December 2020

Food and Agriculture Organization of the United Nations

DAIRY MARKET REVIEW

Emerging trends and outlook

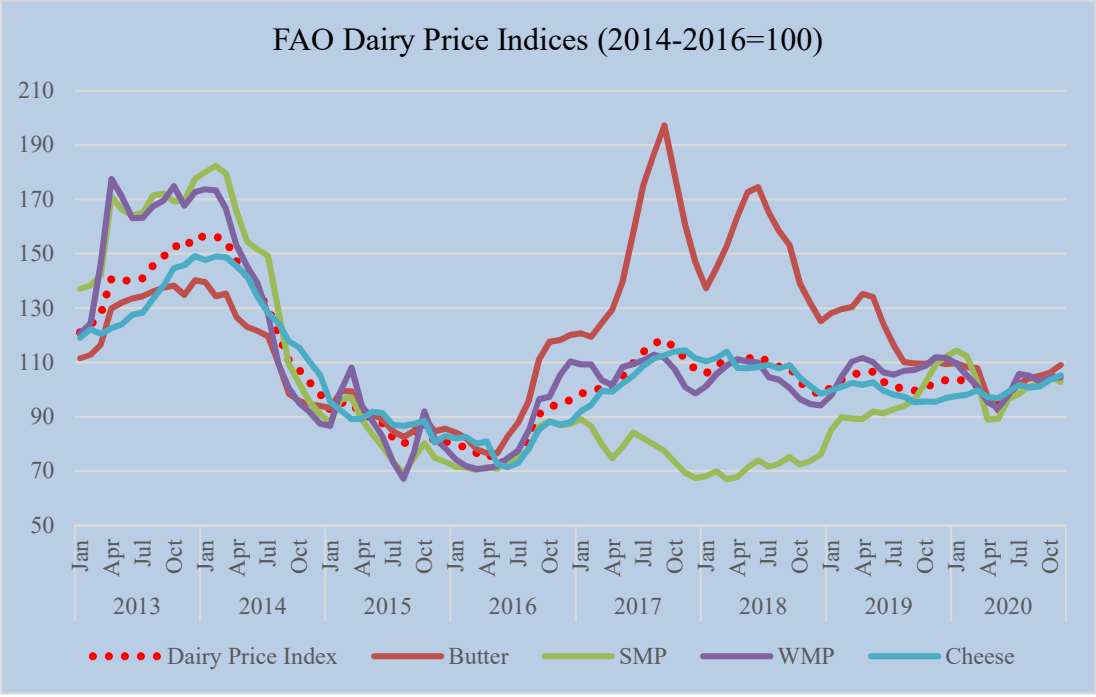
Highlights

- International dairy prices are rebounding slowly but remain below their May lows
- Despite market disruptions, world milk output is rising, mostly in Asia, but also in Europe and North America
- International trade in butter, cheese, and whole milk powder could expand, but skim milk powder may contract.

Global dairy prices

Prices rebounding but still below pre-COVID-19 levels

The Food and Agriculture Organization of the United Nations (FAO) Dairy Price Index averaged 105.3 points in November, up 0.9 points (0.9 percent) month-on-month, continuing the upward trend registered in recent months and nearing an 18-month high. The latest rise was primarily driven by firmer butter and cheese prices, reflecting steady increases in global import demand, and a surge in retail sales in Europe coinciding with the region's milk production reaching seasonal lows. By contrast, following six months of consecutive increases, skim milk powder (SMP) prices decreased due to a slower pace of purchases in Asia, especially by China, coupled with increased global export availabilities, including powder surpluses in India. Despite a rise in demand for spot supplies from the Middle East and North Africa, especially Algeria, smaller purchases by China weighed on whole milk powder (WMP) price quotations.



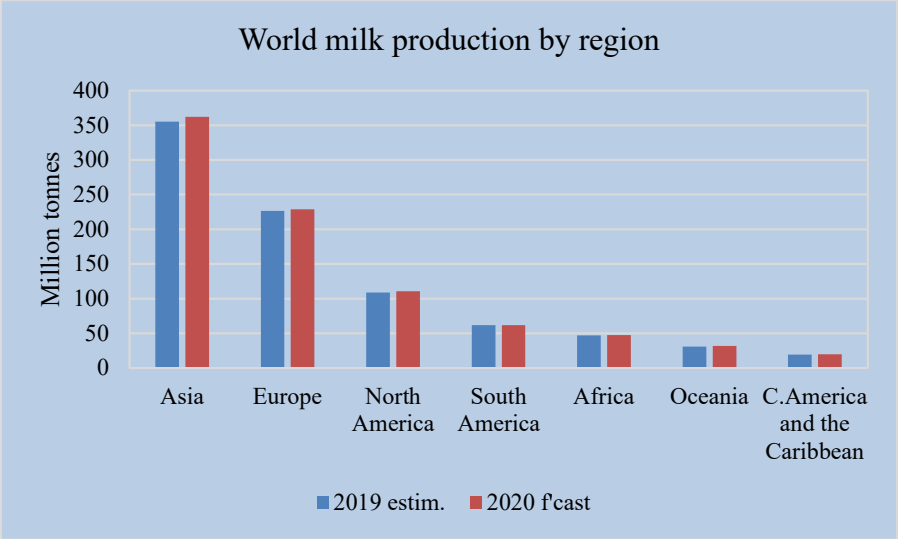
Considering the overall dairy product price movements since January to November, only cheese quotations registered an increase, as a result of persistent and robust import demand from Asia and consistently high internal demand in Europe, notwithstanding disruptions to food services sales. By contrast, price quotations in November for SMP, WMP and butter were down from January, reflecting negative fallouts from COVID-19 market disruptions, economic

slowdowns and transport bottlenecks including port congestions. Meanwhile, export availabilities expanded in leading exporting countries due to reduced internal sales and the high volume of milk products processed, especially of less labour-intensive products, such as milk powders, adding to the already existing powder stocks. However, price quotations for all milk products in the index have been strengthening in recent months, underpinned by increased purchases by some countries in the Middle East and North Africa, coupled with persistently high demand from Asia. Strong internal demand in Europe has also provided price support, especially for cheese, elevating its prices as much as 8 percent above the January level.

Global milk production

Despite hurdles, world milk output is rising

World milk production is forecast to reach nearly 860 million tonnes in 2020, up 1.4 percent from 2019, with expected increases in Asia, Europe, and North America, along with small gains in Oceania, Central America and the Caribbean, and Africa. By contrast, milk output in South America will likely contract.



In Asia, milk output in 2020 is forecast at 362 million tonnes, up 2.0 percent year-on-year, principally as a result of anticipated expansions in **India, Pakistan**, **China,** and **Turkey**, but also in **Japan, the Republic of Korea** and **Saudi Arabia**. By contrast, milk production may fall in the **Islamic Republic of Iran** and the **Syrian Arab Republic**, among others. **India**'s milk output is likely to reach 195 million tonnes, up 2.1 percent year-on-year, underpinned by an increase in dairy cattle numbers, and improved feed and fodder availability, resulting from favourable monsoon rains (June to September). During COVID-19 lockdowns, the village cooperatives' network has also helped milk collections to remain steady, while milk powder processing plants absorbed excess milk, sustaining output expansion. In **Pakistan**, milk production is likely to increase, albeit slowly, due to low milk collections, impacted by weak coordination in dairy value chains and inadequate quality assurances. In **China**, improving farm efficiency and productivity of large-scale farms is behind the forecast of 3.3 percent output growth in 2020. In **Turkey**, rising cattle numbers and operational efficiency are leading to higher output. In **Japan**, the government price support to farmers during the early phase of COVID-19 market disruptions, combined with the lowering of tariff-rate quotas (TRQs) for butter and SMP, have helped to stabilize milk output.

In Europe, milk output is forecast to reach 229 million tonnes in 2020, 1.0 percent higher than in 2019, with production expansions anticipated in the **European Union**, the **Russian Federation** and **Belarus.** In the **European Union**, yield improvements and a slight increase in dairy cattle numbers, coupled with improved pasture conditions, are behind the anticipated growth. Farm-gate price stability, supported mainly by European Union-wide assistance to the livestock sector, is also supporting milk output increase. In the **Russian Federation,** milk production is growing because of yield improvements in large-scale dairy farms, offset by continued production contractions in smallholder farms. In **Belarus**, sustained yield growth is mainly due to better farm management practices and the use of quality feed, with continued high imports from the Russian Federation and neighbouring countries providing stability. By contrast, **Ukraine**'s milk production is trending downward due to falling cattle herd and weak import demand, notwithstanding output increases in modern farms.

In North America, milk output is forecast at 110 million tonnes in 2020, up 1.6 percent year-on-year. In the United States of America, milk output is rising, primarily because of increases in dairy herd numbers and milk yields. Producer margins remained stable, as producers received direct payments from the federal government under COVID-19 assistance. Further support also came from buoyant import demand from Asia and Latin America. Despite a slowdown in earlier months, **Canada**'s milk production may remain stable.

In Central America and the Caribbean, milk production is likely to reach 19 million tonnes, an increase of 1.7 percent from 2019. Despite subdued consumer and industrial demand, milk production may still rise in **Mexico**, the largest milk producer in the region, aided by continued improvements to herd genetics and farming technology. However, sustaining output expansion may become a challenge if internal demand remained subdued, and the contribution of small-scale farms declines as input costs surge.

In South America, milk production is set at 62 million in 2020, slightly down (-0.2 percent) year-on-year, with anticipated expansions in **Argentina**, **Chile** and **Uruguay,** and contractions in **Brazil** and **Colombia**. In **Argentina**, good rainfall that spurred pastures and buoyant overseas demand led to improvements to the milk production outlook. The government's decision to allow retail milk prices to increase by two percent provided some respite to farmers, but sustaining that will hinge on the stability of labour and input costs. In **Chile**, monthly milk deliveries in 2020 are running above the 2018 and 2019 levels, indicating a possible output expansion. **Uruguay** too benefitted from favourable weather, including good rainfall. By contrast, drought in parts of the country and reduced demand for milk may cause **Brazil**'s milk output to fall, despite having large farms with high milk yields. In **Colombia**, unfavourable farm-gate prices are a challenge, but the government promotes local milk consumption and processing together with export expansions.

In Oceania, following a 2.5 percent contraction in 2019, milk output is likely to expand by 2.2 percent to 31 million tonnes in 2020. After four years of consecutive declines, milk production in **Australia** is heading to surpass the last year's level, as principal milk-producing regions received adequate rainfall, leading to pasture improvements. Government assistance to drought-affected farming households and the extension of farm household allowances may also sustain output. Despite a decline anticipated earlier, **New Zealand**'s milk output is heading to exceed that of 2019, probably reaching 22 million tonnes, up 1.3 percent, underpinned by good rainfall and strong import demand from China, the Middle East, and North Africa. High farm-gate prices and government assistance to cover extra airfreight costs due to limited cargo services during the lockdown helped producers sustain production.

In Africa, milk output is pegged at 47 million tonnes in 2020, up slightly (0.3 percent) from 2019. Several leading milk producers in Africa encountered many constraints stemming from economic downturns, conflicts, displacements, droughts in some regions and floods elsewhere and COVID-19 market disruptions. In **Kenya**, for example, milk

marketed through formal channels has declined due to mounting challenges to milk sales, coupled with a possible production shortfall in farms due to limited rainfall and fodder availabilities. Due to reduced milk production in earlier months because of subdued demand and lower farm-gate prices, South Africa's milk production may slightly decline.

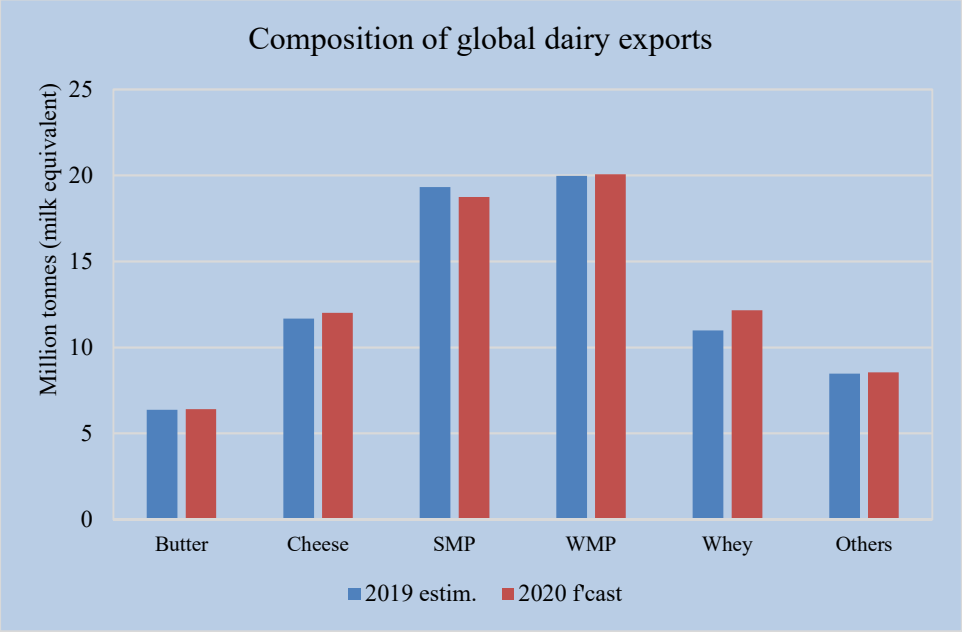
World trade in dairy products

World dairy trade is expanding despite the economic recession

World dairy exports are forecast to reach 78 million tonnes (milk equivalent) in 2020, up 1.5 percent year-on-year, a pace of expansion almost equal to the average growth rate of the preceding five years. The increase is attributed primarily to the persistently high global import demand, sustained by **China**, reflecting increased economic activities, and also **Algeria**, **Saudi Arabia** and **Nigeria**. **Australia** and the **Russian Federation** may also step-up imports in line with rising internal demand, while **Colombia** is foreseen to import more, especially under the US-Canada Trade Agreement. By contrast, the **Philippines**, **Mexico** and Japan may reduce milk imports consistent with market disruptions, economic downturns and national production increases. High global exportable surpluses have been the critical price driver fostering more shipments from the **United States of America, Argentina**, **Belarus** and the **European Union**. By contrast, exports by **New Zealand**, **India,** and **Turkey** may decline because of stock accumulations and economic downturns in some importing countries.

Trade performance of dairy products

In 2020, exports of cheese are forecast to expand by nearly 3 percent and those of butter and WMP by 0.5 percent each, while SMP trade could fall by about 3 percent. Whey powder exports, which accounts for 16 percent of global milk trade by volume, is likely to expand by 11 percent.



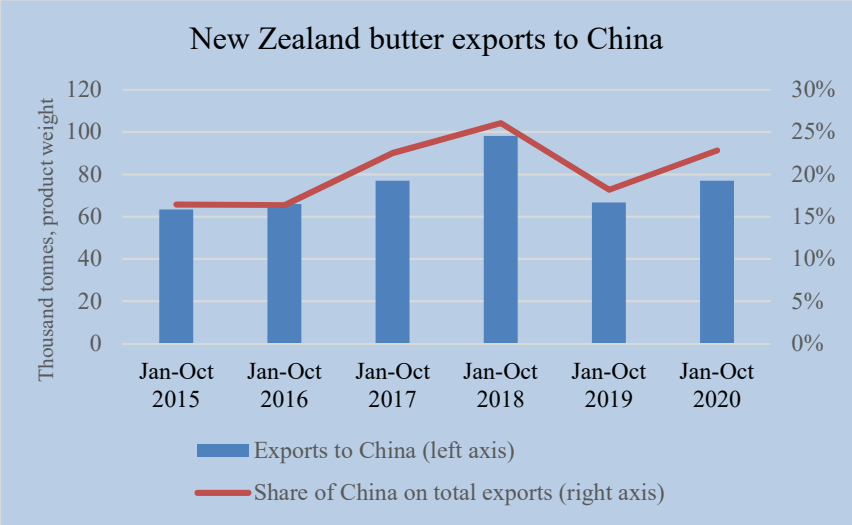
Butter

Butter exports to increase, albeit slowly

At 970 000 tonnes, global butter trade in 2020 is likely to record a slower growth of only 0.5 percent compared to the 6 percent average recorded over the two preceding years. This increase mainly reflects the continued high imports by **China**, along with those of the **Russian Federation**, **Saudi Arabia**, **Australia** and the **United States of America**. By contrast, **Mexico**, the **Philippines**, the **United Arab Emirates (UAE)**, **Indonesia** and **Japan**, among others, may reduce purchases. The **European Union** is likely to supply much of the expanded global demand in 2020, supplemented by **Argentina** and **Belarus**. However, shipments from **India** and **New Zealand**, as well as **Ukraine**, **Australia**, the **United States of America** and **Mexico**, may contract.

China, which is driving the global butter trade, is likely to register a 23 percent increase in imports in 2020, rising to 148 000 tonnes, attributed to fast economic revival following the end of COVID-19 lockdowns. The **Russian Federation** is likely to increase butter purchases by about 16 percent, albeit half the rate registered last year. Induced by an improvement in petroleum prices in recent months, **Saudi Arabia** has been buying more butter, whereas rising internal demand is causing **Australia** to increase its butter imports. Elsewhere, widespread economic downturns, job and income losses, reduced foreign remittances, coupled with increases in national production, are leading many countries to cut their butter imports.

Regarding exports, the **European Union** is benefitting from increased global demand for butter, while production is adequate to meet export and internal needs. Rising butter demand from the Russian Federation is helping **Argentina** and **Belarus** to register increased sales. Belarus is also benefitting from sustained demand from the neighbouring countries. By contrast, **India**'s butter shipments may plummet by as much as 63 percent, reflecting a sharp fall in imports by the Middle East, caused by lower household incomes and outmigration of a sizeable Asian labour force. **New Zealand** — the world's largest butter exporter — may see its butter exports in 2020 fall by over 12 000 tonnes, as many countries are curtailing imports, partially offset by increased imports by China, the Russian Federation, Saudi Arabia and Egypt. **Australia**'s exports are declining, especially to Thailand and Malaysia, the countries where the global health crisis negatively affected the tourism sector and transhipment trade. At the same time, Australia's shipments to the United States of America may fall on high domestic production and lower demand form its food services sector. Similarly, lower orders from Canada, Mexico, the Republic of Korea and Japan may negatively impact **US** butter exports.

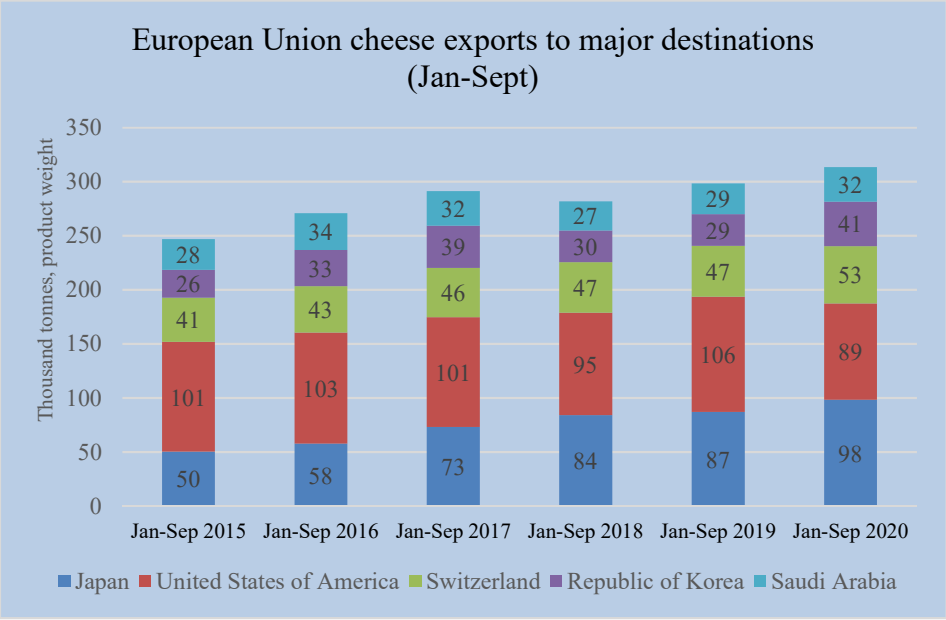


Cheese

Despite market disruptions, global cheese trade expands

Global cheese trade is forecast to grow by nearly 3 percent to around 2.7 million tonnes in 2020, reflecting the fifth consecutive year of expansion. Continued import growth in **China**, as well as the **Russian Federation** and the **Republic of Korea**, among others, is behind this year's relatively expected strong trade growth.

In **China**, rising incomes, end to the lockdowns and the revival of economic activities underpin the 12 percent anticipated growth in cheese imports, to over 182 000 tonnes. Meanwhile, the **Russian Federation** is expected to raise cheese imports by nearly 6 percent, only slightly below the average of the previous four years, to 285 000 tonnes. Similarly, the **Republic of Korea**'s cheese imports may rise by 10 percent, surpassing last year's, mainly in line with the increasing trend in domestic consumption. By contrast, the **United States of America** and **Japan** may reduce cheese purchases due to increases in domestic production.



Regarding exports, the **European Union**, **Belarus** and the **United States of America** are likely to supply much of the anticipated increase in world cheese imports in 2020, while exports by **New Zealand** and the **Islamic Republic of Iran** are foreseen to decline. With increased production, the **European Union** is likely to raise cheese exports, especially to Japan, Switzerland and the Republic of Korea, among other markets. Increased output is also supporting the **United States of America** and **Belarus** to increase cheese exports. Notwithstanding higher sales to China, the Republic of Korea, Malaysia and Thailand, **New Zealand's** exports may contract, reflecting weaker purchasing power of many trading partners.

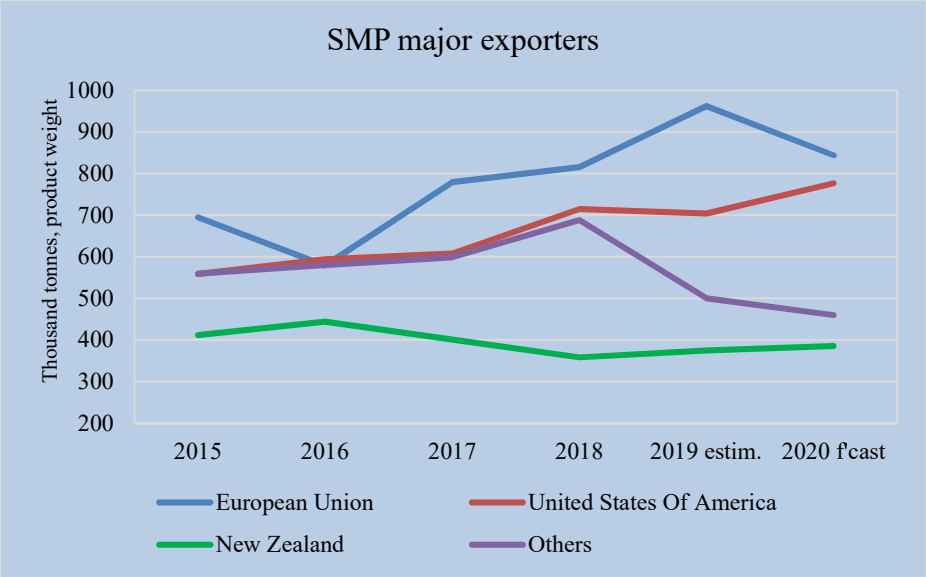
Skim milk powder

Global SMP trade is contracting amidst widespread import curtailments

SMP exports are forecast to contract by 3.0 percent in 2020 year-on-year, a second consecutive year of decline, to under 2.5 million tonnes, as many countries curb purchases, consistent with economic slowdowns, COVID-19 related market disruptions, and increased national output in several importing countries. The sharpest import reductions are

forecast in the **Philippines**, **China**, the **Russian Federation**, **Mexico**, **Bangladesh** and **Japan**, which would lead to reduced sales by the **European Union**, **Turkey**, **Uruguay** and **Ukraine**, among others. However, the **United States of America**, **New Zealand**, **Canada,** and **Belarus** may still step-up exports.

The **Philippines** is likely to reduce SMP imports by as much as 22 percent in 2020, due to dampened consumer demand, despite having a sizeable national supply gap. **China**'s SMP imports are pegged at 344 000 tonnes, down 8 percent (29 000 tonnes) year-on-year, somewhat less downbeat forecast than anticipated earlier, which resulted from faster economic revival with the end of the COVID-19 lockdowns. Reduced consumer and industrial demand, coupled with increased national production, may lead the **Russian Federation** and **Mexico** to curb their SMP imports. In **Japan**, increased SMP production has led to the lowering of the SMP tariff rate quota (TRQ) to 750 metric tonnes from an already announced volume of 4 000 metric tonnes (- 81 percent).



SMP exports by the **European Union** are forecast to fall by 12 percent year-on-year, to 844 000 tonnes, primarily because of reduced sales to East Asian markets. **Turkey**, **Uruguay** and **Ukraine** — three countries with relatively small export volumes, but emerging players — may also face restrained exports in 2020, as their neighbouring countries that absorb much of the exports face economic slowdowns. **Australia**'s SMP exports may drop by 3 percent year-on-year, following an 18 percent drop registered in 2019. By contrast, the **United States of America** is expected to export 10 percent more, recovering from a downturn last year, with larger shipments to Asian markets.

Whole milk powder

High imports in the Middle East are sustaining WMP trade expansion

World exports of WMP are forecast to expand slightly (about 0.5 percent) to 2.6 million tonnes in 2020, driven by higher imports by **Algeria**, the **United Arab Emirates**, **Saudi Arabia**, **Nigeria** and **Oman**, reflecting more stable incomes from petroleum exports in recent months. WMP imports may also rise in **Australia**, **Brazil** and **Viet Nam**. By contrast, **China**, **Malaysia**, **Singapore**, **Bangladesh**, **Indonesia**, the **Russian Federation** and the **Philippines** are likely to import less in 2020.

However, in **China**, an expansion in national production, high stock levels and passive demand are causing WMP imports to contract by about 5 percent year-on-year, to about 770 000 tonnes. **Malaysia, Indonesia,** the **Philippines**

and **Singapore** may also reduce WMP imports in 2020, reflecting a regional economic slowdown and stalled tourism industry. The decline in **Bangladesh** reflects lower demand from the food services sector, mostly hotels, bakeries and restaurants and in the **Russian Federation**, the drop stems from rising domestic production and restrained consumer demand.

WMP exports by **New Zealand** are forecast to fall by 3 percent to 1.5 million tonnes in 2020 despite recent increases in imports by the Middle East and North African countries. A decline in transhipment businesses and demand from neighbouring countries for re-processed dairy products are causing the **United Arab Emirates, Malaysia, Singapore** and **Oman** to reduce WMP imports.

Statistical annex

FAO Dairy Price Index [a]

	International prices [b] *(USD per tonne)*				FAO Dairy Price Index
PERIOD	**Butter**	**SMP**	**WMP**	**Cheddar cheese**	***(2014–2016=100)***
Annual					
(January/December)					
2009	3 021	2 391	2 570	3 292	91
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
Monthly					
2019 – November	4 058	2 793	3 308	3 320	102
2019 – December	4 031	2 873	3 302	3 369	104
2020 – January	4 043	2 927	3 241	3 390	104
2020 – February	3 991	2 877	3 109	3 410	103
2020 – March	3 977	2 637	2 990	3 465	102
2020 – April	3 592	2 279	2 822	3 381	96
2020 – May	3 403	2 285	2 759	3 362	94
2020 – June	3 595	2 473	2 893	3 447	98
2020 – July	3 766	2 520	3 128	3 533	102
2020 – August	3 841	2 592	3 105	3 503	102
2020 – September	3 873	2 622	3 043	3 515	102
2020 – October	3 917	2 683	3 097	3 601	104
2020 – November	4 020	2 632	3 090	3 658	105

Notes:

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

b) All sub-component prices represent average FOB prices for Oceania and the European Union

Sources: Product prices are the mid-point price ranges reported by Dairy Market News (USDA) and European Commission-reported European Union prices (starting from 2008).

Milk and milk product statistics

	Production ('000 tonnes)			Imports ('000 tonnes, milk equivalent[1])			Exports ('000 tonnes, milk equivalent[1])		
	2016-2018	2019	2020	2016-2018	2019	2020	2016-2018	2019	2020
	avg.	*estim.*	*f 'cast*	*avg.*	*estim.*	*f 'cast*	*avg.*	*estim.*	*f 'cast*
ASIA	**334869**	**355002**	**361986**	**43699**	**46964**	**46710**	**7467**	**8157**	**7426**
China	32663	33048	34124	12078	15724	16675	42	49	44
India[2]	176445	191000	195000	115	88	132	381	437	204
Indonesia	1523	1514	1516	2849	3212	3099	48	51	53
Iran (Islamic Rep. of)	7373	7610	7597	341	264	115	785	713	637
Japan	7320	7314	7390	2098	2291	2185	10	10	10
Republic of Korea	2058	2036	2055	1178	1328	1333	29	34	37
Malaysia	52	52	52	2268	2432	2347	656	666	576
Pakistan	44358	47297	48558	579	543	418	33	34	31
Philippines	18	15	16	2451	2827	2259	115	100	88
Saudi Arabia	2447	2491	2502	2784	2524	2682	1510	1542	1590
Singapore	-	-	-	1545	1531	1497	484	455	427
Thailand	802	655	656	1536	1673	1658	270	293	290
Turkey	20437	21530	21933	180	297	190	887	1060	853
AFRICA	**48024**	**46820**	**46954**	**9770**	**9597**	**10265**	**1157**	**1181**	**1128**
Algeria	3439	3145	3164	3401	3116	3602	1	1	1
Egypt	4990	4492	4533	1304	1283	1216	398	508	480
Kenya	4990	5016	5108	145	247	188	3	1	1
South Africa	3648	3779	3759	303	395	428	373	367	364
Tunisia	1403	1410	1429	88	137	127	65	34	30
CENTRAL AMERICA & THE CARIBBEAN	**17714**	**18961**	**19291**	**6144**	**6724**	**6611**	**1308**	**834**	**824**
Costa Rica	1148	1168	1181	59	59	62	139	151	157
Mexico	12014	13266	13571	3947	4356	4223	809	326	318
SOUTH AMERICA	**61615**	**61626**	**61524**	**3505**	**2633**	**2758**	**3830**	**3788**	**4452**
Argentina	10305	10343	11061	31	37	19	1711	1708	2365
Brazil	33875	34897	33954	1273	941	912	131	73	81
Colombia	6568	5646	5580	359	453	580	23	9	8
Uruguay	2083	2168	2266	30	34	29	1427	1484	1467
NORTH AMERICA	**106771**	**108561**	**110305**	**2674**	**2911**	**2969**	**11786**	**11733**	**12949**
Canada	9165	9503	9511	623	803	862	945	950	1102
United States	97605	99057	100793	2034	2092	2091	10840	10781	11846
EUROPE	**223175**	**226332**	**228693**	**6397**	**6337**	**6556**	**26149**	**28000**	**28531**
Belarus	7269	7394	7749	90	51	55	3895	3911	4275
European Union[3]	165234	167811	169824	1200	1041	931	19918	22080	22371
Russian Federation	30195	31351	31964	4092	3985	4068	280	249	312
Ukraine	10244	9676	9026	72	166	391	750	633	492
OCEANIA	**31067**	**30689**	**31372**	**1578**	**1722**	**1826**	**22129**	**23068**	**22584**
Australia	9472	8833	9239	1074	1206	1335	3154	2732	2612
New Zealand	21527	21787	22064	287	292	265	18970	20332	19967
WORLD	**823234**	**847992**	**860125**	**75879**	**76888**	**77694**	**76008**	**76761**	**77895**
LIFDCs	229852	245367	249548	6067	6384	6380	1095	1140	863
LDCs	34252	33643	33613	3978	4079	3965	221	195	188

1 Trade values refer to milk equivalents, and they are 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).

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

3 The data includes the United Kingdom of Great Britain and Northern Ireland.

Leading exporters of dairy products (000 tonnes product weight)

	AVG 16-18	2019prelim.	2020f'cast	Change 2020 over 19
WHOLE MILK POWDER				
World	**2489**	**2627**	**2639**	**0.5%**
New Zealand	1352	1541	1497	**-2.8%**
European Union*	370	298	312	**4.8%**
Argentina	105	97	177	**83.6%**
United Arab Emirates	112	167	155	**-7.1%**
SKIM MILK POWDER				
World	**2387**	**2541**	**2466**	**-3.0%**
European Union*	725	962	844	**-12.3%**
United States Of America	639	704	777	**10.3%**
New Zealand	401	375	385	**2.8%**
Belarus	114	123	128	**3.7%**
BUTTER				
World	**914**	**964**	**969**	**0.5%**
New Zealand	464	464	452	**-2.7%**
European Union*	179	216	273	**26.6%**
Belarus	84	78	80	**1.8%**
United States Of America	38	33	28	**-13.4%**
Argentina	7	14	18	**24.4%**
CHEESE				
World	**2481**	**2650**	**2728**	**2.9%**
European Union*	821	880	939	**6.7%**
United States Of America	327	361	369	**2.2%**
New Zealand	340	336	325	**-3.1%**
Belarus	202	244	271	**11.3%**
Australia	170	160	160	**0.2%**

* Including data for the United Kingdom of Great Britain and Northern Ireland

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Previous reports are available at http://www.fao.org/economic/est/est-commodities/dairy/milk-and-milk-products/en

Contact:

Dairy Market Review
Markets and Trade - Economic and Social Development
Food and Agriculture Organization of the United Nations
Rome, Italy
Email: FAO-Dairy-Outlook@fao.org

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