The World Dairy Situation Report 2023[1]

[1] Summary report for MILK SA authored by Bertus van Heerden, Chief Economist MPO based on the IDF Bull. 527/2023 World Dairy Situation. The complete document is available from the IDF www.fil.idf.org

Introduction

The 2023 World Dairy Situation Report was published by the International Dairy Federation (IDF) in October 2023. As always, it provides a general survey and overview of the global dairy industry in the previous year. The compilation includes the most relevant and up-to-date information on global production, processing, trade, prices, and consumption of milk and dairy products. The complete report is available from the IDF. In this article, the most salient points are covered to provide a snapshot of the world dairy situation in 2022.

Summary

In 2022 the world faced the third year of the COVID-19 pandemic and saw Russia attack Ukraine. While the aftermath of COVID-19 was still visible in 2022, the world suffered an existential shock when Russia attacked Ukraine which developed into the current war between Ukraine and Russia. In 2022 global per capita consumption of dairy products showed signs of stagnations, increasing from 117.6 kg in 2021 to 117.7kg in 2022. The sideways movement of global consumption could mostly be attributed to record high dairy commodity prices caused by the war in Ukraine. Average dairy commodity prices increased by 19.5%, marking the highest annual increase since 1990. The most aggressive price increases were observed in butter and SMP with average price increases of 32% and 21% respectively. Significant farmgate milk price increases were also experienced primarily due to global supply constraints and attempts to maintain farm margins above a certain threshold.

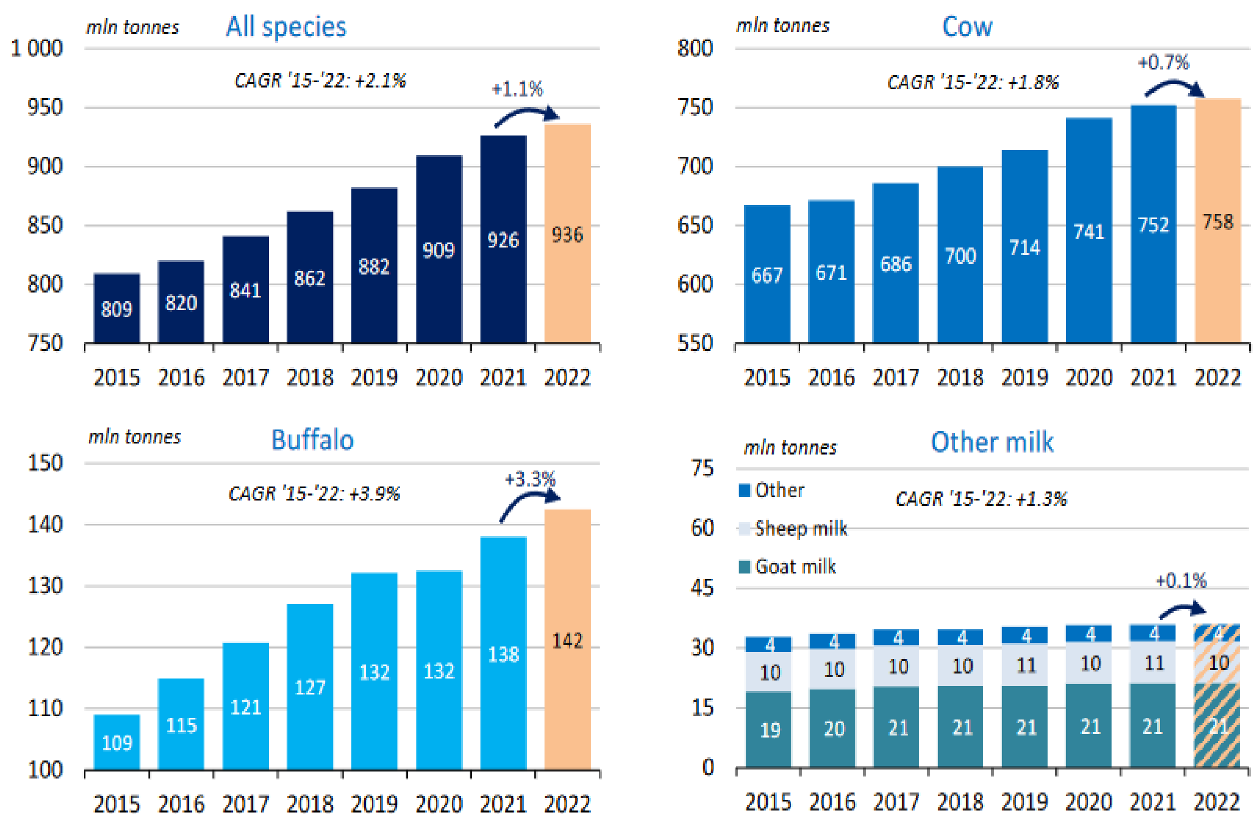
Global unprocessed milk production (all species) grew by 1.1% in 2022 to reach 936 million tonnes (cow's milk accounted for 81%). This was the second consecutive year that saw unprocessed milk production lower than the average growth rate of 2.1% per year (CAGR for 2015 – 2022). The subdued growth was due to challenges at key exporting regions caused by high-cost levels at the beginning of 2022 and the start of the war in Ukraine. However, the two primary drivers of growth namely milk production growth in milk-deficient regions and buffalo milk production growth remain in play although at a reduced rate.

Production of unprocessed (raw) milk

Total production of unprocessed milk (all species) increased by 1.1% in 2022, which is lower than the average rate of 2,1% over the previous five years. The sharp cost increases in dairy farming inputs resulted in smaller margins, which slowed down the production of unprocessed milk. Dairy feed costs had a significant impact on overall expenses at farm level, leading to a reduction in the use of concentrated feed. In addition, Europe was confronted with a disappointing quality of roughage, which caused the production of unprocessed milk and the milk contents to drop even further.

Cows' milk production represents 81% of total unprocessed milk production internationally. It grew by 0.7% to 758 million tonnes in 2022, which is well below the average growth rate of 1.8% for the period 2015 - 2022. This was mainly due to stagnating and negative growth volumes in Oceania (-4.3%), South America (-3.2%), and the EU27 countries with zero percent growth. The high increase in the cost of unprocessed milk production was the dominant factor for the lower growth rate. The major unprocessed milk-producing continents are listed in Table 1.

Milk production growth between 2015 and 2022

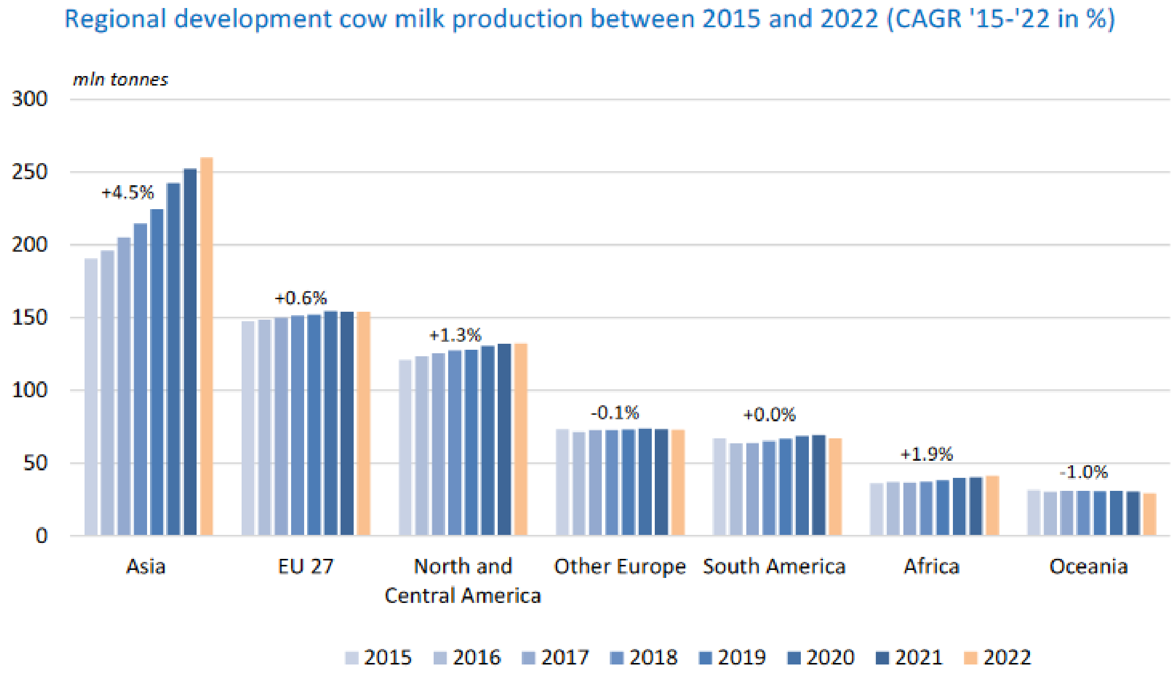


Source: IDF World Dairy Situation 2023

Table 1: Unprocessed cow's milk production per continent, 2022

Continent	Milk production 2022 (mil. tonnes)	Share in total cows' milk production (%)	Annual growth 2021 – 2022 (%)
Asia	260.3	34	3.1
EU-27	153.9	20	0.0
North and Central America	132.5	17	0.2
South America	67.1	8.8	-3.2
Other Europe	72.9	9.6	-0.5
Africa	41.3	5.4	2.5
Oceania	29.5	3.8	-4.3
World	757.5	100	0.7

Source: IDF World Dairy Situation 2023



Source: CNIEL, ZuivelNL, FAO, IDF National Committees, national statistics.

Table 2: Top 20 producing countries of unprocessed cow's milk in 2022 and South Africa

Country	'mln' Tonnes	Growth 2021 – 2022 (%)
EU 27	153.9	0.0
Germany	32.4	-0.4
France	24.6	-0.8
Poland	15.2	2.2
Netherlands	14.0	1.0
Italy	13.2	-0.5
India	120.5	4.8
USA	102.7	0.1
China	39.3	6.8
Brazil	34.7	-4.5
Russia	33.0	2.8
New Zealand	21.1	-4.0
Pakistan	20.1	3.8
Turkey	19.9	-6.8
United Kingdom	15.5	-0.8
Mexico	13.5	2.0
Argentina	11.9	0.0
Uzbekistan	11.6	3.2
Canada	10.4	-0.6
Australia	8.4	-5.0
Belarus	7.9	0.8
Colombia	7.6	-5.2
Japan	7.6	0.3
Ukraine	7.6	-10.8
Iran	7.0	0.0
South Africa	3.4	-1.6

Source: IDF World Dairy Situation 2023

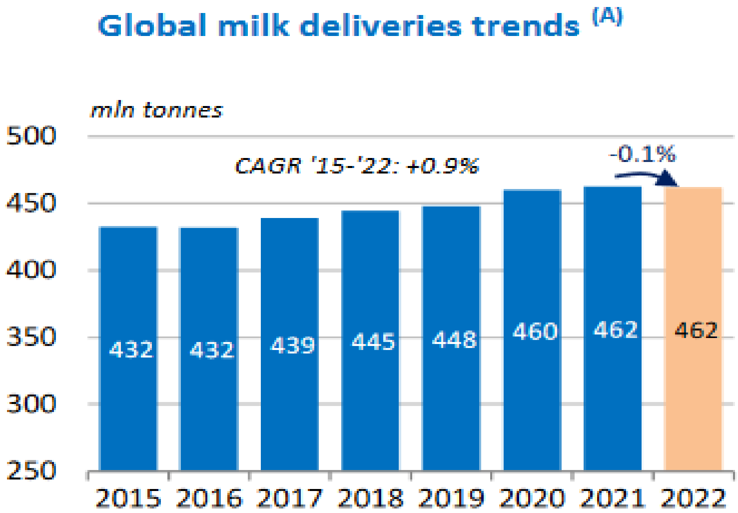
In Table 2, strong growth is observed in China, India, Pakistan, and Uzbekistan. The following countries experienced a noteworthy contraction in the volume of unprocessed milk that was produced in 2022 compared to 2021: Brazil, New Zealand, Turkey, Australia, Colombia, and Ukraine.

The growth rate of unprocessed buffalo milk production in 2022 was 3.3% which is lower than the average annual growth rate of 3.9% for the period 2015 – 2022. The growth in unprocessed buffalo milk production is an important growth engine in global unprocessed milk production. The two main producing countries are India with a growth rate of 3.4% in 2022 and Pakistan with a growth rate of 3.0%. The global volume of unprocessed buffalo milk in 2022 was 142 million tonnes.

Dairy processing

Global cow's milk deliveries to the industry decreased by 0.1% in 2022, the first negative growth experienced since 2016. The year was split in two, with the first half experiencing a slowdown in deliveries due to a further rise in input cost while the second half was more favourable due to increased farmgate prices. Four hundred and sixty-two million tonnes of cow's milk (61.0% of total cow's milk production) were delivered to dairy processors for further processing. The EU-27 processes the largest quantity of milk (31%), followed by the United States (22%), China (7%), and Brazil (5%), with India not being ranked.

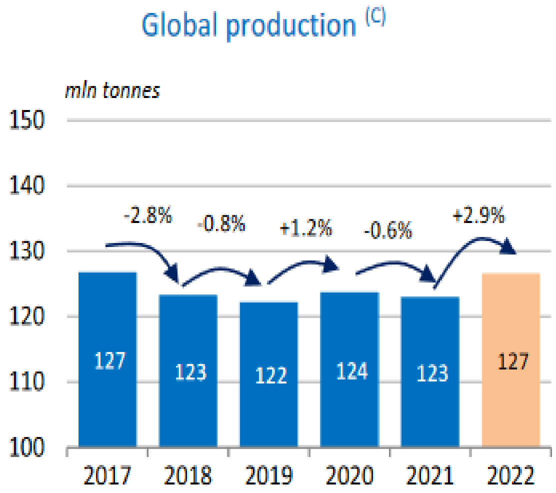
World: cow's milk deliveries (2015-2022) **(Source: IDF World Dairy Situation 2023, A based on 54 countries)**



The aggregate dairy production statistics used to indicate dairy product output represent between 75% and 90% of the estimated total world production. Fresh dairy products are an exception, as a large proportion of these come from and are marketed via the informal global market or are simply excluded from official statistics. Despite that, the IDF 2023 report provides data from 50 countries that form the basis for volume estimates and growth trends. Overall, processors preferred producing liquid milk, cheese, butter and butteroil, and SMP, while the production of WMP, whey, condensed milk, and fermented products declined.

The production of **packaged milk (liquid milk)** increased by 2.9% notably higher than the annual growth rate of 0.8% in place from 2010. This growth was mainly driven by the production growth in China which rose sharply in 2022 by 21.2%. The same trend is evident in India, with 2022 increasing by 9.2%. In the EU27, packaged milk production decreased by 2.5% due to a decline in consumption. This trend was also seen in the USA (-2.4%), Brazil (-4.8%), and the UK down by 1.9%. Packaged milk is less traded than concentrated products and consumption tends to be a function of population growth and income trends.

Liquid milk output



Trends in leading producing countries

mln tonnes	2022	Annual growth '21-'22 (%)
EU 27	22.6	-2.5%
China (D)	22.5	+21.1%
USA	19.6	-2.4%
India (E)	16.0	+9.2%
Brazil	7.5	-4.8%
United Kingdom	6.1	-1.9%
Russia	5.8	+1.8%

Source: IDF World Dairy Situation 2023; (C) is based on 55 countries (D) including dairy beverages (E) figures for co-operatives only.

The production of **fermented dairy products** in 2022, declined by 3.4%, far from the 12-year average upward trend of 2,1%. Production was on the upswing in the EU27 (+0.5%) driven by increased output in Germany and Spain. The output of fermented products in China declined by 11.8% in 2022 on the back of a 7.0% decline in 2021. The growth in packaged milk consumption may have replaced some of the fermented products in the case of China. In India, the production of fermented products rose for a second consecutive year by 7.2%. A constant upward output trend in fermented products is observed in all the African countries included in the IDF 2023 report.

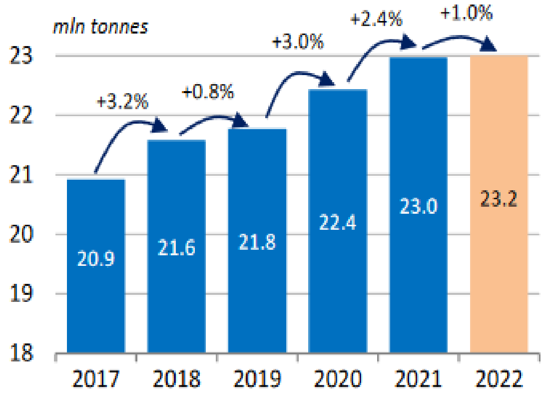
The production of fresh dairy products is uncertain. Despite a prolonged period of steady growth driven by increased demand and improved nutritional intake, production appears to be stagnating.

Global cheese production increased by 1.9% to 23.2 million tonnes, which is below the annual growth rate of 2,1% since 2010. This market analysis is done on cow's milk cheese only, which constitutes 90% of total natural cheese production in the world. In the EU27, the world's largest producer of cheese (9.5 million tons), production increased by 0.9%, in the USA, the second largest producer the increase was more pronounced at 2.2% while in Brazil the third largest producer of cheese, production decreased by 4.8%. In Turkey, which is off the podium at number four, production also decreased in 2022 by 5.5%.

In Oceania, cheese production grew by another 2.0% in Australia, while it dropped by 1.3% in New Zealand, driven by weak export performance.

Cheese output

Global cheese production (G)



Trends in leading producing countries

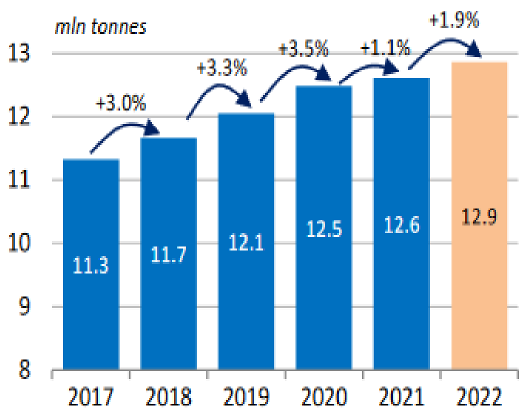
mln tonnes	2022	Annual growth '21-'22 (%)
EU 27	9.5	+0.9%
USA	6.4	+2.2%
Brazil	1.0	-4.8%
Türkiye (H)	0.7	-5.5%
Russia	0.5	+11.1%
Mexico	0.5	+1.6%
Argentina	0.5	-0.3%

Source: IDF World Dairy Situation 2023; (G) based on 55 countries (H) all types of cheeses.

Butter and other milk fat production increased by 1.9% to 12.9 million tons in 2022, on par with the average growth rate of 1.9% since 2010. Production is dominated by India, which alone accounts for half of the world's dairy fat production. Indian butter and ghee output grew by 3.2% in 2022 to a volume of 6.5 million tonnes. In 2022, butter output in the EU27, the second largest producer, remained stable, and the same trend was observed in the USA while in New Zealand where production of butter and butteroil declined by 6.0% in 2021 the 2022 number came in at 500 thousand tonnes, an upswing of 6.4%.

Butter and butteroil output

Global production (F)



Trends in leading producing countries

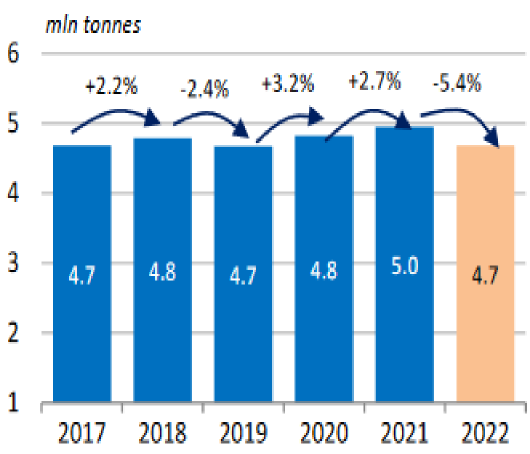
mln tonnes	2022	Annual growth '21-'22 (%)
India	6.5	+3.2%
EU 27	2.2	-0.1%
Pakistan	1.3	0.0%
USA	0.9	-0.2%
New Zealand	0.5	+6.4%
Russia	0.3	+10.5%
United Kingdom	0.2	-2.6%

Source: IDF World Dairy Situation 2023; (F) is based on 56 countries

The production of **whole milk powder** decreased by 5.4% in 2022 to 4.7 million tonnes, the same level as in 2019. The main producer of whole and semi-skimmed milk powder, New Zealand, decreased its WMP production by 12.5%, its lowest level since 2017 due to a significant drop in demand from China. In China, production increased by 2.3% in 2022 growing to almost the same volume of one million tonnes achieved in 2018. In the EU27, production declined sharply by 5.5% on the back of a 9.0% decline in 2021, down to almost the same level as in 2016. WMP production dropped in the Netherlands by 23.9%, last year down by 34.5%, and in Belgium by 33.2%, last year down by 49.9%, and in Denmark production dropped by 21.2%. In South America output also decreased, Brazil by 5.0%, and Argentina by 9.2%.

WMP output

Global WMP production (J)



Trends in leading producing countries

mln tonnes	2022	Annual growth '21-'22 (%)
New Zealand	1.4	-12.5%
China (K)	1.0	+2.3%
EU 27	0.8	-5.5%
Brazil	0.5	-5.0%
Argentina	0.2	-9.2%
Uruguay	0.2	0.0%
Mexico	0.1	+0.8%

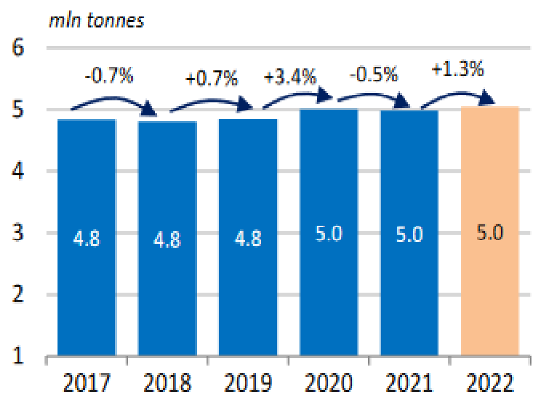
Source: IDF World Dairy Situation 2023; (J) is based on 50 countries (K) including infant formula.

The world **skim milk powder** production increased by 1.3% to 5.0 million tonnes in 2022, mainly due to the shift in orientation to channel more milk into butter and consequently producing more SMP. In the EU27 SMP production increased by 3.8%, with the biggest output growth in Belgium with 27% and Ireland with 17.6%. The increased production was mostly consumed in the EU or stocked within the EU since export demand strongly declined in 2022.

In the USA, SMP output decreased by 4.3% in 2022 after several years of growth and competitive activity in international markets. In Oceania, SMP production was still declining in Australia, reaching only 137 thousand tonnes after a negative growth of 9%. However, there has been a notable rebound in SMP production in New Zealand, with a hefty increase of 18.2%, mainly driven by demand in South Asian markets (Sri Lanka, Afghanistan, Nepal, and Bangladesh). In South America, Brazil and Argentina experienced a decrease in SMP production by 4.3% and 6.4%, respectively.

SMP output

Global SMP production (I)



Trends in leading producing countries

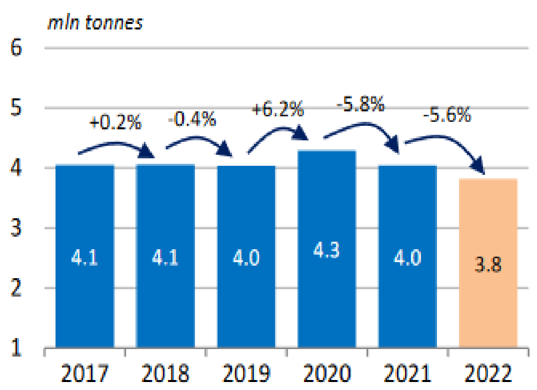
mln tonnes	2022	Annual growth '21-'22 (%)
EU 27	1.6	+3.8%
USA	1.2	-4.3%
India	0.7	+2.9%
New Zealand	0.4	+18.2%
Japan	0.2	+2.1%
Brazil	0.2	-4.3%
Australia	0.1	-9.0%

Source: IDF World Dairy Situation 2023; (I) is based on 52 countries

Global production of **condensed milk** declined for the second consecutive year with 2022 declining by a further substantive 5.6% to 3.8 million tonnes on the back of a 5.8% decline in 2021. The USA and the EU27 dominate the market and represent almost 50% of the total market. In the EU27 production decreased by 8.1% and in the USA by 3.9% in 2022. Most of the other major producing countries also scaled down on condensed milk output with China declining by 15% and Peru by 14.3%.

Condensed milk output

Global condensed milk production (L)



Trends in leading producing countries

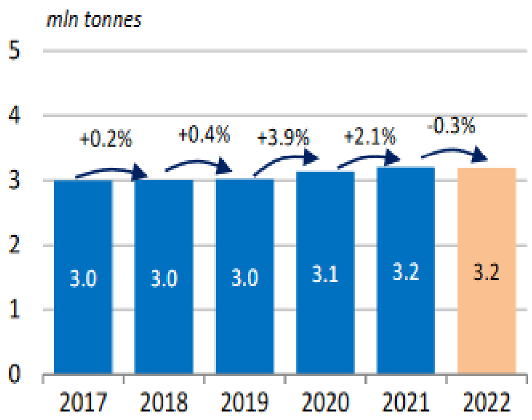
mln tonnes	2022	Annual growth '21-'22 (%)
USA	1.0	-3.9%
EU 27	1.0	-8.1%
Brazil	0.7	0.0%
Peru	0.4	-14.3%
Russia	0.3	0.0%
China	0.2	-15.0%
United Kingdom	0.1	-1.8%

Source: IDF World Dairy Situation 2023; (L) is based on 45 countries.

Liquid whey is mostly a cheese manufacturing by-product (more than 80%, the rest derived from casein production). It is therefore mainly produced in the leading cheese-producing regions such as the EU27 and the USA. Although cheese production increased whey powder output declined marginally by 0.3% in 2022. The EU is by far the world's top producer of whey powder, representing 69% of whey powder produced in the world. Whey ingredients are a growing market worldwide due to usage in infant formula, nutrition foods, and medical use.

Whey powder output

Global whey powder production (M)



Trends in leading producing countries

mln tonnes	2022	Annual growth '21-'22 (%)
EU 27	2.2	-0.7%
USA (N)	0.4	+2.4%
Russia	0.2	+7.6%
Argentina	0.1	+3.8%
Australia	0.1	+7.5%
Ukraine	0.0	0.0%
Canada	0.0	+4.2%

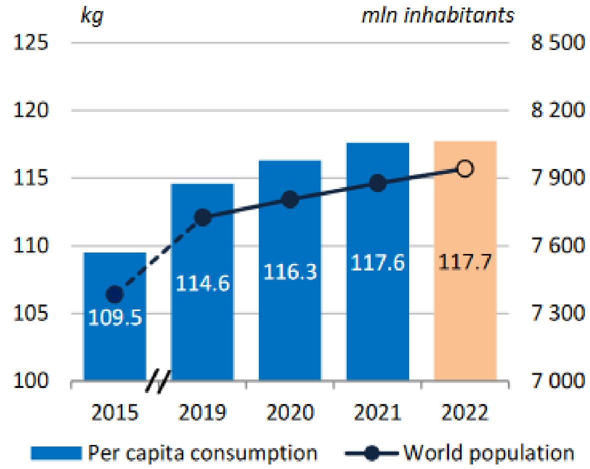
Source: IDF World Dairy Situation 2023; (M) is based on 43 countries (N) excluding condensed whey.

Dairy consumption

The world population grew by 67 million people (0.84%) in 2022 bringing the world population to 7.975 billion people. On average, the calculated per capita consumption of dairy products remained relatively unchanged at 117.7 kg (+0.1kg) in milk equivalent. This is much lower than the average annual 1% growth rate experienced since 2015. A major contributor to the slump in the growth rate was the super-high increase in the cost of living experienced in 2022 and to a lesser extent the limited supply (consequences of the war in Ukraine). The surge in dairy product prices impacted consumer behaviour with consumers shifting to more affordable alternatives. Regional differences in consumption patterns are very prominent. In Africa, dairy per capita consumption was 43kg per year in 2022, and in Europe 286kg per year while Asia came in at 98kg per capita per year on average.

CONSUMPTION

World: per capita consumption and population



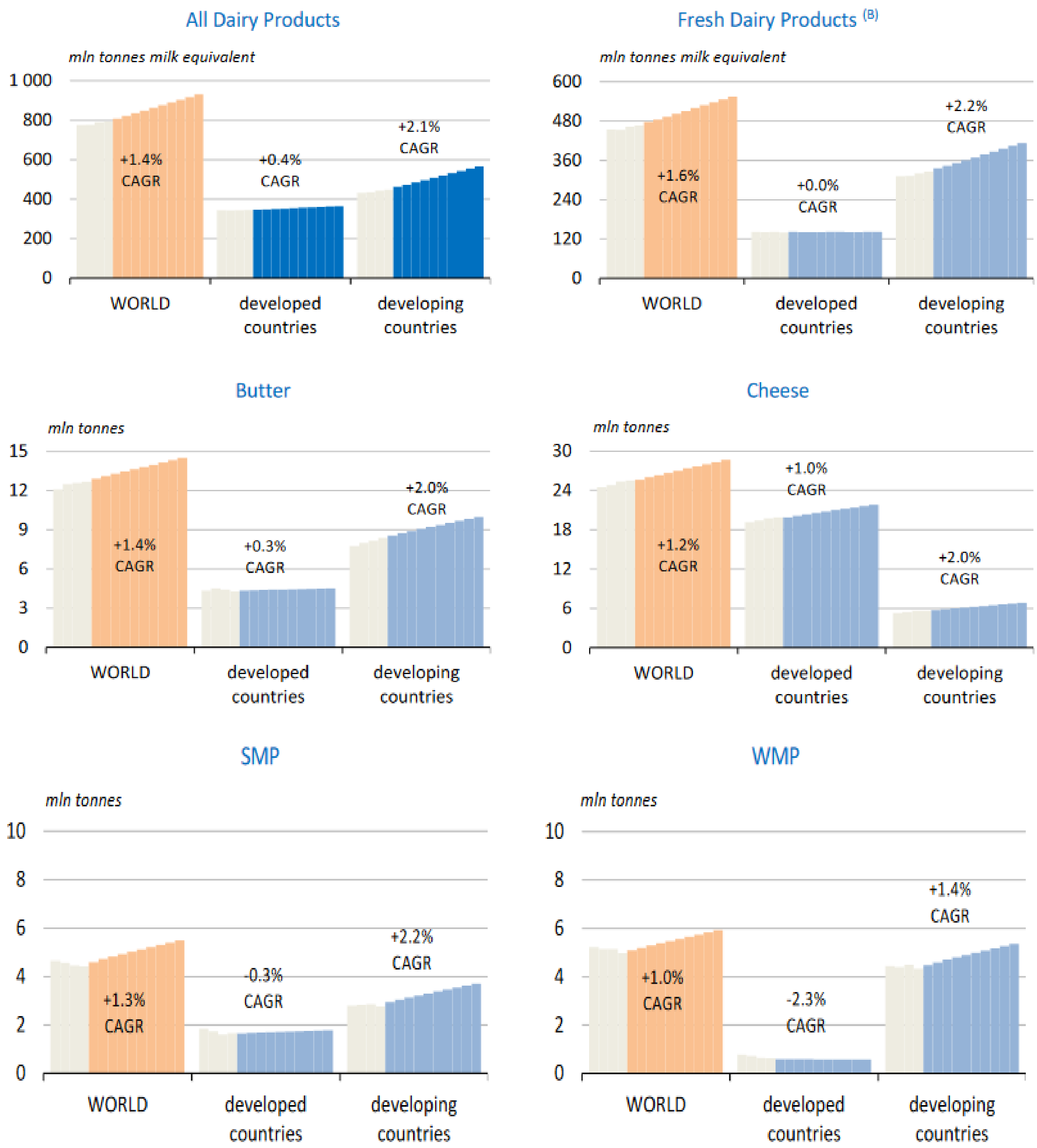
World: self-sufficiency rate (per region)

Region		2015	2022
Asia		90%	91%
Europe		111%	110%
	EU 27	*115%*	*114%*
	Non-EU	*100%*	*101%*
North America		108%	111%
South America		101%	102%
Africa		83%	85%
Central America		78%	79%
Oceania		309%	314%

Source: IDF World Dairy Situation 2023

According to the **OECD-FAO Agricultural Outlook 2023**, demand for dairy products will continue to grow, driven by population growth, rising incomes, and shifts in dietary preferences. Between 2019 and 2032, OECD-FAO anticipates a substantial 20% increase in total dairy consumption, translating to an average annual growth rate of +1.7%. However, the growth observed between 2019 – 2022 was at a much slower growth rate of only 0.2% per year.

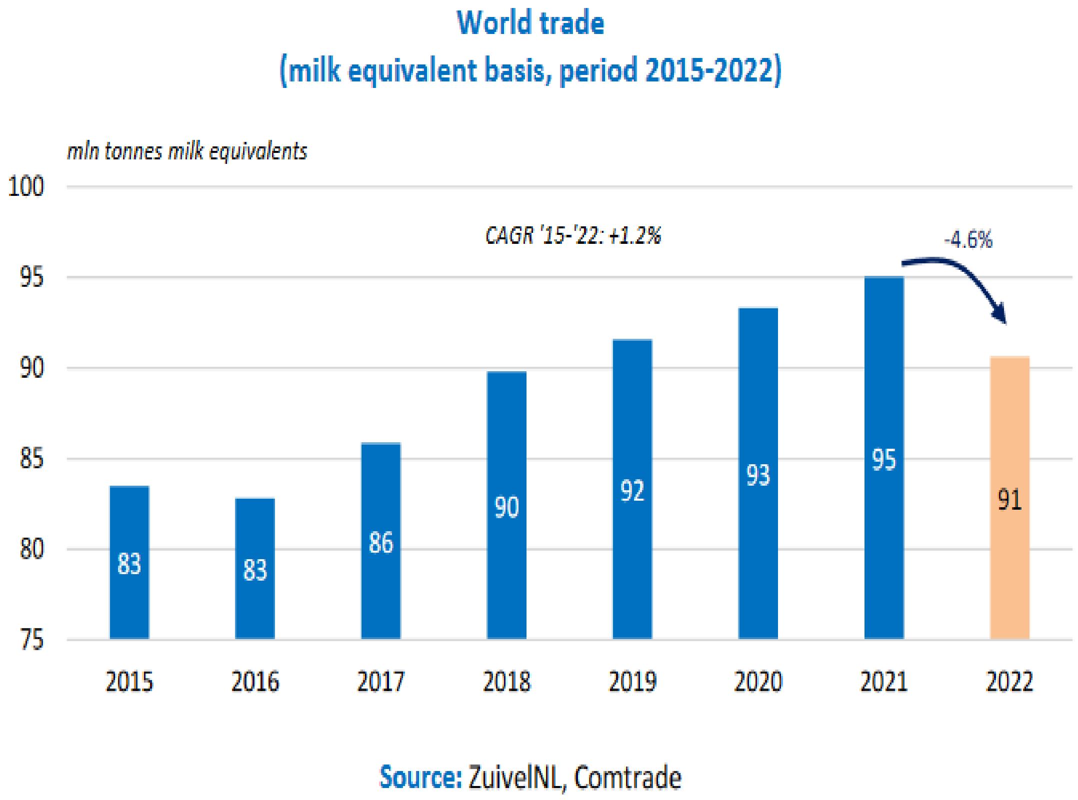
Annual total consumption growth rates between 2019 and 2032



Source: Calculations based on OECD-FAO Agricultural Outlook 2023

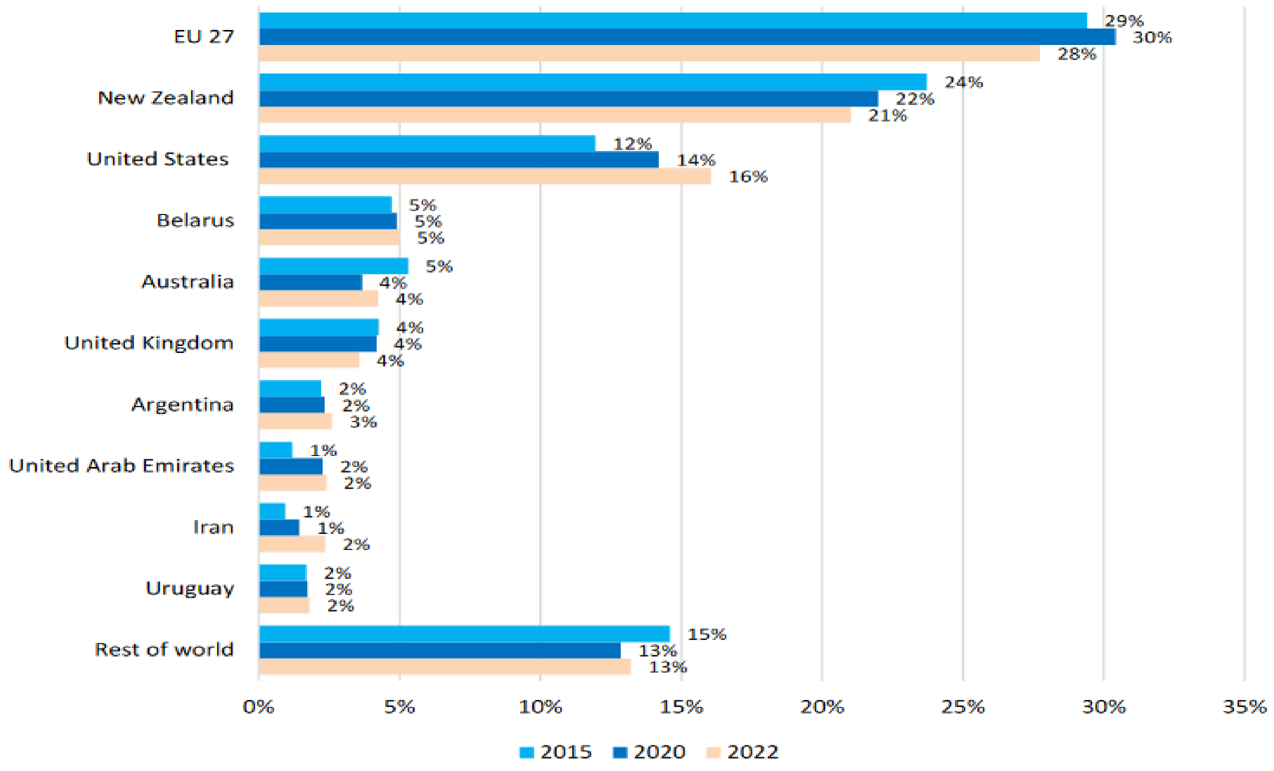
International dairy trade

The COVID-19 lockdown measures impacted world dairy consumption, leading to logistical gaps in 2020 and 2021. The outbreak of the war in Ukraine in February 2022 exacerbated these gaps and challenges and both these events continued to impact world dairy trade in 2022. In 2021 dairy trade increased by 1.8% on the back of post-pandemic recovery in many countries with the USA capturing the lion's share of export growth. The EU27 took a back seat due to lower unprocessed milk production growth. 2022 started with the dairy market in firm condition but then Russia attacked Ukraine, the war broke out which caused a surge in prices of various commodities inclusive of dairy which resulted in a drop in demand. Towards the end of 2022 dairy commodity prices started to decline resulting in some improved export demand, but the end result was world trade dropped to 90.6 million tonnes (-4.6%).



In 2022 exports from the USA increase by 2% compared to 2020 and Argentina increased by 1%. The EU27 countries decreased by 2%, New Zealand by 1% while the rest of the key exporting countries maintained their positions.

Export share (C) development of key exporters on the world dairy market (milk equivalent basis, period 2015-2022)



Source: ZuivelNL

(C) As part of total world volume trade: reference volumes used were (expressed in milk equivalents): 2015: 83.5 / 2020: 93.3 / 2022: 90.3

To provide some perspective on the main exporting countries and importing (export destinations) countries of cheese, butter and butteroil, WMP, SMP and milk and cream and the volumes concerned the following graphs were developed.

Cheese top three exporters: EU27 1 335, USA 454, New Zealand 341, world trade 3 525 (1 000 tonnes).
Top three export destinations: U.K. 425, Russia 300, Japan 285 (1 000 tonnes).

Butter and butteroil to three exports: New Zealand 492, EU27 295, USA 86, world trade 1 185 (1 000tonnes).
Top three export destinations: China 160, Russia 100, EU27 82 (1 000 tonnes).

WMP top three exporters: New Zealand 1 329, EU27 236, United Arab Emirates (UAE) 175, world trade 2 500 (1000 tonnes).

Top three export destinations: China 485, Algeria 241, UAE 105 (1 000 tonnes).

SMP top three exporters: USA 831, EU27 711 New Zealand 357, world trade 2 625 (1 000 tonnes).
Top three export destinations: Mexico 365, China 360, Indonesia 205 (1 000 tonnes).

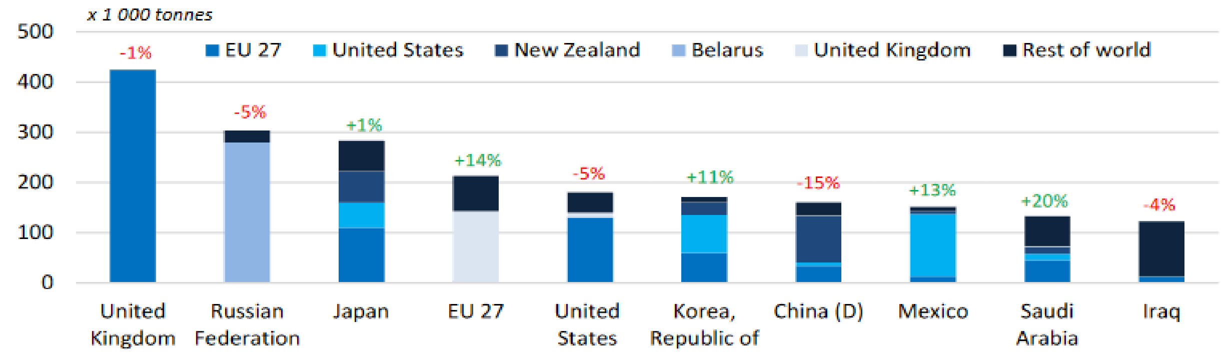
Milk and cream top three exporters: EU27 1 339, UK 780, New Zealand 428, world trade4 750 (1000 tonnes).

Top three export destinations: China 1 050, EU27 770, UK 250 (1 000 tonnes).

Dynamics in world cheese trade: main exporters, key export markets (volume x 1 000 tonnes)

Top-10 global cheese exporters 2022					
No.	Exporter	Volume	Share	Growth 2021/22	CAGR '15/'22
1.	EU 27	1 335.7	37.9%	-3.6%	2.0%
2.	United States	454.0	12.9%	11.5%	5.3%
3.	New Zealand	340.5	9.7%	-4.9%	0.6%
4.	Belarus	292.1	8.3%	-2.1%	6.9%
5.	United Kingdom	175.5	5.0%	14.1%	2.3%
6.	Australia	145.4	4.1%	-7.3%	-2.3%
7.	Iran	94.6	2.7%	-8.9%	10.6%
8.	Argentina	82.4	2.3%	5.9%	9.6%
9.	Saudi Arabia	79.1	2.2%	-1.4%	-6.4%
10.	Bahrain	72.9	2.1%	48.1%	46.6%
	World trade	**3 525.0**	**100.0%**	**0.1%**	**2.5%**

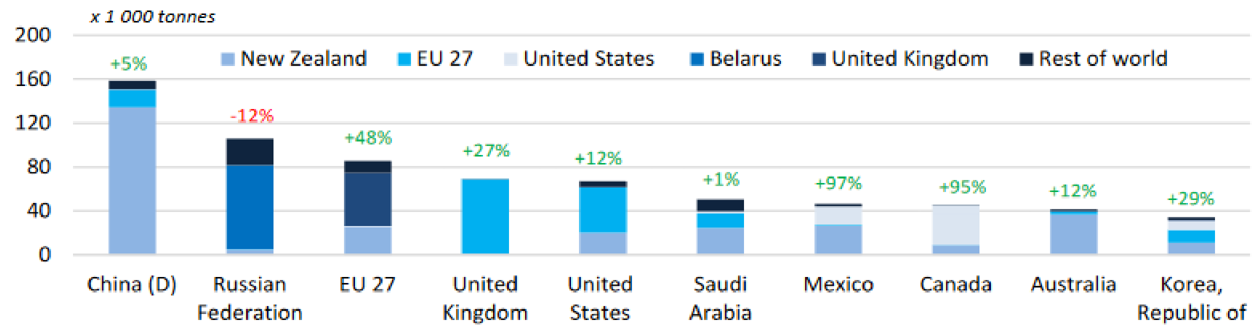
Top-10 cheese export destinations 2022



Dynamics in world butter/-oil trade: main exporters, key export markets (volume x 1 000 tonnes)

Top-10 global butter/-oil exporters 2022					
No.	Exporter	Volume	Share	Growth 2021/22	CAGR '15/'22
1.	New Zealand	491.6	41.5%	13.9%	-1.5%
2.	EU 27	259.1	21.9%	-3.3%	-0.7%
3.	United States	85.9	7.3%	41.2%	20.1%
4.	Belarus	80.0	6.8%	-6.5%	-0.8%
5.	United Kingdom	50.9	4.3%	-7.4%	-0.5%
6.	India	41.2	3.5%	65.1%	24.3%
7.	Argentina	29.1	2.5%	-4.6%	18.6%
8.	Australia	17.8	1.5%	-27.5%	-9.6%
9.	Uruguay	16.8	1.4%	37.0%	-2.3%
10.	Ukraine	14.0	1.2%	32.6%	2.7%
	World trade	**1 185.0**	**100.0%**	**10.2%**	**0.5%**

Top-10 butter/-oil export destinations 2022



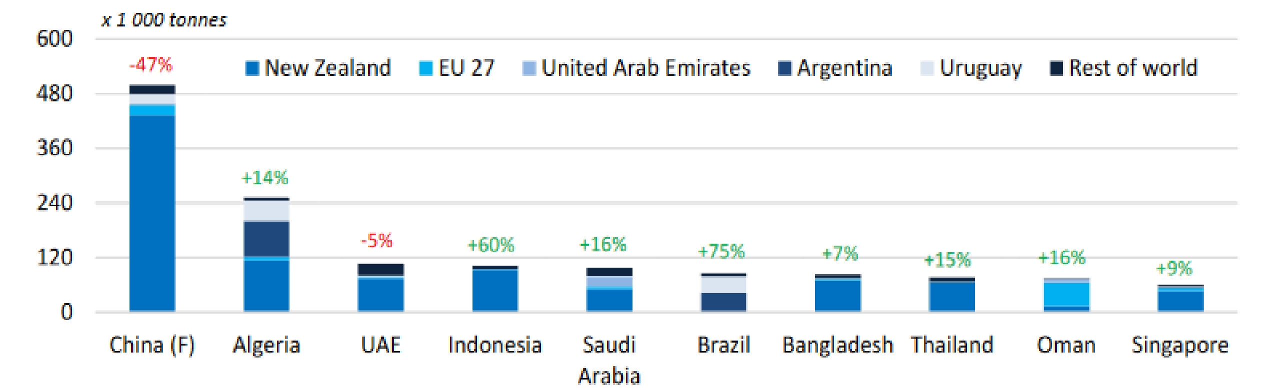
Source: ZuivelNL, Comtrade

(D) Hong Kong, Macao included.

Dynamics in world WMP trade: main exporters, key export markets (volume x 1 000 tonnes)

Top-10 global WMP exporters 2022					
No.	Exporter	Volume	Share	Growth 2021/22	CAGR '15/'22
1.	New Zealand	1 329.2	53.2%	-17.9%	-0.5%
2.	EU 27	236.0	9.4%	-20.9%	-6.8%
3.	United Arab Emirates (E)	175.0	7.0%	0.0%	11.6%
4.	Argentina	154.3	6.2%	6.4%	1.6%
5.	Uruguay	136.1	5.4%	-3.4%	5.1%
6.	Oman (E)	67.2	2.7%	0.0%	-1.8%
7.	Australia	57.5	2.3%	11.8%	-1.8%
8.	Singapore	41.1	1.6%	8.1%	-4.1%
9.	United States	38.7	1.5%	-2.7%	2.0%
10.	Belarus	34.2	1.4%	-8.3%	-1.5%
	World trade	**2 500.0**	**100.0%**	**-10.7%**	**-0.9%**

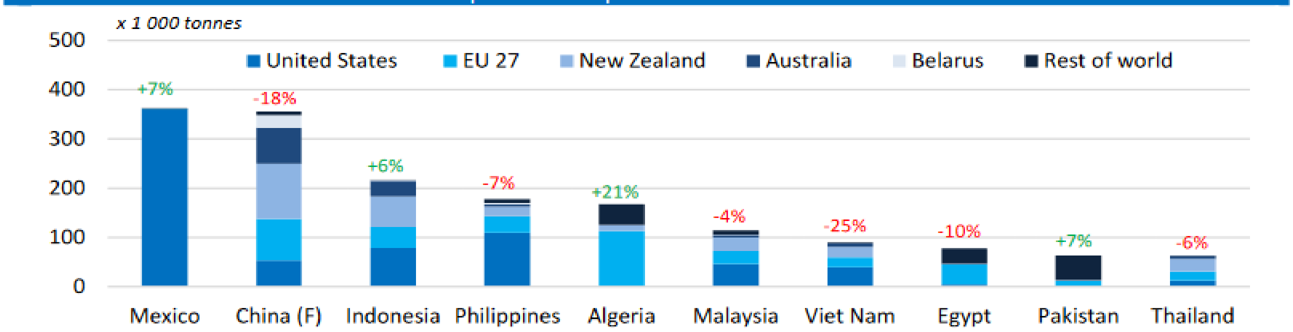
Top-10 WMP export destinations 2022



Dynamics in world SMP trade: main exporters, key export markets (volume x 1 000 tonnes)

Top-10 global SMP exporters 2022					
No.	Exporter	Volume	Share	Growth 2021/22	CAGR '15/'22
1.	United States	830.7	31.6%	-7.1%	5.8%
2.	EU 27	710.7	27.1%	-9.8%	0.1%
3.	New Zealand	357.3	13.6%	9.6%	-2.0%
4.	Australia	153.9	5.9%	-1.8%	-3.7%
5.	Belarus	108.8	4.1%	-9.3%	-1.6%
6.	Iran	94.9	3.6%	101.9%	42.5%
7.	United Kingdom	46.7	1.8%	-9.0%	-1.2%
8.	Türkiye	42.3	1.6%	-29.6%	27.6%
9.	United Arab Emirates (E)	32.4	1.2%	0.0%	15.3%
10.	Canada	29.8	1.1%	61.4%	11.8%
	World trade	**2 625.0**	**100.0%**	**-1.9%**	**1.8%**

Top-10 SMP export destinations 2022



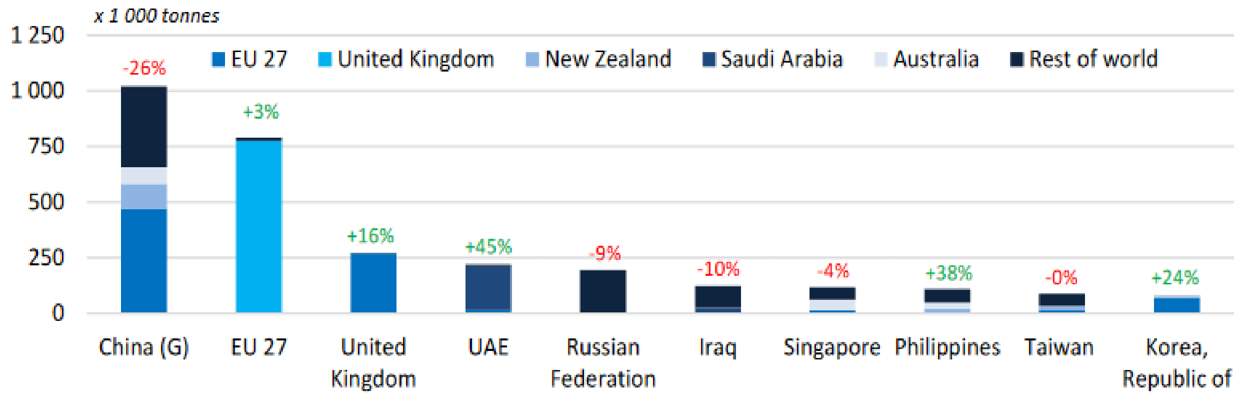
Source: ZuivelNL, Comtrade

(E) Trade data: year 2021.
(F) Hong Kong, Macao included.

Dynamics in world milk and cream trade: main exporters, key export markets (volume x 1 000 tonnes)

Top-10 global milk and cream exporters 2022					
No.	Exporter	Volume	Share	Growth 2021/22	CAGR '15/'22
1.	EU 27	1 338.6	28.2%	-15.6%	4.0%
2.	United Kingdom	780.3	16.4%	3.3%	2.4%
3.	New Zealand	427.5	9.0%	-2.9%	14.5%
4.	Saudi Arabia	369.8	7.8%	17.1%	9.8%
5.	Australia	324.9	6.8%	-9.0%	10.5%
6.	Belarus	188.6	4.0%	-8.2%	-7.5%
7.	United States	146.5	3.1%	-0.3%	5.9%
8.	Iran	108.0	2.3%	-13.1%	13.4%
9.	Thailand	94.0	2.0%	0.7%	21.9%
10.	South Africa	88.2	1.9%	-7.1%	0.0%
	World trade	**4 750.0**	**100.0%**	**-1.2%**	**4.8%**

Top-10 milk and cream export destinations 2022



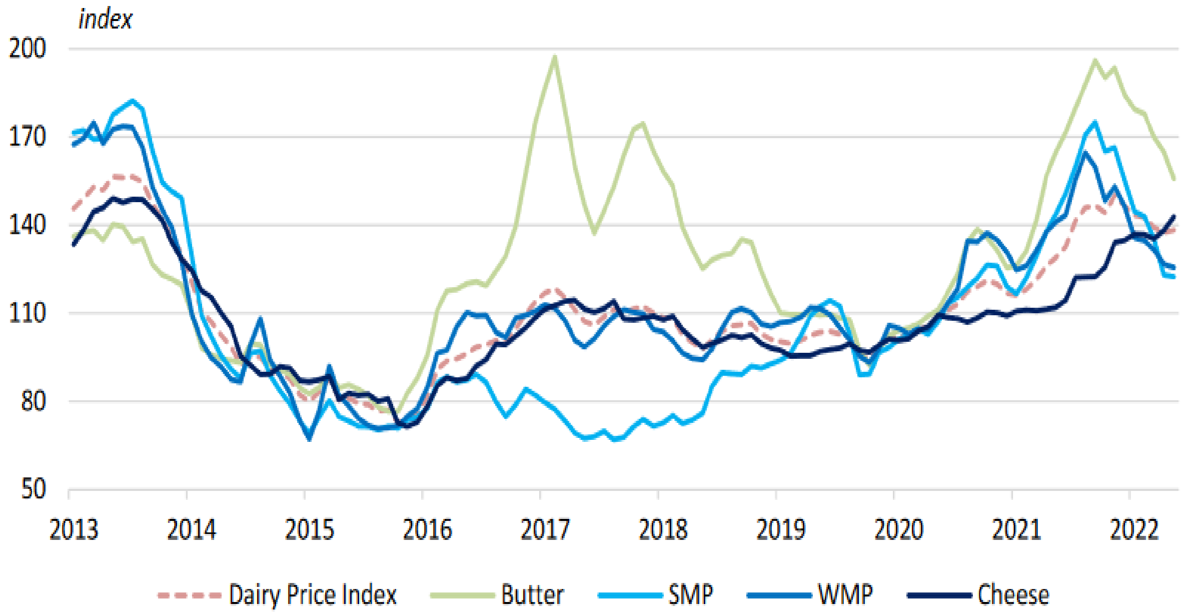
Source: ZuivelNL. Comtrade

(G) Hong Kong, Macao included.

Trends in dairy product prices

International dairy product prices, as measured by the FAO Dairy Price Index (FFPI), averaged 142.4 in 2022, an increase of 23.3 points (19.5%) from 2021. This represents the highest increase since 1990 on an annual average basis. The averaging methodology conceals material levels of volatility that occurred during 2022.

FAO Dairy Price Indices (2014-2016=100)



Source: FAO

Unprocessed milk prices

In 2022, farmgate prices recovered further from the major impact on global markets caused by the COVID-19 pandemic in 2020 and the onset of the war in Ukraine in February 2022. The recovery continued under the influence of rising market prices of various dairy products because of lagging global unprocessed milk production and the surge in major inputs used in unprocessed milk production. In 2022 (in USD terms), the average EU farmgate milk price increased by 21.4%, the US milk price by 36.7% while the Fonterra New Zealand price decreased by 6.8% on the back of a 31.4% increase in 2021. In Table 3, the prices in China and South Africa also decreased by 7.1% and 2.6% respectively.

The last column in Table 3 reflects the Rand per litre for the different countries.

Table 3. World: average producer price of unprocessed milk				
	2022	**2021/22**	**2022**	**2022**
	(USD/100kg)	**%**	**(ZAR/100kg)**	**R/l**
Argentina	**38.22**	**20.4**	**625.28**	**6.45**
Brazil	**55.64**	**37.4**	**910.27**	**9.39**
China	**61.75**	**-7.1**	**1009.61**	**10.42**
EU 27(B)	**52.87**	**21.4**	**864.95**	**8.92**
France	**44.63**	**7.0**	**730.15**	**7.53**
Germany	**56.00**	**30.5**	**916.16**	**9.45**
Netherlands	**60.54**	**29.9**	**990.43**	**10.22**
Poland	**49.98**	**26.9**	**817.67**	**8.43**
India (A)	**45.25**	**4.6**	**740.29**	**7.64**
New Zealand	**49.10**	**-6.8**	**803.28**	**8.29**
Russia	**48.16**	**29.2**	**787.90**	**8.13**
USA	**55.87**	**36.7**	**914.03**	**9.43**
South Africa	**38.20**	**-2.6**	**624.95**	**6.45**
A: Dairy years ending March of the following year. Mixed (cow and buffalo) milk; refers to cooperative dairies only B: Weighted average (source: European Commission)				

Conclusion

The production of unprocessed milk undergone sideways movement due to the increase in input and feed costs of which South Africa's dairy industry experienced a negative growth rate of 1.6% in 2022. This caused a ripple effect on South Africa as the average producer price of unprocessed milk experiencing a negative growth of 2.6% in USD terms. Additionally, the global dairy processing demonstrated fluctuations across various areas as the processors favoured producing liquid milk, cheese, butter and butteroil, and SMP. These areas experienced an increase whilst WMP, whey, condensed milk, and fermented products declined.

The living costs significantly increased in 2022 along with the surge in prices of various commodities inclusive of dairy. This impacted consumer behaviour for dairy products and led to consumers shifting to more affordable alternatives. Subsequently, the world trade dropped due to lower demand.

Despite the ongoing war between Ukraine and Russia, the aftermath of COVID-19, higher input and feed costs, and the substantial increase in the cost of living, the OECD-FAO Agricultural Outlook 2023 states that the demand for dairy products will continue to grow, driven by population growth, rising incomes, and shifts in dietary preferences. However, the situation observed in the period 2020 – 2022 only registered a slight increase of 0.2% annually compared to the forecast of a 1.7% average growth rate.