assist rice producers during the 2020/21 season. A portion of these funds would be destined to implement the Rice Price Guarantee Programme between October 2020 and May 2021, keeping volume ceilings and guaranteed prices unchanged at THB 10 000–15 000 (USD 319–478) per tonne, as announced in June 2020. Direct outlays to help producers with production costs and quality improvements would also be renewed, at THB 500 per rai (USD 99.5 per ha) for up to 20 rai (3.2 ha) cultivated, and three separate schemes that seek to stabilize paddy prices, covering a total 7.0 million tonnes of paddy, would be implemented. The latter would involve an on-farm mortgaging scheme to encourage farmers to delay sales of up to 1.5 million tonnes of paddy, credit assistance for farmer organizations purchasing a similar volume of paddy, and a 3 percent interest subsidy for millers and traders who agree to store up to 4.0 million tonnes of paddy for 2–6 months. Subsequent decisions raised funds to implement the Rice Price Guarantee Programme from an initial THB 18.1 billion (USD 576 million) to THB 50.6 billion (USD 1.6 billion), to account for greater farmer participation in the scheme. They also raised allocations for the on-farm pledging programme from THB 19.8 (USD 631 million) to THB 24.3 billion (USD 774 million), extending its targeted volume to 1.82 million tonnes of paddy, while boosting allocations for the direct outlays seeking to compensate for production costs and quality improvements to THB 56 billion (USD 1.8 billion).
	Mar-21	Export agreement	Gave approval to a plan reviving a memorandum of understanding on rice trade with Indonesia, which had expired in 2016. Under the agreement, Indonesia could purchase up to 1.0 million tonnes of rice per year as needed, until 2025, under government-to-government channels.
	Apr-21	Export charges	Approved a plan to lower surcharges levied on rice exports to the European Union and the United Kingdom of Great Britain and Northern Ireland (United Kingdom) conducted under tariff rate quotas. These were lowered from THB 2 500 (USD 80) per tonne to THB 1 500 (USD 48) for rice destined to the European Union and to THB 1 200 (USD 38) per tonne for rice shipped to the United Kingdom.
Turkey	Dec-20	Import tariffs	Lowered import tariffs, effective until 30 April 2021. In the case of paddy, these were lowered from 7.5–34 percent to 5 percent, for husked rice from 36 to 10 percent, and for semi/wholly milled rice from 45 to 15 percent.
	Apr-21	Government procurement, purchasing prices	Revised government purchase prices for the 2020 season, raising them by 5.6-9.4 percent to TRY 3 500 - 4 750 (USD 413–561) per tonne, effective 12 April 2021. For Osmancık paddy, the government purchase price was raised by 6.9 percent at TRY 3 850 (USD 454) per tonne.

* 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 2020 TO MID-MAY 2021*

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Argentina / China (mainland)	Soybeans, soyoil	Oct-20	Sector-specific, bilateral trade initiatives	Argentina and China renewed the two year-old agreement regulating purchases of Argentine soybeans and soybean oil by China's state-owned grain corporation Sinograin. For 2021, it was agreed that Sinograin would raise its soybean purchases from 3 to 4 million tonnes and those of soybean oil from 300 000 to 400 000 tonnes.
Argentina	Soybeans	Nov-20	Agricultural policies	Launched a stimulus and compensation scheme for small- and medium-scale soybean farmers, allocating ARS 11 550 million (USD 123 million) to the programme.
	Agricultural products	Dec-20	Export policies (non-tariff measures)	Tightened its foreign exchange control regulations mandating the conversion of proceeds from exports of agricultural products (including soybeans and derived products) into Argentine *pesos*, with the aim of encouraging businesses to keep savings in pesos rather than US dollars.
	Soy-based biodiesel	Jan-21	Bioenergy policies	Responding to sharp rises in international and local soybean prices, raised the price that refiners are required to pay for soy-based biodiesel and lowered – for the period January–March 2021 – the mandatory biodiesel blending rate applied to transport diesel.
	Edible oils	Feb-21	Market regulation	Signed an agreement with oilseed processors aimed at guaranteeing domestic vegetable oil supplies and stabilizing retail prices. Under the scheme, which was set to remain in place throughout 2021, the industry agreed to supply edible oils at discounted prices.
Association of Southeast Asian Nations (ASEAN) / European Union (EU)	Palm oil	Jan-21	Regional trade initiatives	The Joint Working Group on Palm Oil – set up during a recent ASEAN-EU Ministerial Meeting – met to discuss sustainability issues regarding the production of vegetable oils in general, and palm oil in particular.
Australia	Soybeans	Oct-20	Pest control measures	Introduced emergency measures to safeguard vulnerable crops, including soybeans, against the entry, establishment and spread of the khapra beetle (*trogoderma granarium*).
Bangladesh	Soyoil, palm oil	Oct-20	Market regulation	Reached an agreement with importers / processors of edible oils to lower the millgate price of loose non-branded soy and palm oil, in a bid to give relief to consumers as local prices of essential food items rose amid the COVID-19 crisis.
	Edible oils	Jan-21 to Mar-21	Market regulation	To tackle supply chain issues and halt surges in domestic vegetable oil prices (prompted by steep rises in international prices), froze retail prices for edible oils and considered suspending the value-added tax at cooking oil production and trading levels.
Belgium	Palm/soyoil-based biodiesel	Apr-21	Bioenergy policies	Released a national decree transposing the EU's new Renewable Energy Directive into Belgian law. Aimed at excluding biofuels deemed to cause deforestation and land-use changes from the domestic market, the law bans imports of biofuels produced from palm oil and soy oil from, respectively, January 2022 and January 2023.
Bolivia (Plurinational State of)	Biodiesel	Feb-21	Bioenergy policies	Announced plans to set up the country's first biodiesel production facility. Based on plans to implement a 5 percent blend mandate for transportation diesel, the plant could absorb up to 20 percent of the country's soybean production.
	Soymeal	Feb-21	Market regulation	Following marked rises in international prices for soybeans and derived products, introduced a domestic price band for soymeal, with the aim of stabilizing domestic feed prices and securing supplies for local livestock producers. The measure complemented the reintroduction of export restrictions for soybean products in December 2020.

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Brazil	Biodiesel	Oct-20 to May-21	Bioenergy policies	Concerned about possible shortfalls in biodiesel supplies stemming from reduced domestic soybean availabilities, approved a cut in the mandatory biodiesel blending rate from 12 percent to 11 percent during the period November–December 2020. Worried about the impact of persistently high soyoil and biodiesel prices on the country's inflation rate, authorized fresh cuts in the blending rate – from 13 percent to 10 percent – during the period May–August 2021.
	Food products	Oct-20	Food safety / health policies	Issued new rules on nutrition labelling of packaged, solid, semi-solid and liquid food products, including the requirement to alert for high levels of sugar, saturated fat and sodium. The new regulations are scheduled to come into effect in October 2022.
	Soybeans, soymeal, maize	Nov-20	Import policies (non-tariff measures)	Simplified the import licensing requirements for genetically modified (GM) feed products. The measures were aimed at facilitating – amid contracting domestic supplies – imports of soybeans / meal and maize from countries outside the Mercosur trade bloc, notably from the United States of America (the United States).
	Biodiesel feedstock	Nov-20	Bioenergy policies	Concerned about dwindling domestic supplies of soyoil – the primary raw material for biodiesel production – and related inflation risks, determined that biodiesel producers could use imported raw material, in addition to locally produced oils and fats.
	Soybeans, soyoil, soymeal, maize	Apr-21	Import policy	With a view to protecting the country's crushing, animal feed and biodiesel industries from persistently high commodity prices, suspended the tariffs on soybeans, soyoil, soymeal and maize imported from countries outside the Mercosur trade bloc until the end of 2021 – renewing the exemption that was in place between October 2020 and January 2021.
Canada	Biofuels	Dec-20	Bioenergy policies	Invited public comments on a draft Clean Fuel Standard regulating emissions in the automotive sector. Scheduled to come into force in December 2022, the proposed law is aimed at driving investment in the country's 'clean fuel' sector. Under the standard, biofuel producers would be allowed to create and sell credits, thus providing new opportunities for feedstock suppliers, including farmers – in particular rapeseed growers.
	Select feed ingredients	Mar-21	Import policies (non-tariff measures)	Introduced new import requirements for select feed ingredients, notably wheat and soybeans imported from countries identified as posing potential concerns with respect to African Swine Fever.
China (mainland) / United States	Select agricultural products	Sep-20	Trade differences	A World Trade Organization (WTO) panel examining China's challenge of certain additional import duties on its products imposed by the United States in 2018 concluded that the concerned measures were inconsistent with WTO trade rules. Chinese products affected by the United States' additional duties include a number of oilcrops and oilmeals, US imports of which, however, have been negligible.
China (mainland) / Argentina	Soybeans, soyoil	Oct-20	Sector-specific, bilateral trade initiatives	China and Argentina renewed the two year-old agreement regulating purchases of Argentine soybeans and soybean oil by China's state-owned grain corporation Sinograin. For 2021, it was agreed that Sinograin would raise its soybean purchases from 3 to 4 million tonnes and those of soybean oil from 300 000 to 400 000 tonnes.
China (mainland) / United States	Select agricultural products (incl. soybeans)	Oct-20	Bilateral trade agreement	According to an official US report analysing progress made in implementing the agricultural provisions of the China-United States Phase One Economic and Trade Agreement, China succeeded in raising its purchases of US agricultural products, reportedly reaching 71 percent of the target set under the agreement.
China (mainland)	Soybeans, soyoil, rapeseed oil, sunflower oil	Nov-20	Market regulation	As distinct from previous years, in 2020, government auctions of oilseeds and oils from state reserves continued throughout the months of September, October and November. Cumulative 2020 sales of soybeans, soybean oil, rapeseed oil and sunflower oil significantly exceeded the volumes recorded in 2019.

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China (mainland)	Agricultural products	Dec-20	Market regulation	Released a draft law aimed at ensuring national food security and reforming the organization of the country's strategic grain reserves. Reflecting concerns about the management of public food reserves, the initiative is aimed at promoting the complementarity and efficient coordination of central and local reserves. Reportedly, local governments would be required to set up reserves of processed grains and vegetable oils in cities and regions where markets are prone to volatility.
	Soybeans	Jan-21	Seed & genetically modified organisms (GMO) policies	Announced plans to issue biosafety certificates for the domestic cultivation of a locally developed soybean variety modified genetically to resist specific herbicides.
China (mainland) / Jordan	Olive oil	Jan-21	Sector-specific, bilateral trade initiatives	Backed by government officials, stakeholders of the Chinese and Jordanian olive oil industry agreed to foster business cooperation, with the aim of advancing bilateral olive oil trade activities.
China (mainland)	Agricultural products, oilcrops	Feb-21	Agricultural policies	Released its annual agricultural policy roadmap, placing special emphasis on measures to foster rural growth and accelerate the modernization of agriculture. Stressing the importance of improved food security, the document called for efforts to stabilize the country's grain area and to improve crop yields. Specifically, domestic soybean output was to be secured, while production of rapeseed, groundnuts and other oilcrops was to be promoted. The roadmap also emphasized the need to diversify agricultural import sources and support the country's seed sector via the promotion of commercial breeding systems and genetic modification techniques.
	Soybeans	Feb-21	Food standards	Released a revised standard for soybeans, specifying terms and definitions, quality requirements, test methods, inspection rules and labelling, packaging, storage and transportation requirements for the commodity.
	Feed grains and meals	Mar-21	Agricultural policies	Launched a campaign to lower the content of (mostly imported) maize and soymeal, outlining options to replace maize and soymeal in feed rations by alternative grains and meals. The measure reflects the Government's increased focus on domestic food security, after the COVID-19 pandemic revived concerns about the stability of domestic supplies and about China's dependence on imports.
	Grains, oilseeds, edible oils	Mar-21	Agricultural policies	Renewed its commitment to guarantee stable domestic supplies and prices of farm products, confirming public procurement of grains oilseeds and edible oils in 2021 and announcing a 1 percent increase in the minimum purchase prices for rice and wheat.
	Palm oil, palm-kernel cake	Mar-21	Food standards	Issued a new palm oil standard that allows unrestricted imports of red palm oil – a premium palm oil rich in Vitamin A, Vitamin E and antioxidants produced primarily by Malaysia. In addition, China also released a new standard for palm-kernel cake.
Côte d'Ivoire	Palm oil	Jan-21	Market regulation	Held talks with edible oil producers about freezing local retail prices for palm oil amid surging international prices. Previously, from April 2020 to December 2020, price caps for edible oils were implemented to stabilize prices amid the COVID-19 crisis.
European Union	Olive oil	Nov-20	Market regulation	Approved voluntary self-regulation of the Spanish olive oil market by the country's main agricultural cooperative, authorizing the withdrawal of surplus olive oil from the domestic market in years when domestic production exceeds local / export demand.
European Union / United States	Select oilseeds and vegetable oils	Nov-20	Trade differences	Following a WTO ruling allowing the European Union (EU) to take countermeasures against the United States for providing illegal subsidies to aircraft maker Boeing, the EU introduced additional tariffs on a number of US products, including bulk imports of unshelled / shelled groundnuts and selected minor vegetable oils, such as tung, jojoba and oiticica oil.
European Union	Rapeseed meal-based foods	Dec-20	Food standards	Following clearance by the European Food Safety Authority, approved rapeseed meal-based food ingredients for human consumption.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
European Union	Soybeans	Jan-21	Seed & GMO policies	Approved two new GM soybean varieties for importation and processing into food and feed within the EU, but not for cultivation.
European Union / ASEAN	Palm oil	Jan-21	Regional trade initiatives	The Joint Working Group on Palm Oil – set up during a recent ASEAN-EU Ministerial Meeting – met to discuss sustainability issues regarding the production of vegetable oils in general, and palm oil in particular.
European Union / Malaysia	Palm oil-based biodiesel	Jan-21	Trade differences	Malaysia formally requested WTO dispute consultations with the EU regarding measures adopted by the EU and certain member states affecting palm oil and palm oil-based biofuels. Specifically, the complaint refers to the EU's classification of palm oil as a biofuel feedstock with 'high indirect land-use change (ILUC)-risk', which implies that – from 2030 – palm oil-based biofuels would no longer be counted against the bloc's renewable energy targets.
European Union / United States	Select oilcrops and oilcrop products	Mar-21	Trade differences	In a bid to allow both sides to focus on resolving the long-running Airbus-Boeing dispute, the EU and the United States agreed to suspend, for an initial period of four months, the retaliatory import tariffs imposed on each other's exports starting in October 2019. The suspended measures include additional import duties on select oilcrops and oilcrop products tariff lines.
European Union	Biofuel feedstock	Apr-21	Environmental policies	With a view to encouraging direct investments in sustainable activities, issued a regulation establishing technical screening criteria for determining which activities or products qualify as contributing substantially to climate change mitigation or adaptation without harming other environmental objectives. With regard to renewable fuels, the list of products defined as sustainable investments included biofuels / biogas produced from 'advanced feedstock' (such as agricultural waste and forest residues), while excluding fuels produced from food and feed crops.
France	Glyphosate	Dec-20	Pesticide regulations	Announced that farmers voluntarily ending the use of glyphosate would receive financial support in the form of temporary tax breaks. In addition, public funding to help farmers change their agricultural equipment would be increased. Reportedly, the Government is aiming for a 50 percent reduction in the chemical's use by the year 2022.
	Protein crops, incl. soybeans	Dec-20	Sector development measures	In a bid to help reduce the country's reliance on soybean / soymeal imports used as livestock feed, presented a strategy for the development of domestic protein crop production. Under the roadmap, the area sown with protein-rich crops would rise by 40 percent in 2022 and double by 2030. Reportedly, the initiative is also meant to address the issue that soybean imports can contribute to deforestation in supplying countries.
Germany	Agricultural / non-agricultural goods	Mar-21	Production sustainability / environmental policies	Examined a draft due diligence law requiring large businesses to enforce the protection of human rights and environmental standards along their supply chains. Under the proposed bill, companies would need to assess risks, set up grievance procedures, and provide remedies when standards are violated.
India	Palm oil	Nov-20	Import policies (tariffs measures)	Concerned about rising food price inflation, lowered the country's import tariff on crude palm oil, while leaving the import duties for competing vegetable oils unchanged.
	Pulses, oilseeds, copra	Nov-20	Production support	Continued procuring Kharif crops from farmers at fixed minimum support prices. In November 2020, based on proposals received from individual states, central authorities approved the procurement of 4.5 million tonnes of pulses and oilseeds and 123 000 tonnes of copra.
	Agricultural crops	Nov-20	Production support	Earmarked an additional INR 650 billion (USD 8.9 billion) in fertilizer subsidies for fiscal year 2020–2021, with a view to encouraging farmers to increase crop plantings.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
India	Edible oils	Nov-20	Food standards	Invited public comments on new standards (and modified existing standards) for a variety of food products, including raw edible oils and multisource edible vegetable oils.
	Oil palm	Nov-20	Sector development measures	Launched an oil palm development project in the country's northeastern state of Manipur. The initiative was part of India's National Mission on Oilseed and Palm Oil that aims to make the country self-sufficient in edible oils.
	Edible oils	Dec-20	Food standards	Passed an interim order banning the sale of edible oil in loose packets, citing new cases of adulteration involving the addition of cashew nut shell liquid and palm olein to edible oils.
	Vegetable oils	Jan-21 to Feb-21	Import policies (tariff measures)	Raised the import tariffs for crude palm oil, crude degummed soyoil and palm olein, with a view to protecting domestic oilseed producers. At the same time, basic customs duties charged on edible oil imports were lowered in a bid to support consumers.
	Agricultural / non-agricultural productsw	Feb-21	Tax policies	Announced the introduction of an Agriculture Infrastructure Development Cess. The cess would apply to a wide range of agricultural and non-agricultural goods, including imported crude palm, soy and sunflower oils. Proceeds from the tax would be used to finance infrastructure development projects and related activities, with the ultimate goal of raising agricultural production and curbing imports.
	Transfatty acids	Feb-21	Food safety policies	Modified its regulation concerning the gradual elimination of transfatty acids in food products. The amendment comprises i) a new definition of industrial transfatty acids; and ii) provisions that, from 1 January 2022, food products shall not contain more than 2 percent of industrial transfats by mass.
	Crop products	Feb-21	Seed & GMO policies	Informed that GMO-free certificates for imported crop products would be required from 1 March 2021 onwards and that the permissible tolerance limit for the adventitious presence of GMOs had been set at 1 percent.
	Mustardseed oil	Mar-21 to Apr-21	Food standards	Banned blending of any kind of edible oil with mustard-seed oil from 8 June 2021 onwards, in a bid to i) end the practice of selling vegetable oil blends as pure mustard oil; and ii) ensure that mustard seed growers receive remunerative prices and remain motivated to expand cultivation. Furthermore, modified its food safety standards related to peanut butter, shea butter and Borneo tallow nut oil.
Indonesia	Palm oil	Oct-20 to May-21	Export measures (variable export tax)	Following a strong rebound in market prices, reintroduced export taxation of palm oil in October 2020 (after a seven-month suspension). Subsequently, between November 2020 and May 2021, steady rises in market prices triggered successive upward adjustments in the export tax.
	Palm oil	Dec-20 to Feb-21	Export measures (export levy)	In December, converted the levy charged on crude palm oil exports from a fixed amount to a variable rate ranging from USD 55 to USD 255 per tonne, depending on the commodity's market price. The levy was raised gradually between December 2020 and February 2021, reflecting rising market prices.
	Palm oil-based biodiesel	Dec-20	Bioenergy policies	Pointed out that the amendment of the country's palm oil export levy scheme (see above) was aimed at raising additional funds in support of the country's biodiesel policy. Proceeds from the levy's collection would be used primarily to subsidize biodiesel producers whenever production costs of palm oil-based diesel rise above the price of regular diesel. Reportedly, during 2020, outlays for biodiesel subsidies exceeded annual levy proceeds, as the price gap between the two fuels rose significantly.
	Palm oil-based biodiesel	Jan-21	Bioenergy policies	Confirmed that, in 2021, funding allocated to the biodiesel subsidization programme would increase by 75 percent compared with 2020. The planned funding level assumed no change in the country's standing 30 percent blending mandate – as opposed to original plans to shift to a 40 percent rate in 2021.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Indonesia / Malaysia	Palm oil	Jan-21	Sector-specific, bilateral trade initiatives	Through the platform of the Council of Palm Oil Producing Countries, Indonesia and Malaysia agreed to jointly implement a pro-palm oil campaign in Europe, where increasingly stringent regulations and negative consumer sentiment related to sustainability issues were seen threatening sales in the commodity's third-largest market.
Indonesia / Switzerland	Palm oil, palm-kernel oil, palm stearin	Mar-21	Sector-specific, bilateral trade initiatives	Under the Comprehensive Economic Partnership Agreement between members of the European Free Trade Association and Indonesia, Switzerland offered granting preferential treatment to imports of sustainably produced crude palm oil, palm-kernel oil and palm stearin from Indonesia. In this regard, Switzerland would accept products certified by three globally recognized and third-party verified certification schemes. Furthermore, palm oil would have to be imported in containers not exceeding 22 tonnes so as to facilitate product traceability.
Kazakhstan	Sunflower seed	Feb-21 to Apr-21	Market regulation / export policies	Following a steep rise in international sunflower seed prices, the Government requested domestic vegetable oil producers to lower their edible oil retail prices and considered introducing a 15 percent tax on sunflower seed export to protect local crushers and stabilize domestic prices.
Kyrgyzstan	Vegetable oils	Nov-20	Export policies	With a view to secure domestic supplies amid the ongoing COVID-19 crisis, banned for a period of six months the export of select agricultural products – including vegetable oils – outside of the Eurasian Economic Union (EAEU).
	Sunflower oil	May-21	Market regulation	Announced that retail prices of sunflower oil would be regulated for a three-month period, with a view to stabilize the domestic edible oil market.
Malaysia	Oil-palm	Nov-20	Labour policies	Opened a six-and-a-half month window to regularize undocumented foreign migrants so as to address labour shortages in certain sectors, notably the country's plantation industry, where chronic lack of manpower was aggravated by travel restrictions introduced in the wake of the COVID-19 crisis.
	Oil-palm	Nov-20	Agricultural policies	Released its 2021 budget, which featured the following items concerning the palm oil sector: i) additional support for sustainable palm oil certification programmes, in particular with regard smallholders; ii) matching grants for industry investments in mechanization and automation; iii) incentives to encourage the recruitment and training of locals in the plantation sector; and iv) a revolving fund for forest farming development.
	Palm oil	Jan-21 to Jun-21	Export measures (variable export tax)	In January 2021, following sharp rises in palm oil market prices, reactivated the country's variable tax on palm oil exports – ending a seven-month duty free period. The *ad valorem* tax rate was set at 8 percent, i.e. the maximum rate envisaged under the taxation scheme, and is set to remain at that level until end-June 2021.
	Biodiesel	Jan-21	Bioenergy policies	Announced that the nationwide rollout of the B20 biodiesel mandate (which requires the blending of regular transport diesel with 20 percent of palm oil-based diesel) would be postponed from mid-2021 to early 2022, due to economic difficulties caused by the COVID-19 crisis.
Malaysia / European Union	Biodiesel	Jan-21	Trade differences	Malaysia formally requested WTO dispute consultations with the EU regarding measures adopted by the EU and certain member states affecting palm oil and palm oil-based biofuels. Specifically, the complaint refers to the EU's classification of palm oil as a biofuel feedstock with 'high indirect land use change (ILUC)-risk', which implies that – from 2030 – palm oil-based biofuels would no longer be counted against the EU's renewable energy targets.
Malaysia / Indonesia	Palm oil	Jan-21	Sector-specific, bilateral trade initiatives	Through the platform of the Council of Palm Oil Producing Countries, Malaysia and Indonesia agreed to jointly implement a pro-palm oil campaign in Europe, where increasingly stringent regulations and negative consumer sentiment related to sustainability issues were seen threatening sales in the commodity's third-largest market.

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Malaysia	Palm oil	Feb-21	Sector development measures	Linked to the firmness in palm oil prices, raised the cess collected on palm oil products by the Malaysian Palm Oil Board. Reportedly, the additional proceeds would be used to support the establishment of a consortium charged to conduct research on mechanization and automation in the oil-palm sector.
Malaysia	Palm oil	Apr-21	Social policy	Informed that subsidized public distribution of cooking oil would not be affected by the increase in the price of palm oil and that monitoring and enforcement activities would be stepped up to guarantee the programme's orderly implementation.
Netherlands	Protein crops	Jan-21	Sector development measures	Launched a National Protein Strategy aimed at promoting the sustainable production of existing and new protein sources for food and feed use in an effort to reduce the country's dependence on imports of protein-rich crops, especially soybeans. Regarding future soybean imports, the document envisioned a preference for sustainably produced, deforestation-free products.
Nigeria	Gene-edited seeds	Jan-21	Seed & GMO policies	Approved a set of guidelines governing the use of gene-editing techniques (as opposed to genetic modification methods), to guarantee product safety and exclude adverse effects on human health, animals, plants and the environment.
Philippines	Coconut	Feb-21	Agricultural policies	Signed a law creating a trust fund for the development of the country's coconut industry, using recovered coco levy assets that remained unutilized since their collection from growers in the 1970s–1980s.
Russian Federation	Sunflower seed, rapeseed, sunflower oil, soybeans	Dec-20 to Apr-21	Export policies / market regulation	Driven by concerns about shrinking domestic supplies and high domestic prices for staple foods, in December 2020, the Government raised the export duties for sunflower seed and rapeseed (for a period of six months), introduced a tax on soybean exports (for a five-month period), and brokered edible oil price agreements between crushers and retailers. In March 2021, following fresh rises in prices, the Government also introduced a tax on sunflower oil shipments, in addition to raising the level and extending the duties on seed exports. Furthermore, in April, the Government started subsidizing production and sales of sunflower oil by companies participating in the referenced price stabilization programmes.
	GM seed	Feb-21	Seed & GMO policies	Issued a draft law regulating the quality control of imported seeds of grains, vegetables and other crops, in addition to banning the entry of genetically modified seeds into the country.
South Africa	Olive oil	Nov-20	Sector development measures	Raised the levy collected from importers, processors and producers of olives and olive oil with a view to supporting research projects, as well as consumer education and quality control / certification measures and other related activities.
Spain	Olive oil	Feb-21	Food labelling	Determined that, in Spain, the Nutri-Score food labelling system proposed for EU-wide implementation in 2021 would not apply to extra virgin olive oil, arguing that the scheme failed to adequately reflect the oil's health benefits.
Sri Lanka	Palm oil	Apr-21	Agricultural policies / import measures	Banned the establishment of new oil-palm plantations and proposed the gradual replacement of existing plantations with alternative crops such as rubber, citing environmental concerns. Also introduced a ban on palm oil imports, but subsequently eased the import restriction for selected refined palm oil products used by the domestic bakery, confectionary and food processing industry.
	Coconut oil	Apr-21 to May-21	Market regulation	Set a fixed retail price for coconut oil until the end of 2021, in a bid to stabilize the domestic coconut oil market. Furthermore, directed oil importers, refiners and distributors not to blend edible coconut oil with any other oils.

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Switzerland / Indonesia	Palm oil	Mar-21	Sector-specific, bilateral trade initiatives	Under the Comprehensive Economic Partnership Agreement between members of the European Free Trade Association and Indonesia, Switzerland offered to grant preferential treatment to sustainably produced crude palm oil, palm-kernel oil and palm stearin exported from Indonesia. In this regard, Switzerland would accept products certified by three globally recognized and third-party verified certification schemes. Furthermore, palm oil would need to be shipped in containers not exceeding 22 tonnes, so as to facilitate product traceability.
Thailand	Paraquat, chlorpyrifos	Nov-20	Pesticide regulation	Informed that, from June 2021, the maximum permitted residue levels (MRLs) for paraquat and chlorpyrifos on imported food products would be zero. The new regulation was expected to affect the imports of several agricultural commodities, including soybeans and soybean meal.
	Palm oil	Feb-21	Agricultural policies	Renewed its price guarantee programme for palm oil, which entails cash compensations to registered oil-palm farmers whenever the market price for fresh palm fruit drops below a guaranteed level.
Turkey	Sunflowerseed, sunflower oil, rapeseed, rape oil, safflower, safflower oil	Nov-20 to Mar-21	Import policies (tariff measures)	In November 2020, concerned about possible domestic supply shortages, the Government suspended the duties applied to sunflower seed imports for a period of eight months. Subsequently, the duties charged to sunflower oil imports were first lowered and then suspended for a four-month period. Furthermore, the temporary tariff suspensions were extended to rapeseed, safflower and their respective oils.
	Soybeans	Jan-21 to Feb-21	Seed & GMO policies	Reapproved three GM soy events and authorized three new GM soybean varieties for feed use.
	Olive oil	Apr-21	Export policies	Banned bulk olive oil exports for a period of six months in a bid to prevent domestic shortages and secure affordable prices for consumers.
Ukraine	Select oilcrops	Dec-20	Tax policies	With a view to supporting domestic food manufacturers, lowered the value-added tax charged on select agricultural commodities, including sunflower seed, rapeseed, soybeans and linseed.
	Sunflower oil	Apr-21	Export policies	Reached an agreement with the country's vegetable oil industry to cap exports of sunflower oil in marketing year 2020 / 21 at 5.38 million tonnes, in an effort to stabilize domestic retail prices of edible oils.
United Kingdom	Agricultural products	Nov-20	Production sustainability / environmental policies	Parliament started reviewing a new Environment Bill. The proposed legislation includes measures to tackle 'imported deforestation' associated with imports of products like cocoa, rubber, soybeans and palm oil. Under the draft bill, the use of commodities that were not produced in compliance with local laws protecting natural ecosystems would be banned, while due diligence would be required from local businesses, especially with regard to product sourcing.
United States / China (mainland)	Agricultural products	Sep-20	Trade differences	A WTO panel examining China's challenge of certain additional import duties on its products imposed by the United States in 2018 concluded that the concerned measures were inconsistent with WTO trade rules. Chinese products affected by the United States' additional duties include a number of oilcrops and oilmeals, US imports of which, however, have been negligible.
United States	Dicamba	Oct-20	Pesticide regulation	Approved the use of three dicamba-based herbicides for a period of five years. The registrations, which are limited for use on dicamba-tolerant soybeans and cottonseed, include new control measures to ensure the products can be used effectively while protecting the environment, including non-target plants, animals and other crops not tolerant to the chemical.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
United States / China (mainland)	Select agricultural products (incl. soybeans)	Oct-20	Bilateral trade agreement	According to an official US report analysing progress made in implementing the agricultural provisions of the China-United States Phase One Economic and Trade Agreement, China succeeded in raising its purchases of US agricultural products, reportedly reaching 71 percent of the target set under the agreement.
United States	Palm oil	Dec-20	Import policies (non-tariff measures)	Based on investigations into alleged labour abuses, determined that the US Customs and Border Protection may detain shipments of palm oil and palm oil products originating from a specific supplier in Asia.
	Agricultural products	Jan-21 to Mar-21	COVID-19 measures	Implemented new measures to assist farmers affected by the COVID-19 pandemic. Debt relief measures: suspended debt collections, foreclosures and other activities on farm loans for distressed borrowers. Production support: after identifying gaps in previous aid programmes, redesigned several aid programmes with a view to distributing resources more equitably and placing greater emphasis on small and socially disadvantaged producers and on support for food supply chains and producers of renewable fuel. Economic stimulus bill: launched a comprehensive rescue plan, including programmes to reduce hunger across the country, strengthen the country's food supply chains, foster rural investments, and provide support to underserved, socially disadvantaged farmers.
United States / European Union	Select oilcrops and oilcrop products	Mar-21	Trade differences	In a bid to allow both sides to focus on resolving the long-running Airbus-Boeing dispute, the United States and the EU agreed to suspend, for an initial period of four months, the retaliatory import tariffs imposed on each other's exports starting in October 2019. The suspended measures include additional import duties on select oilcrops and oilcrop products tariff lines.
Uzbekistan	Oilseeds, vegetable oils	May-21	Trade policies / market regulation	To secure domestic supplies and prevent unjustified price increases, introduced temporary export tariffs for cottonseed, sunflower seed and their respective oils. Furthermore, exports of oil produced from imported sunflower seed were capped, while imports of oilseeds and vegetable oils were exempted from value-added taxation. All measures were set to remain in place until the end of 2021.
Multiple countries	Select pesticides	Sep-20 to Oct-20	Pesticide regulation	Brazil, Canada, Japan and the United States introduced new MRLs for a number of specific pesticides used on arable crops, including soybeans and other oilseeds.
	Select pesticides	Nov-20	Pesticide regulation	Brazil announced revised MRLs for a pesticide used in soybean cultivation, while Canada and Japan established new MRLs for a number of pesticides used on soybeans and other food crops.
	Glyphosate, other pesticides	Jan-21 to May-21	Pesticide regulation	While the Austrian Parliament reviewed a motion to restrict certain uses of glyphosate-based herbicides, including pre-harvest treatments of agricultural crops, Brazil adopted new MRLs for glyphosate, and Germany issued legislation to phase out the sale and use of glyphosate by the end of 2023. Furthermore, Brazil, Japan and the United States adopted or proposed new MRLs for various other pesticides used in the cultivation of soybeans and other oilcrops. In the EU, MRLs for a wide range of pesticides entered into force in May 2021.

* 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 2020 TO MID-MAY 2021*

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Algeria	All	Jan-21	Import ban	Suspended red meat imports to rationalize imports and encourage domestic production.
Argentina	Bovine meat	Jan-21	State market intervention	Established reference prices applicable to bovine meat cuts exported to several Asian destinations.
	Pig meat	Mar-21	State market intervention	Established reference prices applicable to specific pig meat cuts exported to several Asian destinations.
	All	Mar-21	Export ban	Suspended 15 meat exporters for violating industry regulations related to competition law and tax evasion.
	Bovine meat	May-21	Export ban	Suspended bovine meat exports for 30 days, aiming to contain rising domestic prices.
Azerbaijan	Poultry meat	Feb-21	Import ban	Suspended imports of all types of live birds and poultry products from some regions of the Czech Republic, Germany and the United Kingdom of Great Britain and Northern Ireland (United Kingdom) due to Highly Pathogenic Avian Influenza (HPAI) outbreaks.
Belarus	Poultry meat	Jan-21	Import ban	Restricted imports of live birds and poultry products from some regions of Sweden and Hungary due to HPAI outbreaks.
Bolivia (Plurinational State of)	Bovine meat	Apr-21	Export ban	Suspended bovine meat exports temporarily to guarantee domestic supply and prevent prices from rising.
Cambodia	Pig meat	Feb-21	Market access	Opened the market for importing fresh and processed pig meat from Brazil with the same standards of its internal market.
Canada	Poultry meat	Nov-20	Government support	Announced a package of assistance to the livestock sector, including CAD 691 million (around USD 529 million) for 10-year programmes for poultry, egg, broiler hatching egg and turkey farmers to drive innovation and growth of the sector.
	Pig meat	Dec-20	Government support	Established the Canadian Pork Promotion and Research Agency, under the Farm Products Agencies Act, to promote the production and marketing of hogs and pig meat products and research activities.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Canada	Pig meat	Mar-21	Trade protocol	Signed a protocol with the United States of America (United States) to guide bilateral trade if African Swine Fever (ASF) is detected in wild pigs, without cases in domestic swine. If ASF is found in wild pigs, trade of live swine, swine germplasm and untreated swine products would initially stop, while allowing trade to continue in products treated to make the ASF virus ineffective.
	Poultry meat	Apr-21	Production support	Approved the federal budget measure, which includes more than USD 5.2 billion related to agriculture, forestry and fisheries, and financial support for the supply managed sectors, including meat, to counter the economic impacts of COVID-19 and build back a better and more resilient economy. Allocated USD 230 million, committing funds through 2029 to compensate processors of poultry, eggs and dairy for market access concessions under the Comprehensive Economic and Trade Agreement with the European Union (EU) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.
China (mainland)	Pig meat	Apr-21	Government support	Announced a regionalization strategy, which involves splitting the country into five regions and giving greater responsibility to regions to prevent and control the spread of ASF and other animal diseases. With implementation of the plan, moving pigs between regions will be suspended other than for breeding purposes and in the case of piglets.
	All	May-21	Market access	Approved imports of meat from 31 new US establishments. On 7 April, China had already given permission for imports from 19 other US meat processing plants and, at the same time, halted imports from 5 South American plants due to COVID-19 outbreaks among meat workers and labelling issues. More than 100 establishments from over 20 countries, including Australia, Argentina, the EU and the United States have so far had to halt shipments to China under this rule, although some have since regained market access.
China, Hong Kong SAR	Poultry meat	Dec-20	Import ban	Suspended poultry meat imports from some districts in Germany (Mecklenburgische Seenplatte, State of Mecklenburg-Vorpommern) and a Prefecture in Japan (Nara) due to outbreaks of HPAI virus of the variants H5N8 and H5, respectively.
	Poultry meat	Jan-21	Import ban	Suspended poultry meat imports from some districts in the United Kingdom (the Lisburn and Castlereagh District of Northern Ireland), Germany (Cuxhaven District in the State of Niedersachsen), and some provinces in Republic of Korea (Namyangju-si, Anseong-si and Pocheon-si of Gyeonggi-do Province, Hongseong-gun of Chungcheongnam-do Province, Mungyeong-si of Gyeongsangbuk-do Province, and Goseong-gun of Gyeongsangnam-do Province) due to outbreaks of HPAI.
	Poultry meat	Apr-21	Import ban	Suspended poultry meat imports from a province in Republic of Korea (Jangheung-gun of Jeollanam-do Province) due to an outbreak of HPAI.
	Poultry meat	Apr-21	Import ban	Suspended poultry meat imports from Sweden (Skåne County) due to an outbreak of HPAI.
Cuba	All	Apr-21	Government support	Announced the cancellation of an old ban introduced in 1963 on cattle slaughter and sale of bovine meat and dairy products without state permission, to boost national production.
Egypt	Bovine meat	Nov-20	Import ban	Banned buffalo meat imports from India temporarily, due to concerns over pesticide traces found in Indian meat.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
European Union	All	Dec-20	Government support	Approved the allocation of EUR 182.9 million (USD 222.6 million) in 2021 to fund promotional activities for EU agrifood products, including meat and dairy, promoting organic products, sustainable agriculture and the role of the agrifood sector in terms of climate action and the environment.
	All	Dec-20	Trade agreement	Concluded a Trade and Cooperation Agreement with the United Kingdom on its future trade relationship, also covering animal breeding and transport. The agreement ensures the movement of goods across borders without taxes and duties and recognition of the organic certification of the United Kingdom by the EU for 12 months. However, new barriers to the movement of services and labour between the United Kingdom and the EU mean higher costs and are expected to reduce the overall trade volume.
	All	Jan-21	Government support	Prolonged until 31 December 2021 the State aid Temporary Framework adopted in March 2020 to support the economy in the context of the coronavirus outbreak. The European Commission also decided to expand the scope of the Temporary Framework by increasing the ceilings for specific support measures and allowing the conversion of some repayable instruments into direct grants until the end of 2022. This way, member states can use the flexibility of state aid rules to support their economies while limiting distortions to competition.
	Poultry meat	Mar-21	Import ban lifted	Resumed imports of Ukrainian poultry meat, accepting information submitted on the areas affected by an HPAI outbreak in December 2020 and measures taken to control the spread.
Germany	Pig meat	Mar-21	Market access	Regained access to Viet Nam and Singapore to export pig meat from ASF-free regions in Germany.
Ghana	Poultry meat	Apr-21	Import ban lifted	Lifted a ban on imports of poultry meat from the Russian Federation, which was imposed due to an HPAI outbreak.
Japan	Pig meat	Jan-21	Import ban lifted	Reopened its market to Hungarian pig meat for the first time since April 2018 following the implementation of a new ASF regionalization protocol.
	Bovine meat	Mar-21	Market access	Allowed imports of minced meat and meat preparations from Ireland.
	Bovine meat	Mar-21	Import tariff	Announced that imports of US bovine meat surpassed the annual safeguard trigger volume established under the US-Japan Trade Agreement. As a result, tariffs on US bovine meat increased from 25.8 percent to 38.5 percent for 30 days beginning 18 March. The agreement entered Year 3 of implementation on 1 April 2021, which would further reduce applicable tariffs, eventually eliminating them on a staggered basis for selected meat products starting from 2021.
Kazakhstan	Pig meat	Feb-21	Import ban lifted	Lifted a ban on pig meat imports from several Russian Federation regions, which was imposed in December 2020 over ASF concerns.
Kuwait	Poultry meat	Jan-21	Import ban lifted	Lifted the ban on Russian poultry meat imports, imposed in September 2020 due to HPAI concerns.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Mozambique	Poultry meat	Apr-21	Import ban	Banned the import of live birds (domestic and wild), bird meat, feathers and eggs from South Africa due to an HPAI outbreak in that country. The ban covers all poultry products used in animal feed or for agricultural or industrial purposes.
Namibia	Poultry meat	May-21	Import ban	Banned imports of poultry and poultry products from South Africa due to an HPAI outbreak.
New Zealand	Live animals	Apr-21	Export ban	Halted exports of livestock by sea following a transition period of up to two years, citing animal welfare concerns, in a move that is likely to impact main trading partners, including Australia and China.
Peru	Pig meat	Nov-20	Market access	Opened its market to Spanish pig meat products and offal.
Philippines	Pig meat	Oct-20	Import ban lifted	Lifted a ban on pig meat imports from Belgium after that country successfully regained its status as free of ASF.
	Bovine meat	Oct-20	Import ban	Suspended imports from 11 suppliers of buffalo meat in the state of Uttar Pradesh, India due to concerns over the presence of foot-and-mouth disease (FMD).
	Poultry meat	Dec-20	Import ban lifted	Reopened its market to Brazilian poultry meat. The ban was imposed in August 2020 when authorities in the Chinese city of Shenzhen claimed to have found traces of COVID-19 on chicken wings imported from Brazil.
	Poultry meat	Mar-21	Import ban	Halted imports of Russian poultry meat due to HPAI concerns. For the same reason, the Philippines suspended imports of poultry meat from the Czech Republic in mid-February.
	Pig meat	May-21	Tariff rate	Increased yearly tariff rate quota from 54 210 to 254 210 metric tonnes and lowered tariff rates on imported fresh, chilled and frozen pig meat.
Russian Federation	All	Nov-20	Import ban	Extended the ban on imports of agricultural products, including meat, from countries that applied economic sanctions against the Russian Federation, adding the United Kingdom until the end of 2021.
	Poultry meat	Jan-21	Import ban	Imposed temporary restrictions between January and March on the import of live poultry and poultry products from several European countries due to concerns over HPAI. In addition, the Russian Federation banned the transit of live poultry through its territory.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Russian Federation	Poultry meat	Mar-21	Import ban lifted	Lifted a ban on hatching eggs and day-old chicks from 21 Dutch companies in the Netherlands. The ban was imposed in November 2020 due to concerns over HPAI.
Saudi Arabia	Bovine meat	Feb-21	Import policy	Extended shelf-life for US bovine meat products from 70 to 120 days, providing Saudi importers with the flexibility to purchase larger quantities.
	Poultry meat	May-21	Import ban	Banned poultry meat imports from 11 Brazilian meat plants without offering a reason for imposing the restriction.
Taiwan Province of China	Poultry meat	Oct-20	Import ban	Imposed a ban on poultry meat imports from the Netherlands due to an HPAI outbreak.
	All	Nov-20	Import tariff	Eliminated tariffs on pig meat, offal and hamburgers imported from Paraguay.
	Pig meat	Dec-20	Market access	Approved imports of US pig meat containing ractopamine.
Turkey	Poultry meat	Oct-20	Market access	Received poultry meat market access to China from 15 October 2020, following bilateral negotiations over 10 years.
	Bovine meat	Mar-21	Import policy	Issued a directive allowing imports of fattening cattle from April 2021 from approved countries and those complying with the health and technical criteria determined by the Government.
Uganda	Bovine meat	Apr-21	Government support	Banned the sale and movement of livestock and their products in the Kiruhura district to stop the spread of FMD.
Ukraine	All	Dec-20	Trade agreement	Signed a trade agreement in October 2020 with the United Kingdom, which entered into force on 31 December 2020 and reduces tariff quotas for several products, including meat.
United Arab Emirates	Pig meat	Apr-21	Market access	Authorized imports of pig meat from Argentina for consumption by the large expatriate community.
United Kingdom	All	Oct-20	Trade agreement	Signed a trade agreement with Japan, named UK–Japan Comprehensive Economic Partnership Agreement. Under the agreement, Japan will gradually reduce its most favoured nation tariffs on bovine meat to nine percent and pig meat to zero percent.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
United States	Pig meat	Mar-21	Import tariff	Suspended retaliatory duties for four months from 4 March 2021 on British pig meat, which were initially imposed due to the dispute over aircraft subsidies. Retaliatory tariffs were also suspended on EU meat products, to allow both parties to concentrate on resolving the ongoing trade dispute.
	All	Mar-21	Government support	Signed into law the American Rescue Plan Act of 2021, also called the COVID-19 Stimulus Package or American Rescue Plan, a USD 1.9 trillion economic stimulus bill. An allocation of USD 10.4 billion was made to agriculture, covering debt forgiveness, purchasing and distribution of agricultural products, including meat.
	All	Mar-21	Government support	Announced an expansion of the Coronavirus Food Assistance Program (CFAP) on 24 March 2021. The updated CFAP includes reopening Coronavirus Food Assistance Program 2 (CFAP 2), additional payments for eligible cattle and row crop producers, and processing payments for specific applications filed as part of CFAP Additional Assistance.
Viet Nam	Bovine meat	Nov-20	Health certification	Promulgated the National Standard for Chilled Meat, Part 2 (beef and buffalo meat). It aimed at improving transparency in the management of food safety and hygiene, providing a legal framework for businesses producing and trading in these products, and ensuring that consumers have access to safe beef and buffalo meat.
	Poultry meat	Feb-21	Health certification	Promulgated the National Standard for Chilled Meat, Part 3 (poultry meat). It aimed at improving transparency in the management of food safety and hygiene, providing a legal framework for businesses producing and trading in these products, and ensuring that consumers have access to safe poultry meat.

* 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

DAIRY: MAJOR POLICY DEVELOPMENTS MID-OCTOBER 2020 TO MID-MAY 2021*

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Canada	Dairy products	Nov-20	Government support	Announced the accelerated payment of the remaining compensation payment for dairy farmers for ceding market access under the Canada-European Union Comprehensive Economic and Trade Agreement (implemented in 2017) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (implemented in 2018), changing it to three years rather than the initially planned seven-year period. Under the plan, farmers will receive USD 360 million each year from 2020 to 2023.
	Dairy products	Feb-21	Government support	Established annual support prices for butter and skim milk powder at CAD 8.7149 per kg (around USD 6.9) and CAD 4.5302 per kg (around USD 3.6), respectively.
	Dairy products	Apr-21	Government support	Approved the federal budget measure, which includes more than USD 5.2 billion related to agriculture, forestry and fisheries, and financial support for the supply managed sectors, including dairy, to counter the economic impacts of COVID-19 and build back a better and more resilient economy. Allocated USD 230 million, committing funds through 2029 to compensate processors of poultry, egg and dairy for market access concessions under the Comprehensive Economic and Trade Agreement with the European Union (EU) and the Comprehensive and Progressive Agreement for Trans-Pacific Partnership.
China (mainland)	Dairy products	Dec-20	Government support	Announced its annual tariff adjustment plan that sets tentative import and export tariff rates for select tariff lines in 2021, including lowering tariff rates for certain dairy products such as anhydrous lactose (HS 17021100) from the current 10 percent to 5 percent. Rates for whey protein powder and lactoferrin (HS 35022000) have been added and lowered from 10 percent to 5 percent. The rate for special dairy-based infant formula food (HS 19011010) for premature/low birthweight babies and nutrition supplement for breastmilk was set at 0 percent in 2021. However, the tentative tariffs for regular infant formula milk powders that share the same code HS 19011010 will remain unchanged at 5 percent.
	Dairy products	Dec-20	Government support	Announced a three-year strategy to further develop the local dairy industry, emphasizing the strengthening of R&D and the regulatory and standards system for addressing milk safety concerns, aiming to encourage consumers to increase purchases of local dairy products.
Colombia	Dairy products	Oct-20	Market access	Gained access for dairy product exports to Libya.
	Dairy products	Mar-21	Government support	Increased the support price for milk by 3.5 percent, considering key market variables, especially input costs, the producer price index, import demand and inventories.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Cuba	Dairy products	Apr-21	Government support	Announced the cancellation of a ban introduced in 1963 on the slaughter of cattle and sale of bovine meat and dairy products without state permission as part of agricultural reforms and deregulation of the dairy sector to increase national production.
European Union	Dairy products	Dec-20	Government support	Approved the allocation of EUR 182.9 million (USD 222.6 million) in 2021 to fund promotional activities for EU agrifood products, including meat and dairy, promoting organic products, sustainable agriculture, and the role of the agrifood sector in terms of climate action and the environment.
	Dairy products	Dec-20	Trade agreement	Concluded a Trade and Cooperation Agreement (TCA) with the United Kingdom of Great Britain and Northern Ireland (United Kingdom) on the future trade relationship, with implications on breeding and transport of animals. The TCA envisages trade across borders without tariffs or taxes, but barriers to the movement of services and labour between the two trading partners are expected to result in higher costs and a reduced trade volume. Moreover, the European Union recognized UK organic certification for 12 months post-Brexit.
	Dairy products	Jan-21	Government support	Prolonged until 31 December 2021 the State aid Temporary Framework adopted in March 2020 to support the economy in the context of the coronavirus outbreak. The European Commission also decided to expand the scope of the Temporary Framework by increasing the ceilings for specific support measures and allowing the conversion of some repayable instruments into direct grants until the end of 2022. This way, member states can use the flexibility of state aid rules to support their economies, while limiting distortions to competition.
	Dairy products	Mar-21	Tariff	Suspended all tariffs related to agriculture, including dairy products, linked to the Airbus and Boeing trade disputes with the United States for four months in order to allow both parties to concentrate on resolving the ongoing trade dispute. US tariffs were introduced in October 2019 when the EU failed to end subsidies for Airbus. Since then, the United States has applied an additional 25 percent duty on a wide range of EU dairy products, mainly cheese and butter. In November 2020, the EU increased tariffs on US cheese by 25 percent.
Japan	Dairy products	Apr-21	Tariff rate quota	Announced tariff-rate quota (TRQ) volumes for dairy products for the Japanese fiscal year (JFY) 2021 (April to March). The announcement included quotas for natural cheese for processing, skimmed milk powder, evaporated milk, butter and butter oil, and certain whey products. The quota volume for natural cheese increased by 19 percent from JFY 2020, while TRQs for the other products remained unchanged.
Mexico	Dairy products	Dec-20	Government support	Published the operation rules of the Guaranteed Prices Programme for the fiscal year 2021, setting the price for 1 litre of milk at Mexican peso 8.20 (around USD 0.41) up to a maximum of 25 litres per cow in 1 day.
Russian Federation	Dairy products	Nov-20	Import ban	Extended the ban on imports of agricultural products, including dairy products, from the countries that applied economic sanctions against the Russian Federation, adding the United Kingdom until the end of 2021.

COUNTRY	PRODUCT	DATE	POLICY INSTRUMENT	DESCRIPTION
Thailand	Dairy products	Jan-21	Import tariff	Eliminated import tariffs and import quotas under Special Safeguard measures for Australian and New Zealand dairy products, such as whole milk powder, whey, cheese and anhydrous milk, under the Thailand-Australia Free Trade Agreement and the Thailand New Zealand Closer Economic Partnership.
Turkey	Dairy products	Mar-21	Government support	Announced that the Meat and Milk Board, an affiliated government entity that regulates meat and milk prices domestically, would buy raw milk directly from producers to guarantee a minimum price.
Ukraine	Dairy products	Dec-20	Trade agreement	Signed a trade agreement in October 2020 with the United Kingdom, which entered into force on 31 December 2020 and reduces tariff quotas for several products, including dairy.
United Kingdom	Dairy products	Oct-20	Trade agreement	Signed a free trade agreement with Japan, confirming access to low tariffs for the main food and drink products covered by quotas, such as Stilton cheese.
United States `	Dairy products	Mar-21	Government support	Signed the American Rescue Plan Act of 2021, also called the COVID-19 Stimulus Package or American Rescue Plan, a USD 1.9 trillion economic stimulus bill with an allocation of USD 10.4 billion for agriculture, including the dairy sector, covering debt forgiveness, purchase and distribution.
	Dairy products	Mar-21	Government support	Announced an expansion of the Coronavirus Food Assistance Program (CFAP) on 24 March 2021. The updated CFAP includes reopening Coronavirus Food Assistance Program 2 (CFAP 2), additional payments for eligible cattle and row crop producers, and processing payments for specific applications filed as part of CFAP Additional Assistance.

* 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

Statistical appendix tables

NOTES

GENERAL

- FAO estimates and forecasts are based on official and unofficial sources.
- Unless otherwise stated, all charts and tables refer to FAO data as source.
- Estimates of world imports and exports may not always match, mainly because shipments and deliveries do not necessarily occur in the same marketing year.
- Tonnes refer to metric tonnes.
- All totals are computed from unrounded data.
- Regional totals may include estimates for countries not listed. The countries shown in the tables were chosen based on their importance of either production or trade in each region.
- 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 2014–2016 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). 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		
	2017-2019 average	2020 estim.	2021 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes								
ASIA	**1 189.7**	**1 224.6**	**1 236.3**	**214.5**	**253.3**	**256.0**	**60.4**	**64.0**	**64.3**
Bangladesh	40.3	42.4	43.8	8.0	9.8	8.1	0.1	0.2	0.2
China	547.5	550.7	563.4	29.8	60.6	64.7	3.0	3.1	3.1
India	262.3	279.7	280.8	0.8	0.2	0.2	13.5	20.9	20.3
Indonesia	58.3	57.5	59.8	12.9	11.3	11.7	0.2	0.1	0.1
Iran (Islamic Republic of)	20.7	20.8	20.2	13.8	15.3	15.7	0.2	0.1	0.1
Iraq	4.3	8.6	6.2	5.0	2.7	3.8	-	-	-
Japan	8.6	8.5	8.5	24.2	24.2	24.0	0.3	0.3	0.3
Kazakhstan	18.7	19.6	19.3	0.7	0.6	0.2	9.5	8.7	8.6
Myanmar	18.4	18.1	18.0	0.6	0.6	0.6	3.7	3.4	3.7
Pakistan	39.9	41.5	42.5	0.2	3.7	1.2	4.8	4.7	4.6
Philippines	20.3	21.0	21.1	9.6	9.4	9.5	0.1	0.1	0.1
Republic of Korea	4.1	3.7	4.0	15.0	15.9	15.9	0.1	0.1	0.1
Saudi Arabia	0.6	0.7	0.8	15.6	15.9	15.7	-	-	-
Thailand	25.6	25.5	26.2	4.6	5.3	5.1	8.3	6.2	6.6
Turkey	34.6	36.7	35.3	13.0	13.5	14.8	5.3	4.8	5.6
Viet Nam	33.1	32.4	32.5	14.5	17.4	17.0	7.2	7.4	7.1
AFRICA	**195.0**	**200.1**	**204.3**	**92.5**	**99.7**	**97.8**	**7.5**	**8.1**	**8.1**
Algeria	5.2	5.6	4.3	12.9	12.7	13.8	-	-	-
Egypt	21.3	22.0	21.9	23.1	23.9	24.2	0.6	0.6	0.3
Ethiopia	28.0	28.2	28.2	1.9	2.0	2.1	1.3	1.2	1.2
Morocco	8.5	3.3	9.9	7.5	11.2	8.2	0.1	-	-
Nigeria	25.1	25.9	25.7	7.7	8.4	8.6	0.7	0.7	0.7
South Africa	16.4	18.9	19.5	3.1	2.7	2.7	2.0	2.6	2.9
Sudan	7.1	8.0	7.6	2.2	2.4	2.4	0.3	0.2	0.2
CENTRAL AMERICA & THE CARIBBEAN	**43.0**	**42.6**	**41.8**	**35.8**	**36.1**	**37.3**	**2.2**	**1.4**	**1.5**
Mexico	36.5	36.3	35.3	23.0	22.9	24.2	2.0	1.2	1.3
SOUTH AMERICA	**214.4**	**233.0**	**233.9**	**32.5**	**34.0**	**32.8**	**86.1**	**91.5**	**91.5**
Argentina	76.9	84.2	86.4	0.1	0.1	0.1	47.8	46.9	52.7
Brazil	109.0	120.1	118.7	9.5	9.9	8.8	33.2	38.5	32.5
Chile	3.3	2.8	2.9	3.7	4.0	4.2	0.1	0.1	-
Colombia	3.4	3.5	3.5	8.0	8.7	8.3	-	-	-
Peru	4.2	4.2	4.1	6.1	6.3	6.4	0.1	0.1	0.1
Venezuela (Bolivarian Republic of)	1.7	0.9	0.8	2.8	2.8	2.7	-	-	-
NORTHERN AMERICA	**489.8**	**496.8**	**519.2**	**10.3**	**9.1**	**9.5**	**114.8**	**139.7**	**134.3**
Canada	58.8	64.9	62.0	2.7	2.4	2.3	29.0	33.8	28.4
United States of America	430.9	431.9	457.2	7.6	6.6	7.2	85.8	105.8	105.9
EUROPE	**521.0**	**521.5**	**540.9**	**33.3**	**33.6**	**33.7**	**137.4**	**136.1**	**144.7**
European Union	309.3	282.1	295.2	28.7	23.5	24.4	37.7	38.3	40.4
Russian Federation	119.3	129.8	124.2	0.6	0.6	0.6	46.6	48.9	48.4
Ukraine	68.3	64.6	72.5	0.2	0.2	0.2	48.8	43.2	49.7
OCEANIA	**31.1**	**50.0**	**44.5**	**2.2**	**2.3**	**2.2**	**17.2**	**27.2**	**25.0**
Australia	30.1	48.9	43.5	0.4	0.3	0.3	17.2	27.2	25.0
WORLD	**2 684.0**	**2 768.6**	**2 820.9**	**421.1**	**468.0**	**469.3**	**425.5**	**468.0**	**469.3**
LIFDC	478.5	505.9	503.5	71.1	76.5	75.4	25.1	32.9	31.7
LDC	184.1	192.6	189.6	39.5	42.3	41.4	9.9	9.4	9.7

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes						Kg/year		
ASIA	**1 342.4**	**1 412.1**	**1 435.3**	**545.6**	**549.4**	**543.5**	**157.1**	**158.3**	**158.8**
Bangladesh	49.0	51.6	52.1	8.9	7.2	7.8	218.9	222.9	223.6
China	579.0	619.2	632.6	389.2	375.3	366.9	153.5	153.8	154.2
India	242.4	256.2	260.3	51.3	61.5	62.8	146.9	149.6	150.2
Indonesia	71.2	69.9	70.9	10.2	7.7	8.0	182.0	179.4	179.3
Iran (Islamic Republic of)	34.4	35.1	36.1	9.9	11.5	11.7	206.1	207.5	209.3
Iraq	9.1	10.3	10.2	0.9	2.6	2.5	192.2	191.0	191.2
Japan	32.6	31.9	32.5	6.7	7.1	6.8	93.1	92.5	92.4
Kazakhstan	10.2	10.1	10.2	3.9	5.4	6.0	158.0	158.9	158.9
Myanmar	15.3	15.4	15.3	3.5	3.1	2.8	200.2	202.3	202.0
Pakistan	36.5	38.6	39.4	3.7	4.0	3.8	139.8	141.0	141.1
Philippines	29.6	30.1	30.5	4.3	3.9	4.0	160.9	164.8	167.0
Republic of Korea	19.1	19.2	19.1	3.1	2.9	3.5	125.7	122.0	120.3
Saudi Arabia	16.6	16.7	16.4	5.6	5.1	5.1	138.7	136.9	136.6
Thailand	21.5	23.7	23.8	8.0	9.9	10.7	118.4	121.2	121.9
Turkey	40.7	43.0	43.8	7.9	12.3	12.9	238.6	242.3	243.5
Viet Nam	41.0	41.9	42.0	5.6	5.2	5.5	178.0	178.3	176.9
AFRICA	**279.0**	**290.9**	**295.1**	**63.0**	**61.7**	**60.6**	**153.2**	**153.7**	**152.5**
Algeria	17.7	19.0	19.0	6.3	6.1	5.2	227.0	226.6	226.9
Egypt	44.4	45.2	46.0	5.8	5.4	5.3	274.7	274.0	273.3
Ethiopia	27.9	29.5	30.0	6.4	6.9	6.1	192.6	197.6	198.5
Morocco	15.9	15.4	16.4	6.6	4.8	6.5	239.0	239.7	239.9
Nigeria	32.3	33.8	34.1	5.0	4.7	4.2	128.6	128.1	128.2
South Africa	17.1	17.6	18.3	3.8	3.9	4.8	163.5	161.7	162.2
Sudan	9.3	10.0	10.0	3.2	3.4	3.1	185.1	194.4	191.6
CENTRAL AMERICA & THE CARIBBEAN	**76.8**	**78.2**	**78.8**	**10.0**	**7.8**	**6.6**	**160.9**	**161.7**	**162.0**
Mexico	57.4	58.6	59.2	7.6	5.7	4.7	193.7	194.5	194.5
SOUTH AMERICA	**160.7**	**173.7**	**177.9**	**39.8**	**37.5**	**36.5**	**114.5**	**113.6**	**113.3**
Argentina	30.7	34.8	35.7	12.5	11.4	10.9	121.0	121.7	121.4
Brazil	84.3	91.6	94.3	17.7	16.9	17.2	113.3	110.8	109.8
Chile	6.9	7.0	7.0	0.7	0.6	0.6	144.9	146.4	146.7
Colombia	11.0	11.9	12.2	1.2	1.6	1.2	88.8	89.0	92.1
Peru	10.2	10.7	10.8	0.9	0.9	0.7	149.3	150.7	149.6
Venezuela (Bolivarian Republic of)	4.5	3.8	3.5	0.7	0.5	0.5	103.6	104.7	104.1
NORTHERN AMERICA	**390.7**	**386.1**	**398.8**	**97.0**	**68.3**	**68.1**	**110.1**	**110.9**	**111.5**
Canada	33.3	34.5	34.2	10.0	8.5	10.1	96.0	96.5	96.6
United States of America	357.4	351.6	364.7	86.9	59.8	58.1	111.7	112.5	113.2
EUROPE	**417.2**	**417.9**	**419.8**	**78.0**	**74.2**	**84.0**	**132.6**	**133.6**	**134.2**
European Union	297.9	272.2	273.1	44.8	35.1	41.1	133.1	137.0	137.6
Russian Federation	75.8	78.1	78.3	17.6	17.2	15.3	125.6	125.4	125.6
Ukraine	20.9	20.3	20.3	6.7	6.1	8.9	144.2	144.7	144.9
OCEANIA	**19.0**	**19.4**	**19.9**	**7.6**	**9.9**	**12.1**	**96.2**	**97.6**	**96.6**
Australia	16.2	16.3	17.0	6.8	9.2	11.5	103.8	105.3	104.4
WORLD	**2 685.7**	**2 778.2**	**2 825.7**	**840.9**	**808.8**	**811.5**	**149.2**	**150.2**	**150.4**
LIFDC	516.9	544.7	551.2	109.6	119.8	117.9	151.6	153.7	153.4
LDC	214.0	224.9	225.5	45.9	44.1	41.1	158.4	159.9	158.2

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

	Production			Imports			Exports		
	2017-2019 average	2020 estim.	2021 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes								
ASIA	**332.2**	**346.2**	**345.9**	**89.9**	**97.4**	**99.4**	**16.3**	**16.2**	**17.2**
Bangladesh	1.1	1.0	1.3	6.0	6.0	6.4	-	-	-
China	133.1	134.3	136.4	6.4	11.9	12.9	0.5	0.3	0.3
China (mainland)	133.1	134.2	136.4	4.5	10.0	11.0	0.4	0.2	0.2
Taiwan Province of China	-	-	-	1.4	1.4	1.4	-	-	-
India	100.7	107.6	109.2	1.3	-	-	0.5	2.0	2.3
Indonesia	-	-	-	10.9	10.0	10.2	0.1	0.1	0.1
Iran (Islamic Republic of)	14.3	14.0	13.5	1.3	2.0	3.0	0.3	-	-
Iraq	3.2	6.2	4.7	3.2	1.0	2.0	-	-	-
Japan	0.9	0.9	0.9	5.6	5.6	5.5	0.2	0.2	0.2
Kazakhstan	13.4	14.3	14.0	0.6	0.5	0.1	7.8	7.5	7.5
Pakistan	25.4	25.2	26.2	-	3.5	1.0	1.0	-	-
Philippines	-	-	-	6.4	6.1	6.1	-	-	-
Republic of Korea	-	-	-	3.9	3.9	4.1	-	-	-
Saudi Arabia	0.4	0.4	0.5	3.2	3.1	3.1	-	-	-
Thailand	-	-	-	3.2	3.0	3.2	-	-	-
Turkey	20.2	20.5	20.0	8.2	9.8	10.0	4.6	4.4	5.0
AFRICA	**27.6**	**25.6**	**29.5**	**49.1**	**52.0**	**50.1**	**1.4**	**1.5**	**1.1**
Algeria	3.4	3.8	3.0	7.6	6.5	7.6	-	-	-
Egypt	8.6	9.0	9.0	12.5	13.0	13.3	0.5	0.6	0.3
Ethiopia	4.9	5.0	5.0	1.3	1.3	1.3	-	-	-
Morocco	6.2	2.6	7.2	4.2	6.5	4.2	0.1	-	-
Nigeria	0.1	0.1	0.1	5.0	5.7	5.5	0.4	0.4	0.4
South Africa	1.6	2.1	2.0	1.8	1.6	1.6	0.1	0.1	0.1
Tunisia	1.2	1.0	1.4	2.0	2.0	1.9	-	-	-
CENTRAL AMERICA & THE CARIBBEAN	**3.2**	**3.0**	**2.8**	**9.2**	**9.1**	**9.1**	**1.0**	**0.6**	**0.6**
Cuba	-	-	-	0.7	0.7	0.7	-	-	-
Mexico	3.2	3.0	2.8	5.2	4.8	5.0	0.9	0.5	0.5
SOUTH AMERICA	**27.8**	**27.8**	**29.8**	**14.9**	**14.5**	**14.6**	**14.4**	**11.2**	**14.6**
Argentina	19.3	17.6	19.2	-	-	-	13.4	9.5	13.0
Brazil	5.0	6.2	6.6	7.0	6.6	6.5	0.4	0.9	0.7
Chile	1.4	1.3	1.3	1.2	1.2	1.2	-	-	-
Colombia	-	-	-	1.9	1.9	1.9	-	-	-
Peru	0.2	0.2	0.2	2.1	2.0	2.2	-	-	-
Venezuela (Bolivarian Republic of)	-	-	-	0.9	1.0	1.0	-	-	-
NORTHERN AMERICA	**82.1**	**84.9**	**82.0**	**3.7**	**2.6**	**3.4**	**48.4**	**53.2**	**47.5**
Canada	31.7	35.2	31.1	0.1	0.1	0.1	23.2	27.0	22.0
United States of America	50.4	49.7	50.9	3.6	2.5	3.3	25.2	26.2	25.5
EUROPE	**260.1**	**253.6**	**265.3**	**7.4**	**9.6**	**9.4**	**84.0**	**83.3**	**87.1**
European Union	148.6	125.3	134.0	5.1	5.0	5.0	27.4	27.0	29.5
Russian Federation	77.5	85.9	81.5	0.3	0.3	0.3	36.9	39.0	39.0
Ukraine	26.4	24.9	27.5	-	-	-	18.2	16.2	17.0
United Kingdom of Great Britain and Northern Ireland	-	9.7	14.5	-	2.5	2.0	-	0.2	0.8
OCEANIA	**18.3**	**33.8**	**30.4**	**1.1**	**1.1**	**1.1**	**11.8**	**20.0**	**19.0**
Australia	17.9	33.3	30.0	0.2	0.1	0.1	11.8	20.0	19.0
WORLD	**751.5**	**774.8**	**785.8**	**175.4**	**186.2**	**187.2**	**177.2**	**186.2**	**187.2**
LIFDC	123.5	132.6	132.1	37.2	36.5	37.7	1.3	2.9	3.1
LDC	13.6	14.5	13.5	23.1	23.5	24.0	0.1	0.3	0.1

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes						(Kg/year)		
ASIA	**394.0**	**416.8**	**424.5**	**182.3**	**203.0**	**206.5**	**66.1**	**66.7**	**67.1**
Bangladesh	7.3	7.5	7.7	1.9	1.0	1.0	34.4	35.5	35.9
China	128.7	142.8	144.7	118.2	130.3	134.7	64.6	64.9	65.3
China (mainland)	126.9	140.9	142.8	117.7	129.8	134.2	65.0	65.2	65.6
Taiwan Province of China	1.3	1.4	1.4	0.4	0.4	0.4	45.6	45.6	45.5
India	97.9	103.6	105.8	19.8	24.0	25.0	60.1	60.7	60.9
Indonesia	11.1	9.7	9.9	1.2	1.0	1.0	26.0	26.0	26.1
Iran (Islamic Republic of)	15.5	16.0	16.2	6.5	7.2	7.4	168.3	169.1	169.4
Iraq	6.3	6.6	6.8	0.5	1.3	1.2	152.5	152.9	153.0
Japan	6.3	6.3	6.3	1.4	1.2	1.2	40.5	40.3	40.5
Kazakhstan	6.5	6.2	6.3	3.5	4.4	4.7	142.8	142.6	142.7
Pakistan	25.8	26.8	27.4	2.3	2.5	2.4	117.7	117.9	118.1
Philippines	6.3	6.0	6.0	1.0	1.0	1.0	23.9	24.9	25.5
Republic of Korea	3.7	4.1	4.1	1.0	1.0	0.9	47.7	47.7	47.7
Saudi Arabia	3.6	3.7	3.7	3.0	2.8	2.6	98.1	97.9	97.9
Thailand	3.1	3.2	3.4	1.8	1.6	1.4	16.6	16.7	16.7
Turkey	22.6	23.7	24.8	5.5	9.0	9.3	210.0	213.4	214.6
AFRICA	**76.2**	**77.2**	**78.5**	**20.1**	**17.3**	**17.4**	**50.7**	**50.2**	**49.9**
Algeria	10.9	11.0	11.1	4.3	3.9	3.3	208.7	208.9	209.3
Egypt	21.1	21.6	22.0	3.3	2.7	2.7	188.4	189.0	189.0
Ethiopia	6.3	6.4	6.6	0.8	0.8	0.6	47.3	47.8	48.8
Morocco	10.6	9.8	10.1	5.0	3.3	4.5	207.0	207.1	207.5
Nigeria	4.5	4.8	4.9	0.6	1.1	1.1	20.8	20.9	21.2
South Africa	3.3	3.5	3.5	0.5	0.5	0.5	56.2	56.0	55.8
Tunisia	3.1	3.1	3.2	0.5	0.4	0.6	211.1	211.1	211.5
CENTRAL AMERICA & THE CARIBBEAN	**11.5**	**11.3**	**11.4**	**1.8**	**1.5**	**1.4**	**44.3**	**44.6**	**44.4**
Cuba	0.7	0.7	0.7	0.1	-	-	55.9	56.2	56.2
Mexico	7.5	7.1	7.3	1.2	1.0	1.0	50.7	50.8	50.7
SOUTH AMERICA	**28.9**	**29.3**	**30.4**	**6.1**	**7.1**	**6.8**	**57.6**	**57.6**	**57.2**
Argentina	6.2	6.4	6.8	2.3	3.2	2.6	103.1	103.1	103.1
Brazil	12.2	12.1	12.2	1.9	1.1	1.3	54.3	53.6	52.8
Chile	2.6	2.4	2.5	0.4	0.4	0.4	108.3	108.5	108.6
Colombia	2.0	1.9	1.9	0.2	0.1	0.1	34.7	34.8	35.0
Peru	2.2	2.4	2.5	0.2	0.3	0.2	60.0	60.2	59.5
Venezuela (Bolivarian Republic of)	0.9	1.0	1.0	0.1	0.1	0.1	30.6	34.5	34.2
NORTHERN AMERICA	**38.6**	**39.0**	**41.0**	**35.1**	**29.0**	**27.0**	**82.4**	**82.3**	**82.9**
Canada	8.7	8.5	8.5	6.0	5.3	6.0	80.9	80.8	80.8
United States of America	29.9	30.6	32.5	29.1	23.7	21.1	82.6	82.5	83.2
EUROPE	**186.3**	**176.1**	**182.8**	**30.3**	**26.6**	**31.2**	**106.8**	**106.5**	**106.9**
European Union	125.8	103.1	107.5	15.9	11.2	13.0	108.4	110.1	110.5
Russian Federation	43.5	43.7	43.7	10.4	9.9	9.0	99.5	99.3	99.3
Ukraine	8.8	8.5	8.4	1.6	0.9	3.0	112.4	112.5	112.5
United Kingdom of Great Britain and Northern Ireland	-	12.9	15.0	-	1.5	2.2	-	94.5	95.4
OCEANIA	**10.2**	**9.7**	**10.1**	**4.2**	**6.5**	**8.4**	**69.6**	**69.5**	**68.7**
Australia	8.8	8.3	8.6	3.7	6.0	8.0	83.5	83.5	82.6
WORLD	**745.9**	**759.5**	**778.6**	**279.8**	**291.0**	**298.7**	**67.2**	**67.3**	**67.4**
LIFDC	157.6	164.7	167.9	35.0	37.3	36.1	49.4	49.6	49.6
LDC	37.6	38.5	39.0	9.2	7.4	6.0	31.7	31.6	31.4

APPENDIX TABLE 3(A): COARSE GRAIN STATISTICS

	Production			Imports			Exports		
	2017-2019 average	2020 estim.	2021 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes								
ASIA	**404.6**	**418.2**	**425.0**	**104.3**	**135.3**	**137.4**	**6.0**	**7.6**	**7.2**
China	268.2	270.1	279.3	19.1	44.8	48.3	0.1	0.1	0.1
China (mainland)	268.0	269.9	279.2	14.5	40.1	43.6	0.1	0.1	0.1
Taiwan Province of China	0.2	0.2	0.2	4.6	4.7	4.7	-	-	-
India	45.5	49.1	48.5	0.3	0.2	0.2	0.9	2.7	2.0
Indonesia	21.6	22.5	22.7	0.9	0.9	1.1	0.2	-	-
Iran (Islamic Republic of)	4.1	4.3	4.3	11.6	12.4	11.5	-	-	-
Japan	0.2	0.2	0.2	18.0	17.8	17.8	-	-	-
Malaysia	0.1	0.1	0.1	3.8	3.9	3.9	-	-	-
Pakistan	7.2	8.0	8.0	0.2	0.2	0.2	-	-	-
Philippines	7.9	8.1	8.1	0.6	0.8	0.8	-	-	-
Republic of Korea	0.2	0.2	0.2	10.8	11.6	11.4	-	-	-
Saudi Arabia	0.3	0.3	0.3	11.0	11.4	11.1	-	-	-
Thailand	4.9	5.4	5.4	1.1	2.0	1.6	0.2	-	-
Turkey	13.9	15.6	14.7	4.6	3.5	4.5	0.7	0.5	0.6
Viet Nam	4.9	4.6	4.6	10.2	12.9	12.9	0.3	0.8	0.8
AFRICA	**144.2**	**149.2**	**149.2**	**27.1**	**30.5**	**29.3**	**5.6**	**6.1**	**6.5**
Algeria	1.7	1.8	1.3	5.2	6.0	6.1	-	-	-
Egypt	8.8	8.5	8.6	10.2	10.7	10.7	-	-	-
Ethiopia	23.0	23.1	23.1	-	-	-	1.3	1.2	1.2
Morocco	2.3	0.7	2.7	3.2	4.6	3.9	-	-	-
Nigeria	20.1	21.0	20.4	0.4	0.4	0.4	0.2	0.2	0.2
South Africa	14.7	16.8	17.5	0.4	0.1	0.1	1.9	2.5	2.8
Sudan	6.4	7.1	6.9	0.3	0.3	0.3	0.3	0.2	0.2
United Republic of Tanzania	7.3	7.4	7.3	-	-	-	0.4	0.3	0.3
CENTRAL AMERICA & THE CARIBBEAN	**38.0**	**37.8**	**37.0**	**24.1**	**24.3**	**25.6**	**1.1**	**0.7**	**0.8**
Mexico	33.0	33.1	32.2	17.1	17.3	18.5	1.1	0.7	0.8
SOUTH AMERICA	**169.7**	**188.3**	**187.2**	**15.6**	**17.4**	**16.1**	**68.0**	**76.6**	**73.1**
Argentina	56.8	65.8	66.4	0.1	0.1	0.1	34.0	37.1	39.3
Brazil	96.2	106.3	104.1	1.7	2.6	1.6	31.7	36.5	30.8
Chile	1.9	1.4	1.5	2.3	2.6	2.8	0.1	-	-
Colombia	1.6	1.5	1.5	5.9	6.6	6.2	-	-	-
Peru	1.8	1.7	1.7	3.8	3.9	3.9	-	-	-
Venezuela (Bolivarian Republic of)	1.3	0.5	0.5	1.3	1.1	1.0	-	-	-
NORTHERN AMERICA	**401.4**	**404.7**	**430.8**	**5.1**	**4.9**	**4.5**	**63.4**	**83.5**	**83.9**
Canada	27.1	29.8	31.0	2.2	1.9	1.8	5.8	6.8	6.4
United States of America	374.3	374.9	399.8	3.0	3.0	2.7	57.6	76.7	77.5
EUROPE	**258.5**	**265.4**	**273.1**	**23.1**	**20.9**	**21.0**	**52.9**	**52.1**	**56.9**
European Union	159.0	155.1	159.5	21.6	16.5	17.4	9.9	10.8	10.4
Russian Federation	41.1	43.1	41.9	0.1	0.1	0.1	9.6	9.7	9.2
Serbia	6.7	8.6	8.2	0.1	0.1	0.1	2.2	3.1	3.1
Ukraine	41.9	39.7	45.0	0.1	0.1	0.1	30.5	27.0	32.7
United Kingdom of Great Britain and Northern Ireland	-	9.3	8.4	-	3.1	2.3	-	1.5	1.2
OCEANIA	**12.5**	**16.1**	**13.8**	**0.3**	**0.5**	**0.3**	**5.2**	**7.1**	**5.8**
Australia	11.9	15.5	13.2	-	-	-	5.2	7.1	5.8
WORLD	**1 428.9**	**1 479.7**	**1 516.1**	**199.6**	**233.8**	**234.2**	**202.2**	**233.8**	**234.2**
LIFDC	154.4	163.1	160.5	18.6	22.1	20.9	4.3	6.9	5.9
LDC	93.7	98.4	95.9	5.0	5.7	5.4	5.3	5.1	5.5

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes						Kg/year		
ASIA	**516.9**	**554.5**	**565.0**	**192.1**	**173.0**	**162.9**	**14.5**	**14.4**	**14.4**
China	302.9	326.9	336.7	165.8	141.7	131.6	12.9	12.9	13.0
China (mainland)	298.2	322.0	331.8	165.3	141.2	131.1	13.1	13.1	13.1
Taiwan Province of China	4.7	4.9	4.9	0.5	0.5	0.5	7.0	6.9	6.9
India	44.5	46.9	47.5	3.8	4.2	3.4	18.1	17.8	17.9
Indonesia	22.0	23.6	23.8	2.2	1.9	1.9	29.3	29.3	29.2
Iran (Islamic Republic of)	15.4	15.5	16.2	2.6	3.6	3.7	1.2	1.2	1.2
Japan	18.2	17.6	18.3	2.1	2.9	2.6	3.3	3.3	3.3
Malaysia	3.9	4.0	4.0	0.2	0.2	0.2	2.0	2.0	2.0
Pakistan	7.6	8.1	8.2	0.8	0.8	0.8	9.8	9.9	9.7
Philippines	8.4	9.0	8.9	1.1	0.8	0.8	18.7	18.6	18.8
Republic of Korea	10.7	11.2	11.2	0.9	1.1	1.5	4.4	4.4	4.4
Saudi Arabia	11.7	11.8	11.4	2.4	1.9	1.9	2.9	2.8	2.7
Thailand	5.8	7.4	7.1	0.7	0.8	0.7	2.7	2.7	2.6
Turkey	17.3	18.4	18.2	2.4	3.2	3.6	19.5	19.4	19.3
Viet Nam	15.1	16.7	16.6	1.0	0.8	0.9	8.1	8.0	8.1
AFRICA	**163.1**	**171.9**	**173.0**	**37.1**	**39.0**	**37.6**	**75.5**	**76.3**	**74.8**
Algeria	6.7	7.9	7.8	2.0	2.2	1.8	15.2	14.6	14.3
Egypt	18.9	18.9	19.3	1.7	2.0	2.0	45.2	44.4	43.6
Ethiopia	20.9	22.2	22.4	5.4	5.9	5.4	139.6	142.7	142.4
Morocco	5.2	5.5	6.2	1.5	1.5	2.0	30.2	30.0	29.7
Nigeria	20.5	21.7	21.4	3.5	3.1	2.2	75.3	76.4	75.0
South Africa	12.9	13.2	13.8	3.0	3.3	4.2	91.7	90.3	90.9
Sudan	6.4	7.2	6.9	1.8	2.2	2.3	116.7	130.7	123.5
United Republic of Tanzania	7.1	7.2	7.1	1.3	0.8	0.7	90.2	90.6	89.5
CENTRAL AMERICA & THE CARIBBEAN	**61.0**	**62.5**	**63.0**	**7.7**	**5.8**	**4.6**	**98.2**	**98.5**	**98.6**
Mexico	49.0	50.6	50.9	6.3	4.6	3.6	136.2	136.5	136.5
SOUTH AMERICA	**116.5**	**129.3**	**132.3**	**31.4**	**28.2**	**27.7**	**24.9**	**24.6**	**24.4**
Argentina	24.0	27.9	28.4	10.0	8.1	8.3	7.3	7.3	7.2
Brazil	64.5	72.2	74.8	15.4	15.4	15.4	25.8	25.8	25.7
Chile	4.0	4.3	4.2	0.3	0.1	0.1	24.8	25.0	24.9
Colombia	7.1	8.1	8.1	0.6	0.7	0.3	18.9	18.9	19.0
Peru	5.6	5.8	5.8	0.3	0.2	0.2	21.7	22.1	21.6
Venezuela (Bolivarian Republic of)	2.7	1.9	1.6	0.5	0.3	0.3	47.7	42.7	42.3
NORTHERN AMERICA	**347.2**	**341.6**	**352.4**	**60.7**	**37.8**	**39.8**	**18.0**	**18.0**	**17.9**
Canada	24.2	25.6	25.2	4.0	3.1	4.1	4.6	4.5	4.5
United States of America	323.0	316.1	327.2	56.7	34.7	35.7	19.5	19.5	19.4
EUROPE	**226.0**	**236.9**	**232.0**	**47.0**	**46.9**	**52.1**	**20.3**	**21.4**	**21.5**
European Union	168.4	166.0	162.3	28.3	23.5	27.7	18.8	20.9	20.9
Russian Federation	31.5	33.6	33.8	7.1	7.1	6.2	21.2	21.1	21.1
Serbia	4.5	4.8	4.8	0.8	1.7	2.1	22.4	22.4	22.5
Ukraine	12.0	11.7	11.7	5.0	5.2	5.9	28.9	28.9	29.1
United Kingdom of Great Britain and Northern Ireland	-	10.9	9.5	-	1.9	1.8	-	18.2	18.1
OCEANIA	**7.9**	**8.7**	**8.9**	**3.1**	**3.2**	**3.5**	**7.9**	**7.7**	**7.6**
Australia	7.0	7.6	8.0	3.0	3.1	3.4	9.4	9.2	9.1
WORLD	**1 438.6**	**1 505.5**	**1 526.5**	**379.1**	**333.9**	**328.2**	**28.3**	**28.8**	**28.7**
LIFDC	166.0	177.4	177.7	31.6	34.8	32.5	37.7	38.2	37.9
LDC	92.2	98.3	97.4	20.9	21.7	19.9	61.2	62.4	60.9

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

	Production			Imports			Exports		
	2017-2019 average	**2020** *estim.*	**2021** *f'cast*	**17/18-19/20** average	**2020/21** *estim.*	**2021/22** *f'cast*	**17/18-19/20** average	**2020/21** *estim.*	**2021/22** *f'cast*
	million tonnes								
ASIA	**356.6**	**364.5**	**373.6**	**78.2**	**101.0**	**102.7**	**4.1**	**6.3**	**5.8**
China	259.2	260.8	270.2	9.2	26.7	28.7	0.1	-	-
China (mainland)	259.0	260.7	270.0	4.7	22.0	24.0	0.1	-	-
Taiwan Province of China	0.2	0.2	0.2	4.5	4.6	4.6	-	-	-
India	28.4	30.2	29.5	0.3	-	-	0.7	2.5	1.8
Indonesia	21.6	22.5	22.7	0.8	0.8	1.0	0.2	-	-
Iran (Islamic Republic of)	1.2	1.3	1.3	9.0	10.4	9.5	-	-	-
Japan	-	-	-	16.1	16.0	16.0	-	-	-
Malaysia	0.1	0.1	0.1	3.8	3.9	3.9	-	-	-
Pakistan	6.6	7.5	7.5	-	-	-	-	-	-
Philippines	7.9	8.1	8.1	0.6	0.8	0.8	-	-	-
Republic of Korea	0.1	0.1	0.1	10.7	11.5	11.3	-	-	-
Thailand	4.7	5.2	5.2	0.8	1.1	1.0	0.2	-	-
Turkey	5.9	6.5	6.2	3.9	2.5	3.7	0.6	0.4	0.5
Viet Nam	4.9	4.6	4.6	10.1	12.8	12.8	0.3	0.8	0.8
AFRICA	**86.2**	**90.8**	**90.9**	**23.1**	**25.5**	**25.1**	**4.3**	**5.0**	**5.3**
Algeria	-	-	-	4.7	5.3	5.3	-	-	-
Egypt	7.7	7.5	7.6	10.1	10.5	10.5	-	-	-
Ethiopia	9.2	9.2	9.2	-	-	-	0.8	0.7	0.7
Kenya	3.7	4.0	4.0	1.1	1.2	1.2	-	-	-
Morocco	0.1	-	0.1	2.7	3.5	3.5	-	-	-
Nigeria	11.3	12.4	11.6	0.4	0.4	0.4	0.2	0.2	0.2
South Africa	14.2	16.0	16.7	0.4	-	-	1.9	2.5	2.8
United Republic of Tanzania	6.2	6.3	6.2	-	-	-	0.4	0.3	0.3
CENTRAL AMERICA & THE CARIBBEAN	**32.0**	**31.8**	**31.7**	**23.3**	**23.6**	**24.6**	**1.1**	**0.7**	**0.8**
Mexico	27.4	27.4	27.2	16.4	16.5	17.5	1.1	0.7	0.8
SOUTH AMERICA	**156.7**	**173.8**	**171.3**	**14.3**	**16.2**	**14.9**	**64.9**	**73.3**	**68.8**
Argentina	50.0	58.5	58.0	-	-	-	31.1	34.0	35.2
Brazil	92.8	102.5	100.0	1.1	2.0	1.0	31.6	36.5	30.8
Chile	1.1	0.6	0.7	2.2	2.6	2.7	-	-	-
Colombia	1.6	1.4	1.5	5.5	6.3	5.9	-	-	-
Peru	1.6	1.4	1.5	3.6	3.8	3.8	-	-	-
Venezuela (Bolivarian Republic of)	1.3	0.5	0.5	1.2	1.1	1.0	-	-	-
NORTHERN AMERICA	**374.2**	**373.8**	**397.9**	**3.0**	**2.3**	**2.3**	**54.7**	**69.8**	**69.1**
Canada	13.8	13.6	13.9	2.1	1.7	1.7	1.5	1.0	1.1
United States of America	360.5	360.3	384.0	0.9	0.6	0.6	53.1	68.8	68.0
EUROPE	**124.2**	**120.8**	**133.0**	**21.4**	**18.6**	**18.9**	**36.4**	**32.5**	**38.9**
European Union	68.2	65.2	71.6	20.5	14.9	16.0	3.4	3.2	3.5
Russian Federation	13.0	13.9	14.0	-	-	-	4.3	3.5	4.0
Serbia	6.1	7.9	7.6	-	-	-	2.2	3.0	3.0
Ukraine	32.1	30.3	35.0	0.1	-	-	26.0	22.5	28.0
OCEANIA	**0.6**	**0.4**	**0.6**	**0.2**	**0.3**	**0.2**	**0.1**	**-**	**-**
WORLD	**1 130.5**	**1 156.0**	**1 199.0**	**163.5**	**187.5**	**188.6**	**165.6**	**187.5**	**188.6**
LIFDC	91.3	94.9	95.3	16.8	20.7	19.6	3.1	5.6	4.6
LDC	52.2	54.9	54.5	4.1	4.8	4.6	4.1	4.1	4.4

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	**2020/21** *estim.*	**2021/22** *f'cast*	**2018-2020** average	**2021** *estim.*	**2022** *f'cast*	**17/18-19/20** average	**2020/21** *estim.*	**2021/22** *f'cast*
	million tonnes						*Kg/year*		
ASIA	**444.9**	**470.7**	**480.5**	**181.7**	**158.8**	**148.0**	**9.3**	**9.3**	**9.2**
China	283.9	300.2	308.3	163.7	139.1	128.7	9.8	9.8	9.8
China (mainland)	279.2	295.3	303.4	163.3	138.6	128.2	9.9	9.9	10.0
Taiwan Province of China	4.6	4.8	4.8	0.5	0.5	0.5	5.5	5.5	5.4
India	27.2	28.4	28.6	3.4	3.7	3.0	6.3	6.2	6.1
Indonesia	21.9	23.5	23.7	2.2	1.9	1.9	29.0	29.1	28.9
Iran (Islamic Republic of)	10.0	10.6	11.2	1.6	2.4	2.0	0.9	0.9	0.9
Japan	16.2	15.6	16.3	1.8	2.6	2.3	0.8	0.8	0.8
Malaysia	3.9	4.0	4.0	0.2	0.2	0.2	2.0	2.0	2.0
Pakistan	6.9	7.5	7.5	0.8	0.8	0.8	7.9	7.9	7.8
Philippines	8.3	9.0	8.8	1.1	0.8	0.8	18.7	18.6	18.7
Republic of Korea	10.5	10.9	10.9	0.9	1.0	1.5	2.0	2.0	2.0
Thailand	5.3	6.3	6.3	0.7	0.8	0.7	1.2	1.2	1.2
Turkey	8.8	9.0	8.9	1.2	1.0	1.5	16.0	15.9	15.9
Viet Nam	15.0	16.6	16.5	1.0	0.8	0.9	8.1	8.0	8.0
AFRICA	**103.3**	**108.8**	**110.6**	**21.7**	**23.5**	**23.4**	**41.7**	**41.8**	**41.6**
Algeria	4.6	5.4	5.3	1.2	1.2	1.2	3.3	3.2	3.1
Egypt	17.7	17.8	18.1	1.6	1.8	1.8	42.2	41.5	40.8
Ethiopia	8.0	8.6	8.8	1.2	1.6	1.3	46.7	48.7	48.8
Kenya	4.8	5.2	5.2	0.5	0.7	0.7	82.3	83.3	83.3
Morocco	2.6	3.4	3.6	1.0	1.4	1.4	10.5	10.4	10.3
Nigeria	11.5	12.4	12.3	1.5	2.4	1.8	34.3	34.9	34.7
South Africa	12.2	12.2	12.9	2.8	3.0	3.9	89.1	87.7	88.3
United Republic of Tanzania	6.0	6.1	6.0	1.2	0.6	0.5	73.3	73.8	73.3
CENTRAL AMERICA & THE CARIBBEAN	**54.5**	**56.0**	**56.7**	**7.1**	**5.1**	**4.0**	**97.6**	**97.9**	**98.0**
Mexico	42.7	44.4	44.9	5.8	4.0	3.0	135.8	136.1	136.1
SOUTH AMERICA	**105.0**	**117.0**	**119.2**	**30.0**	**27.0**	**26.2**	**23.2**	**22.9**	**22.8**
Argentina	20.1	24.0	24.0	9.3	7.5	7.5	7.1	7.1	7.0
Brazil	60.5	67.8	70.0	15.0	15.0	15.0	24.3	24.4	24.3
Chile	3.1	3.4	3.4	0.2	0.1	0.1	20.9	21.1	21.1
Colombia	6.8	7.7	7.7	0.6	0.7	0.3	18.3	18.4	18.5
Peru	5.2	5.4	5.4	0.3	0.2	0.2	15.0	15.3	15.1
Venezuela (Bolivarian Republic of)	2.6	1.8	1.5	0.5	0.3	0.3	47.2	42.2	41.8
NORTHERN AMERICA	**325.8**	**321.8**	**332.9**	**55.5**	**33.9**	**35.0**	**14.8**	**14.8**	**14.7**
Canada	14.5	14.5	14.3	2.3	2.0	2.0	3.2	3.1	3.1
United States of America	311.3	307.2	318.6	53.2	31.9	33.0	16.1	16.2	16.1
EUROPE	**107.5**	**109.0**	**108.5**	**26.2**	**24.0**	**28.5**	**8.1**	**8.7**	**8.7**
European Union	84.0	80.8	81.3	17.0	11.8	14.5	9.5	10.5	10.5
Russian Federation	8.7	10.4	10.0	1.6	1.8	1.8	1.4	1.4	1.4
Serbia	4.0	4.3	4.3	0.7	1.3	1.6	20.7	20.8	20.9
Ukraine	6.9	6.6	6.6	3.1	3.4	3.8	11.3	11.2	11.3
OCEANIA	**0.7**	**0.7**	**0.7**	**0.1**	**0.1**	**0.1**	**2.3**	**2.2**	**2.2**
WORLD	**1 141.5**	**1 184.0**	**1 209.0**	**322.3**	**272.4**	**265.2**	**18.1**	**18.3**	**18.3**
LIFDC	103.5	110.5	111.4	17.9	18.5	17.3	18.2	18.4	18.4
LDC	51.7	55.2	55.5	9.3	9.0	8.2	29.6	30.0	29.7

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

	Production			Imports			Exports		
	2017-2019 average	2020 estim.	2021 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes								
ASIA	**20.7**	**24.3**	**22.1**	**21.6**	**25.9**	**24.4**	**1.6**	**1.1**	**1.1**
China	1.0	0.9	0.8	6.5	10.8	10.3	-	-	-
India	1.7	1.7	1.9	0.2	0.1	0.1	-	-	-
Iran (Islamic Republic of)	2.8	3.0	3.0	2.7	2.0	2.0	-	-	-
Iraq	0.7	1.8	1.1	-	-	-	-	-	-
Japan	0.2	0.2	0.2	1.2	1.2	1.2	-	-	-
Kazakhstan	3.7	3.7	3.6	-	0.1	-	1.5	1.0	1.0
Saudi Arabia	0.1	0.1	0.1	7.0	7.0	6.5	-	-	-
Syrian Arab Republic	1.1	2.3	1.3	0.5	-	-	-	-	-
Turkey	7.2	8.3	7.7	0.7	1.0	0.8	0.2	-	0.1
AFRICA	**7.2**	**6.1**	**7.6**	**2.8**	**3.9**	**3.2**	**-**	**-**	**-**
Algeria	1.7	1.7	1.2	0.5	0.7	0.8	-	-	-
Ethiopia	2.1	2.3	2.3	-	-	-	-	-	-
Libya	0.1	0.1	0.1	1.0	1.0	1.0	-	-	-
Morocco	2.2	0.6	2.6	0.6	1.1	0.4	-	-	-
Tunisia	0.6	0.5	0.6	0.6	0.8	0.7	-	-	-
CENTRAL AMERICA & THE CARIBBEAN	**1.0**	**0.8**	**0.9**	**0.3**	**0.3**	**0.1**	**-**	**-**	**-**
Mexico	1.0	0.8	0.9	0.3	0.3	0.1	-	-	-
SOUTH AMERICA	**5.5**	**6.2**	**6.5**	**1.1**	**1.0**	**1.0**	**2.7**	**2.9**	**3.4**
Argentina	4.2	4.5	4.8	-	-	-	2.6	2.8	3.3
NORTHERN AMERICA	**12.3**	**14.3**	**15.5**	**0.2**	**0.4**	**0.2**	**2.3**	**3.8**	**3.8**
Canada	8.9	10.7	12.0	0.1	0.2	0.1	2.2	3.5	3.5
United States of America	3.4	3.6	3.5	0.2	0.2	0.2	0.1	0.3	0.3
EUROPE	**89.8**	**94.8**	**94.5**	**0.7**	**1.6**	**1.4**	**15.5**	**18.9**	**17.0**
Belarus	1.1	1.4	1.1	0.2	0.2	0.2	-	-	-
European Union	59.6	55.2	56.5	0.4	1.2	1.0	6.1	7.2	6.5
Russian Federation	19.4	20.9	20.0	0.1	-	-	5.0	6.0	5.0
Ukraine	8.2	7.6	8.2	-	-	-	4.3	4.3	4.5
United Kingdom of Great Britain and Northern Ireland	-	8.1	7.2	-	0.1	-	-	1.3	1.0
OCEANIA	**9.4**	**13.5**	**10.1**	**-**	**-**	**-**	**4.7**	**6.5**	**5.0**
Australia	9.0	13.1	9.7	-	-	-	4.7	6.5	5.0
WORLD	**146.0**	**160.2**	**157.2**	**26.6**	**33.1**	**30.3**	**26.8**	**33.1**	**30.3**
LIFDC	5.9	7.5	6.6	0.7	0.4	0.4	-	-	-
LDC	2.3	2.5	2.5	-	-	-	-	-	-

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes						(Kg/year)		
ASIA	**40.4**	**46.5**	**45.1**	**8.1**	**11.9**	**12.6**	**0.7**	**0.6**	**0.6**
China	7.8	11.1	10.9	0.8	1.3	1.6	0.1	0.1	0.1
India	1.9	1.8	2.0	-	-	-	1.2	1.0	1.1
Iran (Islamic Republic of)	5.3	4.9	5.0	1.0	1.2	1.7	0.3	0.3	0.3
Iraq	0.4	1.4	1.1	0.8	1.2	1.2	3.5	3.5	3.4
Japan	1.4	1.4	1.4	0.2	0.2	0.2	2.4	2.4	2.4
Kazakhstan	2.2	2.4	2.4	0.2	0.6	0.9	1.1	1.1	1.1
Saudi Arabia	7.5	7.3	6.6	2.1	1.5	1.5	0.8	0.8	0.8
Syrian Arab Republic	1.1	1.8	1.8	0.6	1.6	1.2	16.4	16.0	15.3
Turkey	7.6	8.6	8.5	1.2	2.1	2.0	1.0	1.0	1.0
AFRICA	**9.7**	**10.4**	**10.8**	**1.9**	**1.8**	**1.8**	**2.6**	**2.6**	**2.5**
Algeria	1.9	2.4	2.4	0.7	0.9	0.5	11.8	11.4	11.2
Ethiopia	2.1	2.3	2.3	-	-	-	17.1	17.4	17.2
Libya	1.1	1.1	1.1	-	-	-	12.9	12.5	12.4
Morocco	2.7	2.0	2.6	0.5	0.2	0.6	19.6	19.5	19.3
Tunisia	1.1	1.4	1.4	0.4	0.4	0.4	7.8	7.6	7.5
CENTRAL AMERICA & THE CARIBBEAN	**1.1**	**1.2**	**1.0**	**0.1**	**0.1**	**0.1**	**-**	**-**	**-**
Mexico	1.1	1.2	1.0	0.1	0.1	0.1	-	-	-
SOUTH AMERICA	**3.9**	**4.2**	**4.2**	**0.6**	**0.6**	**0.6**	**0.5**	**0.5**	**0.5**
Argentina	1.4	1.4	1.4	0.4	0.5	0.4	-	-	-
NORTHERN AMERICA	**10.8**	**11.5**	**11.2**	**2.9**	**2.2**	**2.9**	**0.5**	**0.5**	**0.5**
Canada	7.1	8.0	7.8	1.0	0.5	1.2	0.3	0.3	0.3
United States of America	3.6	3.5	3.4	1.9	1.7	1.7	0.6	0.6	0.6
EUROPE	**73.9**	**78.9**	**78.5**	**12.2**	**13.5**	**13.8**	**1.1**	**1.2**	**1.2**
Belarus	1.4	1.4	1.4	0.6	0.6	0.4	-	-	-
European Union	52.9	50.1	50.0	7.7	7.4	8.4	0.7	0.8	0.8
Russian Federation	14.4	15.2	15.7	2.1	2.6	1.9	1.8	1.8	1.8
Ukraine	3.8	3.7	3.7	1.4	1.1	1.1	2.6	2.6	2.6
United Kingdom of Great Britain and Northern Ireland	-	7.1	6.2	-	1.2	1.2	-	1.5	1.5
OCEANIA	**5.2**	**5.9**	**5.9**	**2.0**	**2.4**	**2.5**	**0.1**	**0.1**	**0.1**
Australia	4.8	5.5	5.5	2.0	2.3	2.5	0.2	0.2	0.2
WORLD	**144.8**	**158.6**	**156.8**	**27.9**	**32.5**	**34.3**	**1.0**	**1.0**	**1.0**
LIFDC	6.2	7.1	7.2	1.6	3.0	2.7	1.5	1.5	1.5
LDC	2.3	2.6	2.5	0.1	0.1	0.1	1.9	2.0	2.0

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

	Production			Imports			Exports		
	2017-2019 average	2020 estim.	2021 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes								
ASIA	**8.0**	**9.0**	**8.8**	**3.6**	**7.6**	**9.7**	**0.1**	**0.1**	**0.1**
China	2.8	3.3	3.2	3.0	7.1	9.1	-	-	-
India	4.3	4.8	4.6	-	-	-	0.1	0.1	0.1
Japan	-	-	-	0.5	0.5	0.5	-	-	-
AFRICA	**29.0**	**30.2**	**29.0**	**0.9**	**1.0**	**0.8**	**0.8**	**0.8**	**0.8**
Burkina Faso	1.7	1.8	1.7	-	-	-	-	-	-
Ethiopia	5.2	5.0	5.0	-	-	-	0.5	0.5	0.5
Nigeria	6.8	6.6	6.9	-	-	-	-	-	-
Sudan	4.3	5.2	4.9	0.2	0.3	0.3	0.3	0.1	0.1
CENTRAL AMERICA & THE CARIBBEAN	**4.8**	**5.0**	**4.3**	**0.5**	**0.2**	**0.7**	**-**	**-**	**-**
Mexico	4.6	4.8	4.0	0.5	0.2	0.7	-	-	-
SOUTH AMERICA	**5.1**	**5.6**	**6.8**	**0.1**	**-**	**-**	**0.3**	**0.3**	**0.8**
Argentina	1.9	1.8	2.7	-	-	-	0.3	0.3	0.8
Brazil	2.1	2.5	2.8	-	-	-	-	-	-
Venezuela (Bolivarian Republic of)	-	-	-	-	-	-	-	-	-
NORTHERN AMERICA	**9.1**	**9.5**	**10.8**	**0.1**	**-**	**-**	**4.3**	**7.5**	**9.1**
United States of America	9.1	9.5	10.8	0.1	-	-	4.3	7.5	9.1
EUROPE	**1.1**	**1.4**	**1.3**	**0.4**	**0.1**	**0.1**	**0.1**	**0.1**	**0.1**
European Union	0.8	1.2	1.0	0.4	0.1	0.1	-	-	-
OCEANIA	**1.2**	**0.3**	**1.5**	**-**	**0.1**	**-**	**0.2**	**0.3**	**0.5**
Australia	1.2	0.3	1.5	-	-	-	0.2	0.3	0.5
WORLD	**58.4**	**61.0**	**62.6**	**5.6**	**9.0**	**11.4**	**5.9**	**9.0**	**11.4**
LIFDC	25.7	27.7	26.0	0.9	0.9	0.8	0.9	0.8	0.8
LDC	19.7	21.1	19.4	0.7	0.7	0.6	0.8	0.7	0.7

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

	Production			Imports			Exports		
	2017-2019 average	2020 estim.	2021 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes								
ASIA	19.2	20.4	20.5	0.8	0.8	0.6	0.2	0.2	0.3
AFRICA	21.8	22.1	21.7	0.2	0.1	0.2	0.4	0.3	0.4
CENTRAL AMERICA & THE CARIBBEAN	0.1	0.2	0.1	0.3	0.5	0.3	-	-	-
SOUTH AMERICA	2.4	2.7	2.6	0.1	0.2	0.2	0.1	0.1	0.1
NORTHERN AMERICA	5.8	7.1	6.6	1.8	2.2	2.0	2.2	2.4	1.9
EUROPE	43.3	48.4	44.3	0.6	0.6	0.6	0.9	0.6	0.9
OCEANIA	1.3	1.9	1.6	0.1	0.2	0.1	0.2	0.3	0.3
WORLD	**94.1**	**102.5**	**97.3**	**3.9**	**4.2**	**3.9**	**4.0**	**4.2**	**3.9**

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes						(Kg/year)		
ASIA	**11.7**	**16.6**	**18.3**	**1.2**	**1.2**	**1.2**	**1.1**	**1.1**	**1.1**
China	5.8	10.4	12.2	0.6	0.8	0.9	0.4	0.5	0.5
India	4.2	4.6	4.5	0.1	0.1	0.1	3.1	3.0	2.9
Japan	0.5	0.5	0.5	0.1	0.1	0.1	-	-	-
AFRICA	**29.7**	**30.8**	**29.8**	**5.3**	**4.2**	**3.4**	**18.7**	**18.7**	**17.9**
Burkina Faso	1.8	1.8	1.8	0.3	0.2	0.1	76.6	76.1	75.5
Ethiopia	4.6	4.7	4.7	0.8	0.6	0.4	31.8	31.0	31.0
Nigeria	7.1	7.3	7.1	1.5	0.3	0.1	33.4	33.3	32.5
Sudan	4.8	5.2	5.1	0.4	0.3	0.3	93.8	97.0	95.2
CENTRAL AMERICA & THE CARIBBEAN	**5.2**	**5.0**	**5.0**	**0.4**	**0.5**	**0.5**	**0.4**	**0.4**	**0.4**
Mexico	4.9	4.7	4.8	0.3	0.5	0.5	-	-	-
SOUTH AMERICA	**5.0**	**5.3**	**6.1**	**0.7**	**0.5**	**0.7**	**-**	**-**	**-**
Argentina	1.8	1.5	2.0	0.2	0.1	0.3	-	-	-
Brazil	2.0	2.5	2.7	0.2	0.2	0.2	-	-	-
Venezuela (Bolivarian Republic of)	0.1	-	-	-	-	-	-	-	-
NORTHERN AMERICA	**4.9**	**2.0**	**1.9**	**1.1**	**0.5**	**0.5**	**0.1**	**0.1**	**0.1**
United States of America	4.9	2.0	1.9	1.1	0.5	0.5	0.1	0.1	0.1
EUROPE	**1.1**	**1.8**	**1.3**	**0.7**	**0.7**	**0.7**	**0.2**	**0.2**	**0.2**
European Union	1.0	1.7	1.1	0.7	0.7	0.6	0.3	0.3	0.3
OCEANIA	**0.9**	**0.6**	**0.9**	**0.8**	**0.4**	**0.5**	**0.2**	**0.2**	**0.2**
Australia	0.8	0.6	0.8	0.8	0.3	0.5	-	-	-
WORLD	**58.5**	**62.1**	**63.4**	**10.2**	**8.0**	**7.7**	**3.9**	**3.9**	**3.8**
LIFDC	26.1	27.5	26.6	4.0	4.0	3.3	8.2	8.3	8.0
LDC	20.0	20.9	20.0	3.6	3.6	2.9	15.2	15.4	14.4

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

	Total Utilization			Stocks ending in			Per caput food use		
	19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes						(Kg/year)		
ASIA	20.0	20.7	21.1	1.2	1.1	1.1	3.4	3.4	3.5
AFRICA	20.4	21.9	21.8	8.3	9.5	9.0	12.5	13.2	12.8
CENTRAL AMERICA & THE CARIBBEAN	0.3	0.3	0.3	-	0.1	-	0.2	0.2	0.2
SOUTH AMERICA	2.5	2.8	2.8	0.2	0.1	0.2	1.3	1.2	1.1
NORTHERN AMERICA	5.7	6.3	6.4	1.2	1.2	1.4	2.6	2.6	2.6
EUROPE	43.6	47.2	43.7	7.9	8.7	9.1	10.9	11.3	11.4
OCEANIA	1.2	1.5	1.4	0.2	0.3	0.4	5.3	5.2	5.1
WORLD	**93.8**	**100.8**	**97.3**	**18.8**	**21.0**	**21.0**	**5.4**	**5.6**	**5.6**

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

	Production			Imports			Exports		
	2017-2019 average	2020 estim.	2021 f'cast	2017-2019 average	2020 estim.	2021 f'cast	2017-2019 average	2020 estim.	2021 f'cast
	million tonnes, milled equivalent								
ASIA	**452.8**	**460.2**	**465.4**	**21.5**	**18.6**	**20.6**	**39.1**	**37.3**	**40.1**
Bangladesh	35.9	37.4	37.8	1.4	-	1.8	-	-	-
China	146.2	146.4	147.6	5.2	3.6	3.9	2.0	2.5	2.7
China (mainland)	144.9	145.1	146.6	4.8	3.1	3.4	2.0	2.3	2.6
Taiwan Province of China	1.3	1.3	1.1	0.1	0.1	0.1	0.1	0.2	0.1
India	116.1	123.0	123.1	-	-	-	11.5	14.5	16.2
Indonesia	36.7	35.0	37.1	1.0	0.5	0.4	-	-	-
Iran (Islamic Republic of)	2.3	2.5	2.4	1.4	1.0	0.9	-	-	-
Iraq	0.3	0.3	0.1	1.2	0.9	1.1	-	-	-
Japan	7.4	7.4	7.3	0.7	0.7	0.7	0.1	-	-
Malaysia	1.6	1.5	1.6	1.1	1.2	1.2	-	0.1	-
Myanmar	15.8	15.1	14.9	-	-	-	2.7	2.2	2.0
Pakistan	7.4	8.2	8.3	-	-	-	4.1	4.0	4.6
Philippines	12.4	12.9	13.0	2.1	2.5	2.5	-	-	-
Republic of Korea	3.9	3.5	3.8	0.4	0.5	0.4	0.1	0.1	-
Saudi Arabia	-	-	-	1.2	1.5	1.4	-	-	-
Sri Lanka	2.5	3.5	3.5	0.5	-	-	-	-	-
Thailand	20.7	20.1	20.8	0.3	0.4	0.2	10.1	5.7	6.2
Viet Nam	28.2	27.7	27.9	0.6	0.6	0.9	6.8	6.5	6.6
AFRICA	**23.2**	**25.3**	**25.6**	**16.6**	**16.2**	**17.1**	**0.6**	**0.4**	**0.4**
Cote d'Ivoire	1.2	1.0	1.0	1.6	1.3	1.6	-	-	-
Egypt	3.9	4.5	4.3	0.3	0.3	0.2	0.2	-	-
Madagascar	2.3	2.8	2.7	0.5	0.5	0.5	-	-	-
Nigeria	4.9	4.9	5.3	2.5	2.0	2.3	-	-	-
Senegal	0.8	0.9	1.0	1.3	1.2	1.4	-	-	-
South Africa	-	-	-	0.9	0.9	1.0	-	-	-
United Republic of Tanzania	1.9	2.9	2.9	0.2	0.2	0.1	0.2	0.2	0.3
CENTRAL AMERICA & THE CARIBBEAN	**1.9**	**1.8**	**1.9**	**2.5**	**2.7**	**2.7**	**0.1**	**0.1**	**0.1**
Cuba	0.3	0.2	0.2	0.5	0.5	0.6	-	-	-
Mexico	0.2	0.2	0.2	0.8	0.8	0.8	0.1	-	-
SOUTH AMERICA	**16.8**	**16.8**	**16.8**	**1.9**	**2.2**	**2.2**	**3.4**	**4.1**	**3.7**
Argentina	0.9	0.8	0.8	-	-	-	0.4	0.3	0.3
Brazil	7.9	7.6	7.9	0.7	0.9	0.8	0.9	1.2	1.1
Peru	2.2	2.3	2.2	0.3	0.3	0.4	0.1	0.1	0.1
Uruguay	0.9	0.8	0.9	-	-	-	0.9	1.0	0.8
NORTHERN AMERICA	**6.2**	**7.2**	**6.5**	**1.3**	**1.7**	**1.6**	**3.1**	**2.9**	**2.9**
Canada	-	-	-	0.4	0.5	0.4	-	-	-
United States of America	6.2	7.2	6.5	0.9	1.2	1.2	3.1	2.9	2.9
EUROPE	**2.5**	**2.5**	**2.5**	**2.6**	**3.2**	**3.1**	**0.5**	**0.7**	**0.7**
European Union	1.7	1.7	1.7	2.0	2.0	1.9	0.3	0.5	0.5
Russian Federation	0.7	0.8	0.7	0.2	0.2	0.2	0.1	0.1	0.2
United Kingdom of Great Britain and Northern Ireland	-	-	-	-	0.6	0.6	-	-	-
OCEANIA	**0.4**	**-**	**0.3**	**0.7**	**0.8**	**0.7**	**0.2**	**-**	**0.1**
Australia	0.5	-	0.3	0.2	0.3	0.2	0.2	-	0.1
WORLD	**503.7**	**514.0**	**519.1**	**47.1**	**45.4**	**48.0**	**47.1**	**45.4**	**48.0**
LIFDC	200.6	210.2	210.9	16.2	15.2	17.9	18.8	21.4	23.2
LDC	76.8	79.7	80.2	12.1	11.7	13.1	4.9	4.2	4.0

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

	Total Utilization			Stocks ending in			Per caput food use		
	17/18-19/20 average	2020/21 estim.	2021/22 f'cast	2018-2020 average	2021 estim.	2022 f'cast	17/18-19/20 average	2020/21 estim.	2021/22 f'cast
	million tonnes, milled equivalent						Kg/year		
ASIA	**431.5**	**440.7**	**445.7**	**171.2**	**173.4**	**174.1**	**76.5**	**77.3**	**77.3**
Bangladesh	36.9	38.3	38.3	6.7	6.0	6.6	180.5	183.3	183.7
China	147.4	149.5	151.2	105.2	103.2	100.6	75.9	76.0	75.9
China (mainland)	145.7	148.0	149.6	104.6	102.6	100.1	76.6	76.7	76.6
Taiwan Province of China	1.3	1.2	1.2	0.5	0.6	0.5	47.2	46.6	46.7
India	99.9	105.7	107.1	27.7	33.3	34.4	68.7	71.2	71.4
Indonesia	38.1	36.6	37.2	6.9	4.8	5.1	126.8	124.0	124.0
Iran (Islamic Republic of)	3.4	3.6	3.7	0.7	0.7	0.6	36.6	37.2	38.7
Iraq	1.3	1.3	1.4	0.2	0.1	0.1	33.8	32.2	32.5
Japan	8.0	8.0	8.0	3.1	3.1	3.0	49.4	48.9	48.5
Malaysia	2.7	2.7	2.8	0.3	0.2	0.3	80.3	77.3	78.1
Myanmar	13.5	13.3	13.2	3.2	2.9	2.6	182.0	183.6	183.8
Pakistan	3.2	3.7	3.8	0.5	0.7	0.6	12.2	13.2	13.4
Philippines	14.9	15.1	15.5	2.2	2.0	2.2	118.2	121.2	122.7
Republic of Korea	4.6	3.9	3.9	1.2	0.9	1.1	73.6	69.9	68.3
Saudi Arabia	1.3	1.3	1.3	0.2	0.4	0.5	37.7	36.2	36.0
Sri Lanka	2.8	3.3	3.4	0.3	0.6	0.8	121.7	127.2	131.2
Thailand	12.7	13.1	13.3	5.5	7.4	8.6	99.2	101.8	102.6
Viet Nam	22.1	21.8	22.0	3.6	3.4	3.6	152.9	153.3	151.5
AFRICA	**39.7**	**41.8**	**43.6**	**5.8**	**5.4**	**5.6**	**27.0**	**27.2**	**27.7**
Cote d'Ivoire	2.7	2.7	2.8	0.6	0.4	0.5	91.0	91.0	93.0
Egypt	4.5	4.6	4.7	0.7	0.8	0.6	41.1	40.6	40.7
Madagascar	2.8	3.2	3.3	0.3	0.4	0.3	97.6	101.0	101.3
Nigeria	7.3	7.3	7.8	0.8	0.5	0.8	32.5	30.8	32.0
Senegal	2.1	2.3	2.4	0.3	0.3	0.4	119.9	121.5	124.9
South Africa	0.9	0.9	1.0	0.1	0.1	0.1	15.6	15.4	15.6
United Republic of Tanzania	2.0	2.6	2.7	0.3	0.5	0.5	30.3	33.2	34.2
CENTRAL AMERICA & THE CARIBBEAN	**4.3**	**4.4**	**4.5**	**0.6**	**0.6**	**0.6**	**18.4**	**18.7**	**18.9**
Cuba	0.8	0.7	0.7	-	-	-	66.3	61.6	63.3
Mexico	0.9	0.9	1.0	0.1	0.1	0.1	6.8	7.2	7.3
SOUTH AMERICA	**15.3**	**15.0**	**15.3**	**2.3**	**2.2**	**2.1**	**32.0**	**31.3**	**31.7**
Argentina	0.6	0.6	0.6	0.2	0.1	-	10.6	11.3	11.1
Brazil	7.6	7.3	7.3	0.4	0.4	0.6	33.2	31.3	31.3
Peru	2.5	2.5	2.5	0.4	0.4	0.4	67.6	68.4	68.5
Uruguay	0.1	0.1	-	0.1	-	-	10.1	8.4	8.3
NORTHERN AMERICA	**4.9**	**5.5**	**5.4**	**1.2**	**1.4**	**1.4**	**9.7**	**10.6**	**10.6**
Canada	0.4	0.4	0.4	-	0.1	-	10.4	11.2	11.3
United States of America	4.5	5.0	5.0	1.1	1.4	1.3	9.6	10.5	10.6
EUROPE	**4.8**	**4.9**	**5.1**	**0.7**	**0.7**	**0.7**	**5.5**	**5.6**	**5.8**
European Union	3.7	3.1	3.3	0.5	0.4	0.4	5.9	6.0	6.3
Russian Federation	0.8	0.8	0.8	0.1	0.2	0.1	5.0	5.1	5.2
United Kingdom of Great Britain and Northern Ireland	-	0.6	0.6	-	0.1	0.1	-	6.6	6.7
OCEANIA	**0.8**	**0.9**	**0.9**	**0.4**	**0.2**	**0.2**	**18.7**	**20.5**	**20.2**
Australia	0.3	0.3	0.4	0.2	0.1	0.2	10.8	12.6	12.7
WORLD	**501.3**	**513.3**	**520.6**	**182.0**	**183.9**	**184.6**	**53.6**	**54.1**	**54.2**
LIFDC	193.2	202.6	205.6	43.0	47.7	49.3	64.5	65.9	65.9
LDC	84.2	88.1	89.2	15.8	15.0	15.2	65.5	65.9	65.8

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)		
	2019/20	2020/21 *estim.*	2021/22 *f'cast*	2019/20	2020/21 *estim.*	2021/22 *f'cast*	2019/20	2020/21 *estim.*	2021/22 *f'cast*
	UNITED STATES of AMERICA (Jun/May)			**UNITED STATES of AMERICA**			**UNITED STATES of AMERICA** (Aug/Jul)		
Opening Stocks	29.4	28.0	23.7	60.5	51.8	34.7	1.4	0.9	1.4
Production	52.6	49.7	50.9	359.9	374.9	399.8	5.9	7.2	6.5
Imports	2.9	2.9	3.4	3.1	2.6	2.7	1.2	1.1	1.2
Total Supply	**84.9**	**80.6**	**78.0**	**423.5**	**429.3**	**437.2**	**8.5**	**9.2**	**9.1**
Domestic use	30.6	30.6	32.5	321.0	316.1	327.2	4.6	5.0	5.0
Exports	26.3	26.3	24.5	50.7	78.6	74.3	3.0	2.9	2.8
Closing stocks	28.0	23.7	21.1	51.8	34.7	35.7	0.9	1.4	1.3
	CANADA (August/July)			**CANADA**			**THAILAND** (Aug/July)		
Opening Stocks	6.0	5.5	5.3	3.3	4.0	3.1	5.0	6.1	7.4
Production	32.3	35.2	31.1	28.7	29.8	31.0	18.9	20.1	20.8
Imports	0.1	0.1	0.1	2.2	1.6	1.5	0.4	0.2	0.2
Total Supply	**38.4**	**40.8**	**36.5**	**34.2**	**35.4**	**35.6**	**24.3**	**26.4**	**28.4**
Domestic use	8.5	8.5	8.5	25.2	25.6	25.2	12.3	13.1	13.3
Exports	24.5	27.0	22.0	5.0	6.7	6.3	6.0	5.8	6.5
Closing stocks	5.5	5.3	6.0	4.0	3.1	4.1	6.1	7.4	8.6
	ARGENTINA (Dec./Nov.)			**ARGENTINA**			**INDIA** (Oct./Sept.)		
Opening Stocks	2.6	3.0	3.2	9.8	9.6	8.1	28.8	32.5	33.3
Production	19.8	17.6	19.2	63.3	65.8	66.4	118.9	123.0	123.1
Imports	-	-	-	0.1	0.1	0.1	-	-	-
Total Supply	**22.4**	**20.6**	**22.4**	**73.2**	**75.5**	**74.6**	**147.7**	**155.5**	**156.4**
Domestic use	6.6	6.4	6.8	23.6	27.9	28.4	102.7	105.7	107.1
Exports	12.8	11.0	13.0	39.9	39.4	37.9	12.5	16.5	15.0
Closing stocks	3.0	3.2	2.6	9.6	8.1	8.3	32.5	33.3	34.4
	AUSTRALIA (Oct./Sept.)			**AUSTRALIA**			**PAKISTAN** (Sept./Aug.)		
Opening Stocks	4.3	2.3	6.0	3.0	3.3	3.1	0.4	0.6	0.7
Production	15.2	33.3	30.0	11.6	15.5	13.2	7.4	8.2	8.3
Imports	0.7	-	0.1	-	-	-	-	-	-
Total Supply	**20.2**	**35.6**	**36.1**	**14.6**	**18.8**	**16.3**	**7.8**	**8.8**	**9.0**
Domestic use	8.7	8.3	8.6	7.4	7.6	8.0	3.2	3.7	3.8
Exports	9.1	21.4	19.5	3.9	8.1	4.8	4.0	4.5	4.6
Closing stocks	2.3	6.0	8.0	3.3	3.1	3.4	0.6	0.7	0.6
	EUROPEAN UNION (July/June)			**EUROPEAN UNION**			**VIET NAM** (Jan./Dec.)		
Opening Stocks	13.9	11.2	11.2	29.9	28.7	23.5	3.8	3.4	3.4
Production	155.7	125.3	134.0	166.6	155.1	159.5	28.3	27.7	27.9
Imports	4.3	5.0	5.0	20.4	16.5	17.4	0.5	0.6	0.9
Total Supply	**173.9**	**141.5**	**150.2**	**216.9**	**200.3**	**200.4**	**32.6**	**31.7**	**32.2**
Domestic use	122.7	103.1	107.5	172.9	166.0	162.3	22.0	21.8	22.0
Exports	37.5	27.2	29.7	13.5	10.8	10.4	7.2	6.5	6.6
Closing stocks	13.6	11.2	13.0	30.5	23.5	27.7	3.4	3.4	3.6
	TOTAL OF ABOVE			**TOTAL OF ABOVE**			**TOTAL OF ABOVE**		
Opening Stocks	56.2	50.0	49.4	106.5	97.4	72.5	39.4	43.5	46.2
Production	275.6	261.1	265.2	630.1	641.1	669.9	179.4	186.2	186.6
Imports	8.0	8.0	8.6	25.8	20.8	21.7	2.1	1.9	2.3
Total Supply	**339.8**	**319.1**	**323.2**	**762.4**	**759.3**	**764.1**	**220.9**	**231.6**	**235.1**
Domestic use	177.1	156.9	163.9	550.1	543.2	551.1	144.8	149.3	151.2
Exports	110.2	112.9	108.7	113.0	143.6	133.7	32.7	36.2	35.5
Closing stocks	52.4	49.4	50.7	99.2	72.5	79.2	43.5	46.2	48.5

[1] Trade data include wheat flour in wheat grain equivalent. For the **European Union (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), the **United States of America** (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		
	16/17-18/19 average	2019/20 *estim.*	2020/21 *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*
ASIA	**141.3**	**145.5**	**151.4**	**129.9**	**141.2**	**144.6**	**3.9**	**3.8**	**3.9**
China	59.9	64.3	66.1	98.2	105.5	108.7	1.0	1.0	1.2
China (mainland)	59.8	64.2	66.0	95.6	102.8	105.9	1.0	1.0	1.2
Taiwan Province of China	0.1	0.1	0.1	2.6	2.7	2.8	-	-	-
India	41.7	42.1	45.8	0.3	0.7	0.2	1.3	1.2	1.4
Indonesia	12.5	12.4	13.5	2.8	3.0	3.2	0.1	0.1	0.1
Iran (Islamic Republic of)	0.9	0.9	0.9	2.4	2.1	2.4	0.1	0.1	-
Japan	0.3	0.2	0.2	6.0	6.0	6.1	-	-	-
Malaysia	5.1	5.0	4.9	0.9	1.1	1.1	0.1	-	-
Pakistan	4.2	3.7	3.0	3.0	3.6	3.7	-	-	-
Republic of Korea	0.2	0.2	0.2	1.6	1.6	1.6	-	-	-
Thailand	1.1	1.2	1.2	2.9	4.0	4.1	-	-	-
Turkey	3.5	3.5	3.1	3.5	4.3	3.8	0.2	0.1	-
AFRICA	**20.9**	**21.1**	**21.3**	**4.9**	**6.5**	**6.3**	**0.9**	**1.0**	**0.9**
Nigeria	4.7	4.7	4.8	0.1	0.1	0.1	0.1	0.1	0.1
CENTRAL AMERICA & THE CARIBBEAN	**2.1**	**1.9**	**2.0**	**7.8**	**8.7**	**8.8**	**0.2**	**0.2**	**0.2**
Mexico	1.4	1.3	1.3	7.0	7.8	7.9	-	-	-
SOUTH AMERICA	**195.0**	**202.4**	**206.7**	**6.0**	**7.3**	**7.0**	**86.5**	**113.0**	**101.6**
Argentina	54.5	54.4	49.7	4.3	4.9	4.9	6.7	10.9	7.7
Brazil	123.7	130.5	140.4	0.2	0.8	0.5	71.7	93.0	85.5
Paraguay	9.8	10.9	10.0	-	-	-	5.6	6.2	5.8
Uruguay	2.9	2.4	2.4	-	-	-	2.4	2.5	2.3
NORTHERN AMERICA	**159.2**	**134.4**	**149.3**	**2.5**	**2.0**	**2.6**	**72.7**	**65.7**	**78.9**
Canada	28.9	26.9	26.3	1.0	0.6	0.7	16.3	14.8	16.6
United States of America	130.3	107.5	123.0	1.5	1.4	1.9	56.4	51.0	62.3
EUROPE	**74.9**	**79.6**	**73.5**	**24.1**	**28.2**	**28.1**	**8.2**	**9.7**	**8.7**
European Union	33.8	30.8	28.6	20.8	24.4	23.7	1.1	0.9	0.9
Russian Federation	17.4	22.1	20.5	2.3	2.3	2.5	1.5	3.1	2.5
Ukraine	21.1	23.8	20.4	-	0.1	-	4.9	5.0	4.4
OCEANIA	**5.3**	**3.1**	**5.9**	**-**	**-**	**-**	**2.8**	**1.7**	**3.3**
Australia	4.8	2.6	5.4	-	-	-	2.7	1.6	3.2
WORLD	**598.6**	**588.0**	**610.1**	**175.2**	**194.0**	**197.5**	**175.3**	**195.1**	**197.5**
LIFDC	59.0	59.6	63.2	4.4	5.2	5.1	2.2	2.2	2.4
LDC	14.0	14.6	14.6	1.5	2.1	2.3	0.7	0.8	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		
	16/17-18/19 average	**2019/20** *estim.*	**2020/21** *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*
ASIA	**50.5**	**53.4**	**53.6**	**54.3**	**54.0**	**55.9**	**123.9**	**130.7**	**131.9**
Bangladesh	2.5	2.2	2.4	-	-	-	2.9	2.7	2.9
China	11.0	14.4	14.3	0.6	0.6	0.8	42.5	45.0	45.6
China (mainland)	10.5	13.9	13.8	0.6	0.6	0.8	41.6	44.0	44.6
Taiwan Province of China	0.5	0.5	0.5	-	-	-	1.0	1.0	1.0
India	15.6	14.5	14.4	0.2	0.3	0.2	26.2	25.7	25.4
Indonesia	0.1	0.2	0.1	31.2	30.1	32.6	14.9	18.3	18.9
Iran (Islamic Republic of)	1.5	1.1	1.3	0.1	-	-	2.2	2.1	2.1
Japan	1.4	1.4	1.3	-	-	-	3.3	3.4	3.3
Malaysia	1.5	1.7	2.2	18.3	18.8	18.2	5.1	5.4	5.2
Pakistan	3.4	3.7	3.6	0.1	0.1	0.1	5.3	5.5	5.6
Philippines	1.3	1.2	1.4	1.0	1.0	1.0	2.2	2.2	2.3
Republic of Korea	1.3	1.4	1.4	-	-	-	1.6	1.8	1.8
Singapore	1.0	0.9	1.0	0.2	0.2	0.3	0.7	0.8	0.8
Turkey	1.8	1.9	1.9	0.6	0.7	0.6	3.3	3.4	3.5
AFRICA	**12.0**	**11.7**	**11.6**	**1.9**	**2.3**	**2.1**	**19.3**	**19.9**	**19.8**
Algeria	0.9	1.0	1.0	0.1	-	0.1	1.0	1.1	1.1
Egypt	2.2	1.9	1.7	0.2	0.2	0.2	2.7	2.7	2.5
Nigeria	1.5	1.4	1.4	0.1	0.1	0.1	3.3	3.5	3.6
South Africa	0.9	0.9	0.9	-	-	-	1.5	1.6	1.6
CENTRAL AMERICA & THE CARIBBEAN	**2.6**	**2.7**	**2.6**	**1.6**	**1.7**	**1.8**	**5.5**	**5.8**	**5.9**
Mexico	1.5	1.6	1.5	-	-	-	3.7	3.9	4.0
SOUTH AMERICA	**3.2**	**3.3**	**3.4**	**10.2**	**10.3**	**10.7**	**18.4**	**19.4**	**19.6**
Argentina	0.1	0.1	0.1	6.1	6.4	6.9	3.9	3.9	3.9
Brazil	0.6	0.6	0.6	1.6	1.6	1.5	9.6	10.5	10.6
Paraguay	-	-	-	0.7	0.7	0.6	0.1	0.1	0.2
Uruguay	0.1	0.1	0.1	-	-	-	0.1	0.1	0.1
NORTHERN AMERICA	**5.6**	**5.7**	**5.7**	**7.4**	**8.0**	**7.9**	**22.3**	**23.0**	**23.5**
Canada	0.4	0.4	0.5	3.9	4.2	4.3	1.5	1.9	1.8
United States of America	5.1	5.2	5.3	3.5	3.8	3.6	20.7	21.1	21.6
EUROPE	**16.3**	**17.0**	**17.1**	**13.4**	**16.3**	**14.4**	**40.9**	**42.3**	**41.9**
European Union	13.3	13.9	13.6	3.3	3.5	3.8	33.8	35.1	33.9
Russian Federation	1.5	1.6	1.6	3.4	5.0	4.2	4.5	4.4	4.8
Ukraine	0.3	0.3	0.3	6.1	7.1	5.7	0.9	1.0	1.0
OCEANIA	**0.7**	**0.8**	**0.8**	**2.0**	**1.9**	**2.0**	**1.3**	**1.4**	**1.4**
Australia	0.5	0.6	0.6	0.7	0.7	0.7	1.0	1.0	1.1
WORLD	**90.8**	**94.5**	**94.8**	**90.9**	**94.5**	**94.8**	**231.7**	**242.4**	**244.1**
LIFDC	25.9	25.0	25.0	1.7	2.0	1.9	42.0	41.7	41.8
LDC	8.4	8.3	8.5	0.7	0.8	0.8	12.2	12.2	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		
	16/17-18/19 average	**2019/20** *estim.*	**2020/21** *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*
ASIA	**40.6**	**43.7**	**44.9**	**14.4**	**14.6**	**15.6**	**176.9**	**184.8**	**191.0**
China	4.6	6.6	6.5	1.5	1.5	1.8	97.5	101.7	104.6
China (mainland)	4.1	6.1	6.0	1.5	1.5	1.8	94.9	99.0	101.9
Taiwan Province of China	0.5	0.5	0.5	-	-	-	2.6	2.7	2.7
India	0.5	0.7	0.6	3.1	3.0	3.5	16.5	17.0	18.2
Indonesia	4.6	5.2	5.3	5.1	5.4	5.5	5.2	5.6	5.8
Iran (Islamic Republic of)	2.1	1.4	2.2	0.1	-	-	4.2	3.9	4.4
Japan	2.2	2.5	2.5	-	-	-	6.5	6.7	6.9
Malaysia	1.5	1.6	1.6	2.6	2.5	2.6	2.4	2.6	2.6
Pakistan	0.6	0.5	0.5	0.1	0.1	0.1	4.5	4.4	4.4
Philippines	2.9	3.0	3.1	0.4	0.3	0.3	3.7	3.8	3.9
Republic of Korea	3.4	3.7	3.6	0.1	0.1	0.1	4.6	4.9	4.8
Saudi Arabia	1.6	1.8	1.7	0.1	-	-	2.1	2.4	2.4
Thailand	3.6	3.6	3.6	0.1	0.2	0.2	6.7	7.2	7.6
Turkey	2.4	2.2	2.6	0.1	0.2	0.2	6.3	6.7	6.7
Viet Nam	6.1	6.2	6.3	0.2	0.3	0.2	7.8	8.0	8.2
AFRICA	**5.2**	**4.4**	**4.1**	**1.2**	**1.2**	**1.2**	**14.3**	**15.0**	**15.1**
Egypt	0.9	0.5	0.4	-	-	-	3.5	4.0	4.1
South Africa	0.7	0.7	0.8	0.1	0.1	0.1	2.0	2.3	2.3
CENTRAL AMERICA & THE CARIBBEAN	**4.2**	**4.2**	**4.1**	**0.2**	**0.2**	**0.2**	**10.7**	**11.2**	**11.4**
Mexico	2.2	2.2	2.2	0.1	0.1	0.1	8.0	8.4	8.6
SOUTH AMERICA	**5.4**	**5.9**	**5.8**	**51.0**	**51.1**	**52.3**	**33.7**	**35.1**	**35.7**
Argentina	-	-	-	30.0	28.4	29.5	7.0	7.8	8.5
Bolivia (Plurinational State of)	-	-	-	1.7	1.7	1.8	0.4	0.4	0.3
Brazil	-	-	-	15.5	17.6	17.3	18.6	18.5	18.5
Chile	1.0	1.2	1.2	0.2	0.2	0.3	1.5	1.5	1.5
Paraguay	-	-	-	2.4	2.2	2.2	0.5	0.6	0.7
Peru	1.3	1.5	1.4	1.0	0.9	1.1	1.8	1.9	1.9
Uruguay	0.2	0.2	0.2	-	-	-	0.2	0.3	0.3
Venezuela (Bolivarian Republic of)	0.7	0.7	0.6	-	-	-	0.9	0.9	0.8
NORTHERN AMERICA	**5.2**	**5.6**	**5.4**	**17.9**	**19.1**	**19.6**	**40.7**	**44.0**	**43.9**
Canada	1.0	1.2	1.2	5.5	5.8	6.0	2.7	3.6	3.1
United States of America	4.1	4.3	4.3	12.4	13.4	13.6	38.0	40.4	40.8
EUROPE	**30.2**	**29.4**	**30.9**	**9.3**	**10.5**	**9.9**	**71.2**	**73.2**	**71.9**
European Union	27.7	27.2	27.0	1.6	1.6	1.7	59.1	59.5	58.1
Russian Federation	0.3	-	0.2	2.2	2.7	2.5	7.0	7.6	8.0
Ukraine	-	-	-	5.0	5.6	5.0	1.9	2.3	2.3
OCEANIA	**3.6**	**3.7**	**3.8**	**0.2**	**0.2**	**0.3**	**4.4**	**4.4**	**4.6**
Australia	1.2	1.5	1.5	0.1	0.1	0.1	2.0	2.1	2.2
WORLD	**94.2**	**96.9**	**99.0**	**94.3**	**97.0**	**99.0**	**351.9**	**367.6**	**373.5**
LIFDC	8.8	9.3	9.4	4.2	4.1	4.5	32.3	33.5	35.3
LDC	1.0	1.2	1.2	0.6	0.6	0.6	5.9	6.6	7.1

[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	
	2019/20 *estim.*	2020/21 *f'cast*	2019/20 *estim.*	2020/21 *f'cast*	2019/20 *estim.*	2020/21 *f'cast*	2019/20 *estim.*	2020/21 *f'cast*
ASIA	**62.6**	**66.4**	**36.8**	**36.1**	**17.3**	**13.8**	**84.9**	**86.9**
China	10.4	10.8	6.7	7.0	0.2	0.2	17.5	17.6
India	27.4	31.0	1.6	1.3	6.0	5.8	25.7	26.7
Indonesia	2.1	2.2	5.9	5.8	-	-	7.2	7.4
Japan	0.8	0.7	1.3	1.4	-	-	2.0	2.0
Malaysia	-	-	2.0	2.1	0.2	0.2	1.8	1.9
Pakistan	5.2	5.5	-	0.4	0.1	-	5.3	5.5
Philippines	2.1	2.0	0.3	0.1	0.1	0.2	2.2	2.2
Republic of Korea	-	-	2.0	2.0	0.3	0.3	1.6	1.6
Thailand	8.3	7.8	-	-	7.6	4.7	2.9	2.8
Turkey	2.5	3.0	0.3	0.2	0.1	0.1	2.7	2.7
Viet Nam	0.8	0.8	1.1	1.1	0.3	-	1.4	1.4
AFRICA	**10.7**	**11.1**	**14.3**	**14.6**	**5.1**	**4.7**	**19.7**	**20.7**
Algeria	-	-	2.5	2.4	0.7	0.6	1.8	1.8
Egypt	2.3	2.7	1.1	0.9	0.3	0.3	3.1	3.2
Eswatini	0.7	0.7	-	-	0.6	0.6	0.1	0.1
Ethiopia	0.5	0.5	0.3	0.4	0.1	0.1	0.7	0.7
Kenya	0.4	0.5	0.7	0.7	-	-	1.1	1.1
Mauritius	0.5	0.6	1.3	1.2	0.7	0.6	1.1	1.2
Morocco	0.3	0.4	-	-	0.1	0.2	0.2	0.2
Mozambique	-	-	1.8	1.8	-	-	1.3	1.3
South Africa	2.2	2.0	0.5	0.5	1.3	1.2	1.4	1.5
Sudan	0.4	0.5	1.1	1.6	0.1	0.1	1.9	2.1
United Republic of Tanzania	0.4	0.4	0.2	0.2	-	-	0.5	0.6
Zambia	0.4	0.4	-	-	0.2	0.2	0.2	0.2
CENTRAL AMERICA & THE CARIBBEAN	**12.7**	**13.5**	**0.4**	**0.5**	**5.5**	**5.8**	**7.5**	**7.6**
Cuba	1.2	1.3	-	-	0.7	0.8	0.5	0.5
Dominican Republic	0.6	0.6	-	-	0.2	0.2	0.4	0.4
Guatemala	2.8	2.7	-	-	1.9	1.7	0.9	0.9
Mexico	5.3	6.1	-	-	1.2	1.5	4.1	4.0
SOUTH AMERICA	**46.6**	**44.4**	**1.8**	**1.6**	**27.6**	**30.8**	**17.4**	**17.8**
Argentina	1.6	1.8	-	-	0.2	0.4	1.3	1.3
Brazil	39.8	37.5	-	-	26.2	29.2	10.4	10.7
Colombia	2.2	2.2	0.3	0.3	0.7	0.8	1.7	1.8
Peru	1.2	1.1	0.3	0.3	0.1	0.1	1.4	1.4
Venezuela (Bolivarian Republic of)	0.3	0.3	0.4	0.2	-	-	0.6	0.6
NORTHERN AMERICA	**6.9**	**7.8**	**5.0**	**4.1**	**0.1**	**0.1**	**12.4**	**12.3**
Canada	0.1	0.1	1.3	1.2	0.1	0.1	1.3	1.2
United States of America	6.8	7.6	3.7	2.9	-	-	11.1	11.1
EUROPE	**28.0**	**22.6**	**3.1**	**3.3**	**3.2**	**1.7**	**25.6**	**25.4**
European Union	16.3	14.4	1.5	1.6	1.0	0.9	14.9	15.0
Russian Federation	7.9	5.1	0.2	0.3	1.5	0.3	5.9	5.9
Ukraine	1.5	1.0	-	0.1	0.1	-	1.2	1.2
United Kingdom of Great Britain and Northern Ireland	1.2	0.9	0.7	0.8	0.2	0.1	2.0	2.0
OCEANIA	**4.4**	**4.5**	**0.3**	**0.3**	**3.5**	**3.5**	**1.3**	**1.3**
Australia	4.2	4.3	-	-	3.3	3.4	1.0	1.0
Fiji	0.2	0.2	-	-	0.2	0.1	-	-
WORLD	**171.9**	**170.3**	**61.7**	**60.4**	**62.3**	**60.4**	**168.7**	**172.0**
LIFDC	33.6	37.3	13.9	14.0	7.8	7.1	42.0	43.9
LDC	4.4	4.4	9.4	10.0	1.5	1.2	12.2	13.0

APPENDIX TABLE 14: **TOTAL MEAT STATISTICS**[1]
(*thousand tonnes - carcass weight equivalent*)

	Production		Imports		Exports		Utilization	
	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*
ASIA	**134 511**	**140 361**	**22 794**	**22 981**	**4 766**	**4 844**	**152 560**	**158 517**
China	77 919	83 023	11 724	11 469	715	727	88 928	93 765
India	7 496	7 535	1	1	1 239	1 243	6 257	6 294
Indonesia	4 238	4 332	218	195	5	5	4 451	4 523
Iran (Islamic Republic of)	2 948	2 978	37	71	73	84	2 912	2 966
Japan	4 136	4 140	3 516	3 560	21	22	7 653	7 697
Malaysia	1 924	1 932	330	341	65	65	2 189	2 208
Pakistan	4 639	4 801	1	1	85	92	4 556	4 710
Philippines	2 971	2 858	579	773	6	6	3 543	3 625
Republic of Korea	2 661	2 599	1 336	1 446	69	45	3 937	4 000
Saudi Arabia	1 176	1 204	859	908	72	75	1 962	2 037
Singapore	129	129	412	425	52	51	488	502
Thailand	2 838	2 885	38	37	1 342	1 389	1 524	1 532
Turkey	3 750	3 790	54	53	617	624	3 187	3 219
Viet Nam	5 059	5 403	602	563	26	41	5 634	5 926
AFRICA	**21 000**	**21 267**	**2 656**	**2 643**	**274**	**273**	**23 382**	**23 637**
Algeria	810	817	43	6	2	2	852	822
Angola	318	325	321	325	-	-	640	650
Egypt	2 366	2 392	246	236	5	5	2 606	2 623
Nigeria	1 456	1 447	14	15	-	-	1 470	1 463
South Africa	3 449	3 545	514	455	148	147	3 815	3 853
CENTRAL AMERICA & THE CARIBBEAN	**10 695**	**10 887**	**3 465**	**3 562**	**1 001**	**1 022**	**13 158**	**13 428**
Cuba	371	369	310	340	-	-	680	709
Mexico	7 514	7 678	2 174	2 210	708	724	8 980	9 165
SOUTH AMERICA	**45 959**	**46 649**	**1 222**	**1 319**	**10 451**	**10 811**	**36 728**	**37 155**
Argentina	6 304	6 200	45	54	1 102	1 065	5 247	5 189
Brazil	28 920	29 586	57	76	7 991	8 383	20 986	21 279
Chile	1 600	1 619	594	610	510	496	1 684	1 733
Colombia	2 828	2 859	203	228	42	45	2 988	3 042
Uruguay	605	646	106	102	411	439	300	308
NORTHERN AMERICA	**53 793**	**54 159**	**3 065**	**2 882**	**10 701**	**10 844**	**46 265**	**46 272**
Canada	5 106	5 155	814	787	2 240	2 238	3 692	3 717
United States of America	48 687	49 003	2 251	2 094	8 461	8 606	42 572	42 555
EUROPE	**65 514**	**65 833**	**5 241**	**5 194**	**11 539**	**11 326**	**59 209**	**59 699**
Belarus	1 202	1 215	63	54	458	451	807	818
European Union	44 680	44 913	1 476	1 504	8 814	8 700	37 343	37 717
Russian Federation	11 247	11 380	660	610	589	608	11 312	11 381
Ukraine	2 549	2 479	161	205	474	437	2 236	2 247
United Kingdom of Great Britain and Northern Ireland	4 123	4 119	2 355	2 286	1 104	1 029	5 375	5 376
OCEANIA	**6 621**	**6 453**	**473**	**489**	**3 001**	**2 796**	**4 094**	**4 146**
Australia	4 558	4 438	224	233	1 947	1 792	2 835	2 879
New Zealand	1 474	1 425	76	81	1 051	1 000	499	506
WORLD	**338 094**	**345 609**	**38 915**	**39 069**	**41 733**	**41 916**	**335 396**	**342 854**
LIFDC	26 941	27 434	2 223	2 272	1 493	1 517	27 672	28 189
LDC	14 569	14 752	1 486	1 551	54	55	16 000	16 249

[1] including "other meat"

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

	Production		Imports		Exports		Utilization	
	2020 *estim.*	**2021** *f'cast*	**2020** *estim.*	**2021** *f'cast*	**2020** *estim.*	**2021** *f'cast*	**2020** *estim.*	**2021** *f'cast*
ASIA	**18 548**	**18 967**	**6 697**	**7 038**	**1 644**	**1 656**	**23 589**	**24 351**
China	6 734	7 009	3 361	3 681	52	54	10 043	10 636
India	2 219	2 228	-	-	1 227	1 233	992	995
Indonesia	542	553	213	190	-	-	755	742
Iran (Islamic Republic of)	354	365	32	66	5	8	382	423
Japan	479	475	830	832	7	7	1 295	1 302
Malaysia	44	46	200	206	9	9	235	243
Pakistan	2 225	2 248	-	-	70	75	2 155	2 173
Philippines	277	299	151	155	3	3	425	451
Republic of Korea	287	309	560	573	5	5	837	876
AFRICA	**6 933**	**7 032**	**429**	**383**	**89**	**90**	**7 274**	**7 325**
Algeria	150	155	42	5	-	-	192	160
Angola	95	100	18	16	-	-	113	116
Egypt	735	751	203	192	2	3	935	940
South Africa	963	983	4	5	61	63	906	925
CENTRAL AMERICA & THE CARIBBEAN	**2 830**	**2 890**	**350**	**348**	**577**	**590**	**2 603**	**2 648**
Mexico	2 079	2 126	192	184	341	349	1 930	1 961
SOUTH AMERICA	**16 319**	**16 552**	**522**	**546**	**4 162**	**4 341**	**12 679**	**12 758**
Argentina	3 243	3 113	13	13	829	790	2 426	2 336
Brazil	9 894	10 191	46	66	2 500	2 696	7 441	7 561
Chile	223	226	328	332	27	30	524	528
Colombia	750	771	7	5	41	44	716	732
Uruguay	537	578	46	40	389	416	194	202
NORTHERN AMERICA	**13 628**	**13 996**	**1 727**	**1 534**	**1 899**	**2 028**	**13 416**	**13 536**
Canada	1 275	1 309	271	244	504	516	1 036	1 040
United States of America	12 353	12 687	1 456	1 290	1 395	1 512	12 379	12 496
EUROPE	**10 500**	**10 380**	**1 386**	**1 388**	**1 435**	**1 442**	**10 451**	**10 326**
European Union	6 898	6 830	344	351	923	932	6 320	6 249
Russian Federation	1 630	1 635	374	351	74	79	1 931	1 907
Ukraine	342	323	8	8	32	28	318	303
United Kingdom of Great Britain and Northern Ireland	932	885	508	522	161	153	1 279	1 254
OCEANIA	**2 833**	**2 619**	**56**	**58**	**2 027**	**1 821**	**863**	**856**
Australia	2 123	1 950	17	18	1 414	1 245	726	723
New Zealand	696	655	13	13	611	574	98	94
WORLD	**71 591**	**72 437**	**11 168**	**11 295**	**11 832**	**11 967**	**70 874**	**71 800**
LIFDC	8 627	8 690	381	371	1 407	1 419	7 601	7 642
LDC	4 831	4 866	108	106	16	16	4 924	4 956

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

	Production		Imports		Exports		Utilization	
	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*
ASIA	**9 751**	**9 879**	**644**	**654**	**24**	**22**	**10 371**	**10 510**
Bangladesh	234	232	-	-	-	-	234	232
China	4 922	5 012	391	410	-	-	5 313	5 422
India	826	822	-	-	8	6	818	816
Iran (Islamic Republic of)	250	248	5	5	-	-	255	253
Pakistan	748	763	-	-	7	7	741	756
Saudi Arabia	124	125	20	19	-	-	144	144
Turkey	464	471	-	-	-	-	464	471
AFRICA	**3 595**	**3 658**	**13**	**12**	**28**	**29**	**3 580**	**3 641**
Algeria	352	353	-	-	-	-	352	353
Nigeria	417	414	-	-	-	-	417	414
South Africa	174	175	2	2	1	2	175	175
CENTRAL AMERICA & THE CARIBBEAN	**134**	**135**	**10**	**9**	**1**	**1**	**143**	**144**
Mexico	106	107	3	2	1	1	108	109
SOUTH AMERICA	**338**	**342**	**4**	**4**	**24**	**26**	**317**	**319**
Brazil	136	137	3	3	-	-	139	140
NORTHERN AMERICA	**90**	**87**	**156**	**146**	**10**	**9**	**237**	**223**
United States of America	74	71	133	121	10	9	197	184
EUROPE	**1 214**	**1 206**	**202**	**196**	**141**	**137**	**1 274**	**1 264**
European Union	570	564	134	129	47	47	656	646
Russian Federation	219	220	2	2	-	-	220	221
United Kingdom of Great Britain and Northern Ireland	296	285	59	58	88	84	267	259
OCEANIA	**1 127**	**1 157**	**28**	**29**	**849**	**845**	**306**	**341**
Australia	656	695	1	1	447	458	209	238
New Zealand	470	461	3	4	402	387	72	77
WORLD	**16 249**	**16 464**	**1 058**	**1 050**	**1 077**	**1 069**	**16 227**	**16 443**
LIFDC	4 061	4 100	5	5	36	34	4 031	4 072
LDC	2 689	2 744	4	4	15	14	2 678	2 734

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

	Production		Imports		Exports		Utilization	
	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*	2020 *estim.*	2021 *f'cast*
ASIA	**52 905**	**57 094**	**8 359**	**8 189**	**190**	**190**	**61 116**	**65 103**
China	42 082	46 206	5 738	5 290	69	69	47 751	51 427
India	355	352	1	1	1	1	355	352
Indonesia	241	237	3	4	-	-	244	240
Japan	1 298	1 300	1 418	1 431	4	4	2 730	2 736
Malaysia	219	215	21	23	4	4	235	234
Philippines	1 294	1 102	95	273	2	2	1 386	1 373
Republic of Korea	1 403	1 354	562	649	6	6	1 984	1 998
Thailand	956	961	2	2	57	58	901	904
Viet Nam	3 379	3 668	225	206	9	9	3 595	3 865
AFRICA	**1 656**	**1 656**	**271**	**280**	**28**	**28**	**1 899**	**1 908**
Madagascar	42	41	-	-	-	-	42	41
Nigeria	269	255	4	6	-	-	273	261
South Africa	284	288	23	25	25	25	281	288
Uganda	134	134	1	1	-	-	134	135
CENTRAL AMERICA & THE CARIBBEAN	**2 229**	**2 268**	**1 237**	**1 273**	**378**	**386**	**3 088**	**3 155**
Cuba	251	249	9	16	-	-	261	265
Mexico	1 636	1 677	977	994	352	360	2 260	2 310
SOUTH AMERICA	**6 877**	**7 001**	**339**	**388**	**1 604**	**1 640**	**5 612**	**5 750**
Argentina	655	675	26	35	28	38	653	672
Brazil	4 475	4 554	2	2	1 274	1 322	3 203	3 234
Chile	574	580	136	143	294	274	416	449
Colombia	440	455	90	102	-	-	530	557
NORTHERN AMERICA	**15 160**	**15 124**	**802**	**832**	**4 688**	**4 735**	**11 369**	**11 246**
Canada	2 317	2 320	307	304	1 553	1 538	1 084	1 101
United States of America	12 843	12 804	495	529	3 135	3 197	10 284	10 145
EUROPE	**30 398**	**30 709**	**1 380**	**1 336**	**5 996**	**5 822**	**25 783**	**26 223**
Belarus	389	390	30	33	36	37	383	385
European Union	23 271	23 434	168	170	5 372	5 214	18 067	18 389
Russian Federation	4 276	4 382	37	32	194	204	4 118	4 210
Serbia	299	303	49	51	21	20	327	334
Ukraine	722	719	39	49	5	5	757	762
United Kingdom of Great Britain and Northern Ireland	984	1 023	936	877	353	325	1 568	1 575
OCEANIA	**581**	**586**	**282**	**292**	**37**	**39**	**826**	**839**
Australia	436	442	203	208	36	37	603	613
Papua New Guinea	80	78	6	6	-	-	86	84
WORLD	**109 805**	**114 439**	**12 671**	**12 590**	**12 921**	**12 840**	**109 692**	**114 224**
LIFDC	4 836	5 124	397	386	12	12	5 221	5 498
LDC	2 397	2 430	174	179	-	-	2 571	2 608

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

	Production		Imports		Exports		Utilization	
	2020 *estim.*	**2021** *f'cast*	**2020** *estim.*	**2021** *f'cast*	**2020** *estim.*	**2021** *f'cast*	**2020** *estim.*	**2021** *f'cast*
ASIA	**50 462**	**51 558**	**6 994**	**7 002**	**2 748**	**2 819**	**54 698**	**55 748**
China	22 294	22 905	2 189	2 045	583	595	23 900	24 355
India	3 893	3 928	-	-	4	3	3 889	3 925
Indonesia	3 316	3 405	-	-	2	2	3 314	3 403
Iran (Islamic Republic of)	2 336	2 355	-	-	67	75	2 268	2 280
Japan	2 353	2 358	1 239	1 269	10	10	3 592	3 624
Kuwait	56	54	156	160	2	2	210	212
Malaysia	1 657	1 667	71	75	52	52	1 676	1 690
Republic of Korea	965	930	192	202	58	33	1 089	1 098
Saudi Arabia	900	925	640	686	37	38	1 503	1 574
Singapore	106	106	207	215	30	30	283	291
Thailand	1 748	1 789	2	2	1 174	1 221	566	569
Turkey	2 200	2 224	45	45	572	579	1 672	1 690
AFRICA	**6 765**	**6 845**	**1 927**	**1 952**	**121**	**119**	**8 571**	**8 678**
Angola	49	48	221	229	-	-	270	277
South Africa	1 965	2 034	486	423	57	54	2 394	2 402
CENTRAL AMERICA & THE CARIBBEAN	**5 410**	**5 501**	**1 832**	**1 897**	**42**	**43**	**7 199**	**7 355**
Cuba	25	25	268	291	-	-	293	316
Mexico	3 617	3 693	1 001	1 028	12	12	4 606	4 709
SOUTH AMERICA	**22 275**	**22 599**	**355**	**381**	**4 497**	**4 641**	**18 133**	**18 339**
Argentina	2 269	2 273	7	5	227	220	2 048	2 058
Brazil	14 391	14 678	5	5	4 080	4 227	10 316	10 456
Chile	782	792	130	134	181	185	730	741
NORTHERN AMERICA	**24 604**	**24 638**	**370**	**360**	**4 086**	**4 055**	**20 939**	**20 961**
Canada	1 472	1 484	211	214	173	175	1 514	1 518
United States of America	23 131	23 154	159	146	3 914	3 880	19 425	19 443
EUROPE	**22 297**	**22 421**	**2 006**	**2 013**	**3 873**	**3 833**	**20 425**	**20 601**
European Union	13 387	13 521	629	654	2 388	2 424	11 627	11 751
Russian Federation	4 620	4 639	238	216	319	322	4 535	4 533
Ukraine	1 451	1 402	114	148	436	402	1 129	1 148
United Kingdom of Great Britain and Northern Ireland	1 901	1 915	804	785	497	462	2 208	2 238
OCEANIA	**1 605**	**1 614**	**103**	**107**	**70**	**73**	**1 638**	**1 648**
Australia	1 320	1 328	3	6	45	48	1 278	1 286
New Zealand	238	239	1	1	25	25	214	215
WORLD	**133 417**	**135 177**	**13 587**	**13 711**	**15 438**	**15 582**	**131 603**	**133 330**
LIFDC	7 429	7 513	1 416	1 486	32	46	8 812	8 953
LDC	3 656	3 705	1 194	1 257	21	21	4 829	4 941

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

	Production			Imports			Exports		
	2017-2019 average	2020 *estim.*	2021 *f'cast*	2017-2019 average	2020 *estim.*	2021 *f'cast*	2017-2019 average	2020 *estim.*	2021 *f'cast*
ASIA	**358 265**	**378 537**	**388 180**	**45 990**	**47 821**	**50 512**	**7 993**	**7 957**	**8 226**
China	32 503	35 894	38 090	14 774	16 935	19 400	103	88	94
India [1]	185 088	194 800	199 086	106	121	98	438	231	353
Indonesia	1 571	1 644	1 649	2 974	3 062	3 185	45	59	57
Iran (Islamic Republic of)	7 583	7 597	7 669	258	118	142	572	748	861
Japan	7 293	7 438	7 498	2 226	2 131	2 163	11	18	15
Malaysia	46	49	51	2 350	2 332	2 439	649	594	571
Pakistan	54 210	57 722	59 488	542	318	286	31	15	14
Philippines	17	15	15	2 606	2 589	2 688	86	88	94
Republic of Korea	2 061	2 104	2 100	1 252	1 332	1 428	31	39	40
Saudi Arabia	2 497	2 680	2 675	2 634	2 856	2 949	1 556	1 617	1 600
Singapore	-	-	-	1 548	1 449	1 447	445	405	400
Thailand	1 257	1 371	1 399	1 610	1 623	1 571	278	286	288
Turkey	21 927	23 763	24 566	222	160	110	1 014	956	1 040
AFRICA	**48 521**	**49 055**	**49 254**	**9 926**	**9 831**	**9 733**	**1 461**	**1 247**	**1 261**
Algeria	3 283	3 312	3 403	3 307	3 254	3 290	5	-	-
Egypt	5 089	4 654	4 677	1 144	1 144	1 134	627	529	520
Kenya	5 084	5 476	5 472	206	164	169	3	1	1
South Africa	3 725	3 771	3 741	349	362	355	371	380	412
Tunisia	1 445	1 452	1 461	128	114	99	57	30	24
CENTRAL AMERICA & THE CARIBBEAN	**17 917**	**18 328**	**18 653**	**6 595**	**5 961**	**6 006**	**1 373**	**903**	**951**
Costa Rica	1 165	1 197	1 207	59	68	60	136	141	142
Mexico	12 236	12 782	13 076	4 292	3 669	3 861	871	338	372
SOUTH AMERICA	**79 319**	**82 507**	**83 382**	**2 877**	**3 001**	**3 227**	**3 744**	**4 289**	**4 469**
Argentina	10 632	11 446	11 572	36	11	13	1 675	2 172	2 300
Brazil	35 319	36 934	37 298	1 033	1 107	1 349	87	87	84
Colombia	22 138	22 592	22 912	366	541	494	26	23	28
Uruguay	2 046	2 153	2 194	32	53	57	1 439	1 518	1 550
NORTHERN AMERICA	**107 935**	**110 877**	**112 931**	**2 591**	**2 795**	**2 828**	**12 305**	**13 072**	**13 660**
Canada	9 424	9 626	9 655	678	814	839	1 059	1 003	936
United States of America	98 511	101 251	103 276	1 912	1 981	1 989	11 247	12 069	12 724
EUROPE	**230 479**	**235 921**	**237 367**	**6 211**	**13 203**	**12 828**	**27 086**	**35 649**	**36 276**
Belarus	7 353	7 766	7 914	53	60	65	3 865	4 356	4 515
European Union	172 308	160 893	162 341	1 107	3 660	3 567	21 008	25 735	26 643
Russian Federation	30 719	32 215	32 376	3 916	3 867	3 815	262	342	359
Ukraine	-	15 825	15 904	-	4 087	3 836	-	3 619	3 217
United Kingdom of Great Britain and Northern Ireland	10 000	9 252	8 838	111	355	348	744	531	521
OCEANIA	**31 006**	**30 980**	**31 351**	**1 692**	**1 815**	**1 696**	**22 243**	**22 585**	**23 086**
Australia	9 253	9 087	9 196	1 164	1 276	1 171	2 958	2 712	2 902
New Zealand	21 731	21 871	22 133	306	302	289	19 281	19 868	20 180
WORLD	**873 441**	**906 205**	**921 117**	**75 883**	**84 427**	**86 830**	**76 206**	**85 702**	**87 930**
LIFDC	240 404	251 798	256 444	6 461	6 529	6 416	1 247	1 020	1 146
LDC	36 437	37 344	37 535	4 390	4 163	4 091	313	250	250

[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		
	2018	2019	2018	2019	2019	2020 estim.	2021 f'cast	2019	2020 estim.	2021 f'cast
	Million tonnes (live weight equivalent)				*USD billion*			*USD billion*		
ASIA[2]	**49.6**	**49.3**	**73.0**	**75.4**	**59.3**	**54.9**	**55.4**	**57.3**	**50.9**	**51.5**
China	15.6	14.9	47.8	48.5	22.7	20.3	21.2	23.2	19.7	19.4
China, Hong Kong SAR	0.1	0.1	-	-	0.7	0.4	0.4	3.5	2.9	3.8
Taiwan Province of China	0.8	0.7	0.3	0.3	1.9	1.5	1.4	1.7	1.7	2.0
India	5.3	5.5	7.2	7.8	6.8	5.8	5.7	0.1	0.2	0.2
Indonesia	7.2	7.5	5.4	6.0	4.5	4.8	4.6	0.4	0.4	0.4
Japan	3.3	3.2	0.6	0.6	2.2	1.7	2.1	15.2	13.1	12.9
Republic of Korea	1.4	1.4	0.6	0.6	1.8	1.6	1.7	5.6	5.4	5.8
Philippines	2.0	2.1	0.8	0.9	0.8	0.8	0.8	0.6	0.5	0.6
Thailand	1.5	1.5	0.9	1.0	5.8	5.6	5.5	3.6	3.6	4.1
Viet Nam	3.3	3.4	4.1	4.4	8.7	8.0	7.8	1.8	1.7	1.7
AFRICA	**10.1**	**10.1**	**2.2**	**2.3**	**7.5**	**7.0**	**6.9**	**5.5**	**4.8**	**5.0**
Egypt	0.4	0.4	1.6	1.6	-	-	-	1.0	0.8	0.9
Morocco	1.4	1.5	-	-	2.2	2.3	2.5	0.2	0.2	0.2
Namibia	0.5	0.5	-	-	0.7	0.6	0.6	0.1	0.1	-
Nigeria	0.9	0.8	0.3	0.3	0.1	0.1	0.1	0.8	0.8	0.8
Senegal	0.5	0.5	-	-	0.6	0.5	0.4	-	0.1	0.1
South Africa	0.6	0.4	-	-	0.6	0.6	0.7	0.5	0.3	0.3
CENTRAL AMERICA & THE CARIBBEAN	**2.4**	**2.3**	**0.4**	**0.5**	**2.7**	**2.6**	**2.6**	**1.8**	**1.7**	**1.9**
Mexico	1.7	1.6	0.2	0.3	1.4	1.2	1.3	0.8	0.7	0.9
Panama	0.2	0.2	-	-	0.2	0.1	0.1	0.1	0.1	0.1
SOUTH AMERICA	**12.1**	**9.6**	**2.7**	**3.0**	**18.4**	**16.6**	**16.8**	**2.9**	**2.5**	**2.6**
Argentina	0.8	0.8	-	-	1.8	1.6	1.6	0.2	0.2	0.3
Brazil	0.7	0.7	0.6	0.6	0.3	0.3	0.3	1.3	0.9	0.9
Chile	2.1	2.0	1.3	1.4	6.5	5.9	5.6	0.4	0.4	0.5
Ecuador	0.6	0.6	0.6	0.7	5.5	5.4	5.4	0.2	0.1	0.2
Peru	7.2	4.8	0.1	0.2	3.5	2.7	3.2	0.3	0.3	0.2
NORTHERN AMERICA	**5.9**	**5.8**	**0.7**	**0.7**	**12.4**	**10.6**	**10.6**	**26.5**	**25.6**	**26.5**
Canada	0.8	0.8	0.2	0.2	5.7	4.9	5.2	3.2	2.9	2.9
United States of America	4.7	4.8	0.5	0.5	5.6	4.7	4.3	23.3	22.7	23.6
EUROPE	**15.0**	**13.7**	**3.1**	**3.2**	**57.2**	**54.9**	**54.7**	**63.4**	**60.5**	**58.9**
European Union[2]	4.7	4.2	1.2	1.1	33.4	32.6	32.4	53.0	50.4	48.4
of which extra-EU	-	-	-	-	7.6	7.4	7.3	29.3	27.3	26.2
Iceland	1.3	0.9	-	-	2.4	2.2	2.4	0.1	0.1	0.1
Norway	2.5	2.3	1.4	1.5	12.0	11.1	12.0	1.3	1.3	1.2
Russian Federation	5.1	5.0	0.2	0.2	4.8	4.8	4.4	2.2	2.1	2.3
OCEANIA	**1.5**	**1.6**	**0.2**	**0.2**	**3.3**	**2.8**	**2.8**	**1.9**	**1.8**	**1.9**
Australia	0.2	0.2	0.1	0.1	1.1	0.9	0.8	1.5	1.4	1.6
New Zealand	0.4	0.4	0.1	0.1	1.3	1.1	1.1	0.2	0.2	0.3
WORLD[3]	**96.6**	**92.5**	**82.3**	**85.3**	**160.8**	**149.4**	**149.8**	**159.3**	**148.0**	**148.4**
Excl. intra-EU	-	-	-	-	135.1	124.2	124.6	135.6	124.8	126.2
LIFDC	16.5	16.9	14.3	15.3	19.2	17.2	17.3	4.1	3.8	4.1
LDC	10.1	10.1	4.2	4.3	4.1	3.9	3.8	1.1	1.0	1.0

[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 14 263 tonnes in 2018 and 14 410 tonnes in 2019 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)								
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	218
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	232	210	233	166	166	219	265	163
2019/20	220	219	231	163	163	184	216	163
2020 – May	223	211	239	144	146	181	194	176
2020 – June	216	200	241	149	149	186	199	173
2020 – July	220	210	244	151	153	193	195	180
2020 – August	221	207	240	148	163	201	192	195
2020 – September	246	220	246	166	185	208	189	217
2020 – October	273	245	257	187	217	227	185	236
2020 – November	275	250	259	193	226	241	182	247
2020 – December	267	249	269	199	232	248	179	253
2021 – January	291	280	282	233	257	267	175	286
2021 – February	291	278	272	246	248	268	172	300
2021 – March	274	274	267	246	236	258	169	314
2021 – April	281	278	267	266	253	256	166	310
2021 – May	298	294	280	304	272	278	163	323

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

APPENDIX TABLE 22: TOTAL **WHEAT AND MAIZE** FUTURES PRICES

	July		September		December		March	
	July 2021	July 2020	Sept 2021	Sept 2020	Dec 2021	Dec 2020	Mar 2021	Mar 2020
	(USD/tonne)							
Wheat								
April 20	243	201	244	203	246	205	247	208
April 27	269	193	269	194	270	197	271	199
May 4	267	191	267	192	268	195	269	198
May 11	273	190	272	191	273	195	274	198
May 18	256	183	257	184	258	187	260	191
May 25	241	186	242	188	245	191	247	194
Maize								
April 20	233	127	215	129	208	133	211	138
April 27	258	123	231	126	221	130	223	135
May 4	274	124	240	127	229	131	230	137
May 11	284	125	250	128	241	132	243	137
May 18	259	126	225	128	214	131	216	136
May 25	244	126	213	128	203	131	206	136

Source: Chicago Board of Trade (CBOT)

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

	International prices				FAO indices				
Period	**Thai 100% B[1]**	**Thai broken[2]**	**US long grain[3]**	**Pakisan Basmati[4]**	**FAO All Rice Price Index**	**Indica**	**Japonica**	**Aromatic**	**Glutinous**
Annual (Jan/Dec)	*(USD per tonne)*				*(2014-2016=100)*				
2014	435	322	571	1324	112	108	119	129	102
2015	395	327	490	849	96	97	102	94	96
2016	407	348	438	795	91	96	79	77	102
2017	415	334	456	1131	99	100	80	101	88
2018	445	365	531	1023	106	108	91	108	89
2019	435	385	500	982	101	101	80	106	124
2020	515	431	597	970	110	114	90	98	124
Monthly									
2020 – May	535	440	646	1047	116	120	94	104	134
2020 – June	536	434	646	995	114	118	93	102	133
2020 – July	496	422	646	986	110	115	93	95	126
2020 – August	521	425	615	980	113	118	93	100	128
2020 – September	526	428	600	975	112	116	90	98	123
2020 – October	492	431	580	971	109	114	86	96	101
2020 – November	505	447	563	934	109	115	88	94	99
2020 – December	537	466	559	895	111	118	89	93	102
2021 – January	563	471	559	877	114	122	94	92	101
2021 – February	575	494	562	840	116	125	97	92	101
2021 – March	546	484	554	806	114	122	98	90	97
2021 – April	514	450	561	759	111	119	97	88	93
2021 – May	509	447	605	774	111	119	99	88	91

[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 21 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 15 percent brokens. The sub-index for Aromatic Rice follows movements in prices of Basmati and Fragrant rice.
Sources: FAO for indices. Rice prices: Creed Rice Market Report, Livericeindex.com, Thai Department of Foreign Trade (DFT), Viettraders 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)					(2014-2016=100)		
Annual (Oct/Sept)								
2006/07	335	772	684	264	184	80	93	66
2007/08	549	1325	1050	445	296	133	153	109
2008/09	437	849	682	409	206	96	90	89
2009/10	429	924	806	388	220	100	109	92
2010/11	549	1308	1147	418	279	132	159	102
2011/12	562	1235	1051	461	295	132	143	111
2012/13	563	1099	835	539	345	131	120	129
2013/14	521	949	867	534	324	120	116	128
2014/15	407	777	658	406	270	95	93	99
2015/16	396	773	655	351	232	93	95	85
2016/17	404	806	729	336	225	95	103	81
2017/18	402	820	648	381	258	94	94	93
2018/19	370	744	523	328	247	88	80	81
2019/20	379	783	668	338	243	90	93	84
2019/20	379	783	668	338	243	90	93	84
Monthly								
2020 - January	391	872	840	332	240	94	109	82
2020 - February	376	801	741	334	245	90	98	83
2020 - March	367	722	621	364	255	87	85	89
2020 - April	363	675	573	363	280	87	81	90
2020 - May	361	675	531	328	262	86	78	83
2020 - June	369	741	594	325	229	88	87	81
2020 - July	383	815	659	329	227	91	93	81
2020 - August	387	865	707	345	245	92	99	85
2020 - September	418	893	740	378	270	99	105	93
2020 - October	454	900	763	430	294	107	106	105
2020 - November	502	978	875	470	319	117	122	115
2020 - December	516	1036	963	468	328	121	131	115
2021 - January	576	1074	1026	535	382	134	139	131
2021 - February	580	1136	1086	526	380	136	147	130
2021 - March	568	1296	1135	472	364	136	159	117
2021 - April	594	1388	1155	442	352	141	162	111
2021 - May[7]	643	1593	1243	464	408	152	175	116

[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 three out of four quotations for 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 derived from the export values of each commodity for the 2014–2016 period.

Sources: Oil World (ISTA Mielke GmbH); FAO for the indices.

APPENDIX TABLE 25: **SELECTED INTERNATIONAL PRICES FOR SUGAR AND SUGAR PRICE INDEX**

	I.S.A. daily price average[1]	FAO Sugar Price Index (2014/16 = 100)
	Raw sugar	
Annual (Jan/Dec)	*(US Cents/lb)*	*(2014/16=100)*
2009	18.1	112.2
2010	21.3	131.7
2011	26.0	160.9
2012	21.5	133.3
2013	17.7	109.5
2014	17.0	105.2
2015	13.4	83.2
2016	18.0	111.6
2017	16.0	99.1
2018	12.5	77.4
2019	12.6	78.6
2020	12.6	77.2
2021	17.4	97.6
Monthly		
2019 - June	12.9	79.9
2019 - July	12.8	79.4
2019 - August	12.3	76.2
2019 - September	11.9	73.5
2019 - October	12.6	77.8
2019 - November	12.8	79.2
2019 - December	12.7	83.0
2020 - January	14.2	87.5
2020 - February	14.8	91.4
2020 - March	11.8	73.9
2020 - April	10.2	63.2
2020 - May	11.0	67.8
2020 - June	12.1	74.9
2020 - July	12.3	76.0
2020 - August	13.1	81.1
2020 - September	12.8	79.0
2020 - October	13.7	85.0
2020 - November	14.1	87.5
2020 - December	14.1	87.1
2021- January	15.2	94.2
2021 - February	16.2	100.2
2021 - March	15.5	96.2
2021 - April	16.1	99.7
2021 - May	16.9	

[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)*				... *(2014-2016=100)* ...
2010	4 268	2 971	3 499	3 739	112
2011	5 023	3 408	3 962	4 380	130
2012	3 740	3 063	3 336	3 877	112
2013	4 784	4 148	4 730	4 563	141
2014	4 278	3 606	3 854	4 542	130
2015	3 306	2 089	2 537	3 076	87
2016	3 473	1 986	2 481	2 807	83
2017	5 641	2 011	3 163	3 664	108
2018	5 587	1 834	3 060	3 736	107
2019	4 443	2 440	3 186	3 435	103
2020	3 844	2 606	3 041	3 506	102
Monthly					
2020 – May	3 403	2 285	2 759	3 362	94
2020 – June	3 595	2 473	2 892	3 447	98
2020 – July	3 778	2 519	3 129	3 516	102
2020 – August	3 841	2 590	3 103	3 505	102
2020 – September	3 872	2 625	3 043	3 524	102
2020 – October	3 920	2 682	3 097	3 609	104
2020 – November	4 021	2 635	3 091	3 664	105
2020 – December	4 098	2 744	3 219	3 801	109
2021 – January	4 316	2 900	3 353	3 771	111
2021 – February	4 542	2 957	3 497	3 758	113
2021 – March	4 952	3 045	3 979	3 720	117
2021 – April	5 113	3 117	3 970	3 765	119
2021 – May	4 982	3 227	4 054	3 833	121

[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 and EU, 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 from the European Union and Oceania.

APPENDIX TABLE 27: **SELECTED INTERNATIONAL MEAT PRICES**

	Bovine meat prices			Ovine meat price		Pig meat prices			Poultry meat prices	
Period	**Australia**	**United States of America**	**Brazil**	**New Zealand**	**Australia**	**United States of America**	**Brazil**	**Germany**	**United States of America**	**Brazil**
Annual (Jan/Dec)	*(USD per tonne)*									
2010	3 272	4 585	4 093	3 673	4 352	2 851	2 647	1 913	1 032	1 671
2011	3 944	5 093	5 078	5 531	5 547	3 036	2 941	2 169	1 149	1 977
2012	4 176	5 885	4 765	4 656	4 486	2 952	2 700	2 233	1 228	1 889
2013	4 009	6 314	4 527	4 130	4 132	2 981	2 797	2 311	1 229	1 972
2014	5 016	7 361	4 712	4 701	4 686	3 233	3 411	2 106	1 205	1 886
2015	4 699	7 195	4 320	3 643	4 042	2 669	2 482	1 582	1 002	1 604
2016	4 171	6 390	4 053	3 578	3 978	2 648	2 129	1 682	914	1 501
2017	4 463	6 676	4 196	4 488	4 710	2 687	2 475	1 871	1 000	1 631
2018	4 198	7 118	4 045	5 244	4 979	2 587	1 959	1 728	970	1 537
2019	4 873	7 119	4 119	5 127	5 097	2 626	2 245	1 989	972	1 618
2020	4 676	6 898	4 336	4 561	5 071	2 569	2 370	1 834	962	1 407
Monthly										
2020 – May	5 071	6 837	4 395	3 926	5 119	2 549	2 372	1 845	973	1 336
2020 – June	4 972	7 082	4 298	4 389	5 439	2 471	2 157	1 927	941	1 275
2020 – July	4 688	6 790	4 082	4 639	5 270	2 411	2 123	1 766	950	1 324
2020 – August	4 707	6 795	4 007	4 697	5 051	2 380	2 236	1 802	935	1 330
2020 – September	4 666	6 670	4 096	4 739	4 724	2 457	2 315	1 608	943	1 350
2020 – October	4 387	6 672	4 244	4 713	4 946	2 635	2 395	1 549	921	1 347
2020 – November	4 599	6 890	4 403	4 843	5 075	2 656	2 475	1 507	957	1 324
2020 – December	4 691	7 011	4 506	4 895	5 255	2 609	2 415	1 505	961	1 410
2021 – January	4 751	7 127	4 511	4 711	5 663	2 573	2 459	1 512	977	1 456
2021 – February	4 920	7 223	4 539	4 683	5 912	2 634	2 424	1 527	1 049	1 461
2021 – March	4 859	7 242	4 612	4 553	5 851	2 695	2 523	1 806	1 117	1 497
2021 – April	5 205	7 268	4 766	4 741	5 876	2 710	2 491	1 831	1 148	1 508
2021 – May	5 545	7 299	4 907	5 132	5 939	2 722	2 627	1 841	1 171	1 528

Notes:

Bovine meat prices:
Australia: Cow 90CL export prices to the USA (FAS)
United States of America: Meat of bovine (Fresh, Chilled or Frozen), export unit value
Brazil: Meat of bovine (Fresh, Chilled or Frozen), export unit value

Ovine meat prices:
New Zealand: Lamb 17.5kg NZ$/kg
Australia: Medium trade lamb 18-20kg A¢/kg

Pig meat prices:
United States of America: Meat of Swine (Fresh, Chilled or Frozen), export unit value
Brazil: Meat of Swine (Fresh, Chilled or Frozen), export unit value
Germany: Monthly market price for pig carcase grade E

Poultry meat prices:
United States of America: Chicken Cuts and Edible Offal (Fresh, Chilled or Frozen), export unit value
Brazil: Meat and Edible Offal of Poultry (Fresh, Chilled or Frozen), export unit value

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**	**Poultry meat**	**Pig meat**	**Bovine meat**	**Ovine meat**
Annual (Jan/Dec)	*(2014-2016=100)*				
2010	91	100	102	74	98
2011	105	117	112	88	135
2012	105	115	111	93	111
2013	106	118	113	93	101
2014	112	114	117	107	114
2015	97	96	92	102	94
2016	91	90	92	91	92
2017	98	98	98	96	112
2018	95	93	91	96	124
2019	100	96	98	101	124
2020	96	87	94	100	117
Monthly					
2020 – May	95	84	94	102	110
2020 – June	95	80	93	103	120
2020 – July	92	83	89	98	121
2020 – August	92	83	90	97	119
2020 – September	91	84	88	97	115
2020 – October	92	83	90	96	118
2020 – November	93	83	90	99	121
2020 – December	95	87	89	101	124
2021 – January	96	89	88	103	126
2021 – February	98	91	90	105	129
2021 – March	101	95	97	105	127
2021 – April	103	96	97	108	129
2021 – May	105	98	98	111	135

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), 2 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 2014/2016.

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

APPENDIX TABLE 29: **FISH PRICE INDICES**

Period	Total	Whitefish	Salmon	Shrimp	Tuna	Pelagic excl. tuna
Annual (Jan/Dec)			*(2014-2016=100)*			
2010	93	103	97	84	85	87
2011	104	114	100	97	104	105
2012	97	111	78	87	115	119
2013	104	104	99	99	107	119
2014	107	105	102	113	100	108
2015	92	97	84	92	99	91
2016	102	97	114	94	101	101
2017	106	108	117	96	92	112
2018	106	118	119	88	96	105
2019	102	121	108	86	92	100
2020	95	107	97	86	92	93
Monthly						
2019 - January	106	132	113	84	89	109
2019 - February	107	134	111	84	91	110
2019 - March	109	137	120	84	87	106
2019 - April	110	130	129	85	94	105
2019 - May	104	125	111	85	92	104
2019 - June	103	122	110	85	91	99
2019 - July	103	119	103	87	118	100
2019 - August	98	114	97	88	86	100
2019 - September	94	111	88	87	85	96
2019 - October	92	98	90	86	91	96
2019 - November	99	115	103	86	87	96
2019 - December	103	119	123	86	88	82
2020 - January	106	122	134	86	92	80
2020 - February	101	119	116	86	82	89
2020 - March	95	103	97	85	90	97
2020 - April	90	97	86	85	80	101
2020 - May	91	94	96	82	93	97
2020 - June	97	96	108	88	108	90
2020 - July	94	103	93	90	96	91
2020 - August	94	103	89	90	95	99
2020 - September	92	103	86	88	92	93
2020 - October	92	108	83	87	95	92
2020 - November	91	112	83	83	93	88
2020 - December	94	120	88	81	89	95
2021 - January	96	117	90	84	93	94
2021 - February	96	115	96	84	94	89
2021 - March	101	111	115	84	94	92
2021 - April	102	112	120	84	90	95

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

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

	Currency and unit	Effective date	Latest quotation	One month ago	One year ago	Average 2016-2020
Sugar (ISA daily price)	US cents per lb	27-05-21	17.23	17.77	10.96	14.42
Coffee (ICO daily price)	US cents per lb	25-05-21	138.97	130.72	104.45	114.30
Cocoa (ICCO daily price)	US cents per lb	28-05-21	108.53	109.14	105.04	108.19
Tea (FAO Tea Composite Price)	USD per kg	30-04-21	2.26	2.35	2.58	2.67
Cotton (COTLOOK A index)	US cents per lb	30-04-21	90.72	91.63	63.50	79.80
Jute "BTD" (Fob Bangladesh Port)	USD per tonne	31-05-21	1800.00	1850.00	840.00	782.67

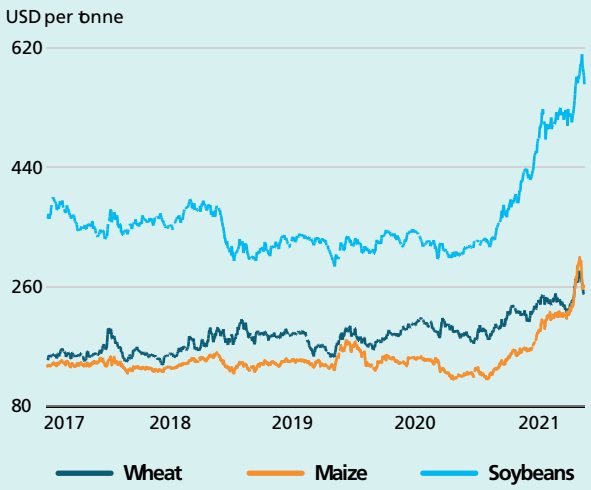
MARKET INIDCATORS

Futures markets

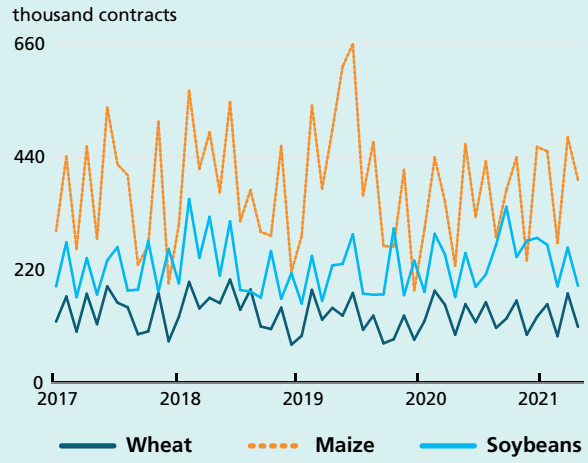
Contributed by Ann Berg

Futures prices for wheat, maize and soybeans attained their highest levels in eight years during May as acute supply and demand imbalances, particularly in the US maize and soybean markets, became manifest. The price hikes, which began almost a year ago, demonstrated a rare intercrop year reversal of outlook from surplus to shortage, as weak demand estimates stemming from the pandemic and dismal farm prospects due to a projected oversupply proved highly inaccurate. China remained the dominant demand driver, importing massive quantities of soybeans and maize, while isolated weather problems in South America and export taxes elsewhere were also price supportive. Wheat values gained the least of the three commodities, but were underpinned by feed wheat substitution for maize in livestock rations in various regions, notably Asia. All three commodities experienced sharp corrections during the second half of May as reports of demand rationing, shipment deferral and US acreage expansion circulated among traders. In exogenous markets, the US dollar was relatively stable over the last 5 months, adjusting to a lower level after its approximate 10 percent slide from the 100 mark year-on-year (y/y). Crude oil prices, particularly the West Texas Intermediate contract, moved higher from a year-end level of USD 50 to USD 60 per barrel following an unexpectedly swift US economic recovery in the first quarter

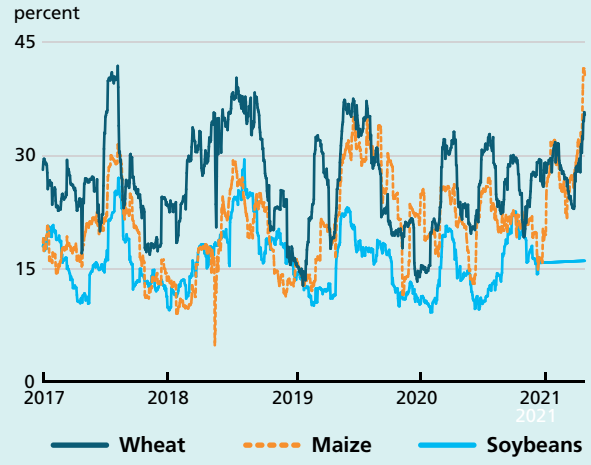
CME futures prices



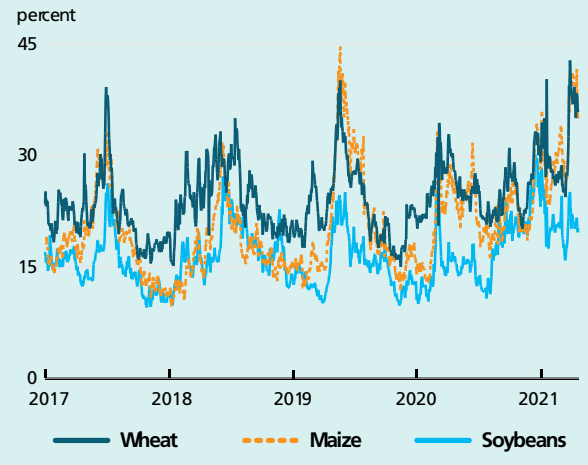
CME futures volumes



Historical volatility (30 days)



Implied volatility



of 2021 (Q1 2021). Record volumes and extreme volatility in US equities markets – coinciding with historic fiscal stimulus measures – raised concerns about asset-class inflation across multiple sectors, including raw materials and basic commodities.

FORWARD CURVES

Forward curves for wheat, maize and soybeans reflected a reversal of fundamentals y/y. Following the economic restrictions issued by most countries in Q2 2020 due to the pandemic, forward curves fell into steep contango (upward sloping). Conversely, since the start of 2021, as export demand outpaced projections by more than 150 percent, amid successive reductions in 2020/21 crop estimates for maize and soybeans by the United States Department of Agriculture, these curves inverted into extreme backwardation (downward sloping). The maize forward curve between the May 2021 and December 2021 contracts (referred to as a spread) soared to USD 72, while the soybean May/November 2021 spread climbed to USD 84. Wheat curves inverted to a lesser extent, with the May/December 2021 spread reaching USD 9. High domestic cash basis levels testified to the stocks' depletion in the United States of America.

VOLUMES

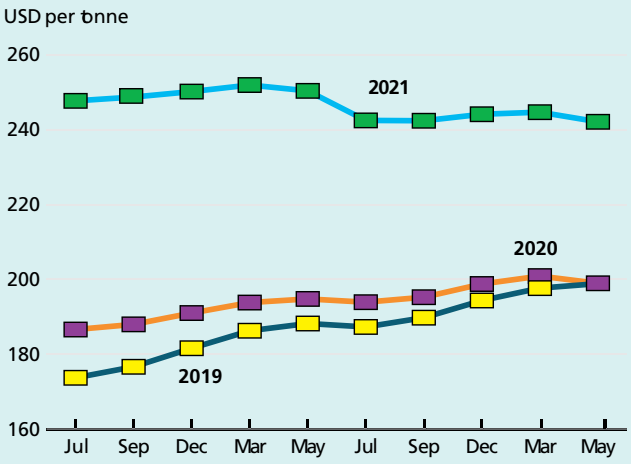
Trade volumes for the first five months of the year were surprisingly muted – given the outsized trough-to-peak price wave which normally attracts speculative interest. Although volumes exceeded those for the same period y/y, they remained below the record levels in 2018. Open interest, which reached its highest levels in mid-2018 for wheat and maize and in October 2020 for soybeans, uncharacteristically declined as prices soared to multiyear highs in May. Open interest in options increased y/y adding an extra 40 percent to maize and soybeans futures open interest, but less than 30 percent to that of wheat. In general, investment flows into agricultural futures were not commensurate with the massive increases in exports and prices, sharply contrasting with equity trade volumes, which more than doubled from the previous year..

VOLATILITY

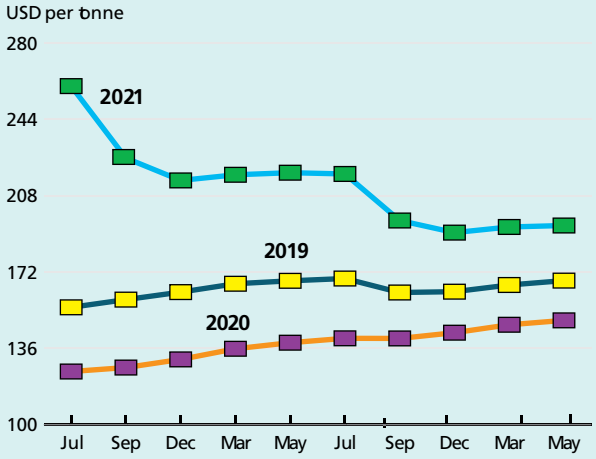
Similar to volumes, volatility levels for wheat, maize and soybeans remained subdued in light of the prolonged price rally. Both implied (calculated by the level of option premiums on underlying futures contracts) and historical (based on 30 days) volatility levels for wheat and maize have remained range-bound between 20 and 30 for most

Forward curves snapshots as of May 2019, 2020 and 2021

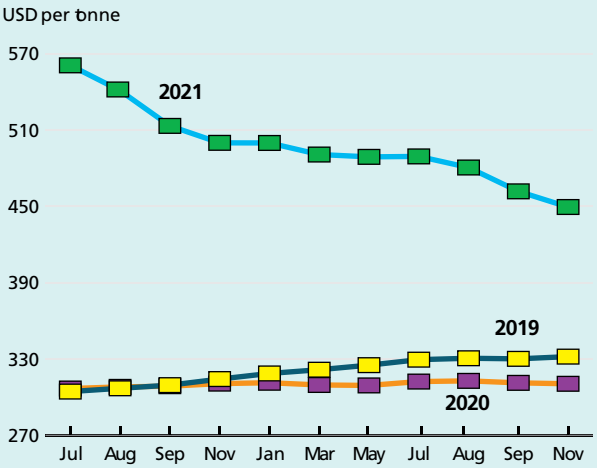
Wheat



Maize



Soybeans



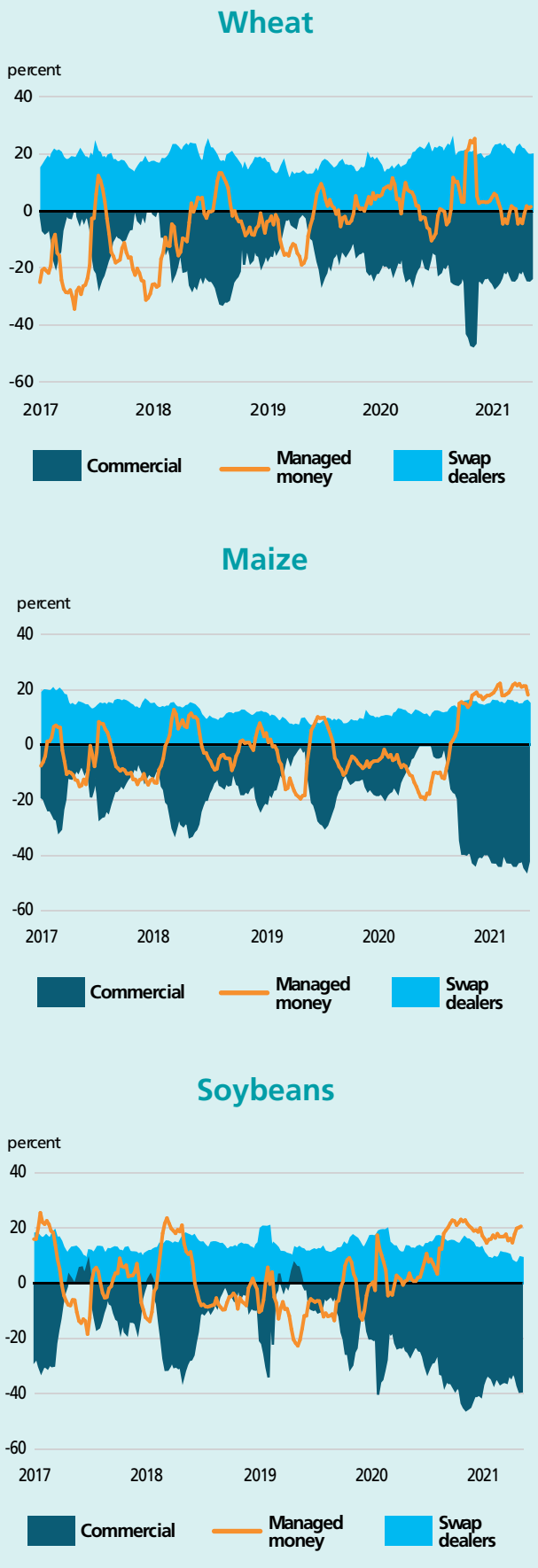
of the past 12 months, except during May, when implied volatility briefly exceeded 50. Soybean volatility levels were slightly lower for the same 12-month period, ranging between 12 and 26. As a comparative reference, during the 2008 food crisis, volatility levels breached 60 and 70 levels.

INVESTMENT FLOWS

Managed money retreated to a neutral position in wheat over the past five months and maintained a bullish stance in soybeans, while extending its maize net long position to near-record levels in April. Commercials held their standard short positions for the three commodities, seemingly caught off-guard by the relentless price rises driven by unprecedented demand and downward crop revisions. Positions held by swaps dealers underwent mixed changes, declining in soybeans while increasing slightly in wheat and maize. These dealers, which offer products tracking prices of agricultural and other futures contracts, failed to attract the burgeoning trade among retail customers who embraced equities investing in response to direct stimulus measures.

Agricultural money managers, who have struggled with poor performances for years, showed a positive year-to-date return of 3.92 percent as of April 2021. They also reported a stellar 2020 return of 14.62 percent, their highest since 2004. The Deutsche Bank Agricultural Index Fund, which passively tracks 10 agricultural futures markets, including wheat, maize and soybeans, rose to 19.33 in early May, rebounding from its all-time low at USD 13.16 in June 2020.

CME net-length as % of open interests (Jan 2017 - May 2021)



Ocean freight rates

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

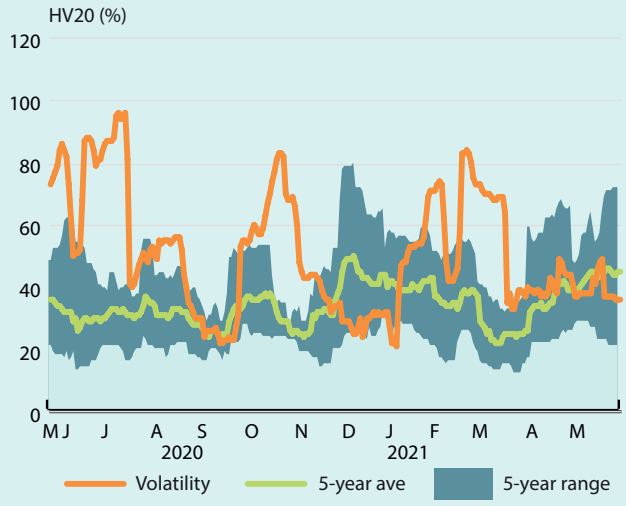
OCEAN FREIGHT MARKET (NOV 2020 - MAY 2021)

The dry bulk freight complex, which hauls commodities such as grains, oilseeds, iron ore, cement, coal and fertilizer, has witnessed a steep increase in earnings during the past six months. The market entered the calendar year on a positive note amid signs of improving world economic conditions and growing trade optimism against the backdrop of COVID-19 vaccination programmes in many countries. Supply side developments offered additional support, with bulker fleet growth expected to decelerate markedly in 2021 because of a slowdown in newbuilding deliveries.

Although the shipping industry appeared to have adapted to new COVID-19-related rules, congestion and adverse weather affected activity at some origins, including Australia, Brazil and the United States, while low river levels and port worker strikes hampered operations in Argentina. The late-March six-day blockage of the Suez Canal was estimated to have had a limited impact on dry bulk freight rates, yet, more than 90 carriers were reported to have been delayed due to the incident.

Underpinned by sharp gains in all underlying vessel segments, the Baltic Dry Index (BDI) – a measure of timecharter values across major bulker categories – has more than doubled over the past six months and approached an 11-year peak in early-May. Reflecting a strong rebound from near all-time lows of last spring, when activity was suppressed by coronavirus-related uncertainty, the Index was up more than fivefold year-on-year as at end-May. However, movements over the period have been two-sided, with values retreating recently, while markets saw a spike in volatility during the first quarter of the year.

Volatility in Baltic Dry Index (HV20)
28 May 2020 - 28 May 2021



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

Voyage freight costs (include fuel, port charges and other associated costs) across main grains and oilseeds routes have also firmed markedly on surging vessel hire rates and recovering bunker prices. The IGC Grains and Oilseeds Freight Index (GOFI), which gauges nominal shipping costs on around 300 selected routes, climbed by 51 percent since late-November, to post a more than twofold annual increase as of end-May. Gains across constituent sub-Indices – showing key grains and oilseeds exporters – were led by Australia, where this season's upturn in grains business boosted demand from charterers. Additionally, loadings at Western Australian ports faced delays following heavy rains in March and more recent tropical cyclone Seroja.

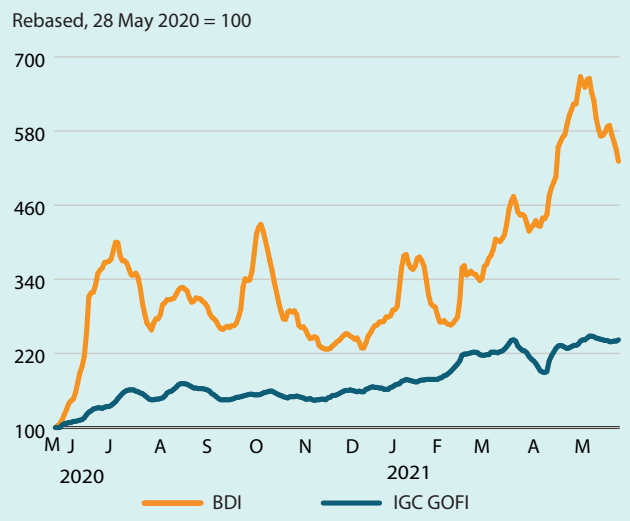
Over the period, sentiment in the **Capesize** sector – representing the largest bulk carriers – was mainly shaped by developments in the global iron ore market. The corresponding Baltic sub-Index rebounded from multi-month lows in early-December last year on resurgent iron ore activity out of Brazil and Australia, with broader support

Summary of dry bulk freight markets

	28 May 2021	Changes	
		6 months	y/y
		%	
Baltic Dry Index (BDI)*	**2596**	+111	+431
Sub-indices:			
Capesize	**3089**	+102	+11341
Panamax	**2760**	+93	+283
Supramax	**2504**	+146	+399
*Baltic: Handysize Index (BHSI)***	***1343***	***+107***	***+403***
IGC Grains and Oilseeds Freight Index (GOFI)	***183***	***+51***	***+142***

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

BDI and IGC GOFI
28 May 2020 - 28 May 2021



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 2020 - 28 May 2021

Source: Baltic Exchange

stemming from soaring world prices for that commodity and logistical issues at discharging ports in China.

After a dip in early-2021, partly tied to a holiday lull in Asia, the market subsequently renewed growth on strong market fundamentals, including robust iron ore demand from China, where steel production continued to expand despite rising raw material prices. Also drawing support from cyclone-induced disruption in Western Australia and increased interest for bauxite and coal deliveries in the Atlantic, average segment earnings climbed to more than a decade-high in early May. Although a retreat in iron ore prices and worries about China's plans to strengthen commodity price controls weighed on timecharter values recently, the sub-Index has doubled since late-November, reaching 3,089 points, compared to just 27 points the year before.

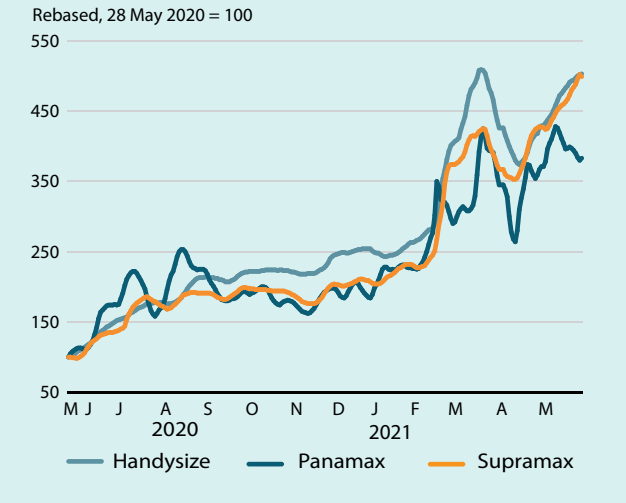
After two-sided movements in late-2020, rates in the **Panamax** segment edged higher since the start of the year, buoyed by grains and oilseeds shipments from South America, the US Gulf and the northern Pacific. This coincided with fresh coal enquiries in Asia as cold spells boosted demand for heating and electricity in that region.

Growth in earnings gained momentum in February, with activity centred on front-haul deliveries out of the US Gulf and the Black Sea region, where exporters faced challenging wintry weather. Further underpinning came from firming mineral demand in the Baltic, where thin availability of ice class bulkers was noted. More recently, accelerating grains/oilseeds dispatches out of South America were a notable feature, with stiff competition for port capacity reported in Brazil as delayed soyabean arrivals overlapped with the sugar export season. At the US Gulf, a seasonal slowdown in soyabean shipments was countered by an upturn in maize loadings, most notably to China. Nominal journey costs from New Orleans to Dalian posted a net 41 percent increase over the period, to around USD 62 per tonne, a USD 4 premium to comparable deliveries from southern Brazil (Santos).

Despite a recent retreat, partly linked to plummeting Capesize rates, average segment earnings were 93 percent higher compared to late-November.

Segments for smaller carrying vessels – **Supramax** and **Handysize** – have also surged in recent months on good chartering activity across main loading areas. Both sectors

Grains and oilseeds carrying sectors: Panamax and Supramax sub-Indices and Handysize Index
28 May 2020 - 28 May 2021



Source: Baltic Exchange

witnessed a weak start to the year, but earnings charged higher in February, with upside linked to brisk fixing in the Americas, including for grains and oilseeds, as well as tight vessel supply in Europe/the Mediterranean and buoyant coal trading in Asia. Building tonnage at the US Gulf and softer rates in South America contributed to a downturn in April, but losses were reversed in the period since on fresh enquiries in both Basins and reduced vessel supply in the Pacific, as logistical bottlenecks in South America limited the flow of bulkers to that area.

Summary of freight rates on selected routes

USD/t	Cargo / Discharge	28 May 2021	Changes 6 months	Changes y/y %
US (Gulf) to:				
China (Dalian)	**66,000 / 8,000**	**62**	41	105
EU (Rotterdam)	**66,000 / 10,000**	**31**	27	157
Japan (Yokohama)	**66,000 / 8,000**	**60**	40	100
Canada (St. Lawrence) to:				
China (Dalian)	**66 000 / 8 000**	**60**	44	125
EU (Rotterdam)	**66 000 / 10 000**	**22**	29	191
Japan (Yokohama)	**66 000 / 8 000**	**58**	42	110
Argentina (Up river) to:				
Algeria (Belaja)	**25 500 / 2 500**	**53**	62	150
Egypt (Alexandria)	**49 000 / 6 000**	**47**	75	182
EU (Rotterdam)	**66 000 / 10 000**	**38**	28	169
Brazil (Santos) to:				
China (Dalian)	**66 000 / 8 000**	**58**	49	136
EU (Rotterdam)	**66 000 / 10 000**	**31**	31	205
Republic of Korea (Inchon)	**66 000 / 7 250**	**57**	50	141
EU (France, Rouen) to:				
Algeria (Belaja)	**25 500 / 2 500**	**26**	23	137
Egypt (Alexandria)	**49 000 / 6 000**	**27**	45	207
Morocco (Casablanca)	**25 500 / 3 000**	**23**	22	127
Russia (Novorossiysk) to:				
Egypt (Alexandria)	**49 000 / 6 000**	**25**	52	226
Morocco (Casablanca)	**25 500 / 3 000**	**28**	25	165
Tunisia (Bizerte)	**25 500 / 2 500**	**25**	26	147
Australia (Kwinana) to:				
China (Dalian)	**66 000 / 8 000**	**30**	73	153
Indonesia (Jakarta)	**49 000 / 8 000**	**29**	109	186
Republic of Korea (Inchon)	**66 000 / 7 250**	**30**	77	166

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

FAO price indices[1]

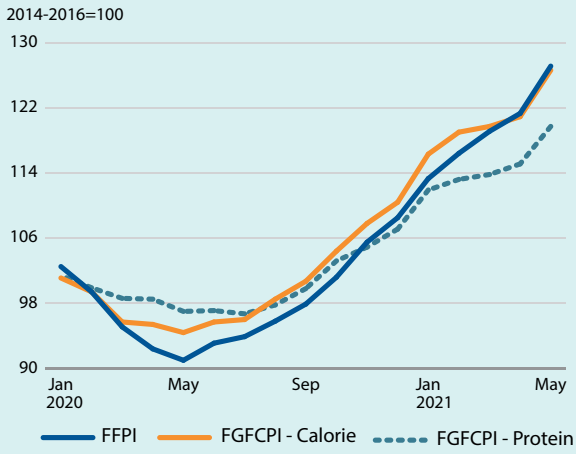
The FAO Global Food Consumption Price Indices[2]

The **FAO Global Food Consumption Price Indices (FGFCPIs)** track monthly changes in international prices of a basket of food commodities. The FGFCPIs encompass the five food commodity groups comprised by the FAO Food Price Index (FFPI), further to including oilseeds and fish among their components. In addition to their comparatively broader commodity coverage, the FGFCPIs differ from the FFPI in that they weigh the individual commodity groups that compose them by their respective contribution to average global caloric intake (FGFCPI calorie-base) or to average protein uptake (FGFCPI protein-base) during 2014-2016 base period. These weights are derived from the FAO food balance sheets (http://www.fao.org/faostat/en/#data/FBS).

The **Calorie-base FGFCPI** interrupted a four-month downward streak in June 2020 and has risen uninterruptedly since then. In nominal terms, this year-long upward trajectory placed the May 2021 value of the FGFCPI-calories at 126.6 points, up 34 percent year-on-year and the highest the Index has been since February 2013. Compared to May 2020, prices of all other commodities covered by the Calorie-base Index have risen, with the exception of rice. However, because of their comparatively greater contribution to global energy intake, the rise in the Calorie-base FGFCPI has been primarily the result of the strength exhibited by wheat, vegetable oils and coarse grain prices.

The increase of the **Protein-base FGFCPI** has been somewhat less pronounced than of its calorie-based correspondent. In May 2021, the Protein-base Index stood at 119.7 points, 23 percent above its year-earlier value. To a certain degree, the more restrained climb reflects the comparatively more moderate year-to-year gains registered in quotations of commodities with higher protein content, such as meat, dairy and fish. Through May 2021, these have ranged from 5 to 28 percent, compared to 50 percent for grain prices and 124 percent for vegetable oils. This also mirrors the low contribution of vegetable oils, along with sugar, to global protein consumption. Since these commodities have been among those spearheading the rise of the export-value and calorie-based indices (vegetable oils in particular), this has resulted in the Protein-base FGFCPI departing from the patterns of the other two indices, especially since the onset of 2021.

The FAO Global Food Consumption and Food Price Indices



The FAO Food Price Index[3]

The **FAO Food Price Index (FFPI)** averaged 127.1 points in May 2021, 5.8 points (4.8 percent) higher than in April and as much as 36.1 points (39.7 percent) above the same period last year. The May increase represented the biggest month-on-month gain since October 2010. It also marked the twelfth consecutive monthly rise in the value of the FFPI to its highest value since September 2011, bringing the Index only 7.6 percent below its peak value of 137.6 points registered in February 2011. The sharp increase in May reflected a surge in prices for oils, sugar and cereals along with firmer meat and dairy prices.

The **FAO Cereal Price Index** averaged 133.1 points in May, up 7.6 points (6.0 percent) from April and 35.7 points (36.6 percent) above its May 2020 value. Among the major cereals, international maize prices rose the most, gaining 12.9 points (8.8 percent) in May, reaching 75.6 points (89.3 percent) above their value last year and their highest level since January 2013. Downgraded production prospects for Brazil added pressure to already tight global supplies

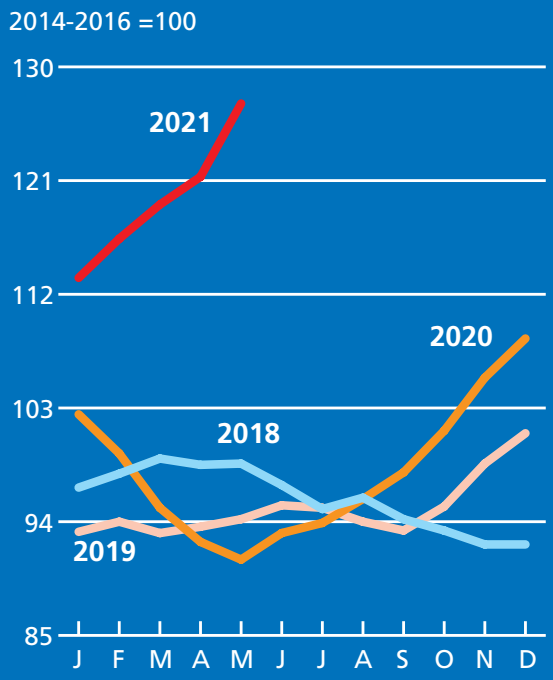
[1] All changes referred to in this section, in absolute or percentage terms, are calculated based on unrounded figures.

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

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

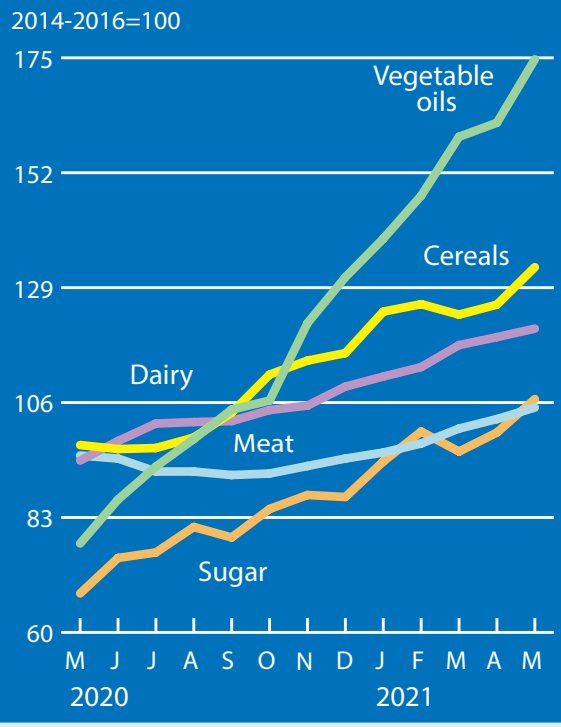
amidst sustained strong demand. However, towards the end of the month maize prices started to retreat, mostly in expectation of higher production prospects in the United States of America. International barley and sorghum prices also increased in May, rising by 5.4 percent and 3.6 percent, respectively. Following a surge in wheat prices in early May, improved crop conditions, particularly in the European Union and the United States of America, led to sharp price declines by the end of the month. However, wheat prices still averaged 8.0 points (6.8 percent) up from April and 27.7 points (28.5 percent) above May 2020. International rice prices held steady in May, with logistics and shipping costs keeping trading activity subdued through the month.

FAO Food Price Index



The **FAO Vegetable Oil Price Index** averaged 174.7 points in May, gaining 12.7 points (or 7.8 percent) month-on-month and marking a twelfth consecutive monthly rise. The continued strength of the index mainly reflects rising palm, soy and rapeseed oil values. International palm oil quotations remained on an upward trajectory in May and reached their highest level since February 2011, as slow production growth in Southeast Asian countries, together with rising global import demand, kept inventories in leading exporting nations at relatively low levels. As

FAO Food Commodity Price Indices



for soyoil, prospects of robust global demand, especially from the biodiesel sector, lent support to prices, while international rapeseed oil values were underpinned by continued global supply tightness.

The **FAO Dairy Price Index** averaged 120.8 points in May, up 1.7 points (1.5 percent) from April, marking one year of uninterrupted increases and lifting the value 26.4 points (28 percent) above its level of one year ago. However, the index is still 22.8 percent below its peak value reached in December 2013. In May, international quotations for skim milk powder rose the most, reflecting solid import demand amid limited spot supplies from the European Union, and those for whole milk powder increased on high import purchases, especially by China, despite New Zealand's offer of large sales. Cheese quotations also strengthened, mostly due to lower supplies from the European Union amidst strong demand. By contrast, butter prices fell on increased export supplies from New Zealand, marking the end of an eleven-month long price rally.

The **FAO Meat Price Index**[4] averaged 105.0 points in May, up 2.3 points (2.2 percent) from April, registering the eighth monthly increase and lifting the index 10 percent above its level of one year ago, but still nearly 12 percent

[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.

below its peak reached in August 2014. In May, price quotations for all meat types represented in the index rose, principally underpinned by a faster pace of import purchases by East Asian countries, mainly China. Tightening global supplies also provided price support across all meat products, reflecting multiple factors ranging from slaughter slowdowns in the cases of bovine and ovine meats to rising internal demand for poultry and pig meats in leading producer regions.

The **FAO Sugar Price Index** averaged 106.7 points in May, up 6.8 points (6.8 percent) from April, marking the second consecutive monthly increase and the highest level since March 2017. The rise in international sugar price quotations was mostly related to harvest delays and concerns over reduced crop yields in Brazil, the world's largest sugar exporter, as the prolonged dry weather conditions impacted crop development. Additional support was provided by higher crude oil prices and a further strengthening of the Brazilian Real against the US dollar, which tends to restrain shipments from Brazil. Large export volumes from India, however, contributed to easing the price surge and prevented larger monthly price gains.

FAO Food Price Index

		Food Price Index[1]	Meat[2]	Dairy[3]	Cereals[4]	Vegetable Oils[5]	Sugar[6]
2003		57.8	58.3	54.5	59.4	62.6	43.9
2004		65.5	67.6	69.8	64.0	69.6	44.3
2005		67.4	71.8	77.2	60.8	64.4	61.2
2006		72.6	70.5	73.1	71.2	70.5	91.4
2007		94.2	76.9	122.4	100.9	107.3	62.4
2008		117.5	90.2	132.3	137.6	141.0	79.2
2009		91.7	81.2	91.4	97.2	94.4	112.2
2010		106.7	91.0	111.9	107.5	121.9	131.7
2011		131.9	105.3	129.9	142.2	156.4	160.9
2012		122.8	105.0	111.7	137.4	138.3	133.3
2013		120.1	106.2	140.9	129.1	119.5	109.5
2014		115.0	112.2	130.2	115.8	110.6	105.2
2015		93.1	96.7	87.1	95.9	90.0	83.2
2016		91.9	91.0	82.6	88.3	99.4	111.6
2017		98.0	97.7	108.0	91.0	101.9	99.1
2018		95.9	94.9	107.3	100.6	87.8	77.4
2019		95.0	100.0	102.8	96.4	83.3	78.6
2020		98.0	95.5	101.8	102.7	99.4	79.5
2020	May	91.0	95.4	94.4	97.5	77.8	67.8
	June	93.1	94.8	98.3	96.7	86.6	74.9
	July	93.9	92.2	101.8	96.9	93.2	76.0
	August	95.8	92.2	102.1	99.0	98.7	81.1
	September	97.9	91.5	102.3	104.0	104.6	79.0
	October	101.2	91.8	104.5	111.6	106.4	84.7
	November	105.5	93.3	105.4	114.4	121.9	87.5
	December	108.5	94.8	109.2	115.9	131.1	87.1
2021	January	113.3	96.0	111.2	124.2	138.8	94.2
	February	116.4	97.8	113.1	125.7	147.4	100.2
	March	119.1	100.8	117.5	123.6	159.2	96.2
	April	121.3	102.7	119.1	125.6	162.0	100.0
	May	127.1	105.0	120.8	133.1	174.7	106.7

1 **Food Price Index:** Consists of the average of 5 commodity group price indices mentioned above, weighted with the average export shares of each of the groups for 2014-2016: in total 95 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 price relatives of the commodities included in the group, with the base period price consisting of the averages for the years 2014-2016.

2 **Meat Price Index:** Based on 35 average export unit values/market prices of four meat types (bovine, pig, poultry and ovine) from 10 representative markets. Within each meat type, export unit values/prices are weighted by the trade shares of their respective markets, while the meat types are weighted by their average global export trade shares for 2014-2016. Quotations for the two most recent months may consist of estimates and be subject to revision.

3 **Dairy Price Index:** Computed using 8 price quotations of four dairy products (butter, cheese, SMP and WMP) from two representative markets. Within each dairy product, prices are weighted by the trade shares of their respective markets, while the dairy products are weighted by their average export shares for 2014-2016.

4 **Cereals Price Index**: Compiled using the International Grains Council (IGC) wheat price index (an average of 10 different wheat price quotations), the IGC maize price index (an average of 4 different maize price quotations), the IGC barley price index (an average of 5 different barley price quotations), 1 sorghum export quotation and the FAO All Rice Price Index. The FAO All Rice Price Index is based on 21 rice export quotations, combined into four groups consisting of Indica, Aromatic, Japonica and Glutinous rice varieties. Within each varietal group, a simple average of the relative prices of appropriate quotations is calculated; then the average relative prices of each of the four rice varieties are combined by weighting them with their (fixed) trade shares for 2014-2016. The Cereal Price Index combines the relative prices of sorghum, the IGC wheat, maize and barley price indices (re-based to 2014-2016) and the FAO All Rice Price Index by weighing each commodity with its average export trade share for 2014-2016. .

5 **Vegetable Oils Price Index:** Consists of an average of 10 different oils weighted with average export trade shares of each oil product for 2014-2016.

6 **Sugar Price Index:** Index form of the International Sugar Agreement prices with 2014-2016 as base.

NEW RELEASE!

Like past editions, the latest annual Compendium provides a concise overview of salient policy developments and related private sector measures relevant to the oilcrops industry at the global, regional and national level. The current edition covers the **year 2020**.

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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.

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

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

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

This report is based on information available up to late May 2021.

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