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Milk South Africa
Melk Suid-Afrika

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Suid-Afrikaanse Melkprosesseerdersorganisasie
South African Milk Processors' Organisation


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www.milksa.co.za | Tel +27 12 460 7312

Milk SA foreword

The purpose of this publication is to provide information on the structure and performance of the dairy industry, to promote optimal development for the benefit of the South African dairy industry and consumers.

Milk South Africa (Milk SA) is proud to present this publication, which was made possible through the contributions of the persons and entities sharing their information via statutory regulations. The South African Milk Processors' Organisation (SAMPRO) and the Milk Producers' Organisation (MPO) are the two members of Milk SA, and the Milk SA work group comprises Dr Ndumiso Mazibuko and Messrs Nico Fouché, De Wet Jonker, Alwyn Kraamwinkel, and Bertus van Heerden.

Executive summary

The International Monetary Fund's (IMF) January 2024 World Economic Outlook indicates that economic recovery from systemic shocks over the past four years (the COVID-19 pandemic, the Russian invasion of Ukraine, and the cost-of-living crisis) is surpassing forecasts. Inflation is subsiding quicker than expected, which could pave the way for faster relief of high interest rates, and employment levels remain largely intact. There is downside risk present in looking forward, mainly due to possible geopolitical shocks, which could lead to commodity price spikes. In 2024, global economic growth is projected at 3,1%, with developing economies (including South Africa) expected to grow at 4,1% (South Africa's projected growth rate is 1,0%). Although the Food and Agricultural Organisation of the United Nations' (FAO) combined Food Price Index has been trending down since the beginning of 2022, it remains significantly higher than pre-pandemic levels, indicating that the world economy is not yet out of the woods.

During the first three quarters of 2023, dairy product prices for skimmed milk powder (SMP), full-cream milk powder (FMP), and Cheddar cheese softened due to adequate supply. However, in the last quarter of 2023 and the first two months of 2024, prices began to rise. Similarly, the price of butter fluctuated during the first two quarters of 2023 before starting to increase significantly. During 2023, the average unprocessed milk price in Europe was €0,45 (R8,29) per litre, based on real fat and protein, and in South Africa R7,42. Although not significant, unprocessed milk production in the major dairy-exporting countries improved in 2023 compared with 2022. In 2022, per capita consumption of dairy products dropped for the first time since 2016, down to 117,7 kg (0,5%). Inter-nationally, dairy herd sizes are increasing, while the number of dairy farmers is reducing at a rate of 3% per year. In 2022, unprocessed milk production increased by 0,5% to 936 million tonnes of solid-corrected milk (SCM).

In South Africa, sluggish economic growth resulted in the South African gross domestic product (GDP) registering a value of R4 627 billion in 2023, less than 1% more than the value in 2019 (the year before the COVID-19 pandemic). Poor policies, endemic corruption at all levels of government, and the looting of state-owned enterprises have resulted in poor service delivery and dilapidated infrastructure, which are at the core of the poor performance of the South African economy. Against this background, it is understandable that dairy sales declined in 2023. This is the first time that, on a 12-month basis, all nine dairy products monitored through the NielsenIQ agency registered negative growth. The South African economy is consumer-based, thus poor economic performance largely reflects the economic state of consumers as measured in buying power (disposable income), resulting in reduced retail sales.

In 2023, the total unprocessed milk absorbed by the formal market amounted to 3 339 272 tonnes, a decrease of 0,32% from the previous year. The demand for unpro-

cessed milk is closely tied to retail sales, which, in turn, depend on the state of the consumer. In the first four months of 2024, unprocessed milk production experienced a positive growth of 2,67%. Maintaining a balance between supply and demand is crucial for ensuring stable prices throughout the dairy value chain.

The trends of unprocessed milk and manufactured/processed dairy products in terms of price and sales volumes are important market indicators: PPI for unprocessed milk; PPI for dairy products; and CPI for milk, cheese, and eggs. From the beginning of 2021 to February 2024, the three indices showed significant increases. The PPI for dairy products and unprocessed milk rose by 30,7% and 36,5%, respectively, while the CPI for milk, cheese, and eggs increased by 32,3%.

In 2023, compared with 2022, the PPI for dairy products and unprocessed milk increased by 2,86% and 9,35%, respectively. During the same period, the CPI for milk, cheese, and eggs saw a 13,25% increase. This indicates a slowdown in the rate of increases in the two PPIs, which could eventually alleviate the rate of retail price increases – *ceteris paribus*.

Also in 2023, the utilisation of unprocessed milk volumes for the production of various dairy products in South Africa, was as follows: fresh milk 510 million tonnes; ultra-high temperature (UHT) processed milk 980 million tonnes; SMP 73 million tonnes; FMP 174 million tonnes; cheese (excluding cottage and cream cheese) 872 million tonnes; fermented products 445 million tonnes; sweetened, flavoured, and coloured milk 43 million tonnes; and 192 million tonnes for other dairy products.

A total of 48 000 tonnes of dairy products were imported, and 56 000 tonnes were exported during 2023. On a mass basis, imports decreased by 9,4% in 2023, compared with 2022, while exports increased by 7,7%. On a product-specific basis, cheese became a net exporter in 2023.

Author:
Bertus van Heerden for Milk SA

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Milk Producers' Organisation
PO Box 1284 | Pretoria | 0001
Tel +27 (0)12 843 5600
Lacto Data Volume 27 is also available on **milksa.co.za and mpo.co.za/information/lactodata**

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INTERNATIONAL SITUATION

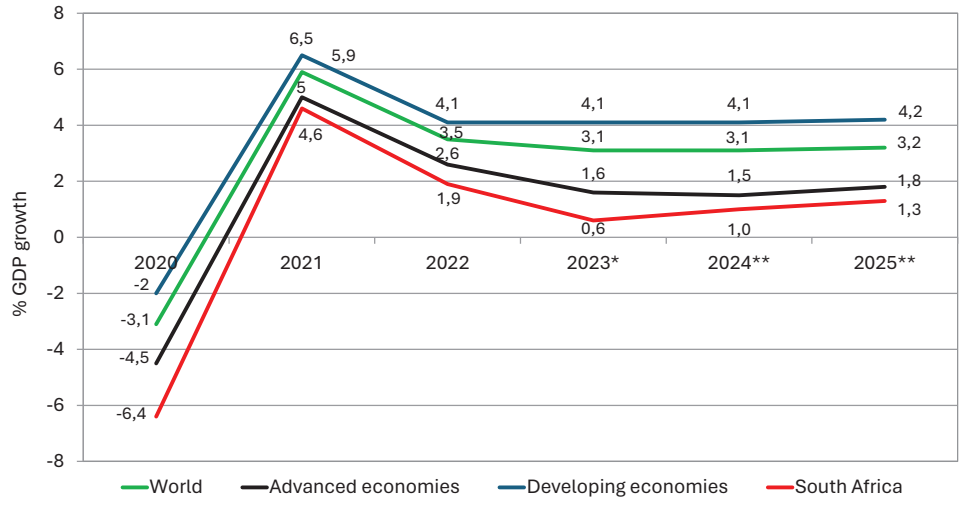
Forces shaping the outlook

The IMF's January 2024 World Economic Outlook indicates that economic recovery from the COVID-19 pandemic, Russia's invasion of Ukraine, and the cost-of-living crisis is surpassing forecasts. Global supply developments are favourable, and inflation has been falling faster than expected. Employment levels have been holding. High interest rate levels aimed at fighting inflation and lower fiscal support to economies will, however, negatively affect global growth in 2024. On the upside, inflation falling faster than expected could result in restrictive monetary policies easing at a faster pace. On the downside, the deepening property crisis in China could subdue global economic recovery, and the risk of commodity price spikes due to geopolitical shocks, coupled with supply disruption, have increased.

Global growth is projected at 3,1% in 2024 and 3,2% in 2025, and global headline inflation is expected to fall to 5,8% in 2024 and then to 4,4% in 2025. In emerging markets and developing economies, growth is expected to remain at 4,1% in 2024 increasing to 4,2% in 2025. In the United States, growth is projected to fall from 2,5% in 2023 to 2,1% in 2024, and 1,7% in 2025. In the eurozone, growth is expected to improve from 0,5% in 2023 to 0,9% in 2024 and 1,7% in 2025.

> "... inflation falling faster than expected could result in restrictive monetary policies easing at a faster pace."

Figure 1 International economic growth and expected growth, 2020–2025 (source: IMF, 2023* estimate, 2024** and 2025** projections)



FAO Food Price Index eases, mostly driven by lower world cereal prices

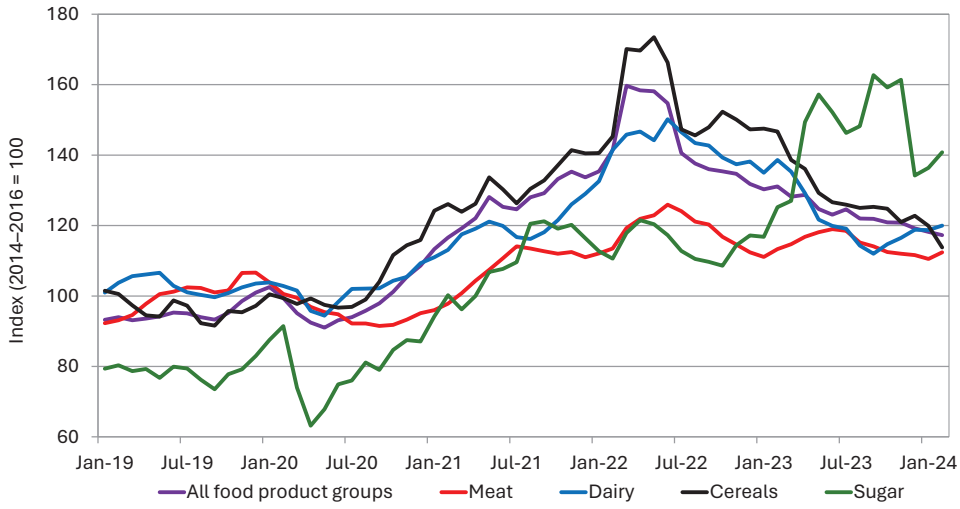
From February 2023 to February 2024, the FAO Food Price Index (FFPI) fell by 10,5% but is still around 23,3% above pre- pandemic levels (2019 index 95,1). The decline in the index was led by drops in cereal, vegetable oil, and dairy product prices.

> "The price of dairy products is analysed in detail in the section: International dairy product prices."

In February 2024, year-on-year, the FAO Dairy Price Index dropped by 13,4% but is still approximately 17% above pre-pandemic levels. The decline was driven by lower price quotations for milk powders, while butter prices increased. The price of dairy products is analysed in detail in the section: International dairy product prices.

The FAO Cereal Price Index averaged 113,8 points in February 2024, down 6,1 points (–5,0%) from January 2024 and 32,9 points (–22,4%) below its price one year ago. The February decrease reflects a fall in international prices of all major cereals. Maize export prices dropped the most as expectations of large harvests in Argentina and Brazil, along with competitive prices offered by Ukraine to take advantage of the smooth running of the maritime trade route, weighed on the market.

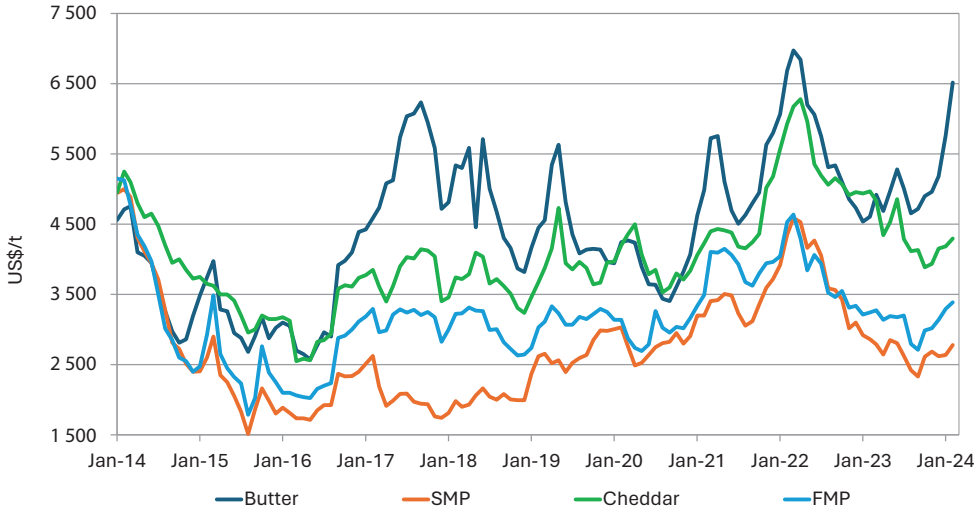
Figure 2 FAO food price indices of internationally traded product groups, January 2019–February 2024 (source: FFPI, 2024)



International dairy product prices

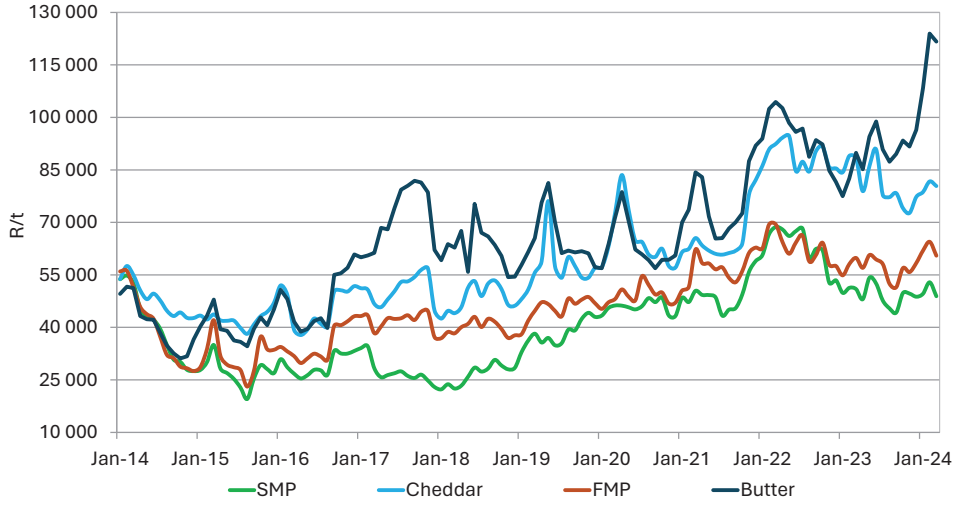
During the first three quarters of 2023, dairy product prices for the two milk powders and Cheddar cheese softened due to adequate supply, but the last quarter of 2023 and the first two months of 2024 saw prices turning north. The price of butter zig-zagged in the first two quarters of 2023, whereafter the price started to increase aggressively.

Figure 3a International FOB dairy product prices, US$/t, Jan 2014–Feb 2024 (source: USDA)



The trading price range for butter 2023/24 was between US$4 538/t (R77 501/t) and US$6 517/t (R123 953/t), a 43,6% variance between the highest and lowest prices. The butter price in February 2024 increased to US$6 517/t (R123 953/t), an increase of 41,4% on February 2023.

Figure 3b International FOB dairy product prices, R/t, Jan 2014–Feb 2024 (source: USDA, South African Reserve Bank)



Through 2023/24, the trading price of SMP was between US$2 331/t (R44 224/t) and US$2 919/t (R49 852/t), a 25,2% variance between the highest and lowest prices. The SMP price in February 2024 decreased to US$2 780/t (R52 876/t), a decrease of 4,7% on February 2023.

The trading price range of FMP during 2023/24 was between US$2 713/t (R51 456/t) and US$3 389/t (R64 459/t), a 24,9% variance between the highest and lowest prices. The FMP price in February 2024 increased to US$3 389/t (R64 459/t), an increase of 10,8% on February 2023.

During 2023/24, the trading price range of Cheddar was between US$4 117/t (R77 229/t) and US$4 969/t (R89 040/t), a 20,6% variance between the highest and lowest prices. The Cheddar price in February 2024 decreased to US$4 296/t (R81 710/t), a decrease of 13,5% on February 2023.

International unprocessed milk production and prices

During 2023, the average unprocessed milk price in Europe was €0,45 (R8,29) per litre, based on real fat and protein. In January 2023, the price was €0,54 (R9,22) per litre and in December 2023, €0,45 (R8,37) per litre, with a low of €0,42 (R7,97) in September 2023. Over the same period, the average unprocessed milk price in South Africa was R7,42 per litre with a low of R6,79 per litre in January 2023.

During 2022, global annual unprocessed milk production (cow's milk 81%; buffalo milk 15%; and goat's, sheep's, and camel's milk 4% combined) showed a below-average growth of 1,1%, totalling a volume of 936 million tonnes SCM. This was the second year in a row with below-average growth. The supply situation in the key exporting regions is still challenging due to extremely high cost levels of major inputs. The average annual growth rate for unprocessed milk production, all species, over the period 2015 to 2022 is 2,1%.

The two underlying growth engines are the milk-deficient regions, like Asia and other emerging dairy markets, and the second growth engine is buffalo milk production, with an annual growth rate of 3,9% over the period 2015 to 2022.

Table 1 International calculated standardised unprocessed milk producer prices, 2019–2024 (R/L); based on real fat and protein content paid to milk producers (source: European Commission; exchange rates from Reserve Bank monthly average rates)

Country	Feb 2019	Feb 2020	Feb 2021	Feb 2022	Feb 2023	Feb 2024
Belgium	5,46	5,25	5,00	7,59	9,72	9,03
Germany	5,70	5,40	5,28	6,77	10,70	8,96
Denmark	5,53	5,55	5,23	6,87	11,35	8,03
France	5,84	5,70	5,55	6,40	9,88	8,21
Ireland	5,56	5,41	5,67	7,76	11,74	7,63
Netherland	5,91	5,67	5,33	7,07	11,08	8,01
South Africa*	4,40	4,70	5,55	5,86	7,18	7,75

*Based on MPO price survey, Feb 2024 preliminary

Figure 4 Global production of unprocessed milk per species, 2016–2022 (source: IDF Bull. 527/2023)

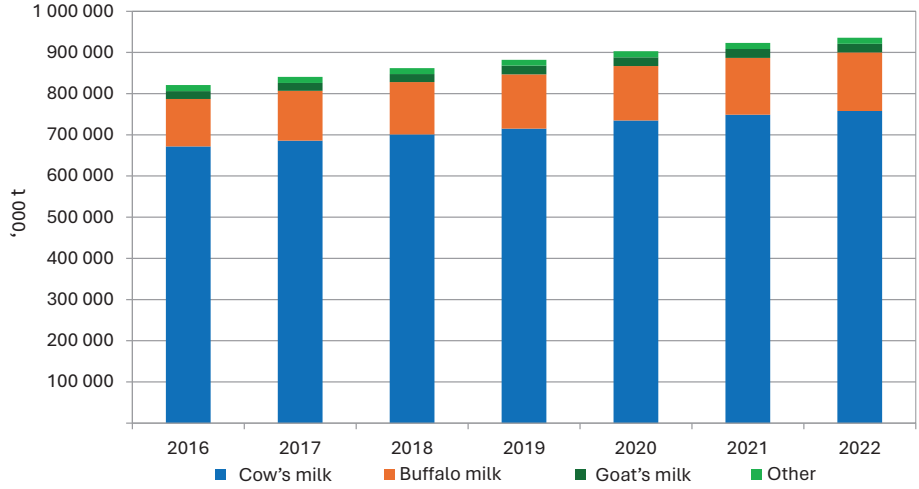


Figure 5 Cow's milk production per region, 2016–2022 (source: IDF Bull. 527/2023)

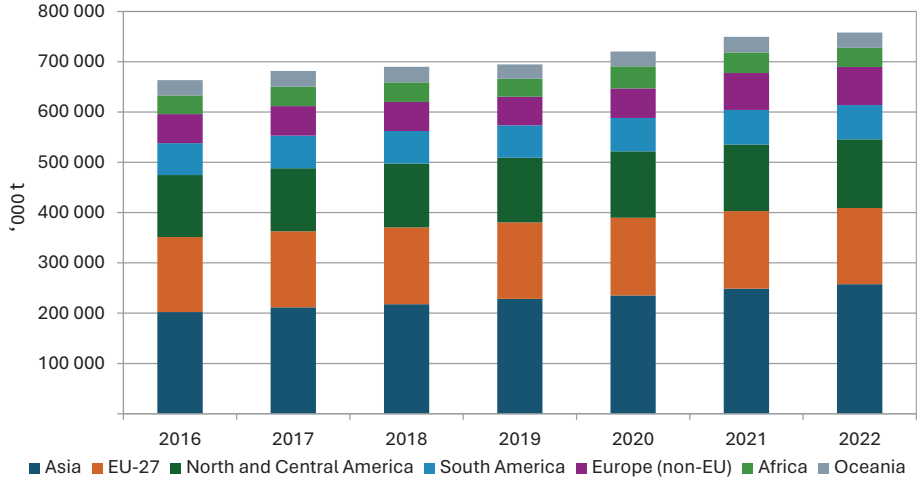


Table 2 Change in the production of unprocessed milk, selected countries; calendar year compared with previous calendar year (source: CLAL, 2024)

Country	2019/2018	2020/2019	2021/2020	2022/2021	2023/2022
Australia	−6,6%	+2,8%	−0,8%	−6,8%	0,2%
European Union	+0,5%	+1,6%	−0,2%	0,0%	0,0%
New Zealand	−0,7%	+0,4%	+0,8%	−3,8%	0,9%
United States	+0,4%	+2,1%	+1,5%	+0,1%	+0,0%
Uruguay	−4,2%	+5,8%	+1,9%	−1,4%	+1,2%
Argentina	−1,8%	+7,4%	+4,0%	0,0%	−2,0%

Although not significant, the production of unprocessed milk in 2023 improved compared with 2022.

Manufacturing of dairy products globally

The data on cow's milk deliveries is sourced through more than 50 countries participating in the IDF national committees and other participating organisations. The year 2022 was split in two, with the first half showing a continuing decrease in milk deliveries due to further rising input costs. The second half of the year was generally more favourable, with an increase in farm-gate milk prices. However, the annual balance of cow's milk deliveries was down (−0,1%) for the first time since 2016. Global production of liquid milk increased by 2,9% in 2022. China's production of liquid milk rose sharply (+21,1%), which was larger than the total volume growth in liquid milk in the rest of the world. In the EU-27, liquid milk production fell by 2,5%, and the United States followed the same trend, down by 2,4%.

More than 12,9 million tonnes of butter and other milk fats, such as butter oil and ghee (expressed in butter equivalent), are produced around the world annually. In 2021 and 2022, the output growth was below the annual growth rate of 1,9% experienced since 2010. The production of butter and other milk fats is largely dominated by India, which alone accounts for half of the world's dairy fat production, reaching 6,5 million tonnes in 2022.

Total global cheese production is estimated at 23,2 million tonnes in 2022 (excluding processed cheese, to avoid double counting). Cow's milk cheese accounts for about 90% of total natural cheese production. The remainder is composed of cheese from other species (buffalo, goats, and sheep) as well as homemade and farmstead cheeses, which are not included in national statistics. In 2022, cheese production grew by 1,0%, which is below the average annual growth rate of 2,1% experienced since 2010. In the EU-27, cheese production rose by 0,9%, reaching more than 9,5 million tonnes. The increase in production was driven by higher production in Poland, Denmark, and Spain, while Germany produced less cheese. In the United States, the second largest producer after the EU, production increased by 2,2%, in line with the annual average growth rate of 2,1% registered since 2010.

New Zealand is the main producer of whole milk power (WMP), where production decreased by 5,4% to 4,7 million tonnes. Global SMP production increased by 1,3% in 2022 to 5,07 million tonnes, because of the shift in orientation to channel more raw milk to produce SMP and butter. Also, globally, condensed milk production declined by 5,6% to 3,8 million tonnes. The market is dominated by the United States and the European Union, which represent almost 50% of the world's output. Despite the uptick in cheese production, whey powder production (being a by-product of cheese manufacturing) experienced a marginal decline of 0,3%. At 2,2 million tonnes, the EU-27 is by far the world's top producer of whey powder, representing 69% of production from the countries included in this report.

Consumption of dairy products

The world population grew by 65 million people (0,8%), bringing the total to 7,94 billion in 2022. In 2022, the average calculated per capita consumption of dairy products remained relatively unchanged at 117,7 kg in milk equivalents, (stock changes included in the calculation are based on the non-fat solid content, milk-equivalent methodology). This sideways movement is a first since 2016. Limited supply, combined with high prices, affected demand negatively, especially in low-income countries.

According to the *OECD-FAO Agricultural Outlook 2023–2032*, demand for dairy products will continue to grow, supported by population growth, increasing incomes, and dietary changes. The Organisation for Economic Co-operation and Development (OECD) and the FAO expect India, Pakistan, and several African countries to be key locations of strong demand growth.

Table 3 Major dairy companies, 2022 (source: IDF Bull. 527/2023)

Rank	Company name	Country	Dairy turnover US$ billion
1	Lactalis	France	29,8
2	Dairy Farmers of America	United States	24,5
3	Yili	China	18,4
4	Fonterra (B)	New Zealand	15,8
5	Danone (C) (D)	France	15,6
6	Friesland Campina	Netherlands	14,8
7	Arla Foods	Denmark	14,5
8	Mengniu	China	13,8
9	Saputo	Canada	13,5
10	Nestlé (B)	Switzerland	11,2
11	Savencia	France	6,9
12	Amul (E)	India	6,9
13	Agropur (F)	Canada	6,6
14	Glanbia	Ireland	5,9
15	Sodiaal	France	5,8
16	DMK	Germany	5,8
17	Müller (e)	Germany	5,7
18	Froneri International	United Kingdom	5,3
19	Schreiber (e)	United States	5,0
20	Lala	Mexico	4,6

(A) Kerry, Unilever, PepsiCo, and Mondelez not ranked.
(B) Year finishing in July.
(C) Infant formula excluded.
(D) Including plant-based substitutes.
(E) Year finishing in March of the following year.
(F) Year finishing in October.
(e) Estimate.

Figure 6 World population and per capita consumption of dairy products (unprocessed milk equivalent), 2013–2022 (source: IDF Bull. 527/2023)

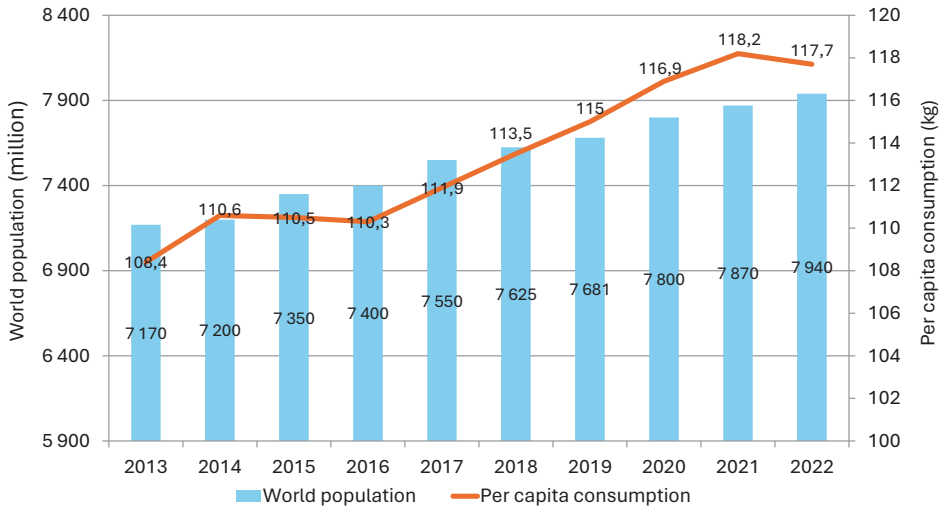
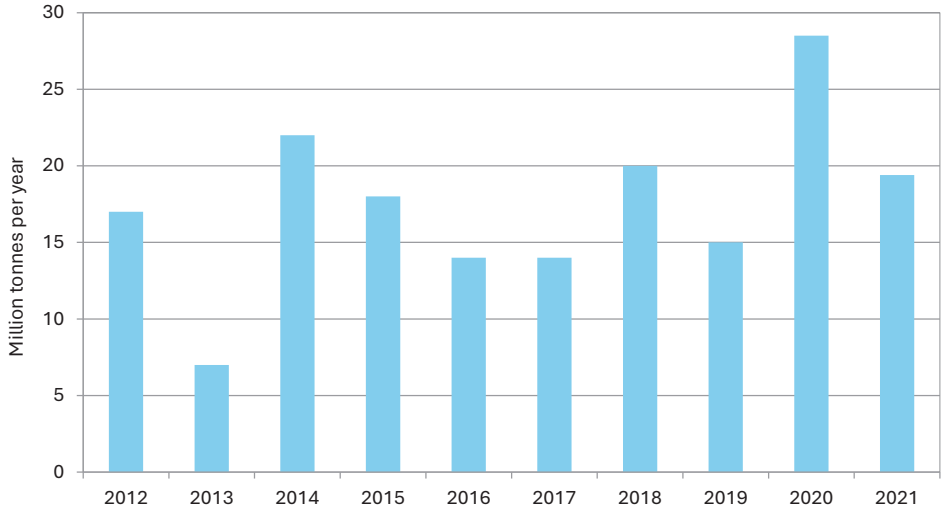
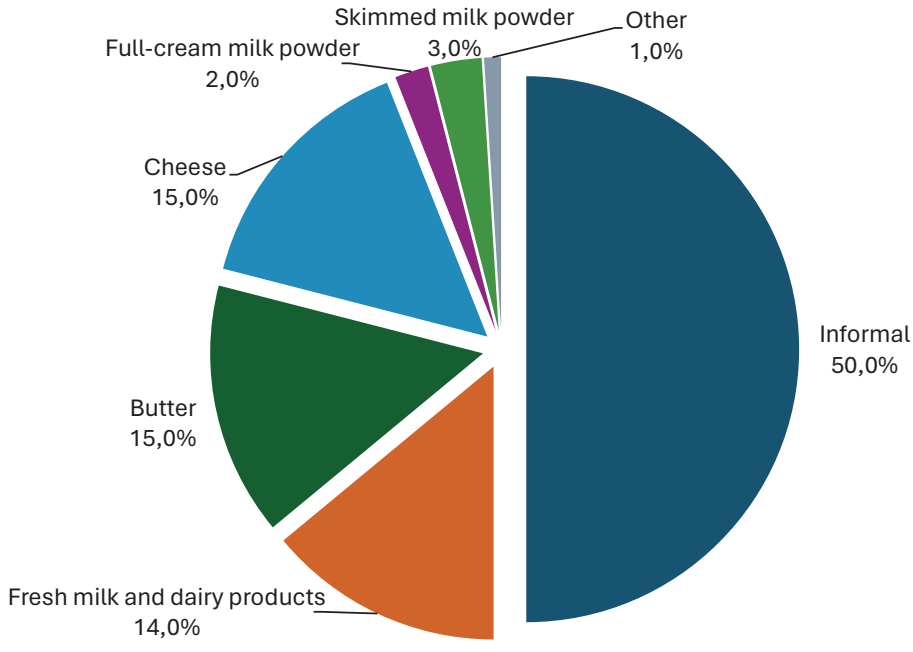


Figure 7 Annual change in world dairy product sales (unprocessed milk equivalent), 2012–2021 (source: IDF Bull. 518/2022)



> “The average per capita consumption of dairy products was 117,7 kg in milk equivalent in 2022, which is a slight decrease of 0,4%, compared with the previous year.”

Figure 8 Percentage breakdown of global dairy products consumption, 2022 (source: IDF Bull. 527/2023)



International dairy trade

The overall global trade expansion for the full year 2022 decreased by 4,6%, ending up in a world trade volume of about 90,6 million tonnes (expressed in milk equivalents). In 2022, the unprovoked attack of Russia on Ukraine affected dairy markets as input costs rose to record levels and export availability decreased. Coupled with this, demand from China was strongly negatively affected by heavy post-pandemic measures.

Figure 9 Share of key exporting countries in total trade in dairy products (milk-equivalent basis), 2018, 2019, 2020, 2021, and 2022 (source: IDF Bull. 527/2023)

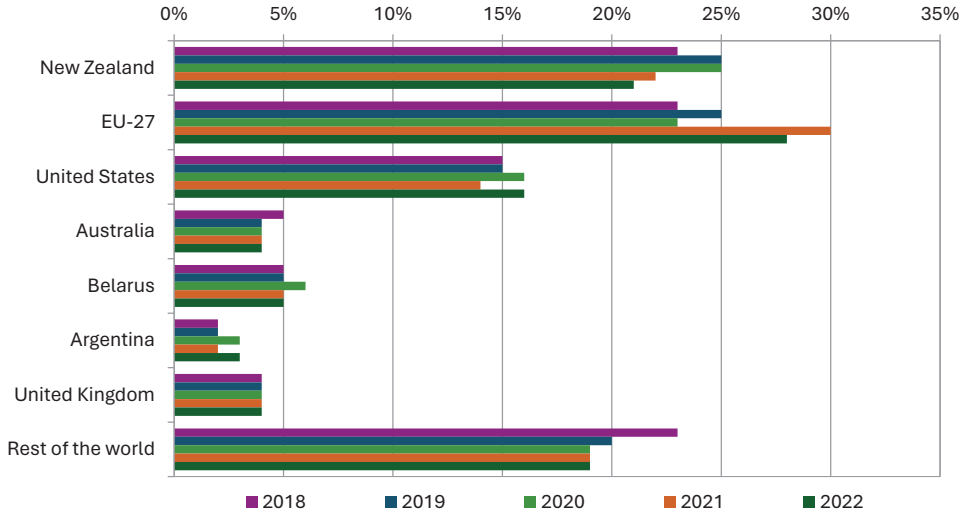


Table 4 Average herd size, selected countries, 2022 (source: IFCN 2023)

Country	Average number of cows in herd (cows in herd = cows in milk plus dry cows)
Saudi Arabia	7 423
South Africa	574
New Zealand	448
United States	336
Australia	303
Czech Republic	259
Denmark	234
Israel	209
United Kingdom	162
Argentina	151
Uruguay	127
Canada	100
Kenya	3
Uganda	3
India*	2

*Cows and buffalos

Table 5 Unprocessed milk production for the top ten milk-producing countries and South Africa, 2022 (source: IFCN, 2023)

	Country	Milk produced (million tonnes SCM)
1	India	241
2	United States	103
3	Pakistan	51
4	China	37
5	Brazil	33
6	Germany	33
7	France	25
8	New Zealand	24
9	Russian Federation	20
10	Turkey	18
	South Africa*	3,4

*not SCM

International primary sector

There are 116 million dairy farms worldwide, with more than 57% of these in South Asia. With an average per-farm population of five, this implies that 580 million people live on dairy farms. Globally, the average dairy farmer milks three cows. Some of the largest average herd sizes are found in Saudi Arabia, New Zealand, and South Africa. In South Africa, the average number of cows in a herd was 453 in 2020. Average herd sizes (cows in a herd) for various countries are shown in Table 4. After increasing to 125 million in 2013, dairy farm numbers are now decreasing at a rate of 1,4% per year.

In 2020, 57% of all dairy animals were kept on household farms, 24% on family farms, and 19% on larger commercial farms. Household farms are the dominant type in South Asia and Africa. In Latin America, East Asia, and the EU, family farms predominate, with the larger commercial farms the dominant type in Oceanic countries, South Africa, and the United States.

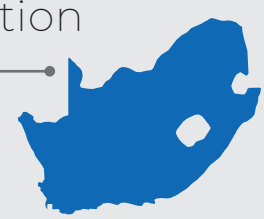
MORE INFO

World unprocessed milk production 2022

936 million tonnes SCM

[96% = cow's milk + buffalo milk]

SA produces **0,4%** of global milk production



Main producing countries (IFCN, 2023)

- INDIA (241 MILLION TONNES SCM)
- UNITED STATES (103 MILLION TONNES SCM)
- PAKISTAN (51 MILLION TONNES SCM)
- CHINA (37 MILLION TONNES SCM)
- BRAZIL (33 MILLION TONNES SCM)

Cost of milk production internationally

This section is based on the analysis of typical dairy farms within the International Farm Comparison Network (IFCN). The IFCN is a network of dairy experts in many countries who strive to create a better understanding of milk production worldwide.

Scientists from 54 countries and 66 dairy regions contributed to the work of the IFCN in 2022. The organisation analysed the production and cost of 172 typical dairy farms in 54 countries and published the results in the *IFCN Dairy Report 2023*. The comparison of farms is based on the actual income and cost figures for 2022. The MPO's participation in the work of the IFCN is financially supported by Milk SA as part of their economics and markets project.

The IFCN's cost comparisons are based on full economic cost. Farm-produced feed is valued at a farm-gate price and not at production cost levels, and the farmer's own labour and management time is valued at comparable industrial rates.

Figure 10 Estimated unprocessed milk production cost (US$/100 kg SCM) per average farm in participating countries, 2022 (source: IFCN, 2023)

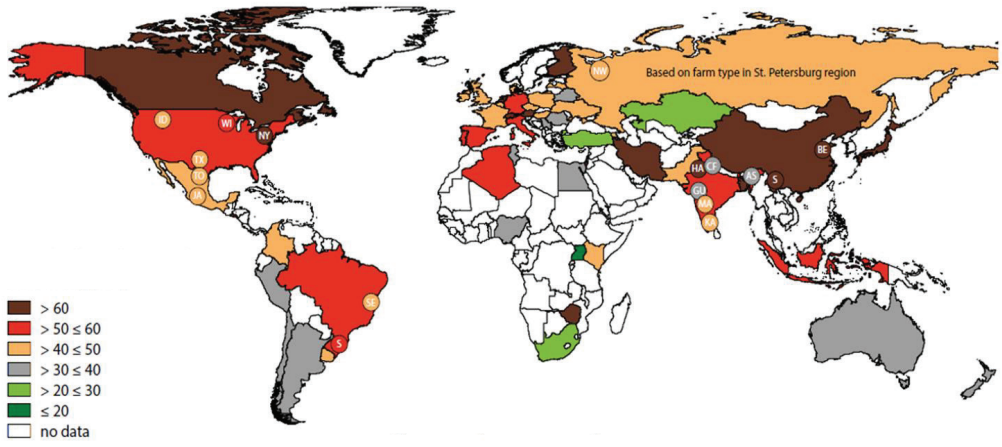
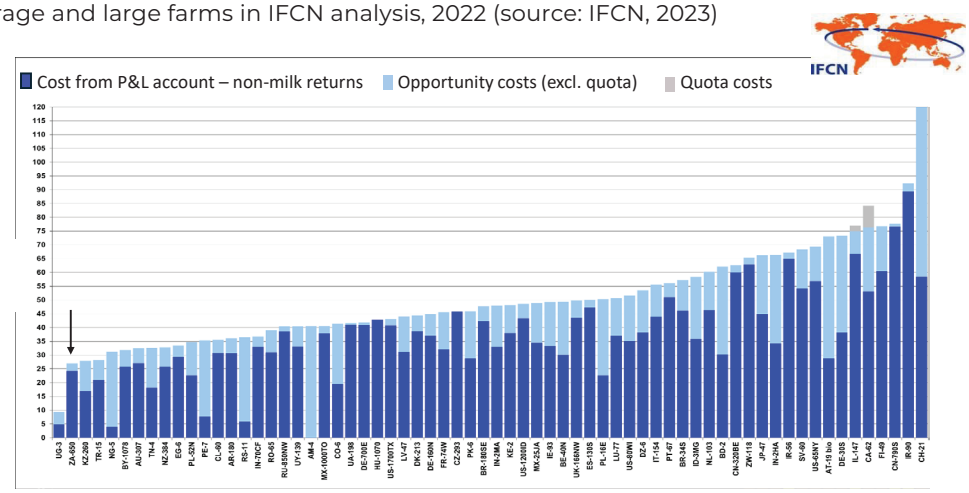


Figure 11 Estimated cost of unprocessed milk production per farm in US$/100 kg SCM for average and large farms in IFCN analysis, 2022 (source: IFCN, 2023)



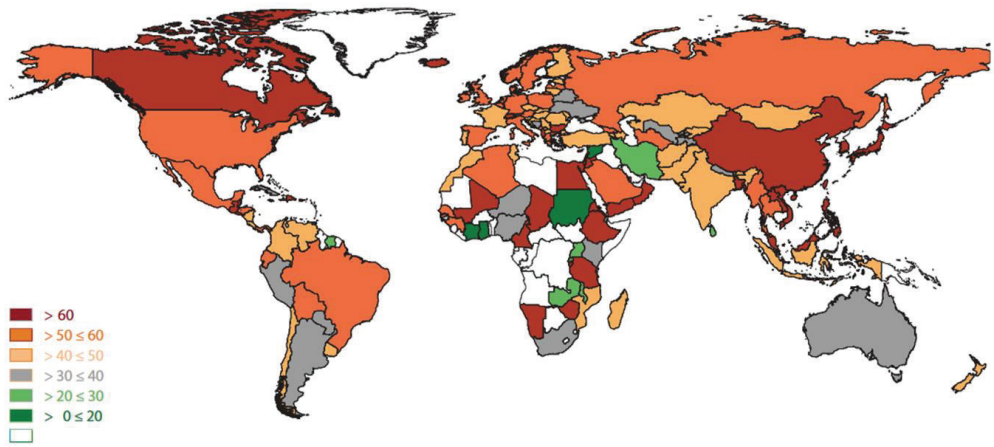
P&L– profit and loss account
Country by international country code and herd size, ZA 650 cow herd

The inclusion of opportunity costs creates a bias towards countries with very little or no opportunity costs for labour and without a viable market for feed.

The average cost level of the 132 farms evaluated by the IFCN in 2022 stood at US$48,40 (R791,82) per 100 kg SCM, which is 8,0% higher than in 2021.

Feed is the highest single-cost component, contributing about 60% to the total cost. Feed costs and the efficient management of feeding practices have a big impact on total costs and play a huge role in determining cost competitiveness. Milk production costs for typical dairy farms, as analysed by the IFCN, are shown in Figure 11. In countries with very low milk production costs, low opportunity costs of labour and lower feed prices are the main drivers of cost competitiveness. In most of these cases, milk is produced for own use and not for the market.

Figure 12 Estimated producer milk prices in various regions (US$/100 kg SCM), 2022 (source: IFCN, 2023)



International producer price of unprocessed milk

The IFCN world milk price indicator of unprocessed milk stood at an average level of US$53,40 (R873,62) per 100 kg SCM in 2022, which is an increase of 18,4% over the previous year. The 2023 IFCN world price indicator is at US$41,00 (R755,33). The world milk price in 2022 jumped from US$54,7 (R894,89) per 100 kg SCM in January 2022 to a record level of US$63,3 (R1 035,59) per 100 kg SCM in April 2022. Since then, there was a noticeable downward trend, ending in December 2022 at US$44,5 (R728,02). This trend continued for the first four months of 2023 and bottomed out at US$39,7 (R721,35) per 100 kg SCM in April 2023. Since then, prices rebounded, with June 2023 reaching US$42,55 (R796,11) per 100 kg SCM.

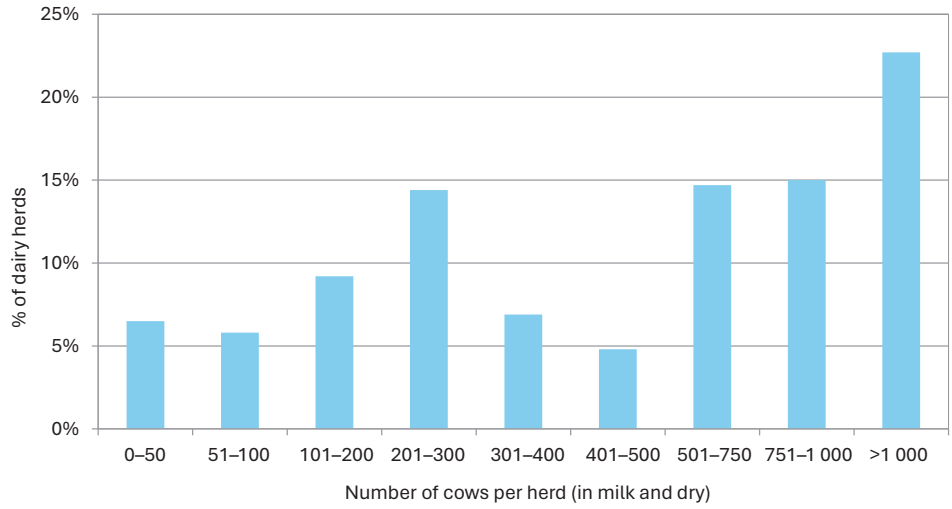
During 2021, the performance of the milk price indicated that the market was shifting to another phase in the global dairy market. In both 2021 and 2022, the world milk price experienced higher volatility than previously experienced. This could be a characteristic of the new phase.

SOUTH AFRICAN SITUATION

Retail sales of various dairy products, along with unprocessed milk, decreased in 2023. Consumer purchasing power was weakened by widespread price hikes in consumer goods and services, compounded by sluggish economic growth.

In 2023, South Africa's GDP (at 2015 prices and annualised) value was 0,6% higher than the 2022 value. The 2023 GDP of R 4 627 billion was 0,9% higher than the GDP value in 2019, the year before the COVID-19 pandemic. The recovery was contracted and hampered by major disruption in the supply of electricity and poor service delivery by the public sector. Higher-than-normal price increases in the retail space of different types of dairy products and unprocessed milk negatively affected retail sales. Sharp increases over a broad spectrum of major input prices reduced profitability levels in the secondary and primary dairy industries, hence reducing output. At the same time, the increased cost of production resulted in higher retail prices, affecting sales volumes negatively.

Figure 13 Size distribution of dairy cows per herd, 2023 (source: MPO survey October 2023*)



*The MPO survey yielded a 24% response rate from producers of unprocessed milk. Therefore, all information sourced from this survey must be considered with care.

Photograph: Illa Hugo

South African primary dairy sector

Structure of the primary dairy sector

The number of milk producers in South Africa decreased from 891 in January 2023 to 882 in January 2024. The number of producers per province is shown in Table 6. From January 2023 to January 2024, the number of milk producers decreased by 1,0%.

NEED TO KNOW

Number of producers
(↓35%)

Jan 2018	Jan 2024
1 365	882

Milk production
(↓2,1%)

2018	2023
3 411 000 t	3 339 000 t

Milk production per producer
(↑52%)

2018	2023
2 499 t	3 786 t

Table 6 Number of producers of unprocessed milk per province, January month, 2018–2024 (source: MPO)

Province	2018	2019	2020	2021	2022	2023	2024
Western Cape	419	402	379	348	324	301	299
Eastern Cape	212	201	206	172	166	155	164
Northern Cape	7	6	4	4	4	3	3
KwaZulu-Natal	221	212	208	207	202	186	182
Free State	206	165	145	130	117	95	91
North West	135	117	100	84	70	61	57
Gauteng	84	83	65	56	52	46	46
Mpumalanga	69	56	50	46	44	39	35
Limpopo	12	11	7	6	5	5	5
TOTAL	**1 365**	**1 253**	**1 164**	**1 053**	**984**	**891**	**882**

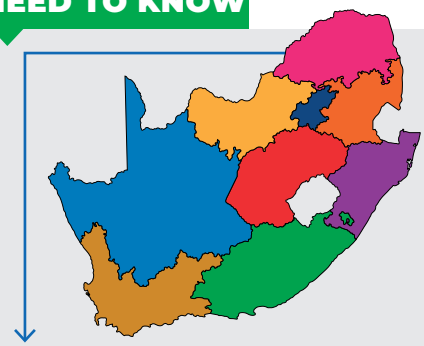
The production of unprocessed milk is concentrated in the coastal regions of South Africa. In total, 85,8% of production originates from the Western Cape (29,3%), Eastern Cape (28,5%), and KwaZulu-Natal (28,0%). Milk production per province, according to the MPO's estimates, considering the results of the October 2023 MPO survey, is shown in Table 7.

Cow numbers vary widely among producers. The percentage distribution of herd size is shown in Figure 13.

The average number of cows in milk per producer in the different provinces is shown in Table 7.

The average milk production per cow per day was 16,1 L in 2023. Ninety-nine per cent of unprocessed milk was delivered to the market. The balance was used for on-farm consumption. The distribution of herds on a production basis is shown in Figure 14.

NEED TO KNOW



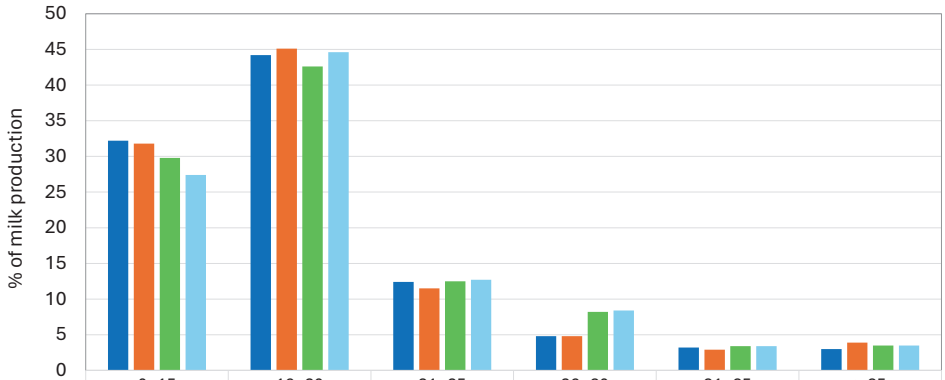
Milk production per province, 2023 (%)

Eastern Cape	29,5
Western Cape	28,3
KwaZulu-Natal	28,3
Mpumalanga	4,5
Gauteng	4,4
Free State	3,2
North West	1,4
Limpopo	0,4
Northern Cape	0,0

Table 7 Unprocessed milk production in South Africa per province and cows in herd (in milk and dry cows) per producer, specific month in a specific year (source: MPO survey: October 2023)

Province	Percentage distribution of milk production		Number of cows in herd per producer, 2023
	Oct 2022	Oct 2023	Average
Western Cape	29,3	28,3	581
Eastern Cape	28,5	29,5	1 285
KwaZulu-Natal	28,0	28,3	931
Mpumalanga	4,1	4,5	620
Free State	4,0	3,2	741
Gauteng	4,0	4,4	765
North West	1,7	1,4	167
Limpopo	0,4	0,4	709
Northern Cape	0,0	0,0	0
Total	**100,0**	**100,0**	**797 (weighted average)**

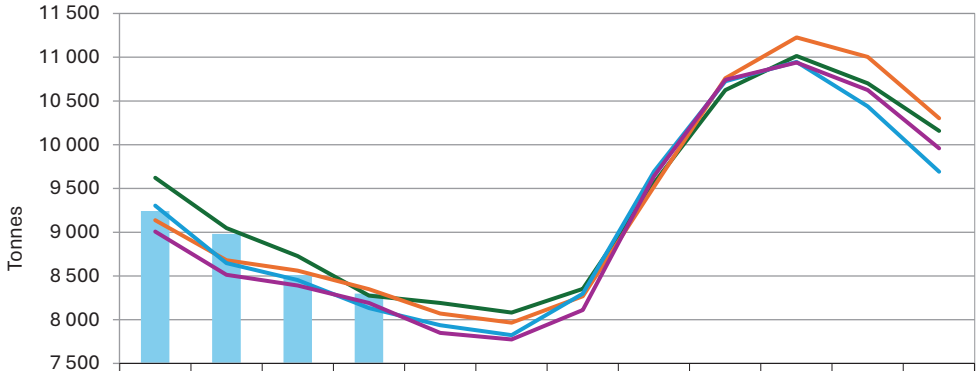
Figure 14 Distribution of herds based on daily production per cow in herd, 2020–2023 (source: MPO survey: October 2023)



	0–15	16–20	21–25	26–30	31–35	> 35
2020	32,2	44,2	12,4	4,8	3,2	3,0
2021	31,8	45,1	11,5	4,8	2,9	3,9
2022	29,8	42,6	12,5	8,2	3,4	3,5
2023	27,4	44,6	12,7	8,4	3,4	3,5

> “The average milk production per cow per day was 16,1 L in 2023.”

Figure 15 Daily average monthly unprocessed milk purchases per month, 2020–2024* (source: Milk SA, last two months preliminary)



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2024*	9 242	8 981	8 511	8 299								
2020	9 622	9 048	8 728	8 275	8 192	8 081	8 352	9 562	10 624	11 014	10 703	10 158
2021	9 137	8 680	8 561	8 349	8 070	7 966	8 269	9 520	10 761	11 227	11 004	10 303
2022	9 304	8 647	8 454	8 133	7 937	7 824	8 298	9 694	10 726	10 948	10 438	9 691
2023	9 008	8 514	8 391	8 192	7 849	7 775	8 112	9 641	10 741	10 941	10 625	9 959

*Estimate based on Milk SA sample

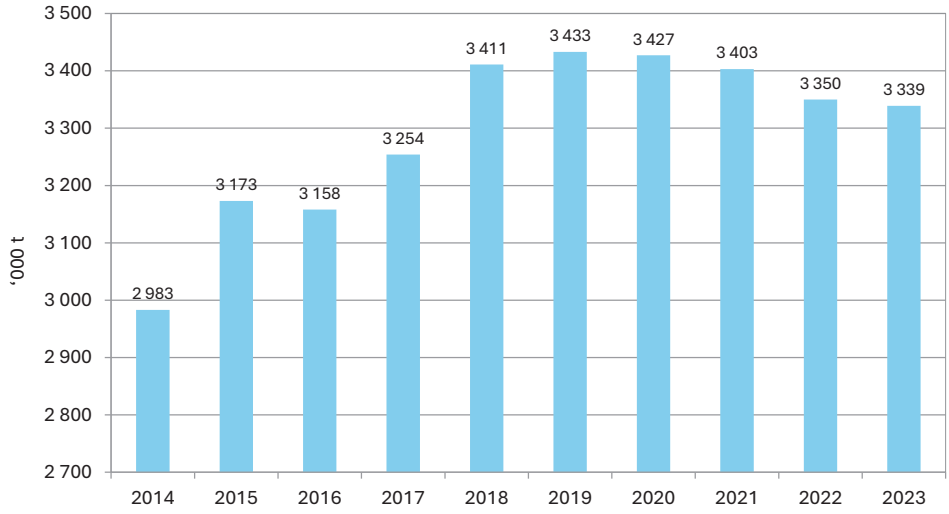
Production of unprocessed milk in South Africa

Annual unprocessed milk production (Figure 16) shows a steady linear upward trend over time. For the last four years, unprocessed milk production has been suppressed compared with the overall trend. Total unprocessed milk to market for 2023 was 3 339 272 tonnes, down 0,32% from the previous year. Monthly milk purchases from 2021 to February 2024 are shown in Figure 15.

The growth in the intake of unprocessed milk for 2023 was subdued, due to lower retail sales quantities experienced during 2023, value chain economics being under pressure, and adverse climatic conditions prevailing over certain parts of South Africa. Lower retail sales are an extension of the pressure on the disposable income of consumers manifesting in retail trade sales as a whole in the South African economy, experiencing negative growth in 2023, the first time in five years, excluding the 2020 COVID-19 pandemic year.

The first four months of 2024 registered positive growth of 2,67% (February 2024 leap year) in respect of unprocessed milk purchased by the formal market.

Figure 16 Annual unprocessed milk purchases in South Africa, 2014–2023 (source: Milk SA)



Photograph: Illa Hugo

Table 8 South African farm requisite price indices, base 2015 = 100 (source: DALRRD)

Period	Machinery and implements	Material for fixed improvements	Intermediate goods and services	All farming requisites
2015	100	100	100	100
2016	106,2	107,4	105,7	105,8
2017	109,7	112	111,1	110,9
2018	113,9	118,3	117	116,7
2019	117,4	123,7	121,6	121,2
2020	120,8	128	125,1	124,8
2021	126,6	136	131,6	131,3
2022	134,6	150,2	151,5	149,5
CAGR* 2015–2022	**4,38%**	**5,96%**	**6,16%**	**5,96%**
Jan '18	112,1	112,9	114,1	113,8
Apr '18	111,4	122,1	114,3	114,4
Jul '18	114,8	119,5	117,1	116,9
Oct '18	117,3	118,8	122,7	121,9
Jan '19	116,3	117,9	119,4	119
Apr '19	115,3	129,2	120,2	120
Jul '19	118,8	124,9	121,2	121,1
Oct '19	119,3	123	125,7	124,8
Jan '20	120,7	122,5	123,6	123,3
Apr '20	117,8	125,6	122,9	122,5
Jul '20	122,1	138,3	124	124,5
Oct '20	122,7	125,5	130	128,9
Jan '21	128	134,3	128,1	128,4
Apr '21	125	132	128,5	128,3
Jul '21	126	144,2	129,4	129,7
Oct '21	127,4	133,5	140,5	138,4
Jan '22	133,6	147,6	147,7	146,1
Apr '22	129,9	149	149,4	147,1
Jul '22	137	158,7	151,5	150,2
Oct '22	137.7	145,6	157,3	154,5
Jan '23	141	161,7	149,7	148,7
Apr '23	138,8	155	153	151,5
CAGR* Jan '18–Apr '23	**0,99%**	**1,45%**	**1,35%**	**1,32%**

*Compound annual growth rate

South African secondary dairy sector

Structure of the secondary dairy sector

The South African secondary dairy industry consists of a few large processors operating nationally, a growing number of processors who operate in more than one region, many smaller processors who operate in specific areas, and several milk producers who sell their own produce to retailers and consumers – known as producer-distributors (PDs). The number of PDs and milk buyers (processors) per province is shown in Table 9.

From January 2023 to January 2024, the number of PDs decreased from 62 to 54, a decrease of 12,9%; milk processors decreased by 3,8% over the same period.

NEED TO KNOW

Number of producers-distributors
(↓39%)

Jan 2018 88

Jan 2024 54

Number of milk processors
(↓9%)

Jan 2018 138

Jan 2024 125

Dairy market composition: Estimate → 2022

61% liquid

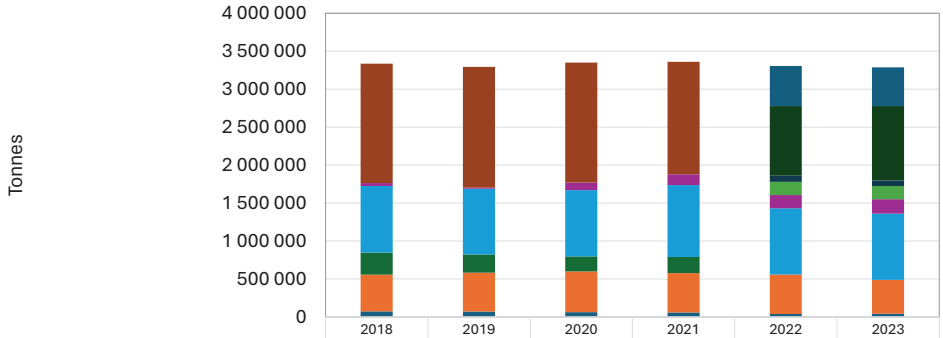
39% concentrated

Table 9 Number of producer-distributors (PDs) and processors (Proc) per province (indicated according to the geographical position of head office), as registered with Milk SA, Jan 2018–Jan 2024 (source: Milk SA)

Province	Jan 2018		Jan 2019		Jan 2020		Jan 2021		Jan 2022		Jan 2023		Jan 2024	
	Proc	PDs	Proc	PDs	Proc	PDs	Proc	PDs	Proc	PDs	Proc	PDs	Proc	PDs
Eastern Cape	8	9	12	15	9	7	9	7	7	6	7	6	8	8
Free State	12	7	15	11	12	7	12	6	11	4	10	3	10	3
Gauteng	42	17	51	21	39	15	39	15	40	18	42	14	38	14
KwaZulu-Natal	20	8	161	9	20	7	20	7	20	7	20	7	19	6
Limpopo	4	10	4	7	3	10	3	10	4	10	4	9	3	8
Mpumalanga	5	9	6	9	4	8	4	8	3	7	3	7	3	6
North West	11	3	16	4	11	3	11	3	12	2	9	2	8	2
Northern Cape	1	7	1	9	2	6	2	6	2	2	1	2	1	2
Western Cape	35	18	39	25	31	14	31	14	37	11	34	12	35	11
Total	**138**	**88**	**160**	**110**	**131**	**77**	**133**	**67**	**136**	**67**	**130**	**62**	**125**	**54**

Milk processors refer to producers of processed milk and manufacturers of other dairy products. Producer-distributors are individuals who predominantly sell unprocessed milk produced by their own dairy animals to consumers, and/or sell it to retailers, and/or use such milk for processing and/or the manufacturing of dairy products, and/or sell it to individuals outside the jurisdiction of South Africa, and/or move it outside the jurisdiction of South Africa.

Figure 17 Unprocessed milk used for the manufacturing of dairy products in South Africa 2018–2023 (source: industry estimate supplied by Milk SA)



	2018	2019	2020	2021	2022	2023
Fresh milk*	0	0	0	0	529 511	509 941
Long life and sterilised milk*	0	0	0	0	916 268	980 023
Processed unsweetened, unflavoured milk**	1 572 588	1 590 487	1 581 575	1 481 790	0	0
SMP*	0	0	0	0	80 149	72 701
FMP*	0	0	0	0	175 966	173 775
Other concentrated products	38 416	12 651	98 836	141 845	172 996	191 773
Cheese, excl. cottage and cream cheese	877 496	866 413	872 163	947 756	873 151	871 897
Milk powder	291 506	239 443	197 915	212 256	0	0
Fermented products	483 040	511 839	536 225	518 164	518 576	444 773
Sweetened, flavoured, and coloured milk	73 507	71 619	63 962	59 099	39 752	43 187

Other concentrated products: Products such as cream, ice cream, cottage cheese, cream cheese, condensed milk, evaporated milk, and desserts
*Milk SA only started collecting these data fields from January 2022
**Split between fresh milk, and long life and sterilised milk commenced in 2022

Production and consumption of dairy products in South Africa

In 2023, the South African dairy products market was divided into approximately 60,5% liquid products and 39,5% concentrated products. Pasteurised liquid milk and UHT processed milk were the major liquid products, with hard cheese being the main concentrated product. Figure 18 and Figure 19 show the estimated composition of the markets for concentrated and liquid products.

Figure 18 Concentrated dairy products in South Africa – the mass of each product in relation to the total mass of concentrated dairy products in respect of 2023 (source: industry estimate supplied by Milk SA); the total mass of concentrated dairy products = 174 554 tonnes

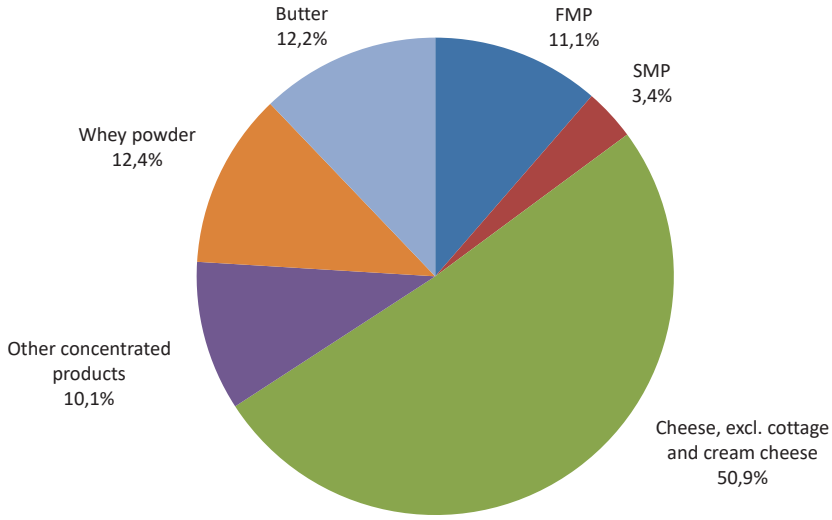


Figure 19 Liquid dairy products in South Africa – the mass of unprocessed milk used in the manufacturing of liquid dairy products in respect of 2022 (source: Milk SA); the total mass of unprocessed milk used = 1 987 513 tonnes

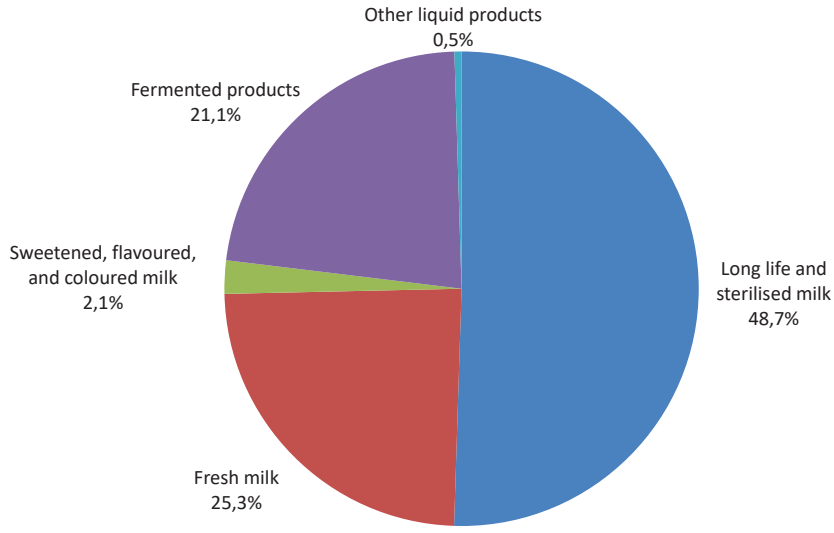


Figure 20 Concentrated dairy products in South Africa – the mass of unprocessed milk used in the manufacturing of concentrated dairy products in respect of 2023 (source: Milk SA); the total mass of unprocessed milk used for concentrate manufacturing = 1 300 558 tonnes

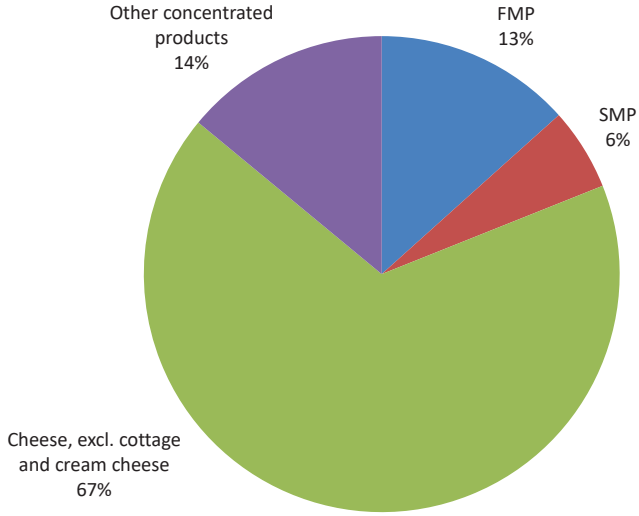
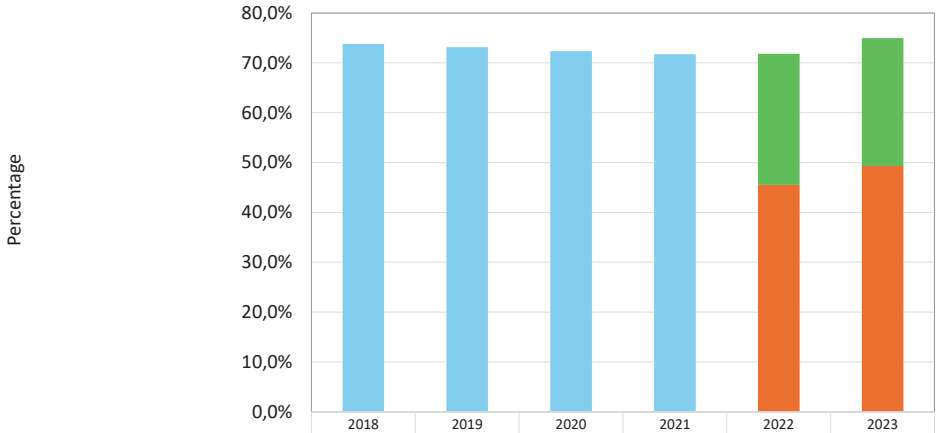


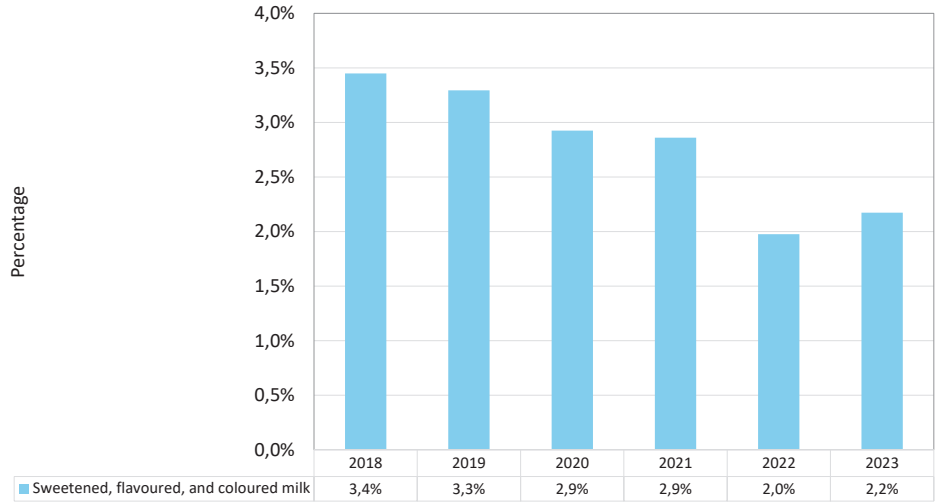
Figure 21 Mass of unsweetened and unflavoured milk processed in South Africa 2018–2023 as a percentage of the total mass of liquid products produced per year (source: industry estimate supplied by Milk SA)



	2018	2019	2020	2021	2022	2023
Fresh milk*	0,0%	0,0%	0,0%	0,0%	26,3%	25,7%
Long life and sterilised milk*	0,0%	0,0%	0,0%	0,0%	45,5%	49,3%
Processed unsweetened, unflavoured milk**	73,8%	73,1%	72,3%	71,7%	0,0%	0,0%

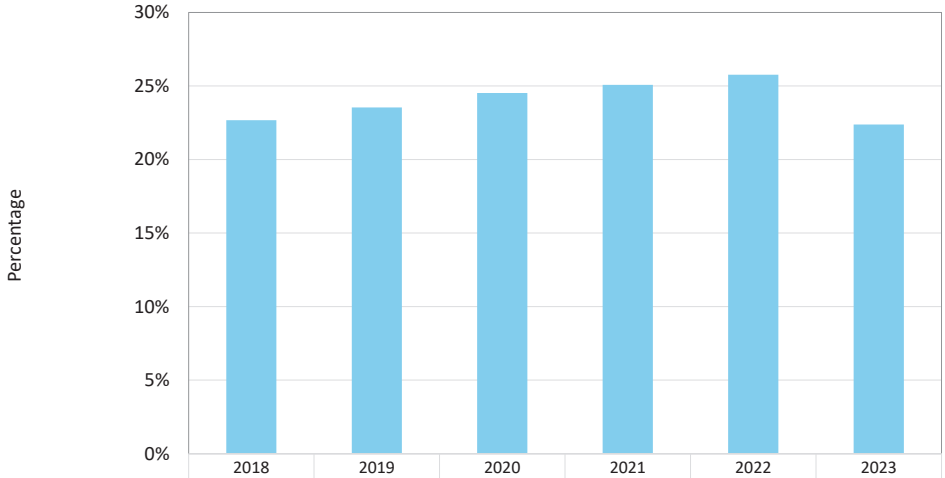
*Milk SA only started collecting these data fields from January 2022
**Split between fresh milk, and long life and sterilised milk commenced in 2022

Figure 22 Mass of sweetened, flavoured, and coloured milk, manufactured in South Africa 2018–2023 as a percentage of the total mass of liquid products produced per year (source: industry estimate supplied by Milk SA)



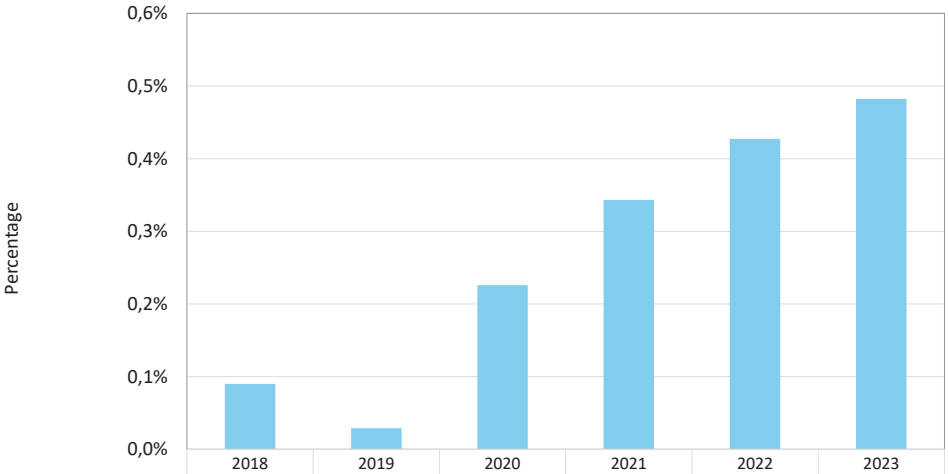
	2018	2019	2020	2021	2022	2023
Sweetened, flavoured, and coloured milk	3,4%	3,3%	2,9%	2,9%	2,0%	2,2%

Figure 23 Mass of fermented products manufactured in South Africa 2018–2023 as a percentage of the total mass of liquid products produced per year (source: industry estimate supplied by Milk SA)



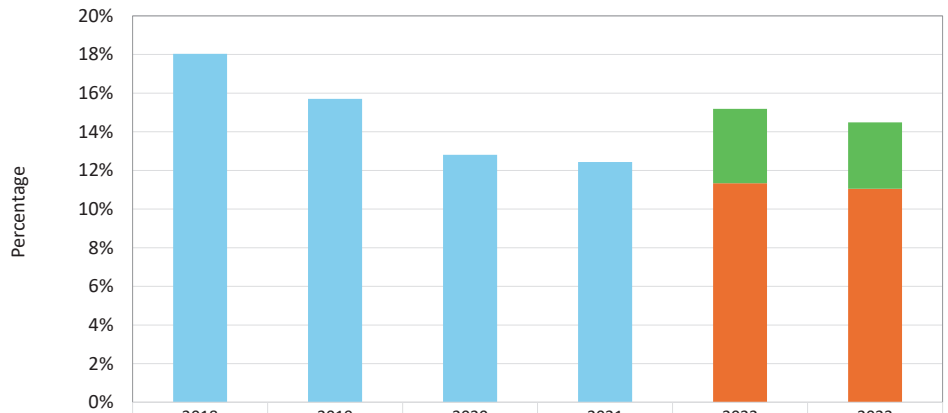
	2018	2019	2020	2021	2022	2023
Fermented products	22,7%	23,5%	24,5%	25,1%	25,8%	22,4%

Figure 24 Mass of other liquid products manufactured in South Africa 2018–2023 as a percentage of the total mass of liquid products produced per year (source: industry estimate supplied by Milk SA)



	2018	2019	2020	2021	2022	2023
Other liquid products	0,1%	0,0%	0,2%	0,3%	0,4%	0,5%

Figure 25 Mass of milk powder manufactured in South Africa 2018–2023 as a percentage of the total mass of concentrated products produced per year (source: industry estimate supplied by Milk SA)



	2018	2019	2020	2021	2022	2023
SMP*	0%	0%	0%	0%	4%	3%
FMP*	0%	0%	0%	0%	11%	11%
Milk powder	18%	16%	13%	12%		

*Milk SA only started collecting these data fields from January 2022

Figure 26 Mass of cheese, excluding cottage and cream cheese manufactured in South Africa, 2018–2023 as a percentage of the total mass of concentrated products produced per year (source: industry estimate supplied by Milk SA)

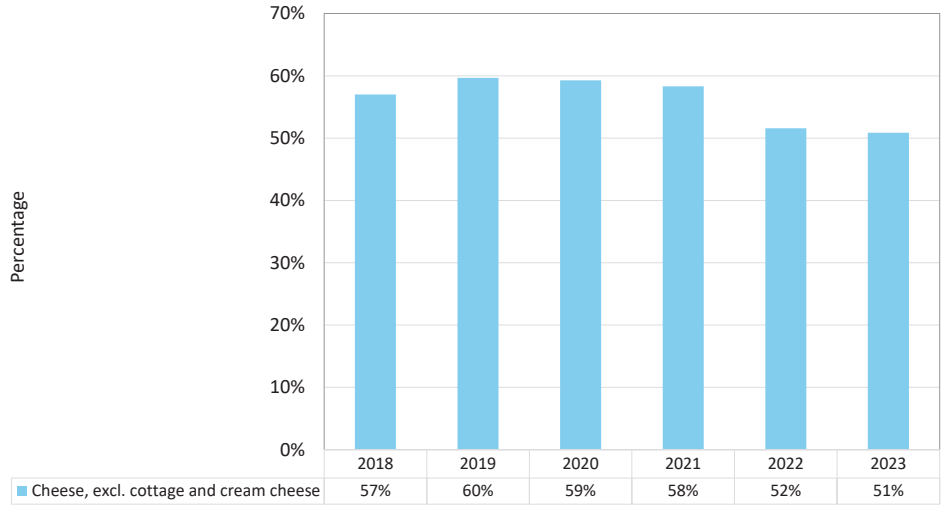


Figure 27 Mass of other concentrated products manufactured in South Africa as a percentage of the total mass of concentrated products produced per year

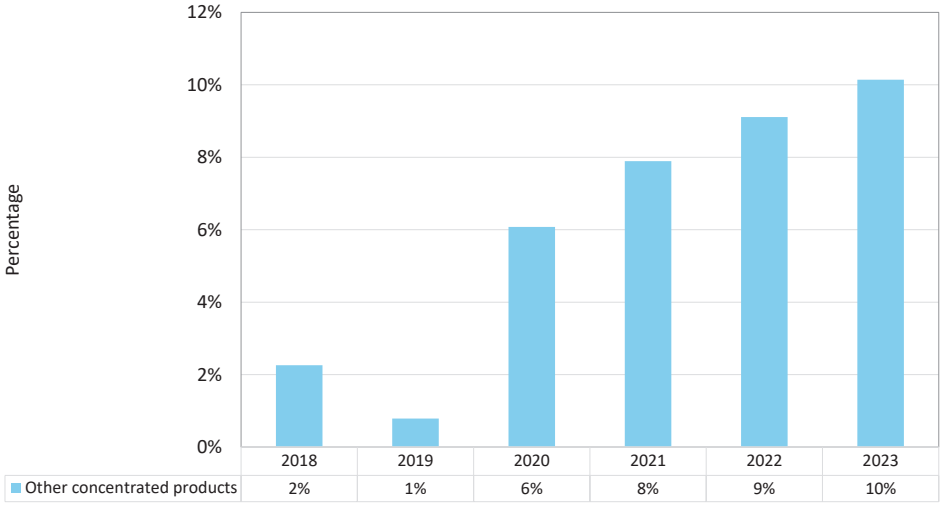


Figure 28 Mass of whey powder manufactured annually in South Africa, 2018–2023 (source: industry estimate supplied by Milk SA)

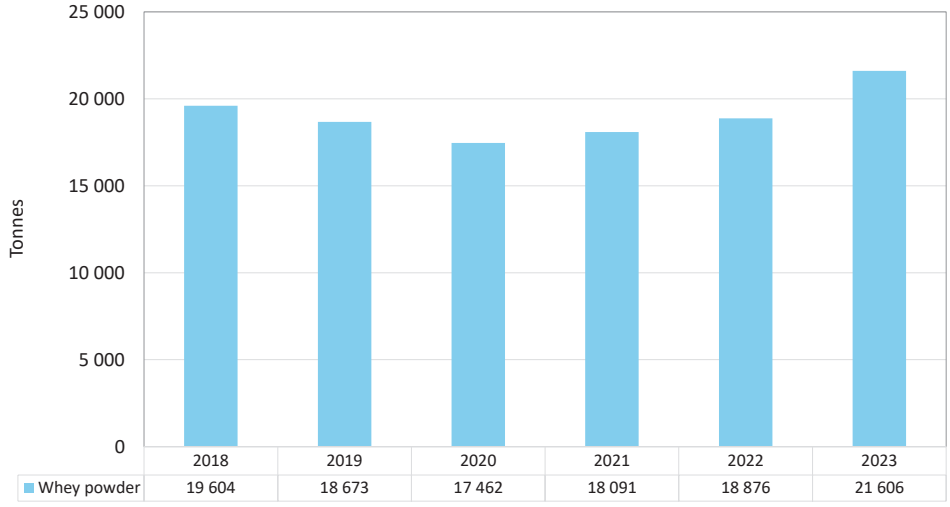
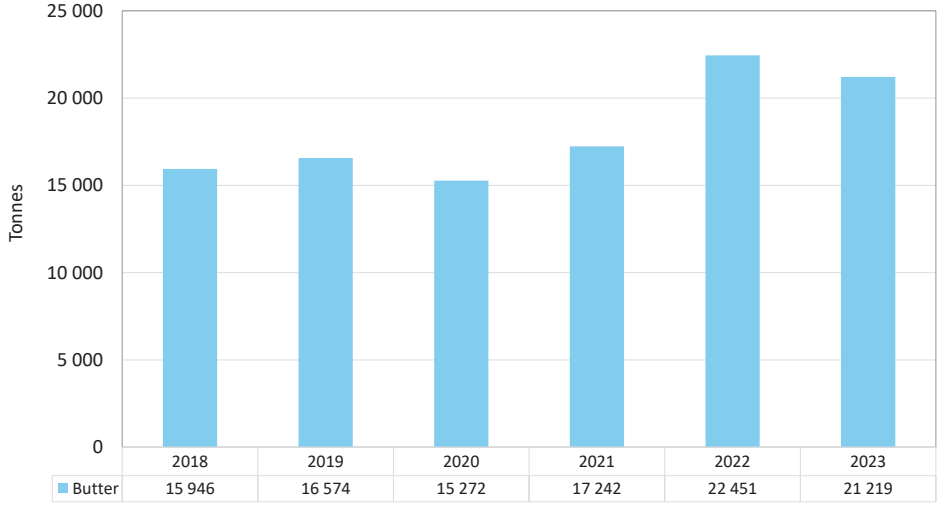


Figure 29 Mass of butter manufactured annually in South Africa, 2018–2023 (source: industry estimate supplied by Milk SA)



South African imports and exports

Total dairy product imports and exports are shown in Figure 30 and Figure 31. In 2023, 48 000 tonnes of products were imported, and 56 000 tonnes were exported. On a mass basis, imports decreased by 9,4% in 2023, compared with 2022, while exports increased by 7,7%. The total composition of imports and exports in 2023 is shown in Figure 32 and Figure 33. On a mass basis, milk powder was the most imported product, and milk and cream were the most exported products.

Figure 30 South African dairy product imports and exports, 2014–2023 (source: SARS data, as supplied by SAMPRO)

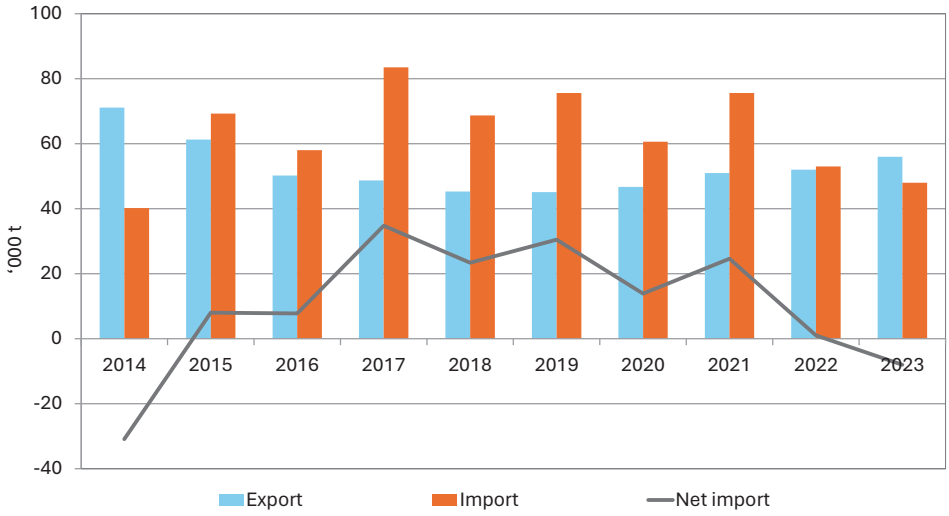


Figure 31 South African dairy product imports and exports on milk-equivalent basis, 2014–2023 (source: SARS data, as supplied by SAMPRO)

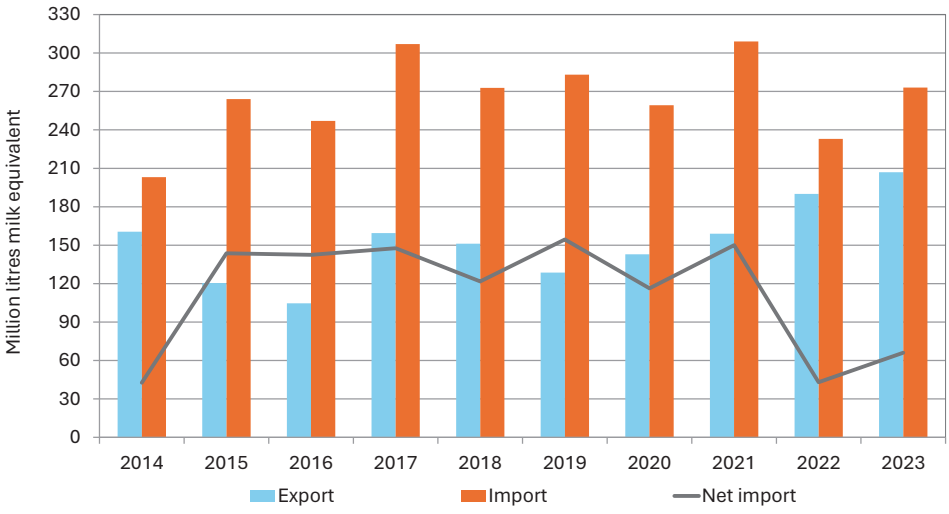


Figure 32 Percentage composition of imports into South Africa on a mass basis, 2023 (source: SARS data, as supplied by SAMPRO)

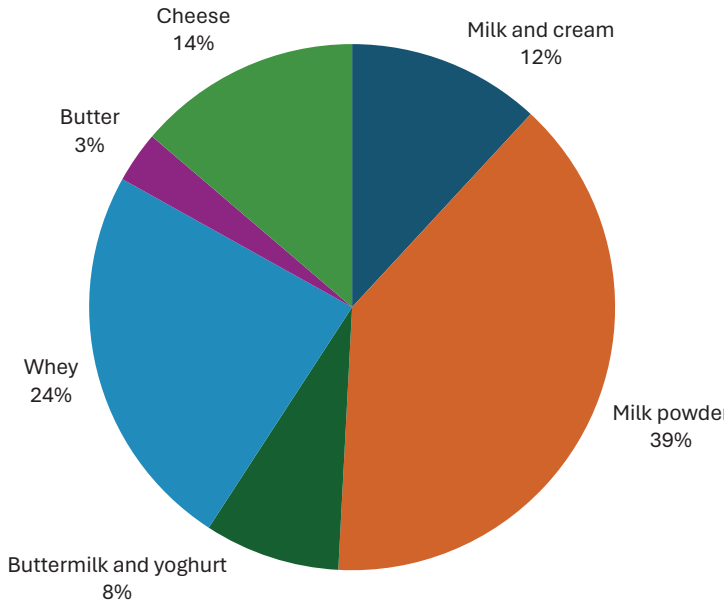


Figure 33 Percentage composition of exports by South Africa on a mass basis, 2023 (source: SARS data, as supplied by SAMPRO)

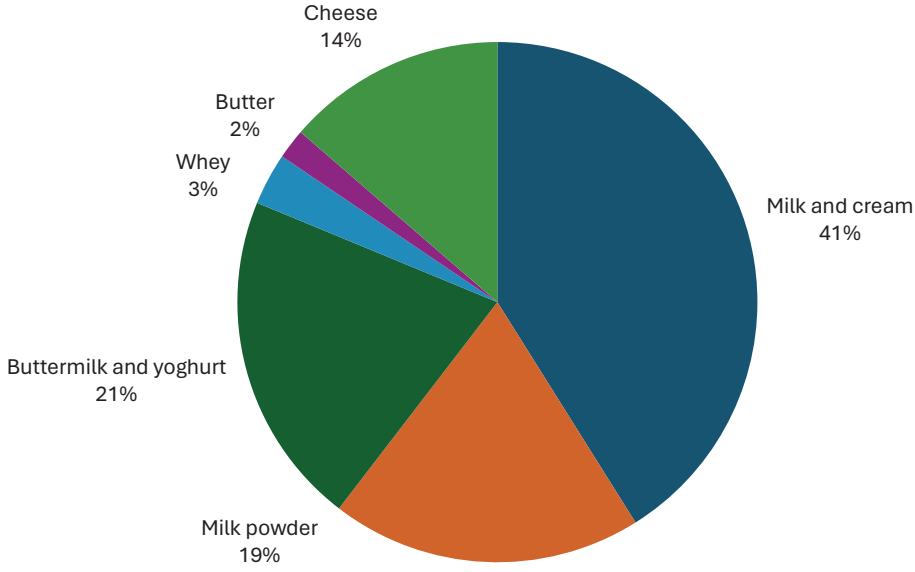


Figure 34 South African price index of unprocessed milk at farm level, dairy products at processor level, and milk and eggs at consumer level, Jan 2013–Feb 2024 (source: Stats SA)

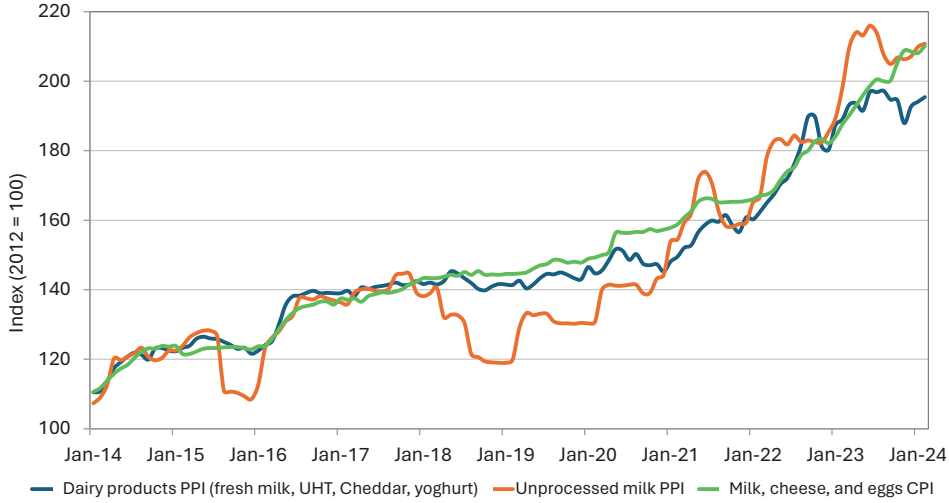


Figure 34 shows the trends of dairy products at the processor level; unprocessed milk at the PPI level (at the farm gate); and milk, cheese, and eggs at the CPI level. For most of the period, prices follow the same general trend, excluding the period from the end of 2017 to December 2020, when the indices for unprocessed milk (farmer prices) developed a different trend and the magnitude of negative price changes resulted in the index significantly lagging the rate of change in the other indices. The three indices started to increase aggressively from the start of 2021, with the PPI of dairy products and unprocessed milk increasing by 30,7% and 36,5%, respectively, and the CPI of milk, cheese, and eggs registering an increase of 32,3%, over the period February 2021 to February 2024. In 2023, compared with 2022, the PPI of dairy products and unprocessed milk increased by 2,86% and 9,35% respectively, and the CPI of milk, cheese, and eggs registered an increase of 13,25%. The slowdown in the rate of increase in the two PPIs could provide relief in the rate of retail price increases – *ceteris paribus*.

Tables 10 and 11 indicate the trend of retail sales (quantity and average price) of nine dairy products, as reported by Nielsen South Africa and collated by SAMPRO. The Nielsen Company provides information based on monthly surveys of the retail sales of milk and other dairy products. Non-retail sales, such as sales to wholesalers and industrial buyers, which form a significant part of the total sales of dairy products, are not part of the Nielsen surveys.

During 2023, fewer dairy products (as monitored by Nielsen) were sold when compared with sales volumes in 2022 (12-month period). This is the first time that, on a 12-month basis, all the dairy products experienced negative sales growth. This phenomenon is also present in the 9-month and 6-month sales periods comparing 2023 with 2022. In the shorter-term comparative periods, several products register some positive growth and that could be due to a slower rate of price increases as inflation starts to slow down.

Table 10 Changes in quantities of retail sales of specific dairy products in South Africa (source: Nielsen, as supplied by SAMPRO)

Product	Sales of Dec 2023 versus sales of Dec 2022 (1-month period) (%)	Sales from Oct to Dec 2023 versus sales from Oct to Dec 2022 (3-month period) (%)	Sales from Jul to Dec 2023 versus sales from Jul to Dec 2022 (6-month period) (%)	Sales from Apr to Dec 2023 versus sales from Apr to Dec 2022 (9-month period) (%)	Sales from Jan to Dec 2023 versus sales from Jan to Dec 2022 (12-month period) (%)
Fresh milk	-4,5	-5,4	-5,9	-5,9	-5,9
UHT processed milk	-4,2	-2,7	-1,4	-2,6	-4,3
Flavoured milk	1,1	-3,4	-5,9	-7,8	-8,7
Yoghurt	0,2	-1,8	-4,5	-6,4	-7,1
Maas	5,3	0,9	-2,7	-4,8	-5,1
Pre-packaged cheese	1,3	0,04	-0,09	-0,03	-0,6
Butter	8,2	2,4	-0,5	-1,8	-4,3
Cream	1,3	0,1	-0,5	-1,4	-1,9

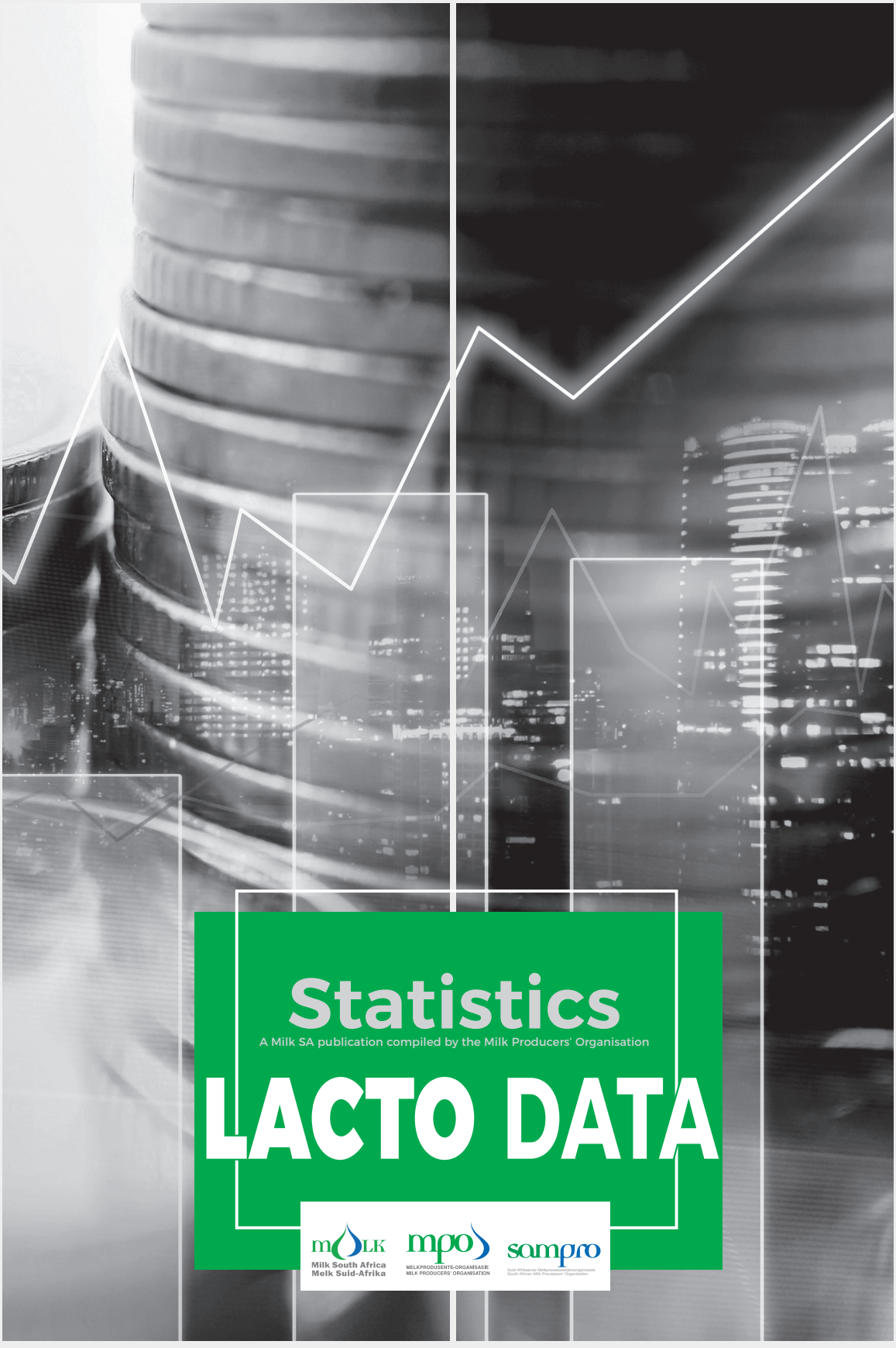
Table 11 Changes in the average retail prices of specific dairy products in South Africa (source: Nielsen as supplied by SAMPRO)

Product	Dec 2023 versus Nov 2023 (1 month ago) (%)	Dec 2023 versus Sept 2023 (3 months ago) (%)	Dec 2023 versus Jun 2023 (6 months ago) (%)	Dec 2023 versus Mar 2023 (9 months ago) (%)	Dec 2023 versus Dec 2022 (12 months ago) (%)	Dec 2023 versus Jun 2022 (18 months ago) (%)	Dec 2023 versus Dec 2021 (24 months ago) (%)
Fresh milk		1,2	0,2	1,8	11,5	16,8	21,5
UHT processed milk	4,4	0,9	0,5	6,2	12,0	17,4	25,4
Flavoured milk	1,7	-4,2	-3,5	-2,6	5,8	10,7	20,8
Yoghurt	0,4	-0,8	-1,0	0,8	7,9	18,3	20,3
Maas	2,1	1,4	1,9	3,6	13,6	26,3	28,6
Pre-packaged cheese	4,5	4,7	8,0	10,0	11,3	21,6	21,3
Butter	5,0	-1,3	-0,8	5,3	1,3	13,2	17,3
Cream	3,1	3,2	2,2	5,2	9,6	16,0	18,7

The prices of the dairy products being monitored (Table 11) by Nielsen, for the period December 2023 compared with December 2022 (12-month period), increased by more than the inflation rate, except for butter. The following products increased by more than double the headline inflation rate: maas, UHT milk, fresh milk, and pre-packaged cheese.

ACRONYMS AND ABBREVIATIONS

CPI	consumer price index
DALRRD	Department of Agriculture, Land Reform and Rural Development
FAO	Food and Agricultural Organization of the United Nations
FFPI	FAO Food Price Index
FMP	full-cream milk powder
FOB	free on board
GDP	gross domestic product
IDF	International Dairy Federation
IFCN	International Farm Comparison Network
IMF	International Monetary Fund
L	litre/s
Milk SA	Milk South Africa
MPO	Milk Producers' Organisation
OECD	Organization for Economic Co-operation and Development
PD(s)	producer-distributor(s)
PPI	producer price index
SAMPRO	South African Milk Processors' Organisation
SARS	South African Revenue Service
SCM	solid-corrected milk
SMP	skimmed milk powder
t	tonnes (a metric tonne is equal to 1 000 kilograms)
UHT	ultra-high temperature
UK	United Kingdom
US	United States
USDA	United States Department of Agriculture
WMP	whole milk powder



Statistics

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