



SUMMARY OF KEY MARKET SIGNALS FOR THE DAIRY INDUSTRY, MAY 2021 EDITION

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SYNOPSIS

The low levels of volatility of the dairy price index of the Food and Agricultural Organization (FAO), in 2019, 2020, and in January to April 2021, are indicative that in the recent past the supply of and demand for dairy products in the international market remained, amidst changing circumstances, to a high extent, in balance.

The FAO dairy price index in May 2021 is 27.9 percent higher than in May 2020, 13.3 percent higher than in May 2019 and 8.8 percent higher than in May 2018.

The future prices for important dairy products recorded at the Global Dairy Trade Auction on 18 May 2021, for delivery in July 2021 to November 2021, do not show an upward trend.

Different factors exist which can impact, in the coming months, on the international supply of and demand for dairy products, such as:

- The developments in respect of COVID-19, which can influence the supply of and the demand for dairy products in the world and which can disrupt the international trade in respect of dairy and other products;*
- Future weather conditions and its impact on the supply of raw milk and thus on the supply of dairy products. In the next few months, weather conditions in the Northern hemisphere, will be very important, as the peak production season of the Northern hemisphere, is underway and the peak production season of the Southern hemisphere commences in the third quarter of the year; and*
- The international trade and other disputes.*

In 2020, and in the situation created by COVID-19 and the lockdown measures of the Government, the performance (in terms of sales quantity and retail price), in the South African retail market of specific dairy products namely, UHT (long life) milk, yoghurt, pre-packaged cheese, cream cheese, butter and cream were higher than in 2019, while the opposite is true in respect of fresh and flavoured milk.

In the February 2021 edition of the “Summary of Key Market Signals for the Dairy Industry”, it was stated that it should not be assumed that good performance of most dairy products as achieved in 2020, will continue as, amongst other, “the lower level of economic activity resulting from COVID-19, and of which the full extent will only be known later”, can impact negatively “on the demand for food products including dairy products”.

The good performance of dairy products in the retail market in 2020, did not continue in the first quarter of 2021, as

- The retail sales quantities of five of the nine dairy products were lower than in the same quarter of 2020; and*
- The retail sales prices of five of the nine dairy products decreased in the quarter concerned.*

SYNOPSIS (continued)

According to Milk SA, the production of raw milk (raw milk purchases) in South Africa in 2020, was 0.16 percent lower than in 2019, 0.49 percent higher than in 2018 and 5.33 percent higher than in 2017. The decrease from 2019 to 2020, is the result of lower production in eight of the twelve months of 2020.

The production of raw milk in South Africa and in other countries, is seasonal. In South Africa, the highest production per day occurs in October or November and the lowest in April, May or June. The average difference between the highest and lowest production per day in the thirteen years from 2008 to 2020, is 33.3 percent.

The extent of the seasonal decrease of the production of raw milk from October 2020 to April 2021, (the latest available information is in respect of April 2021, and the figures for March 2021 and April 2021, are estimated figures) namely 25.1 percent, is higher than the average decrease of 21.3 percent in the years 2008/2009 to 2019/2020, and slightly higher than the decrease of 24.4 percent from October 2019 to April 2020.

The lower production of raw milk in 2020, relative to the production in 2019, should be seen against the background of especially the following:

- The uncertainty about the impact of COVID-19 on the demand for dairy products and thus the demand for raw milk, which existed in 2020. Essentially this position discouraged, at any point in time during 2020, optimistic views about the future demand for dairy products and the future demand for raw milk, and thus the justification for stimulation of production of raw milk through price increases; and*
- The unexpected sharp increases of the prices of maize and soya in the second half of 2020, which are the basis of important ingredients of feed for dairy cattle and which eroded the positive impact of the increase of the prices of raw milk which took place.*

During the first four months of 2021, the production of raw milk in South Africa was lower than in the same months of 2020, but the extent to which it was lower, decreased from 4.8 percent in January 2021, to 0.3 percent in April 2021. Note that the figures in respect of March and April 2021, are estimated figures.

In 2020, the producer price index of raw milk decreased in three months, remained the same in two months and increased in seven months. The net result is that the price index in December 2020 was 10.6 percent higher than in December 2019.

SYNOPSIS (continued)

In each of the first four months of 2021, the producer price index of raw milk increased and the index in April 2021 was 14.5 percent higher than in April 2020 (the latest available information is in respect of April 2021). As a result of this increase and a drop in the index of the feed price indicator, the producer price index of raw milk was in February 2021, March 2021, and April 2021, higher than that of the index of the feed price indicator which indicates a higher level of encouragement for the production of raw milk than in the previous five months.

In light of the future prices of maize and soya, achieved on 3 May 2021, in South Africa, lower feed prices should not be expected in the coming months. The relative high prices of maize and soya in South Africa are the result of conditions in the international grain market. Conditions in the international grain market can develop in such a way that lower maize and soya prices can be the result.

In 2018, 2019, and 2020, the producer price index of raw milk was at lower levels than the producer price index of dairy products, but from January 2021, it is on higher levels.

In the last nine months of 2018, as well as in 2019 and 2020, the producer price index of raw milk was lower than the retail price index of fresh milk, but higher than the retail price indices of UHT milk, yoghurt, maas and pre-packaged cheese. This position changed and since January 2021, the producer price index of raw milk is also higher than the retail price index of fresh milk.

In the next few months, the South African dairy industry will be confronted by:

- *The uncertainty regarding the unfolding impact of COVID-19 on human behaviour, service delivery by the public sector and the economy;*
- *The normal sharp seasonal rise in production of raw milk. In the thirteen years 2008 to 2020, the average growth in the production of raw milk from July to October, is 28.7 percent, the lowest increase of 24.6 percent was recorded in 2008, and the highest of 34.3 percent, was recorded in 2017; and*
- *The impact of the expected low level of economic activity in South Africa on the demand for dairy products. The performance in the first quarter of 2021 of most dairy products in the retail market does not support optimistic views regarding the demand in the coming months for dairy products. Although it is expected that the South African economy will grow in 2021, the level of economic activity will remain lower than in 2019.*

Introduction

1. This report presents a summary of information regarding market signals for the South African dairy industry and more comprehensive information is available from the Office of SAMPRO.
2. This report is a quarterly publication of SAMPRO and is prepared by the Office of SAMPRO independently from the commercial interests of role players in the dairy industry.
3. The purpose of this report is, like the other regular reports of SAMPRO, to make market signals available to all interested parties in order to promote the effective working of the markets for raw milk and the different dairy products as envisaged by the Competition Act, and which is in the interest of the consumer, the dairy industry and optimum use of national resources.
4. This report is of a macro nature and the position in South Africa of individual raw milk producers, individual producers of processed milk and individual manufacturers of the other dairy products, can differ from the macro position due to a variety of factors. In the primary dairy industry (producers of raw milk), differences are the result of factors like production regime (pasture based or total mixed ration), sophistication in respect of the management of individual animals, weather conditions and geographical location. In the secondary dairy industry, differences are the result of factors like product range, reputation of brand name, productivity in respect of processing, manufacture and marketing, exposure to foreign competition and geographical location.

The International Markets for Dairy Products and Raw Milk Markets in Major Dairy Countries

5. The FAO¹⁾ price index for dairy products traded internationally (See Graph 1 of Annexure A) is an important indicator of the macro conditions in the international markets for dairy products. This index measures the changes of the prices achieved in the international market in respect of a basket of dairy products consisting of butter, cheese, skimmed milk powder, full cream milk powder and casein, and the other dairy products like UHT milk, yoghurt, maas and whey powder, are not included in the basket.
6. From December 2018 to May 2019, the price index of the FAO dairy price index increased with 8.9 percent to a level of 106.6 and from May 2019 to September 2019, it decreased with 6.5 percent to a level of 99.6. According to the FAO, this decrease was the result of lower cheese prices which offset the higher prices of milk powders.

1) *Food and Agricultural Organization of the United Nations.*

7. From September 2019 to January 2020, the FAO dairy price index increased with 4.2 percent from 99.6 to 103.8, and from January 2020 to May 2020, it decreased with 9.0 percent to 94.4. According to the FAO, this decrease reflected “increased export availabilities and mandatory inventories amid weak import demand”. The FAO also stated that:

“With milk production in the northern hemisphere normally rising at this time of the year, diminished restaurant sales and reduced demand from food manufacturers also weighs on prices. By contrast, price quotations for cheese rebounded moderately on account of limited spot supplies from Oceania, where production is seasonally declining.”

8. From May 2020 to May 2021 (the latest available information is in respect of May), the FAO dairy price index increased with 27.9 percent from 94.4 to 120.8. The last mentioned level is 13.3 percent higher than in May 2019, and 8.4 percent higher than in May 2018. In respect of the increase from May 2020 to May 2021, of 27.9 percent, the FAO stated on 3 June 2021:

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

9. As shown in the previous four paragraphs, the price index for dairy products of the FAO frequently changed.
10. In the last twenty one years (2000 to 2020) the extent to which the highest monthly FAO dairy price index in a year, exceeded the lowest, varied from 3.4 percent in 2005, to 82.8 percent in 2007, and the average difference in the twenty one years is 26.3 percent. (See Table 1 of Annexure A)
11. In the last ten years (2011 to 2020) the extent to which the highest monthly FAO dairy price index in a year exceeded the lowest, varied from 7.0 percent in 2019, to 58.8 percent in 2014. The low levels of volatility in 2019 of 7.0 percent, 10.5 percent in 2020, and 8.7 percent in January to May 2021, are indicative that in the recent past, the supply of, and the demand for dairy products in the international market, remained amidst changing circumstances, to a high extent in balance.

12. The FAO price index for dairy products reflects the changes in the prices of a basket of dairy products traded internationally and thus not the movements of the prices in the international trade of individual dairy products. Due to different supply and demand situations in respect of the different dairy products, the price movements of the different dairy products often differ. From the third quarter of 2020 to March 2021, the price of butter increased the most and from December 2020, when the price of butter moved to higher levels than that of cheese, butter regained its status as the highest priced dairy product. From March 2021 to April 2021, the price of butter moved sideways. In the last six to eight months, the prices of cheddar cheese, full cream milk powder and skimmed milk powder also increased, but from March to April, the price of full cream milk powder decreased. (See Graph 2 of Annexure A).
13. The changes of the prices of the dairy products achieved at the Global Dairy Trade Auction on 1 June 2021, for delivery in July 2021 to November 2021, are as follows:
- The price of full cream milk powder moves sideways within a band of prices of which the highest is 3.2 percent higher than the lowest, and the price in November 2021, is 1.8 percent higher than the price in July 2021;
 - The price of skimmed milk powder decreases with 5.7 percent from July 2021 to October 2021, and from October 2021 to November 2021, it increases with 0.4 percent. The price in November 2021 is 5.3 percent lower than in July 2021;
 - The price of cheddar cheese increases from September 2021 to November 2021, with 2.5 percent; and
 - The price of butter moves sideways within a band of prices of which the highest is 1.2 percent higher than the lowest. The price in November 2021 is 1.2 percent higher than in July 2021. (See Table 2 of Annexure A).
14. The expectations of the Department of Agriculture of the USA regarding future prices of dairy products in the USA, published on 18 May 2021, indicates in respect of cheddar cheese, butter and skimmed milk powder, sideways movement from the second quarter of 2021, to the first quarter of 2022. (See Graph 3 of Annexure A).
15. Different factors exist which can impact, in the coming months, on the international supply and demand of dairy products and thus on the prices of dairy products, such as:
- The developments in respect of COVID-19, which can influence the supply and demand for dairy products in the world and which can disrupt the international trade in respect of dairy and other products;
 - Future weather conditions and its impact on the supply of raw milk and thus on the supply of dairy products. The peak production season in the Northern hemisphere is underway at present and the peak production season of the Southern hemisphere, commences in the third quarter of the year; and
 - The international trade and other disputes.

16. The outbreak of COVID-19 infections in the world is at present and it will most likely in at least the next year, influence the world via its influence on:
- Human health;
 - Human behaviour including consumer behaviour and preferences;
 - Consumer spending as shaped by the level of economic activity;
 - Service delivery by the public sector; and
 - International trade.
17. While uncertainty exists regarding the duration of the COVID-19 pandemic and the extent of its impact on the world, it is at this stage, a certainty that it resulted in a drop in economic activity (reduction in gross domestic product of countries) which can result in lower consumer demand including the demand for dairy products.
18. In light of the previous paragraph:
- Predictions regarding price movements in the near future, should be viewed with great caution; and
 - Information and expectations regarding new developments in respect of the international supply and demand of raw milk and dairy products can, in the coming months, result in volatile price movements in the international dairy market.
19. Raw milk production in the world is seasonal as production in the winter is lower than the production in the summer. The peak production season of the Northern hemisphere coincides with the low production season of the Southern hemisphere. The extent to which raw milk production in different countries is seasonal, differs and, for example, the production in New Zealand is much more seasonal than in the member countries of the EU. (See Graph 4 of Annexure A).
20. The average price of raw milk in the EU was from March 2020, lower than in not only the same months of 2019, but from July 2020, also lower than the average price in 2018. In the first two months of 2021, the price of raw milk was lower than in the same months of 2020, but in March 2021 and April 2021, it moved to higher levels than in 2018, 2019 and 2020. The price of raw milk in the USA, dropped with more than 30 percent from the last quarter of 2019 to more or less the second quarter of 2020, followed by further volatile movement and in the first quarter of 2021, it was lower than in the last two quarters of 2020. (See Graph 5 and Graph 6 of Annexure A).

The South African Markets for Dairy Products and Raw Milk

21. In respect of 2020, information regarding the import and export of dairy products by South Africa, shows the following:
- The mass of exports in 2020, was 3.6 percent higher than exports in 2019, due to the higher exports of four of the six types of dairy products, namely milk and cream (0401), whey (0404), butter (0405) and cheese (0406). The products of which the exports were lower, are concentrated milk (0402), and buttermilk and yoghurt (0403);
 - The average f.o.b. export prices in 2020, of five of the six types of dairy products, were higher than in 2019. The products of which the export prices increased are milk and cream (0401), concentrated milk (0402), whey (0404), butter (0405) and cheese (0406), while the average export price of buttermilk and yoghurt (0403) in 2020, was lower than in 2019;
 - The mass of imports in 2020, was 42.7 percent lower than the imports in 2019 due to the lower imports of three of the six types of dairy products, namely milk and cream (0401), whey (0404) and cheese (0406). The products of which the mass of imports were higher, are concentrated milk (0402), buttermilk and yoghurt (0403) and butter (0405);
 - The average f.o.b. import prices in 2020, of five of the six types of dairy products, namely milk and cream (0401), concentrated milk (0402), buttermilk and yoghurt (0403), whey (0404) and cheese (0406), were higher than in 2019, while the import price of butter (0405) was lower; and
 - In terms of mass, South Africa was in 2020, a net exporter of milk and cream (0401) and buttermilk and yoghurt (0403), and a net importer of concentrated milk (0402), whey (0404), butter (0405) and cheese (0406). (See Table 3 and Table 4 of Annexure A).
22. Information regarding imports and exports in the first quarter of 2021, is available and according thereto:
- The estimated²⁾ mass of exports in 2021, is 17.6 percent higher than in 2020, and 22.1 percent higher than in 2019. This increase is the result of the increase in the estimated mass of exports of five of the six types of dairy products namely, milk and cream (04.01), milk concentrated (04.02), buttermilk and yoghurt (04.03), whey (04.04) and cheese (04.06);
 - The average f.o.b. export prices in the first quarter of 2021 of two of the six types of dairy products namely, buttermilk and yoghurt (04.03) and cheese (04.06) are higher than in 2020, while the average f.o.b. export prices of milk and cream (04.01), concentrated milk (04.02), whey (04.04), and butter (04.05), are lower;

2) *The estimated figures were calculated on the assumption that the levels of imports and exports in the first quarter of 2021, will be maintained in the rest of 2021. These estimated figures should be considered with great caution as the patterns of imports and exports (distribution of imports and exports per month during a year), differ significantly from year to year.*

- The estimated imports in 2021, is 45.5 percent higher than in 2020, but 16.6 percent lower than in 2019. The increase is the result of the increase in the estimated mass of imports of two of the six types of dairy products namely, milk and cream (04.01), and whey (04.04). The estimated imports in 2021, of milk concentrated (04.02), buttermilk and yoghurt (04.03), butter (04.05) and cheese (04.06) are lower than the imports in 2020;
 - The average f.o.b. import price in the first quarter of 2021, of each of the six types of dairy products, is lower than the average import price in 2020;
 - According to the estimated mass of imports and exports, South Africa will, in 2021, be a net exporter of milk and cream (04.01), buttermilk and yoghurt (04.03), and cheese (04.06).
23. The production of raw milk in South Africa is just like in other countries seasonal, with high production in summer and low production in winter. In South Africa, in the thirteen years, 2008 to 2020:
- The highest production per day per month was in October (eleven years), or November (two years);
 - The lowest production per day per month was in April (three years), May (three years), or June (seven years); and
 - The highest production per day per month was on average 33.0 percent higher than the lowest. The highest difference of 39.5 percent was recorded in 2017, whilst the lowest of 25.2 percent, was recorded in 2015 (See Graph 7 of Annexure A).
24. The mass of the production of raw milk in South Africa, which is indicative of the production of dairy products in South Africa, increased with an average annual growth rate of:
- 1.20 percent in the three years from 2008 to 2011;
 - 3.12 percent in the three years from 2011 to 2014;
 - 2.94 percent in the three years from 2014 to 2017;
 - 1.75 percent in the three years, 2017 to 2020; and
 - 2.26 percent in the twelve years from 2008 to 2020. (See Table 5 of Annexure A).
25. From 2008 to 2020, the total raw milk purchases per annum in South Africa increased with 30.59 percent, but the pattern of raw milk purchases during each of the last twelve years, as measured by the distribution of the total annual raw milk purchases per quarter and per half year of each year, did not change in any particular direction, as is evident from Table 6 and Table 7 of Annexure A.
26. The production of raw milk in South Africa in 2017, was 3.01 percent higher than the production in 2016 (See Table 5 of Annexure A), due to higher production in eleven of the twelve months, but mainly due to the higher production in August 2017 to December 2017, which was respectively 5.2 percent, 3.7 percent, 3.5 percent, 7.9 percent and 8.0 percent higher than in the same months of 2016. (See Table 5 and Graph 7 of Annexure A).

27. The higher production of raw milk from August to December 2017, as described in the previous paragraph, took place notwithstanding the extremely serious drought conditions which existed in the Western and Eastern Cape in 2017. The higher production was the result of the favourable relationship between the prices of raw milk and feed for dairy animals (See Graph 9 of Annexure A), and also according to a number of experts, higher production per cow in particular regions due to favourable weather conditions in the regions concerned and more use of concentrated feed and lucerne in drought-stricken regions. The lower feed prices were the result of especially the low maize price as a consequence of the record high maize production in the 2016/2017 production season and the good production in the 2017/2018 production season.
28. The production of raw milk in South Africa in 2018, was 4.82 percent higher than in 2017, and it was the result of the higher production in eleven of the twelve months of 2018. The increase of 4.82 percent from 2017 to 2018, is the second highest year-on-year increase recorded in the eleven years 2008 to 2018. The highest increase of 6.37 percent was recorded in 2015, the third highest of 4.81 percent was recorded in 2010 and the fourth highest of 4.50 percent, was recorded in 2012. (See Table 5 of Annexure A).
29. The production of raw milk in South Africa in 2019, was 0.65 percent higher than the previous record high production that was recorded in 2018, and 5.5 percent higher than in 2017 (See Table 5 of Annexure A). The lower growth rate of production in 2019, is the result of lower production in five months, namely January, February, April, July and December. (See Table 8 of Annexure A).
30. The production of raw milk in South Africa in 2020, was 0.16 percent lower than in 2019, 0.49 percent higher than in 2018 and 5.3 percent higher than in 2017. The decrease from 2019, to 2020, is the result of lower production in eight of the twelve months of 2020. (See Table 5 and Table 8 of Annexure A).
31. The lower production of raw milk in 2020, relative to the production in 2019, should be seen against the background of especially the following:
- The uncertainty about the impact of COVID-19 on the demand for dairy products and thus the demand for raw milk, which existed in 2020. Essentially this position, at any point in time in 2020, discouraged optimistic views about the future demand for dairy products and the demand for raw milk, and thus the justification for stimulation of production of raw milk through price increases; and

- The unexpected sharp increases of the prices of maize and soya in the second half of 2020, which are the basis of important ingredients³⁾ of feed for dairy cattle and which eroded the positive impact of the increase of the prices of raw milk which occurred.
32. During the first three of the first four months of 2021, the production of raw milk in South Africa was lower than in the same months of 2020, but the extent to which it was lower, decreased from 4.8 percent in January 2021, to 0.3 percent in April 2021. Note that the figures in respect of March and April 2021, are estimated figures. (See Table 8 of Annexure A).
33. Regarding the seasonal decrease in the production of raw milk in South Africa, the following:
- The decrease from October 2020 to February 2021, was 21.6 percent, which is higher than the average decrease of 15.8 percent recorded in the years from 2008/2009 to 2019/2020, and the third highest recorded in the years 2008/2009 to 2019/2020. The highest decrease from October to February in the years from 2008/2009 to 2019/2020 of 18.0 percent, was recorded in 2013/2014 and the decrease from October to February 2016/2017 of 17.8 percent, is the second highest decrease; and
 - The decrease from October 2020 to April 2021, of 25.1 percent, is higher than the average decrease of 21.4 percent in the years 2008/2009 to 2019/2020 and it is also the highest decrease recorded in the years from 2008/2009 to 2019/2020. The second and third highest decrease of 24.4 percent and 23.4 percent were recorded in respectively 2008/2009 and 2010/2011. Note that the figures in respect of March 2021 and April 2021, are estimated figures. (See Table 9 of Annexure A).
34. Regarding the seasonal increase in the production of raw milk in South Africa in 2020, the following:
- The increase from July 2020 to August 2020, of 14.5 percent, was higher than the average increase of 12.3 percent in the thirteen years, 2008 to 2020, and it is the third highest recorded in the years, 2008 to 2020;

3) *Hominy chop and meal originating from maize seed and soya oil cake meal. Other products, originating from grains other than maize meal and soya, are also used and can, to some extent, replace the products originating from maize and soya.*

- The increase from July 2020 to September 2020, of 27.2 percent, was higher than the average increase of 25.0 percent in the thirteen years, 2008 to 2020, and it is the fourth highest recorded in the years 2008 to 2020; and
- The increase from July 2020 to October 2020, of 31.9 percent, was higher than the average increase of 28.7 percent in the thirteen years, 2008 to 2020, and it is the third highest increase recorded in the thirteen years 2008 to 2020. (See Table 10 of Annexure A).

35. In 2018, the South African producer price index of raw milk:

- Increased with 1.7 percent from January to March; and
- Decreased with 15.3 percent from March to December to a level 14.5 percent lower than in December 2017, and 13.0 percent lower than in December 2016. (See Graph 8 of Annexure A).

The decrease in the producer price index of raw milk, from March 2018 to December 2018, was the result of the high production of raw milk and the downward pressure on the demand for dairy products due to the low economic growth rate of South Africa.

36. In 2019, the producer price index of raw milk did not change in January, July and October, increased in February, March, April, June and December and decreased in May, August, September and November. The net result of the changes is that the producer price index of raw milk in December 2019, was 9.7 percent higher than in December 2018. This increase was from a low level and the index figure in December 2019, is lower than the index figures of the first seven months of 2018, and 6.3 percent lower than in December 2017.
37. From January 2020 to August 2020, the producer price index of raw milk increased with 8.5 percent and from August 2020 to September 2020, it decreased with 1.7 percent, followed by an increase of 3.8 percent up to December 2020. The net result of these price movements is that the price index of raw milk in December 2020, was 10.6 percent higher than in December 2019.
38. The producer price index of raw milk was in December 2020, 0.69 percent lower than the producer price index of dairy products, while in December 2019, the producer price index of raw milk was 8.7 percent lower than that of dairy products. (See Graph 11 of Annexure A).
39. From December 2020 to April 2021, the producer price index of raw milk increased by 12.1 percent, to a level 14.4 percent higher than in April 2020, and 21.5 percent higher than in April 2019. (See Table 11 of Annexure A). In April 2020, the producer price index of raw milk was 4.78 percent lower than the producer price index of dairy products, and in April 2021, the producer price index of raw milk was 5.95 percent higher than that of dairy products. (See Graph 11 of Annexure A).

40. In most months of 2020, and in the first three months of 2021, the producer price index of raw milk was below the producer price index of “cereals and other crops”, but in April 2021 (the latest information is in respect of April), the producer price index of raw milk was higher than the producer price index of “cereals and other crops”. (See Graph 8 of Annexure A). On a macro level, the comparison between these two indices is one of the indicators of the level of encouragement to produce raw milk. More specific and relevant comparisons are the comparisons of the producer price index of raw milk with the price indices of yellow maize and soya prices and it shows the following:
- In 2019, and due to the price movements of raw milk, yellow maize and soya, the level of encouragement for the production of raw milk, was generally lower than in 2018. The favourable downward movement of the price of maize in 2019, was offset by the increase in the price of soya, resulting in an increase in the index of the feed price indicator which is calculated as the sum of 70 percent of the maize price and 30 percent of the soya price;
 - From the second quarter of 2020, the prices of maize and soya increased sharply. As a result, the index of the feed price indicator increased in the last quarter of 2020 to a level higher than the producer price index of raw milk, which previously happened in 2016, when the production of raw milk was 0.45 percent lower than in the previous year. (See Graph 9 of Annexure A); and
 - In February 2021, the producer price index of raw milk increased to a level higher than the index of the feed price indicator. Due to further increases in the producer price index of raw milk in March 2021 and in April 2021, and decreases in the index of the feed price indicator, the extent to which the producer price index of raw milk exceeds the index of the feed price indicator, increased from February 2021 to April 2021. (See Graph 9 of Annexure A).
41. Regarding the future price movements of yellow maize and soya, the following:
- The prices of yellow maize achieved on Safex on 3 May 2021, for delivery in July 2021 to December 2021, are from 5.1 percent to 5.2 percent higher than the prices achieved on 15 February 2021;
 - The prices of yellow maize achieved on Safex on 3 May 2021, for delivery in July 2021 to December 2021, increases with 3.72 percent and from December 2021 to May 2021, it decreases with 7.45 percent to a level 4.01 percent lower than the price in July 2021. (See Table 12 of Annexure A);
 - The prices of soya achieved on Safex on 3 May 2021 for delivery in May 2021, to December 2021, are from 6.7 percent to 7.0 percent lower than the prices achieved on 15 February 2021; and
 - The prices of soya achieved on Safex on 3 May 2021, for delivery in May 2021 to December 2021, increase with 4.06 percent and from December 2021 to March 2022, it decreases with 0.06 percent to a level of 4.0 percent higher than in May 2021. (See Table 13 of Annexure A).

42. From the previous paragraph, it is clear that:
- Raw milk producers who concluded contracts in respect of yellow maize on 15 February 2021, for delivery in July 2021 to December 2021, are in a better position than those who concluded contracts on 3 May 2021, and the opposite is true in respect of soya; and that
 - Lower feed prices should not be expected in the coming months.
43. It should be noted that the relative high prices of maize and soya are not the result of low production in South Africa and that it is the result of the prices in the international market. Potentially, the situation in the international grain market can develop in such a way, that lower maize and soya prices can be the result
44. Regarding the producer price index of dairy products, it should be noted that it measures the changes in the prices of a basket of dairy products consisting of milk, yoghurt, cheddar cheese and ice cream and the basket does not include the other dairy products like milk powder, maas, flavoured milk, butter and cheese, other than cheddar cheese.
45. In 2018, the producer price index of dairy products moved within a band of index figures of which the highest, which was recorded in May 2018, was 3.9 percent higher than the lowest which was recorded in October 2018. The index figure in December 2018, was the same as the figure in January 2018. (See Graph 10 of Annexure A).
46. In 2019, the producer price index of dairy products moved within a band of index figures of which the highest, which was recorded in September 2019, was 3.2 percent higher than the lowest, which was recorded in April 2019. The producer price index of dairy products in December 2019, was 0.98 percent higher than in December 2018, and 0.35 percent higher than in December 2017. (See Graph 10 of Annexure A).
47. In 2020, the producer price index of dairy products:
- Decreased in five months and increased in seven months; and
 - The highest index was recorded in May 2020 and it was 4.8 percent higher than the lowest, which was recorded in February 2020;

The net result of the abovementioned movements of the producer price index of dairy products is that the producer price index in December 2020, was 1.6 percent higher than a year ago, namely December 2019.

48. From December 2020 to April 2021 (the latest available information is in respect of April 2021), the producer price index of dairy products increased with 5.1 percent to a level 2.9 percent higher than in April 2020, and 8.8 percent higher than in April 2019. In the year which ended in April 2021, the increase of the producer price index of dairy products of 2.9 percent, is much lower than the increase in the producer price index of raw milk which was 14.5 percent in the same period.

49. The performance (quantity sold and price) of the different dairy products in the South African retail market differs, and often changes within a short period.
50. The key characteristics of the markets for the different dairy products differ. Changes in the prices of the different types of dairy products and the level of economic growth of South Africa, influences the quantities sold.
51. Key observations in respect of the performance of the nine dairy products of which the performance in the South African retail market is monitored, and which is shown in Table 14, Table 15, and Table 16 of Annexure A, are as follows:
- a) In the year which ended in March 2021, relative to the year which ended in March 2020:
- The retail sales quantities of two of the nine dairy products namely fresh milk, and flavoured milk, were respectively 8.8 percent, and 8.6 percent lower; and
 - The retail sales quantities of seven of the nine dairy products, were higher, namely UHT (long life) milk (5.5 percent), yoghurt (7.2 percent), maas (2.5 percent), pre-packaged cheese (9.9 percent), cream cheese (1.9 percent), butter (10.2 percent) and cream (13.8 percent).
- b) In the quarter which ended in March 2021, relative to the quarter which ended in March 2020, the retail sales quantities of five of the dairy products, were lower than in the same quarter of the previous year, while the retail sales quantities of four of the dairy products were higher. The changes in the retail sales quantities of the nine dairy products, are the following:
- Fresh milk -8.2 percent;
 - UHT milk -4.8 percent;
 - Flavoured milk 0.3 percent;
 - Yoghurt -0.9 percent;
 - Maas 3.4 percent;
 - Pre-packaged cheese -1.0 percent;
 - Cream cheese -1.3 percent;
 - Butter 8.8 percent; and
 - Cream 11.4 percent.

- c) In the year which ended in March 2021, the retail sales price of butter decreased with 3.1 percent, while the retail sales prices of eight of the nine dairy products increased as follows:
- Fresh milk 4.6 percent;
 - UHT milk 4.8 percent;
 - Flavoured milk 2.0 percent;
 - Yoghurt 3.5 percent;
 - Maas 2.8 percent;
 - Pre-packaged cheese 3.5 percent;
 - Cream cheese 12.5 percent; and
 - Cream 1.2 percent.
- d) In the quarter which ended March 2021, the retail sales prices of five of the nine dairy products, decreased and the retail prices of four of the dairy products increased. The changes in the retail sales prices of the nine dairy products concerned, are as follows:
- Fresh milk 3.0 percent;
 - UHT milk -0.3 percent;
 - Flavoured milk -1.5 percent;
 - Yoghurt 3.5 percent;
 - Maas 3.9 percent;
 - Pre-packaged cheese -1.0 percent;
 - Cream cheese 3.8 percent;
 - Butter -3.2 percent; and
 - Cream -1.7 percent.
- e) The extent to which the average retail price of UHT milk exceeded that of fresh milk, decreased from 10.0 percent in 2014, to 3.9 percent in 2016. In 2017 and 2018, the average retail price of UHT milk was respectively 0.2 percent and 3.7 percent lower than that of fresh milk while in 2019 and 2020, the average retail price of UHT milk was respectively 0.2 percent and 2.3 percent higher than that of fresh milk. In January to March 2021, the average price of UHT milk was 3.9 percent lower than that of fresh milk. (See Table 17 of Annexure A).

52. The information contained in the previous paragraph shows that:

- The retail sales quantities of five of the nine dairy products in the first quarter of 2021, were lower than in the same quarter of 2020; and that

- The retail sales prices of five of the nine dairy products decreased in the first quarter of 2021.

This position justifies a conclusion that the performance of most of the dairy products concerned weakened considerably in the first quarter of 2021. This position is contrary to the good performance of dairy products in the retail market, as described in the February 2021 edition of “Key Market Signals for the Dairy Industry”.

53. The relative movements of the retail prices of particular dairy products in the six years from 2015 to 2020, and in January 2021 to March 2021, are shown in Graph 12 of Annexure A. This graph shows, amongst other, that:

- The retail price index of butter is, since the middle of 2016, much higher than the retail price indices of the other dairy products. The reason for this increase of price the price of butter is the increased demand for butter fueled by increased consumer preference for butter, supported by evidence regarding the nutritional and health value of butter; which pushed the previous negative views aside, as well as by the superior taste of butter;
- The retail price index of fresh milk is, since the middle of 2016, lower than that of butter, but much higher than the retail price indices of the other dairy products;
- In 2019, 2020 and in the first quarter of 2021, the retail price index of maas was notably lower than that of the other dairy products; and
- The retail price index of UHT milk fluctuated more up and down during meaningful periods, than that of the other dairy products.

54. Regarding the relative movements of the price of raw milk and the prices of the different dairy products, it should be taken into account that:

- The production (supply) of raw milk is much more seasonal than is the case with the demand for major dairy products; and
- The production of raw milk is not only influenced by economic variables, but also by weather conditions and other factors like animal health issues, which can result in production that is higher or lower than the planned production, as determined by the expectation regarding the demand for raw milk.

Due to the above factors and as raw milk is not the only input⁴⁾ in the manufacturing of dairy products and in respect of the presentation thereof in the retail, the price of raw milk is often subject to higher fluctuations than the prices of dairy products.

4) *Inputs other than raw milk, are also required for the manufacture of dairy products and for the presentation of the dairy products in the retail. The total cost of the other inputs, like packaging, electricity, fuel, water, capital and labour, is higher than the cost of the raw milk delivered at dairy factories.*

55. The relative movements of the retail price of fresh milk, the retail price of UHT milk and the producer price of raw milk, in the six years, 2015 to 2020 and in January 2021 to March 2021, against the background of the increase in raw milk purchases per annum, are shown in Graph 13 of Annexure A. This graph shows that:

- The prices concerned typically moved in the same direction but that the magnitude of the changes of the prices concerned, differ;
- The retail price of fresh milk is less volatile than the retail price of UHT milk and the producer price of raw milk;
- From the second quarter of 2018 to December 2020, the retail price index of fresh milk was higher than the producer price index of raw milk, but from January 2021, the retail price index of fresh milk is lower than the producer price index of raw milk;
- In the 75 months period from 2015 to March 2021, the retail price index of UHT milk was, with the exception of one month, lower than the producer price index of raw milk; and
- The movements of the prices concerned are influenced by the total raw milk purchases. The impact in the years concerned, of the higher and lower production of raw milk on the prices of raw milk and UHT milk, is more pronounced, than the case in respect of fresh milk. Obviously, the supply of a product (including the supply of raw milk), does not determine the price of the product, as prices are the result of the interaction between supply and demand. Typically, change in production (supply), that is not in pace with the demand, results in price movements.

56. The relative movements of the retail prices of yoghurt, maas and pre-packaged cheese as well as the price of raw milk, against the background of the increase in the quantity of raw milk purchased per annum, are shown in Graph 14 of Annexure A. This Graph shows that:

- The price of raw milk is much more subject to change than the retail prices of the three dairy products concerned;
- The relationship between the movements of the retail prices of the three dairy products concerned and the movements of the price of raw milk, is weaker than is the case in respect of the retail price of UHT milk and the price of raw milk, as shown in Graph 13. In this regard, it should be noted that the contributions of the price of raw milk to the prices of UHT milk and maas, are much higher than the contribution of the price of raw milk to the retail price of yoghurt, due to considerable higher value-adding required by the manufacturing of yoghurt, and also that recombined and reconstituted milk⁵⁾ instead of raw milk, can be used to manufacture maas and yoghurt; and

5) *The definitions of recombined milk and reconstituted milk, as stated in Regulation 1510, are as follows:*

- *“Recombined milk product” means milk or a milk product resulting from the combination of milk fat and milk-solids-non-fat in their preserved forms with or without the addition of water to achieve the appropriate milk product composition”; and*
- *“Reconstituted milk product” means milk or a milk product resulting from the addition of water to the dried or concentrated form of the product in the amount necessary to re-establish the appropriate water to solid ratio”.*

- In the 75 months from January 2015 to March 2021, the price index of raw milk increased more than the retail price indices of the three dairy products concerned and that the increases in the retail price indices of maas and pre-packaged cheese, are lower than that of yoghurt.

57. **In summary**, the position of the South African dairy industry is as follows:

- a) The good performance of dairy products in the South African retail market in 2020, as described in the February 2021 edition of “Key Market Signals for the Dairy Industry”, did not continue in the first quarter of 2021 as:
 - The retail sales quantities of five of the nine dairy products were lower than in the same quarter of 2020; and
 - The retail sales prices of five of the nine dairy products decreased in the quarter concerned.

This position is most likely an indication of the impact of the lower level of economic activity in South Africa.

- b) The production of raw milk in South Africa in 2020, was 0.16 percent lower than in 2019, the relationship between the index of the indicator of feed price and the raw milk price index weakened considerably due to the sharp increases in the prices of maize and soya and the relationship was in the last half of 2020, more or less the same as in 2016, when the production of raw milk was 0.45 percent lower than in 2015. The market reacted to this situation and due to especially the increases in the six months up to April 2021, the price index of raw milk in April 2021, was 14.4 percent higher than in April 2020. In April 2020, the producer price index of raw milk was 4.78 percent lower than the producer price index of dairy products, but in April 2021, the producer price index of raw milk was 5.95 percent higher. Since February 2021, the producer price index of raw milk is higher than the index of the feed price indicator. Although the production of raw milk is the result of price movements and other factors, is quite likely that the fact that the estimated production of raw milk in April 2021, was slightly lower (0.3 percent) than in April 2020, (while in January 2021, February 2021 and March 2021, it was respectively 4.8 percent, 4.5 percent and 1.4 percent lower than in the same months of 2020), is the result of the increase in the price of raw milk.

58. In the next few months, the South African dairy industry will be confronted by:

- The uncertainty regarding the unfolding impact of COVID-19 on human behaviour, service delivery by the public sector and the economy;
- The normal sharp seasonal rise in production of raw milk. In the thirteen years 2008 to 2020, the average growth in the production of raw milk from July to October, is 28.7 percent, the lowest increase of 24.6 percent was recorded in 2008, and the highest of 34.3 percent, was recorded in 2017; and

- The impact of the expected low level of economic activity in South Africa on the demand for dairy products. The performance in the first quarter of 2021, of most dairy products in the retail market does not support optimistic views regarding the demand in the coming months for dairy products. Although it is expected that the South African economy will grow in 2021, the level of economic activity will remain lower than in 2019.

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8 June 2021

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<i>De Wet Jonker (B.Econ/BCom Hons), Jan Theron, (B.Com Economy), and Marietjie le Roux (BCom)</i>	<i>Collecting information, compiling of tables and graphs and assessment of information.</i>
<i>Gerhard Venter (M.Sc Agric Food Science)</i>	<i>Dairy Technical advice.</i>
<i>Yvonne Steyn and Sonja van Jaarsveld</i>	<i>Typing of draft versions of the report and typing of final report</i>

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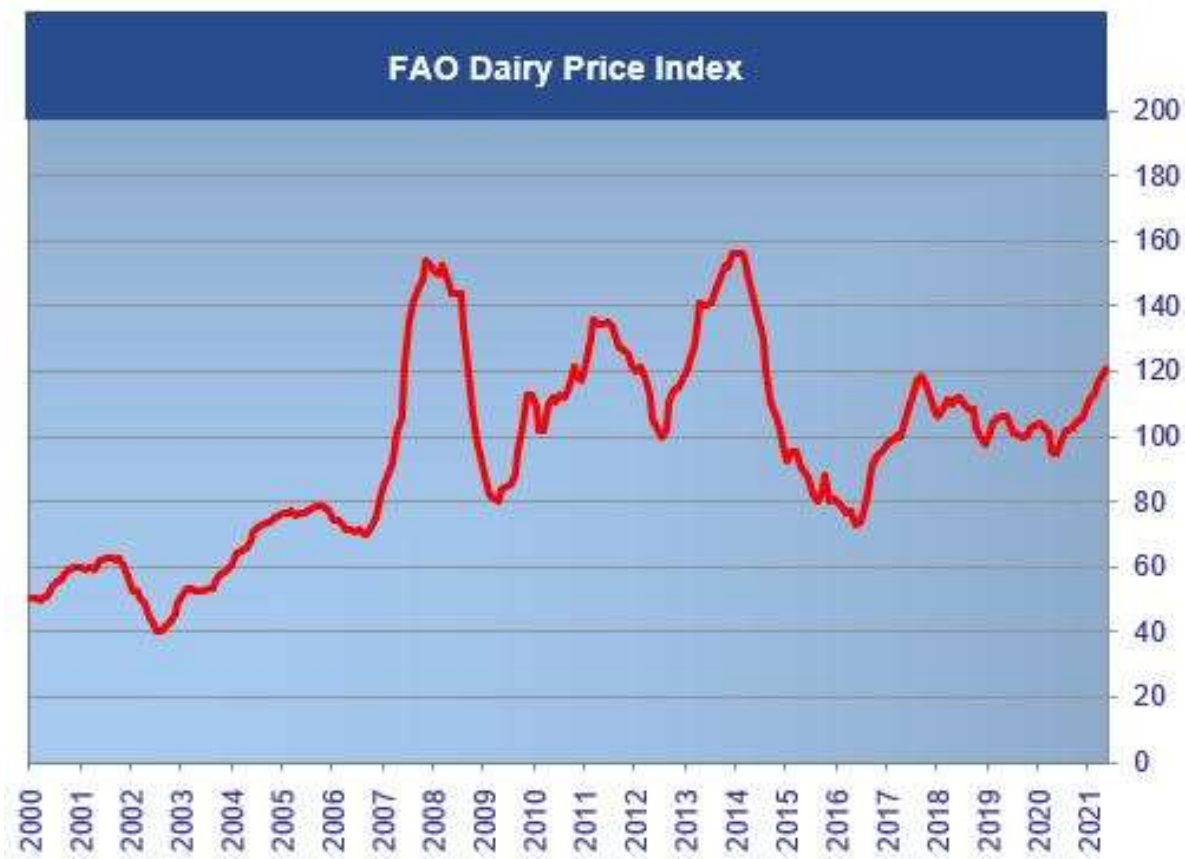
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Graph 1¹⁾

PRICE INDEX OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET UP TO MAY 2021, AS PUBLISHED BY THE FAO



The FAO Dairy Price Index consists of butter, SMP, WMP, cheese, casein price quotations; the average is weighted by world average export trade shares for 2014-2016.

1) Graph as published by the Food and Agricultural Organization (FAO) of the United Nations.

Table 1²⁾

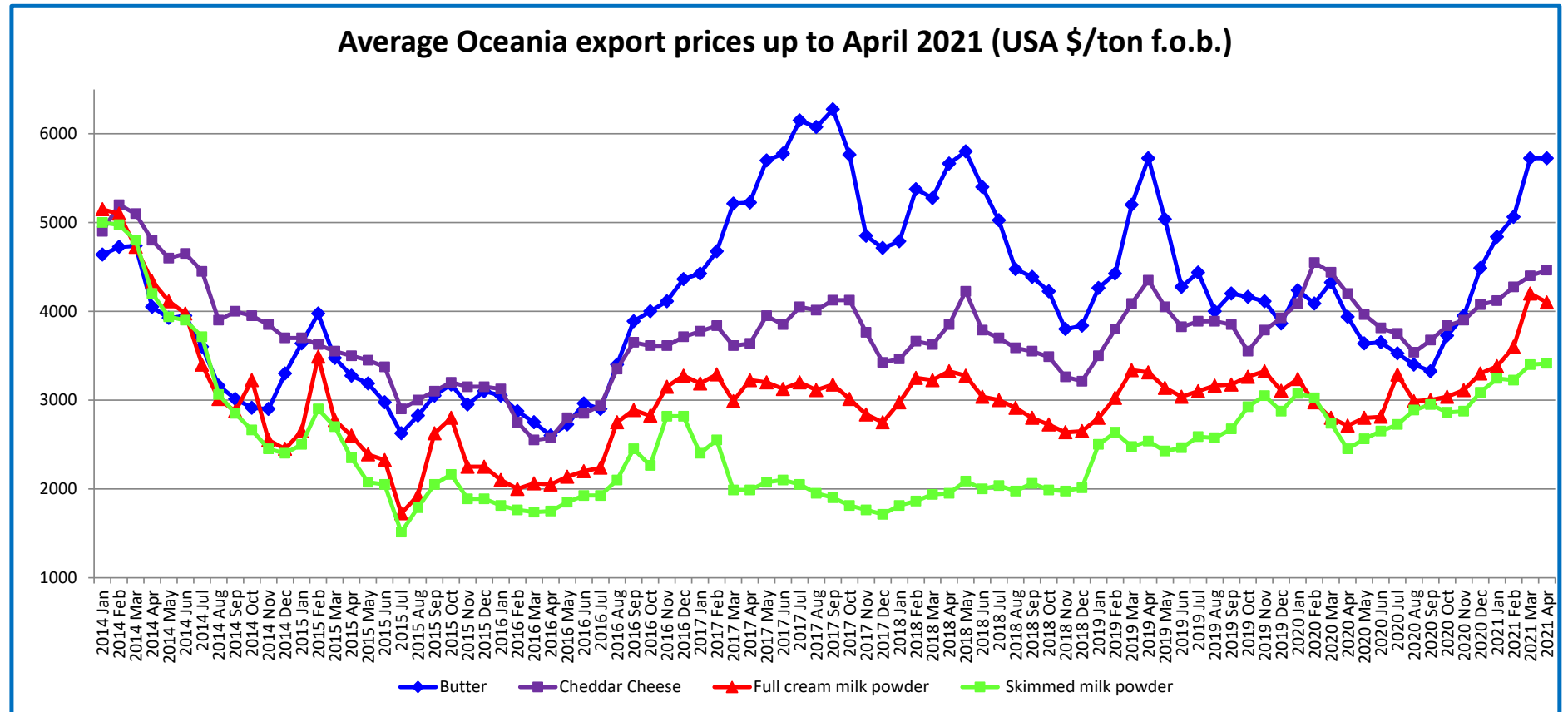
VOLATILITY PER YEAR OF THE PRICE INDEX OF THE FAO OF DAIRY PRODUCTS IN THE INTERNATIONAL MARKET

Index: 2014-2016=100

YEAR	A Highest Monthly Index	B Lowest Monthly Index	A Higher than B Percent
2000	60.1	50.1	20.0
2001	62.9	56.9	10.6
2002	53.0	40.1	32.2
2003	59.7	51.3	16.5
2004	75.8	60.9	24.4
2005	78.7	76.2	3.4
2006	81.7	70.3	16.2
2007	154.0	84.2	82.8
2008	152.6	94.9	60.9
2009	113.1	80.4	40.7
2010	121.4	101.6	19.5
2011	135.8	122.0	11.3
2012	121.2	99.7	21.6
2013	156.5	121.0	29.3
2014	156.4	98.5	58.8
2015	95.2	79.9	19.0
2016	96.2	72.7	32.3
2017	118.4	98.6	20.1
2018	112.3	97.8	14.7
2019	106.6	99.6	7.0
2020	109.3	94.4	10.5
Average	105.8	83.4	26.3
2021 (Jan – May)	120.8	111.1	8.7

2) Table prepared by the Office of SAMPRO based on information published by the FAO.

Graph 2³⁾



3) Graph prepared by the Office of SAMPRO based on information published by the USDA on 17 May 2021.

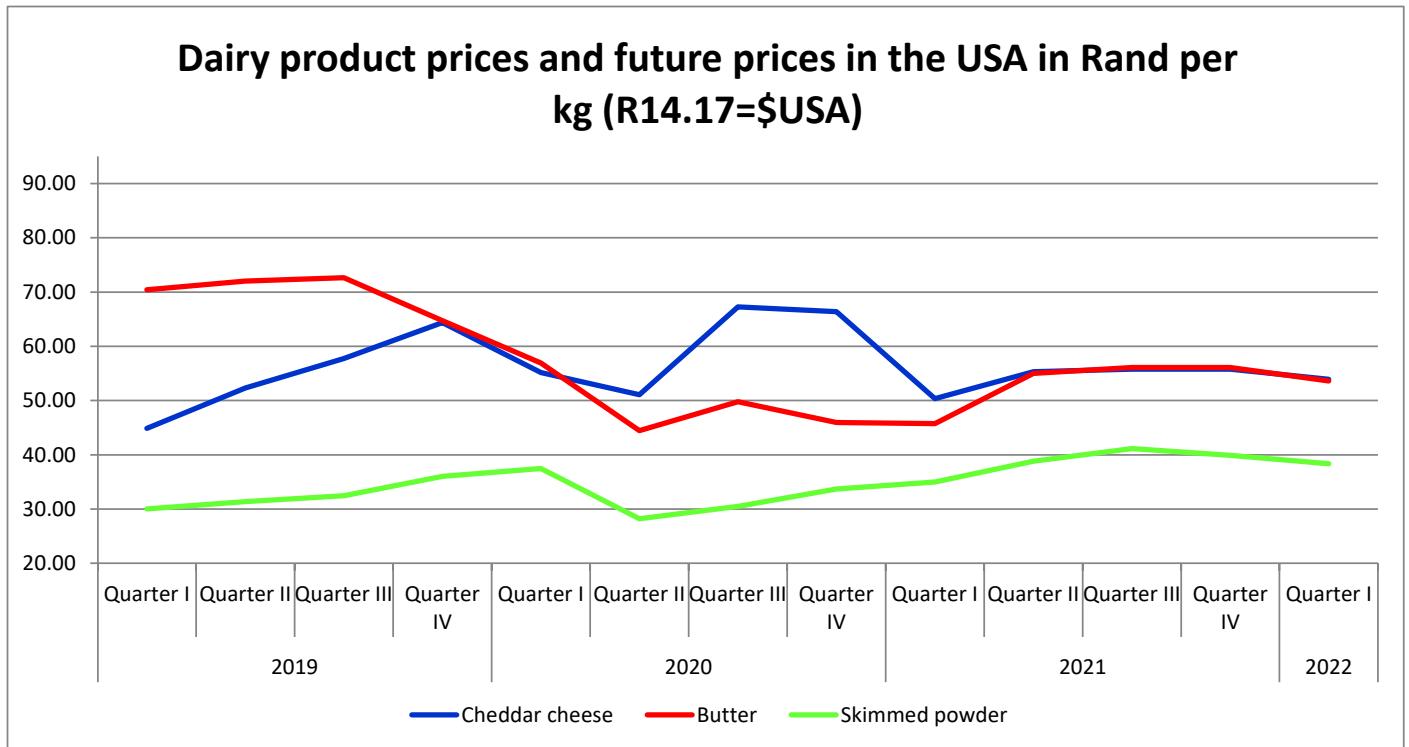
Table 2⁴⁾

FUTURE PRICES IN US\$ AND RAND (\$=R13.52) PER TON ACHIEVED AT GLOBAL DAIRY TRADE AUCTION ON 1 JUNE 2021, FOR DELIVERY IN JULY 2021 TO NOVEMBER 2021

	Jul	Aug	Sep	Oct	Nov
Whole Milk Powder					
PRICE: \$	4 009	4 049	4 137	4 091	4 081
PRICE: R	54 202	54 742	55 932	55 310	55 175
Index	100.0	101.0	103.2	102.0	101.8
Skimmed Milk Powder					
PRICE: \$	3 575	3 467	3 385	3 371	3 385
PRICE: R	48 334	46 874	45 765	45 576	45 765
Index	100.0	97.0	94.7	94.3	94.7
Cheddar					
PRICE: \$	n.a	n.a	4 280	4 302	4 389
PRICE: R	n.a	n.a	57 866	58 163	59 339
Index	n.a	n.a	100.0	100.5	102.5
Butter					
PRICE: \$	4 665	4 705	4 680	4 715	4 720
PRICE: R	63 071	63 612	63 274	63 747	63 814
Index	100.0	100.9	100.3	101.1	101.2

4) Table prepared by the Office of SAMPRO based on the prices as published by "Global Dairy Trade" on 18 May 2021

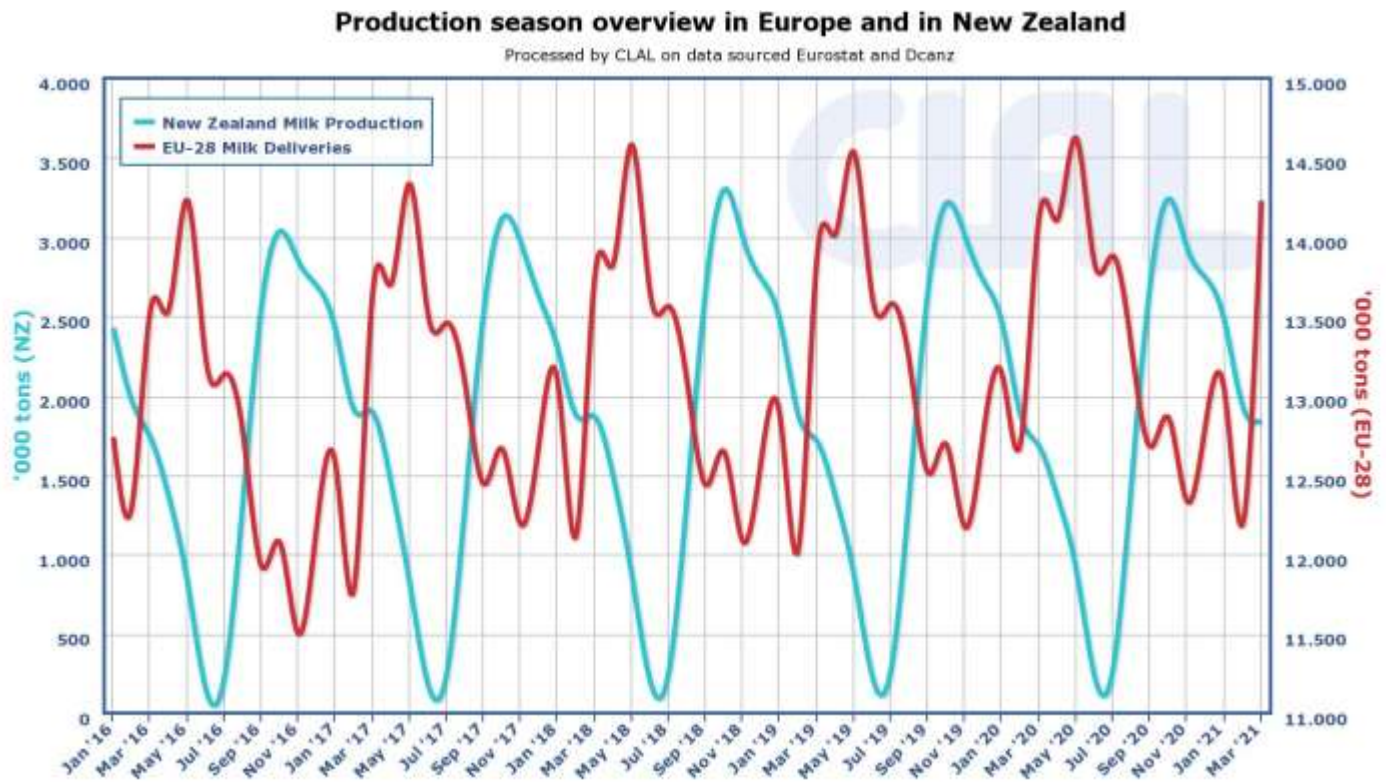
Graph 3⁵⁾



5) Graph prepared by the Office of SAMPRO based on information contained in the United States Department of Agriculture, Livestock, Dairy, and Poultry Outlook, 18 May 2021

Graph 4⁶⁾

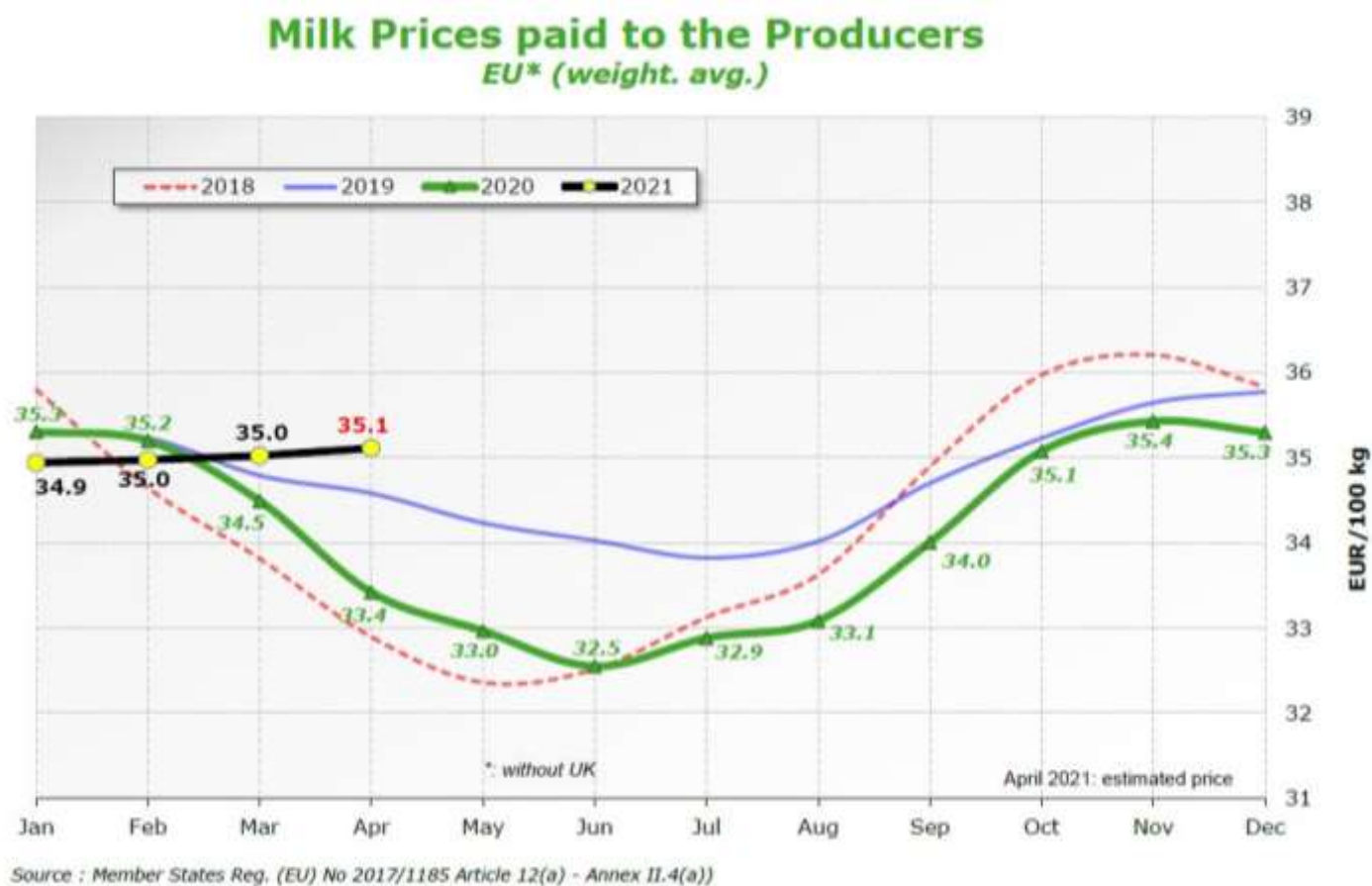
SEASONALITY OF RAW MILK PRODUCTION IN THE NORTHERN AND SOUTHERN HEMISPHERES



6) Graph as published by CLAL.it

Graph 5⁷⁾

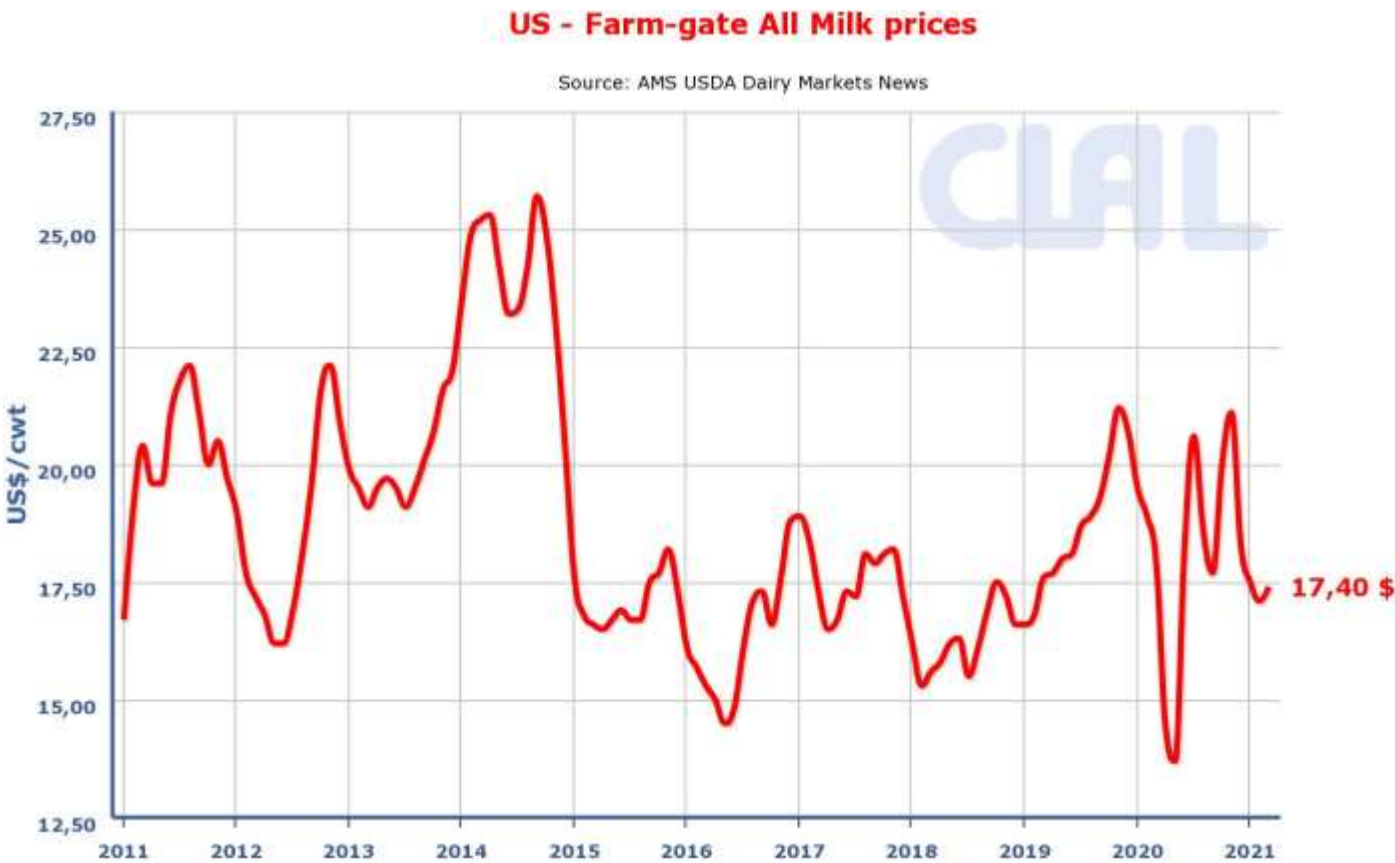
AVERAGE PRICE OF RAW MILK IN THE EUROPEAN UNION



7) Graph as published by CLAL.it

Graph 6⁸⁾

RAW MILK PRICES IN THE USA



8) Graph as published by CLAL.it

Table 3⁹⁾

TOTAL IMPORTS AND EXPORTS OF DAIRY PRODUCTS BY SOUTH AFRICA AND THE EXPOSURE OF THE SOUTH AFRICAN DAIRY INDUSTRY TO INTERNATIONAL COMPETITION (*THE SUM OF THE MASS OF IMPORTS AND EXPORTS*), IN THE YEARS 2002 TO 2021

Index: 2002 = 100)

YEAR	IMPORT		EXPORT		IMPORT PLUS EXPORT	
	TON	INDEX	TON	INDEX	TON	INDEX
2002	24 617.40	100.0	34 328.20	100.0	58 945.60	100.0
2003	24 458.80	99.4	22 905.20	66.7	47 364.00	80.4
2004	18 289.50	74.3	23 508.10	68.5	41 797.60	70.9
2005	30 771.40	125.0	17 216.00	50.2	47 987.40	81.4
2006	30 878.60	125.4	26 543.30	77.3	57 421.90	97.4
2007	44 313.00	180.0	18 516.50	53.9	62 829.50	106.6
2008	34 009.40	138.2	42 781.00	124.6	76 790.40	130.3
2009	32 373.40	131.5	41 770.70	121.7	74 144.10	125.8
2010	35 061.20	142.4	33 950.60	98.9	69 011.80	117.1
2011	37 714.40	153.2	41 817.10	121.8	79 531.50	134.9
2012	59 012.55	239.7	52 500.96	152.9	111 513.49	189.2
2013	35 673.76	144.9	70 481.90	205.3	106 155.66	180.1
2014	40 199.03	163.3	71 098.95	207.1	111 297.98	188.8
2015	69 353.98	281.7	61 296.87	178.6	130 650.85	221.6
2016	58 000.35	235.6	50 247.54	146.4	108 247.89	183.6
2017	83 504.44	339.2	48 626.69	141.7	132 131.13	224.2
2018	68 652.58	278.9	45 257.49	131.8	113 910.08	193.2
2019	75 596.08	307.1	45 051.75	131.2	120 647.83	204.7
2020	60 579.33	246.1	46 695.39	136.0	107 274.72	182.0
2021 Est	63 136.77	256.5	54 999.59	160.2	118 136.36	200.4

9) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS.
The estimated import quantities in 2020, were calculated on the assumption that the levels of import in the first three months of 2021, will be maintained during the rest of 2021.
Estimates regarding future imports based on historic import figures should be viewed with caution as the pattern of imports (distribution per month of total import and export during a year) in different years differ meaningfully.

Table 4¹⁰⁾

**MASS OF IMPORTS AS PERCENTAGE OF THE MASS OF EXPORTS OF DAIRY PRODUCTS
BY SOUTH AFRICA**

Heading	Description	2013	2014	2015	2016	2017	2018	2019	2020	2021 Est
04.01	Milk and cream, unsweetened	14.7	21.4	92.5	84.3	217.1	103.7	90.2	26.4	43.4
04.02	Milk, concentrated	46.5	117.3	197.7	196.3	146.4	159.5	227.9	252.8	197.2
04.03	Buttermilk powder, yoghurt	8.2	9.2	16.5	19.7	28.4	27.9	31.7	40.3	29.4
04.04	Whey, whey powder, etc	452.7	507.4	221.3	185.9	192.9	1 741.3	2 917.9	1 257.6	981.1
04.05	Butter, butter spreads and butter oil	266.7	111.4	344.1	396.7	491.2	735.1	355.5	540.6	416.7
04.06	Cheese and curd	286.6	281.2	314.2	330.3	338.7	272.5	252.7	141.7	95.1
TOTAL		112.6	50.6	56.5	115.4	171.7	151.7	167.8	129.7	114.8

10) Table prepared by the Office of SAMPRO on the basis of information obtained from SARS.
The estimated import and export quantities in 2021, were calculated on the assumption that the levels of import and export in the first three months of 2021, will be maintained during the rest of 2021.
Estimates regarding future imports based on historic import figures should be viewed with caution as the pattern of imports (distribution per month of total import and export during a year) in different years differ meaningfully.

Table 5¹¹⁾

**TOTAL QUANTITY OF RAW MILK PURCHASED IN SOUTH AFRICA DURING
THE YEARS 2008 TO 2020¹¹⁾**

YEAR	RAW MILK KILOGRAM	PERCENTAGE CHANGE FROM PREVIOUS YEAR	INDEX 2008 = 100
2008	2 624 511 678	2.50	100.00
2009	2 586 868 067	-1.43	98.57
2010	2 711 236 032	4.81	103.30
2011	2 720 402 147	0.34	103.65
2012	2 842 810 159	4.50	108.32
2013	2 905 811 947	2.22	110.72
2014	2 982 734 569	2.65	113.65
2015	3 172 655 770	6.37	120.89
2016	3 158 466 390	-0.45	120.34
2017	3 253 682 081	3.02	123.97
2018	3 410 535 904	4.82	129.95
2019	3 432 802 396	0.65	130.80
2020	3 427 335 378	-0.16	130.59

11) Table prepared by the Office of SAMPRO based on information obtained from Milk SA

Table 6¹²⁾RAW MILK PURCHASES PER QUARTER OF EACH OF THE YEARS 2009 to 2021 ¹²⁾

Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2009	620 043 005	23.969	560 531 455	21.668	658 577 140	25.458	747 716 467	28.904	2 586 868 067	100
2010	640 933 409	23.640	595 998 091	21.983	699 002 502	25.782	775 302 030	28.596	2 711 236 032	100
2011	654 701 438	24.066	597 343 799	21.958	694 671 935	25.536	773 684 975	28.440	2 720 402 147	100
2012	676 129 726	23.784	638 011 059	22.443	725 458 007	25.519	803 211 367	28.254	2 842 810 159	100
2013	683 707 219	23.529	646 811 485	22.259	746 796 407	25.700	828 496 836	28.512	2 905 811 947	100
Total (2009-2013)	3 275 514 797	23.792	3 038 695 889	22.072	3 524 505 991	25.601	3 928 411 675	28.535	13 767 128 352	100

Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2014	683 060 914	22.900	650 998 523	21.826	766 083 031	25.684	882 592 129	29.590	2 982 734 597	100
2015	770 769 019	24.294	726 975 249	22.914	799 968 233	25.214	874 943 269	27.578	3 172 655 770	100
2016	752 226 598	23.816	701 859 008	22.222	806 386 965	25.531	897 973 819	28.431	3 158 446 390	100
2017	756 689 792	23.256	703 893 532	21.634	837 867 145	25.751	955 231 612	29.358	3 253 682 081	100
2018	814 831 903	23.892	750 437 490	22.004	873 519 325	25.612	971 747 186	28.493	3 410 535 904	100
2019	816 208 186	23.777	757 906 127	22.078	882 584 853	25.710	976 103 230	28.435	3 432 802 396	100
Total (2014-2019)	4 593 786 412	23.666	4 292 069 929	22.112	4 966 409 552	25.586	5 558 591 245	28.637	19 410 857 138	100

Total (2009-2019)	7 869 301 209	23.718	7 330 765 818	22.095	8 490 915 543	25.592	9 487 002 920	28.594	33 177 985 490	100
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Year	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Total	
	Kg	%	Kg	%	Kg	%	Kg	%	Kg	%
2020	831 232 775	24.253	744 621 901	21.726	874 078 494	25.503	977 402 208	28.518	3 427 335 378	100
2021 ¹³⁾	788 770 256									

12) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Quarters of which the percentage contribution to the total raw milk purchases in the specific year were the highest relative to the contributions of the same quarters of the other years, are printed in red and the quarters with the lowest contributions, are printed in green

13) The figure in respect of the first quarter of 2021, is an estimated figure.

Table 7¹⁴⁾

RAW MILK PURCHASES PER HALF YEAR IN EACH OF THE YEARS 2009 TO 2020

Year	First Half		Second Half		Total	
	Kg	%	Kg	%	Kg	%
2009	1 180 574 460	45.637	1 406 293 607	54.363	2 586 868 067	100.00
2010	1 236 931 500	45.622	1 474 304 532	54.378	2 711 236 032	100.00
2011	1 252 045 237	46.024	1 468 356 910	53.976	2 720 402 147	100.00
2012	1 314 140 785	46.227	1 528 669 374	53.773	2 842 810 159	100.00
2013	1 330 518 704	45.788	1 575 293 243	54.212	2 905 811 947	100.00
Total (2009-2013)	6 314 210 686	45.864	7 452 917 666	54.136	13 767 128 352	100.00

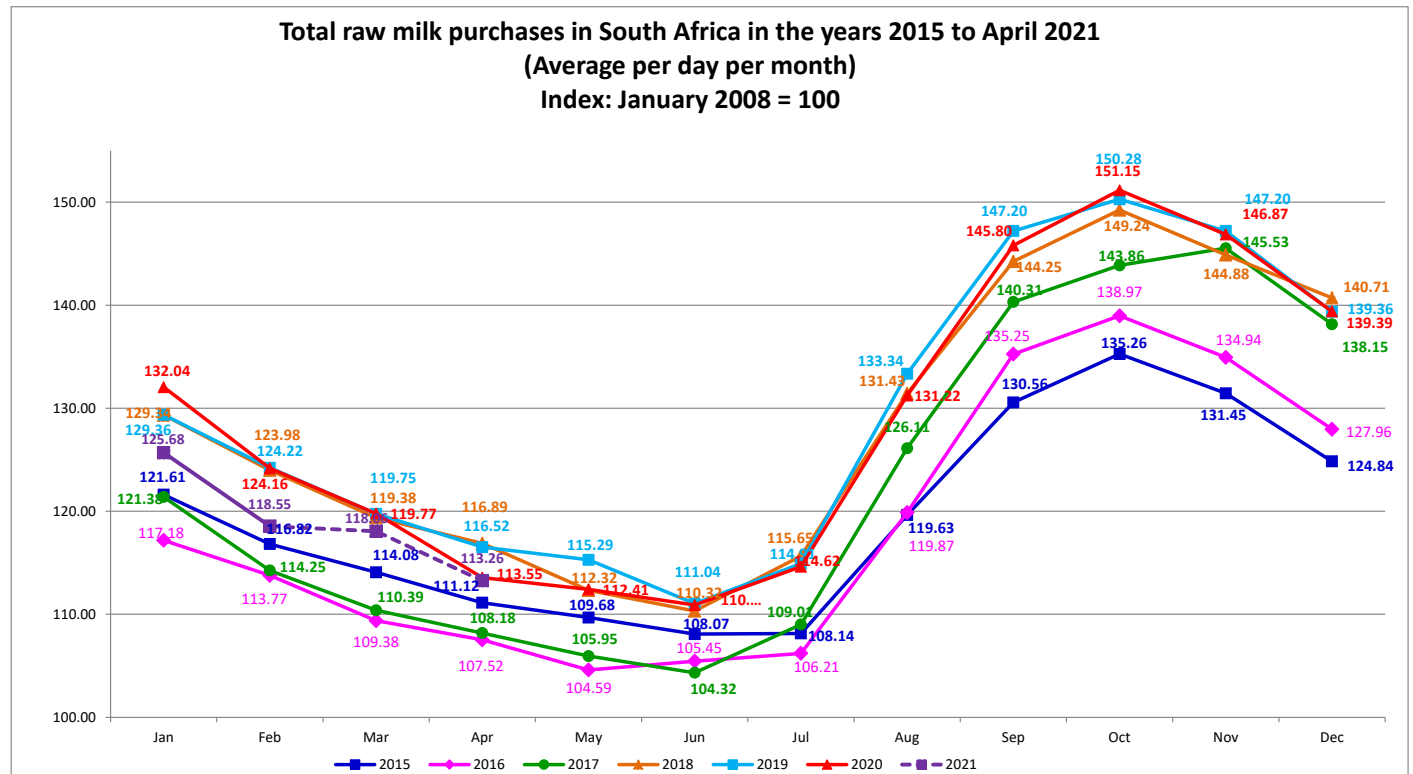
Year	First Half		Second Half		Total	
	Kg	%	Kg	%	Kg	%
2014	1 334 059 437	44.726	1 648 675 160	55.274	2 982 734 597	100.00
2015	1 497 744 268	47.208	1 674 911 502	52.792	3 172 655 770	100.00
2016	1 454 085 606	46.038	1 704 360 784	53.962	3 158 446 390	100.00
2017	1 460 583 324	44.890	1 793 098 757	55.110	3 253 682 081	100.00
2018	1 565 269 393	45.895	1 845 266 511	54.105	3 410 535 904	100.00
2019	1 574 114 313	45.855	1 858 688 083	54.145	3 432 802 396	100.00
Total (2014-2019)	8 885 856 341	45.778	10 525 000 797	54.222	19 410 857 138	100.00
Total (2009-2019)	13 625 952 714	45.809	16 119 230 380	54.191	29 745 183 094	100.00
2020	1 575 854 676	45.979	1 851 480 702	54.021	3 427 335 378	100.00

14) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Half years of which the percentage contribution to the total raw milk purchases in the specific year, were the highest relative to the contributions of the same half years of the other years, are printed in red and the half years, with the lowest contributions, are printed in green.

Graph 7¹⁵⁾

AVERAGE RAW MILK PURCHASES PER DAY PER MONTH IN SOUTH AFRICA IN THE YEARS 2015 TO APRIL 2021



15) Table 4 and Graph 7 prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2012 to February 2021 is in respect of the total raw milk purchased by all registered milk buyers declared in terms of Regulation 1396 of the Marketing of Agricultural Products Act and previous similar regulations. The figures for March 2021 and April 2021 are estimated figures.

Table 8¹⁶⁾

MASS OF RAW MILK PURCHASES IN PARTICULAR MONTHS, RELATIVE TO THE PURCHASES IN THE SAME MONTHS OF PARTICULAR PREVIOUS YEARS

	Percentage increase
January 2018 relative to January 2017	6.6
February 2018 relative to February 2017	8.5
March 2018 relative to March 2017	8.1
April 2018 relative to April 2017	8.1
May 2018 relative to May 2017	6.0
June 2018 relative to June 2017	5.7
July 2018 relative to July 2017	6.1
August 2018 relative to August 2017	4.2
September 2018 relative to September 2017	2.8
October 2018 relative to October 2017	3.7
November 2018 relative to November 2017	-0.4
December 2018 relative to December 2017	1.9
January 2019 relative to January 2018	-0.1
February 2019 relative to February 2018	-2.2
March 2019 relative to March 2018	0.1
April 2019 relative to April 2018	-0.8
May 2019 relative to May 2018	2.3
June 2019 relative to June 2018	0.5
July 2019 relative to Jul 2018	-0.8
August 2019 relative to August 2018	1.2
September 2019 relative to September 2018	1.8
October 2019 relative to October 2018	0.5
November 2019 relative to November 2018	1.6
December 2019 relative to December 2018	-1.0
January 2020 relative to January 2019	2.1
February 2020 relative to February 2019	-0.05
March 2020 relative to March 2019	0.01
April 2020 relative to April 2019	-2.5
May 2020 relative to May 2019	-2.5
June 2020 relative to June 2019	-0.1
July 2020 relative to July 2019	-0.3
August 2020 relative to August 2019	-1.6
September 2020 relative to September 2019	-1.0
October 2020 relative to October 2019	0.6
November 2020 relative to November 2019	-0.2
December 2020 relative to December 2019	0.02
January 2021 relative to January 2020	-4.8
February 2021 relative to February 2020	-4.5
March 2021 relative to March 2020 (est)	-1.4
April 2021 relative to April 2020 (est)	-0.3

16) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Table 9¹⁷⁾

DECREASE IN THE MASS OF MONTHLY RAW MILK PURCHASES IN SOUTH AFRICA, FROM OCTOBER TO DECEMBER, OCTOBER TO FEBRUARY, OCTOBER TO APRIL AND OCTOBER TO JUNE, IN THE YEARS 2008 TO 2021

Year	October to December percent	October to February percent	October to April percent	October to June percent
2008/9	5.5	16.9	24.4	25.4
2009/10	3.9	14.6	20.4	21.2
2010/11	5.0	15.6	23.4	23.7
2011/12	5.6	14.5	19.5	18.2
2012/13	6.6	14.9	20.9	20.5
2013/14	5.3	18.0	22.9	21.8
2014/15	4.2	12.9	17.1	19.4
2015/16	7.7	15.9	20.5	22.0
2016/17	7.9	17.8	22.2	24.9
2017/18	4.0	13.8	18.7	23.3
2018/2019	5.7	16.8	21.9	25.6
2019/2020	7.3	17.4	24.4	26.2
Average 2008/9 to 2019/20	5.7	15.8	21.4	22.7
2020/2021 ¹⁸⁾	7.8	21.6	25.1	

17) Table prepared by the Office of SAMPRO based on information obtained from MILK SA. The figure in respect of October 2020 to April 2021, is an estimated figure

Table 10¹⁸⁾

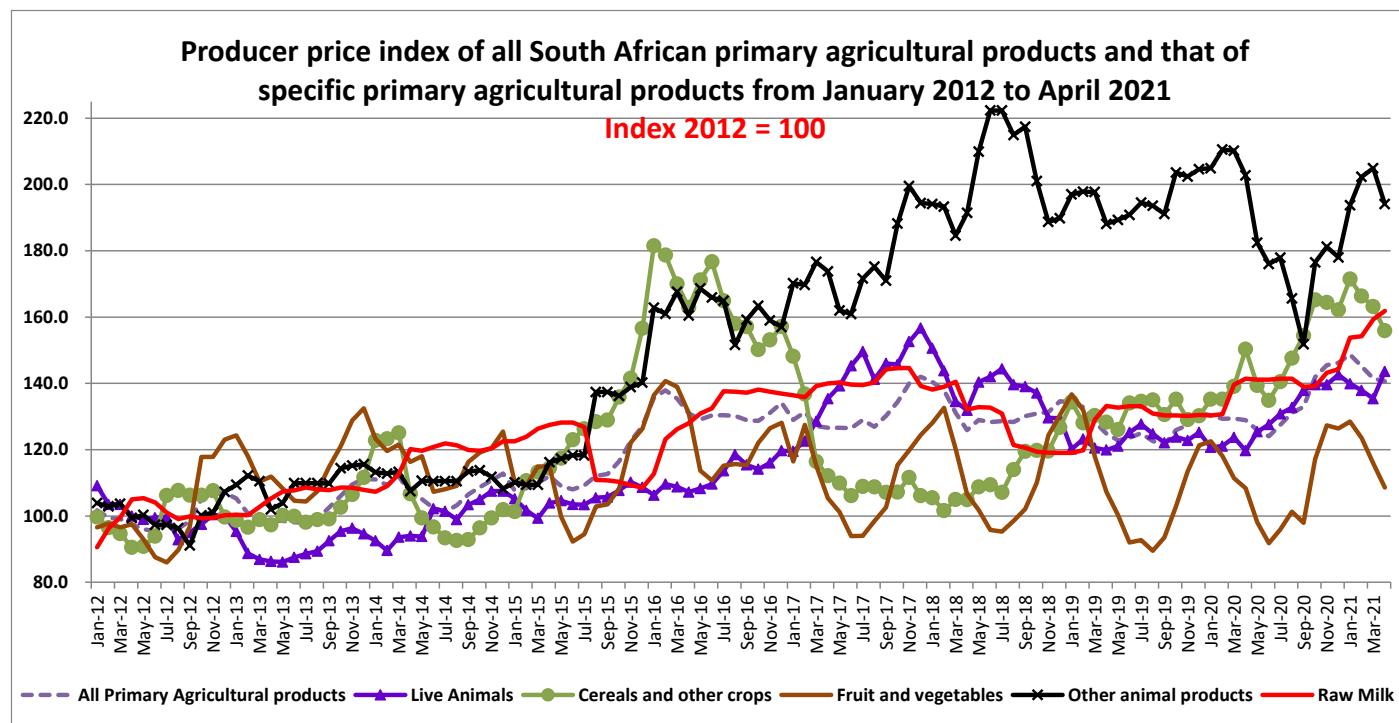
INCREASE IN THE MASS OF MONTHLY RAW MILK PURCHASES IN SOUTH AFRICA, FROM JULY TO AUGUST, JULY TO SEPTEMBER AND JULY TO OCTOBER IN EACH OF THE YEARS 2008 TO 2020

Year	July to August Percent	July to September Percent	July to October Percent
2008	10.7	22.2	24.6
2009	12.4	24.5	29.3
2010	9.7	19.8	24.2
2011	10.6	26.3	28.2
2012	10.3	21.8	25.6
2013	11.4	23.0	26.3
2014	13.0	27.2	32.9
2015	10.6	20.7	25.1
2016	12.7	27.2	30.7
2017	15.9	31.7	34.3
2018	13.7	24.7	29.0
2019	16.0	28.1	30.8
2020	14.5	27.2	31.9
Average 2008 to 2020	12.4	25.0	28.7

18) Table prepared by the Office of SAMPRO on the basis of information obtained from MILK SA. The information in respect of 2008 to 2020 is in respect of the total raw milk purchased by all registered milk buyers declared in terms of Regulation 1396 of the Marketing of Agricultural Products Act and previous similar regulations.

Graph 8¹⁹⁾

PRODUCER PRICE INDICES OF PRIMARY AGRICULTURAL PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO APRIL 2021



19) Graph prepared by the Office of SAMPRO based on information published by Statistics SA

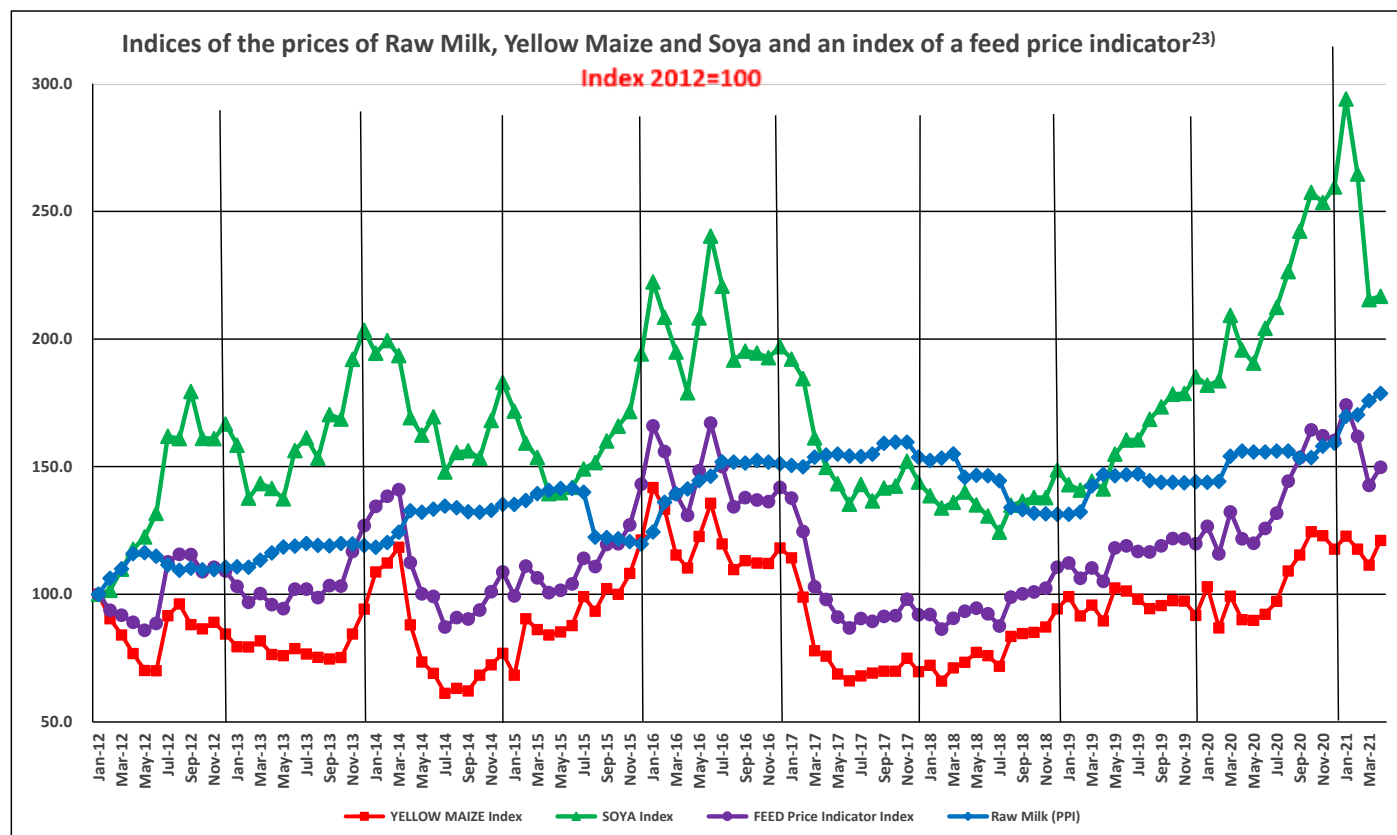
Table 11²⁰⁾**MONTHLY INCREASE IN THE PRODUCER PRICE INDEX OF RAW MILK**

	Percentage increase
January 2018 relative to December 2017	-0.80
February 2018 relative to January 2018	0.65
March 2018 relative to February 2018	1.08
April 2018 relative to March 2018	-5.96
May 2018 relative to April 2018	0.51
June 2018 relative to May 2018	-0.08
July 2018 relative to June 2018	-1.35
August 2018 relative to July 2018	-7.25
September 2018 relative to August 2018	-0.67
October 2018 relative to September 2018	-0.99
November 2018 relative to October 2018	-0.25
December 2018 relative to November 2018	-0.07
January 2019 relative to December 2018	0
February 2019 relative to January 2019	0.66
March 2019 relative to February 2019	7.78
April 2019 relative to March 2019	3.16
May 2019 relative to April 2019	-0.38
June 2019 relative to May 2019	0.29
July 2019 relative to June 2019	0
August 2019 relative to July 2019	-1.64
September 2019 relative to August 2019	-0.46
October 2019 relative to September 2019	0
November 2019 relative to October 2019	-0.08
December 2019 relative to November 2019	0.24
January 2020 relative to December 2019	-0.16
February 2020 relative to January 2020	0.31
March 2020 relative to February 2020	6.81
April 2020 relative to March 2020	1.29
May 2020 relative to April 2020	-0.21
June 2020 relative to May 2020	0
July 2020 relative to June 2020	0.21
August 2020 relative to July 2020	0
September 2020 relative to August 2020	-1.70
October 2020 relative to September 2020	0.08
November 2020 relative to October 2020	2.93
December 2020 relative to November 2020	0.78
January 2021 relative to December 2020	6.58
February 2021 relative to January 2021	0.25
March 2021 relative to February 2021	3.33
April 2021 relative to March 2021	1.63

20) Table prepared by the Office of SAMPRO based on information published by Statistics SA

Graph 9²¹⁾

**INDICES OF THE PRICES OF RAW MILK IN THE PERIOD JANUARY 2012 TO APRIL 2021
AND THAT OF, YELLOW MAIZE AND SOYA AND AN INDEX OF A FEED PRICE
INDICATOR²²⁾ IN THE PERIOD JANUARY 2012 TO APRIL 2021**



**INCREASE IN RAW MILK PURCHASES RELATIVE TO PREVIOUS
YEAR (PERCENT)²³⁾**

2012	2013	2014	2015	2016	2017	2018	2019	2020
4.5	2.22	2.65	6.32	-0.45	3.02	4.82	0.65	-0.16

21) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA and SAFEX middle of the month prices.

22) The Feed price indicator index is an index of prices equal to 70 percent of the maize price, plus 30 percent of the soya price.

23) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Table 12²⁴⁾

FUTURE PRICES OF YELLOW MAIZE IN SOUTH AFRICA (R/TON) ON 15 FEBRUARY 2021 AND 3 MAY 2021, ACCORDING TO SAFEX

	A CLOSING BID 15 February 2021 R/Ton	B CLOSING BID 3 May 2021 R/Ton	C Percentage increase from A to B
July 2021	3 271	3 438	5.1
September 2021	3 321	3 494	5.2
December 2021	3 394	3 566	5.1
March 2022		3 527	
May 2022		3 300	

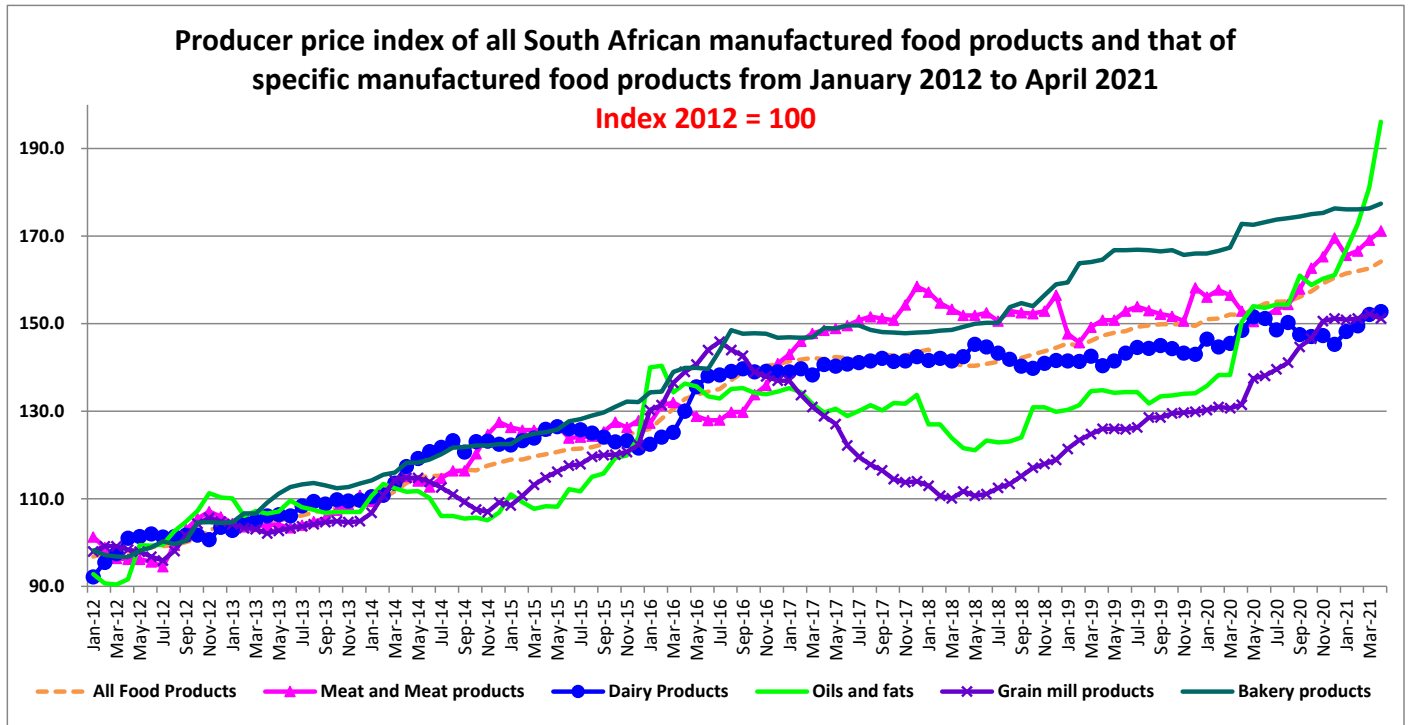
Table 13²⁴⁾

FUTURE PRICES OF SOYA BEANS IN SOUTH AFRICA (R/TON) ON 15 FEBRUARY 2021 AND 3 MAY 2021, ACCORDING TO SAFEX

	A CLOSING BID 15 February 2021 R/Ton	B CLOSING BID 3 May 2021 R/Ton	C Percentage decrease from A to B
May 2021	7 770	7 224	7.0
July 2021	7 874	7 320	7.0
September 2021	7 974	7 412	7.0
December 2021	8 056	7 518	6.7
March 2022		7 513	

24) Table prepared by the Office of SAMPRO based on information as obtained from the SAFEX website on 3 May 2021.

PRODUCER PRICE INDICES OF MANUFACTURED FOOD PRODUCTS IN SOUTH AFRICA FROM JANUARY 2012 TO APRIL 2021

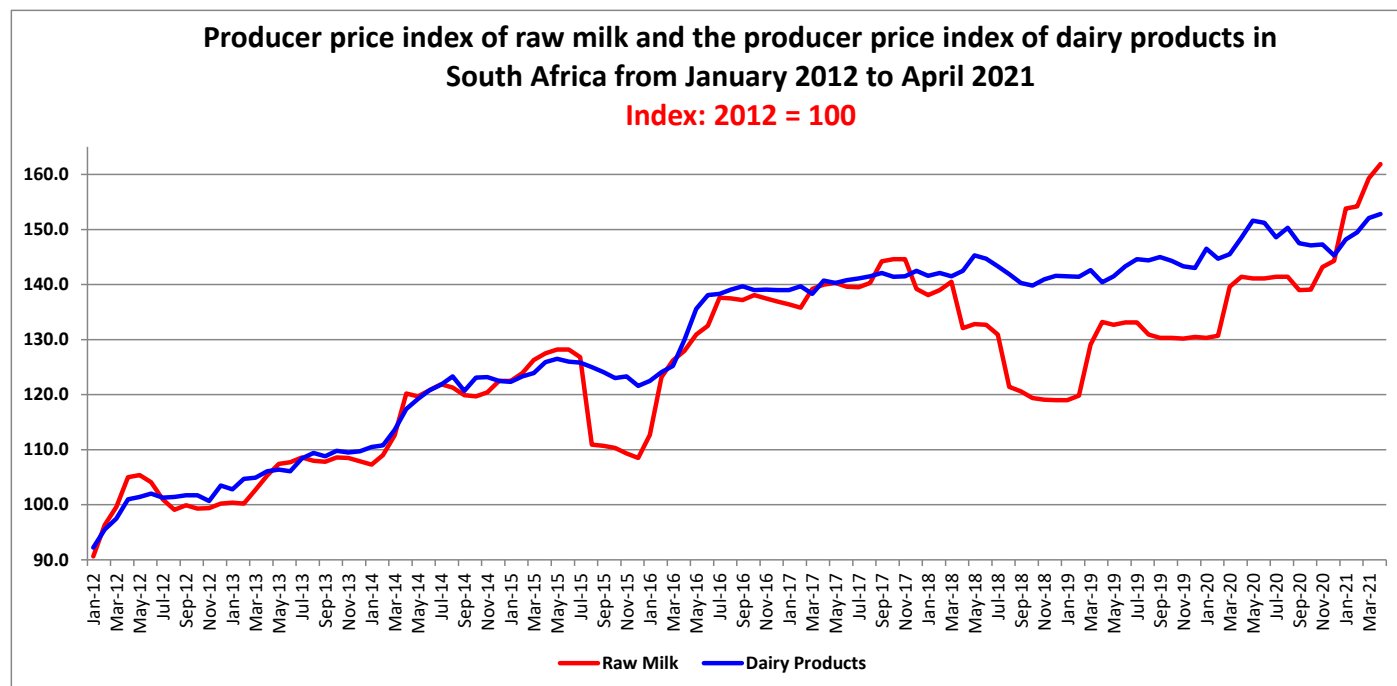


25) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA.

Note that the producer price index of dairy products measures the changes of the prices of a basket of dairy products consisting of fresh milk, UHT milk, yoghurt and cheddar cheese and products like cheese other than cheddar, maas, butter and milk powder are not included.

Graph 11²⁶⁾

PRODUCER PRICE INDEX OF RAW MILK AND THE PRODUCER PRICE INDEX OF DAIRY PRODUCTS IN SOUTH AFRICA, FROM JANUARY 2012 TO APRIL 2021



26) Graph prepared by the Office of SAMPRO based on information obtained from Statistics SA.

Note that the producer price index of dairy products measures the changes of the prices of a basket of dairy products consisting of fresh milk, UHT milk, yoghurt and cheddar cheese and products like cheese other than cheddar, maas, butter and milk powder are not included.

Table 14²⁷⁾

CHANGES IN THE RETAIL SALES QUANTITIES FROM THE YEAR APRIL 2019 TO MARCH 2020, TO THE YEAR APRIL 2020 TO MARCH 2021, AND CHANGES IN THE RETAIL PRICES FROM MARCH 2020 TO MARCH 2021, OF SPECIFIC DAIRY PRODUCTS

PRODUCT	CHANGE IN DEMAND (QUANTITY) PERCENT	CHANGE IN RETAIL PRICES PERCENT
FRESH MILK	-8.8	4.6
LONG LIFE MILK (UHT MILK)	5.5	4.8
FLAVOURED MILK	-8.6	2.0
YOGHURT	7.2	3.5
MAAS	2.5	2.8
PRE-PACKAGED CHEESE	9.9	3.5
CREAM CHEESE	1.9	12.5
BUTTER	10.2	-3.1
CREAM	13.8	1.2

27) Table prepared by the Office of SAMPRO based on the results of surveys by "NielsenIQ".
Non-retail sales such as sales to industrial buyers are not part of the surveys.

Table 15²⁸⁾

CHANGES IN THE QUANTITIES OF RETAIL SALES OF SPECIFIC DAIRY PRODUCTS IN 2019, 2020 AND 2021 IN SOUTH AFRICA

PRODUCT	Sales in the month of March 2021 versus the sales in the month of March 2020	Sales in the 3 months from January 2021 to March 2021 versus the sales in the 3 months from January 2020 to March 2020	Sales in the 6 months from October 2020 to March 2021 versus the sales in the 6 months from October 2019 to March 2020	Sales in the 9 months from July 2020 to March 2021 versus the sales in the 9 months from July 2019 to March 2020	Sales in the 12 months from April 2020 to March 2021 versus the sales in the 12 months from April 2019 to March 2020
	percent		percent		percent
Fresh Milk	-11.8	-8.2	-8.7	-8.8	-8.8
UHT milk	-18.8	-4.8	-0.2	2.6	5.5
Flavoured milk	2.2	0.3	-3.6	-6.8	-8.6
Yoghurt	-5.9	-0.9	2.5	3.9	7.2
Maas	11.4	3.4	-0.1	0.7	2.5
Pre-packaged cheese	-6.6	-1.0	4.3	6.1	9.9
Cream cheese	-6.9	-1.3	-0.9	-0.8	1.9
Butter	-3.4	8.8	5.1	7.4	10.2
Cream	3.9	11.4	9.5	11.1	13.8

28) Table prepared by the Office of SAMPRO based on the results of surveys by "NielsenIQ".
Non-retail sales such as sales to industrial buyers, are not part of the surveys.

Table 16²⁹⁾

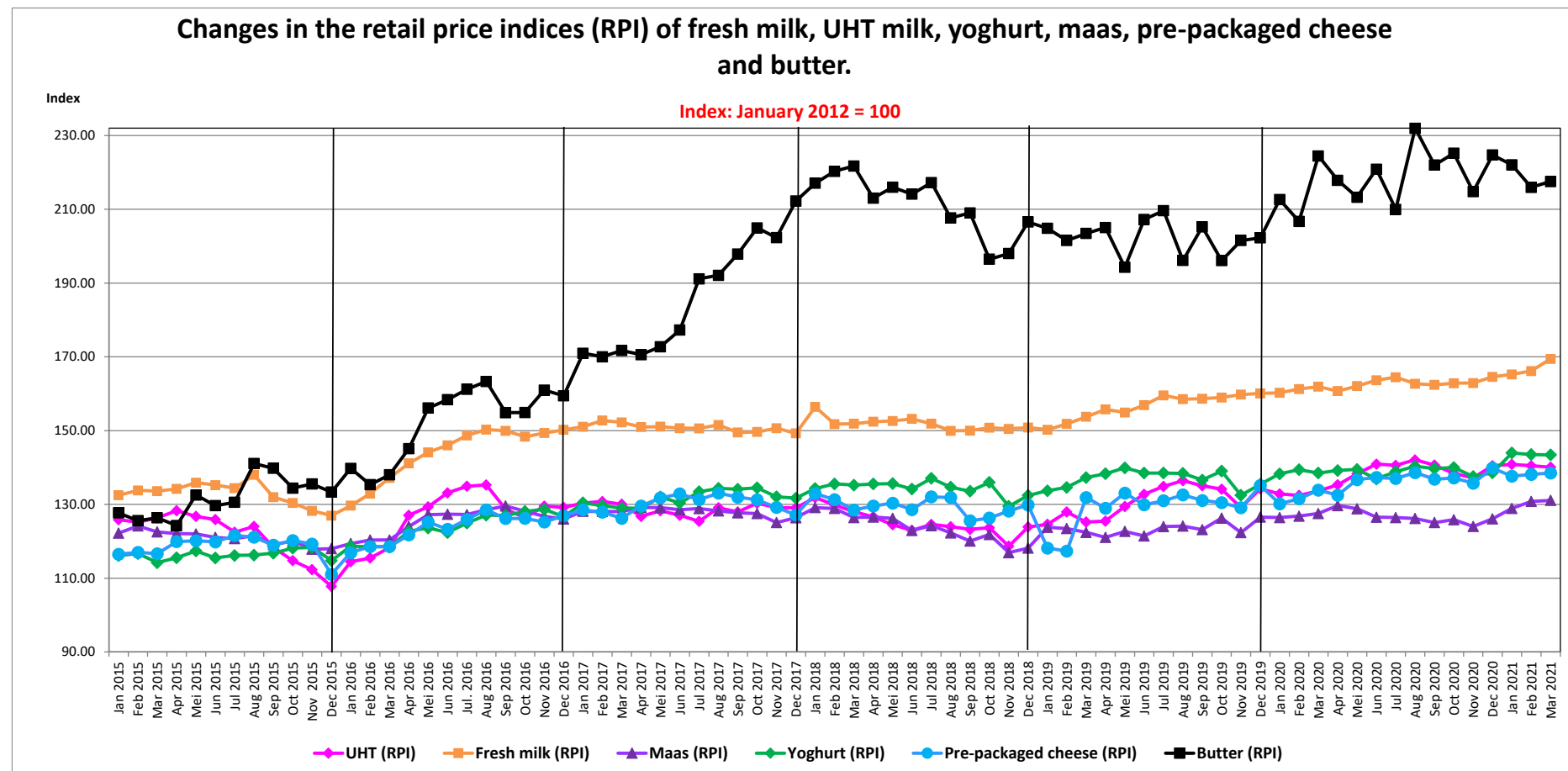
THE AVERAGE RETAIL PRICES OF SPECIFIC DAIRY PRODUCTS IN MARCH 2021 IN SOUTH AFRICA, COMPARED TO THE AVERAGE RETAIL PRICES OF THE PRODUCTS CONCERNED IN SPECIFIC MONTHS OF 2019 TO 2021.

PRODUCT	March 2021 versus February 2021 (1 month ago)	March 2021 versus December 2020 (3 months ago)	March 2021 versus September 2020 (6 months ago)	March 2021 versus June 2020 (9 months ago)	March 2021 versus March 2020 (12 months ago)	March 2021 versus September 2019 (18 months ago)	March 2021 versus March 2019 (24 months ago)
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
FRESH MILK	2.0	3.0	4.3	3.5	4.6	6.8	10.2
UHT MILK	-0.3	-0.3	-0.4	-0.6	4.8	3.7	11.9
FLAVOURED MILK	-0.1	-1.5	0.2	-2.0	2.0	1.6	6.3
YOGHURT	-0.1	3.5	2.7	4.8	3.5	5.0	4.5
MAAS	0.2	3.9	4.8	3.6	2.8	6.4	7.1
PRE-PACKAGED CHEESE	0.3	-1.0	1.2	0.9	3.5	5.7	5.0
CREAM CHEESE	5.7	3.8	7.7	7.5	12.5	17.0	19.3
BUTTER	0.7	-3.2	-2.0	-1.5	-3.1	6.0	6.9
CREAM	-0.04	-1.7	1.1	1.0	1.2	3.5	9.9

29) Table prepared by the Office of SAMPRO based on the results of surveys by "NielsenIQ".
Non-retail sales such as sales to industrial buyers, are not part of the surveys.

Graph 12³⁰⁾

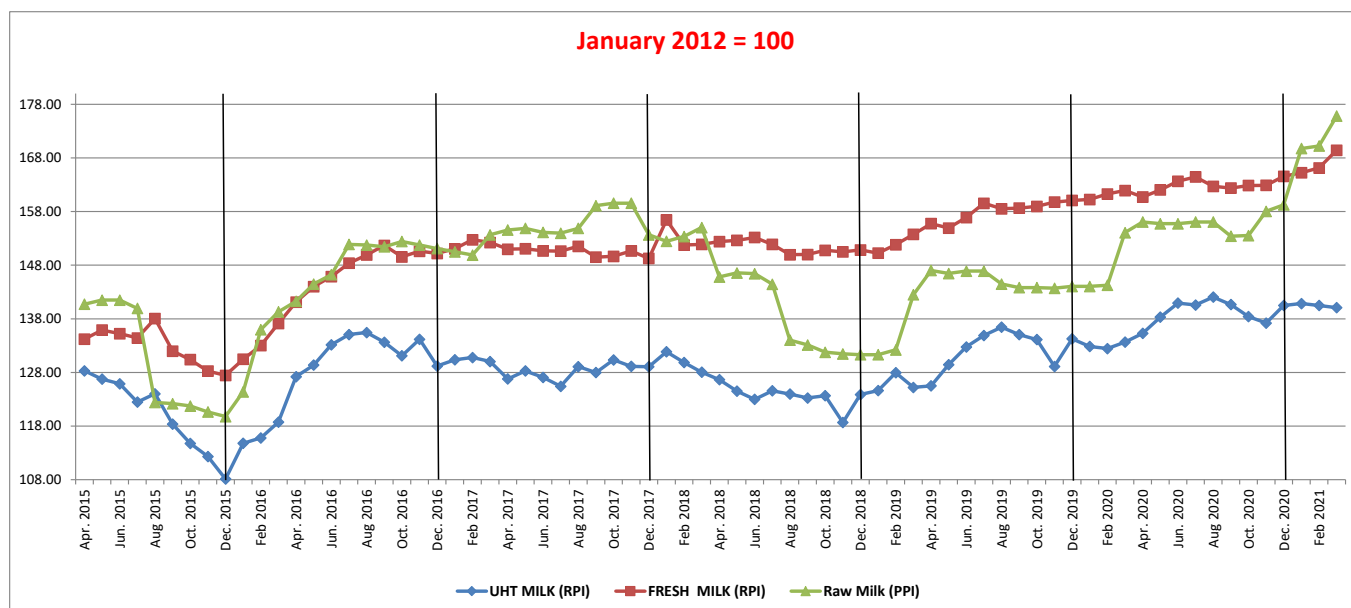
THE RETAIL PRICE INDICES (RPI) OF SPECIFIC DAIRY PRODUCTS, FROM JANUARY 2015 TO MARCH 2021



30) Graph prepared by the Office of SAMPRO based on the results of surveys by “NielsenIQ”.
Non-retail sales such as sales to industrial buyers, are not part of the surveys.

Graph 13³¹⁾

THE PRODUCER PRICE INDEX (PPI) OF RAW MILK, FROM JANUARY 2015 TO APRIL 2021 AND THE RETAIL PRICE INDICES (RPI) OF FRESH MILK AND UHT MILK, FROM JANUARY 2015 TO MARCH 2021



INCREASE IN THE QUANTITY OF RAW MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)³²⁾

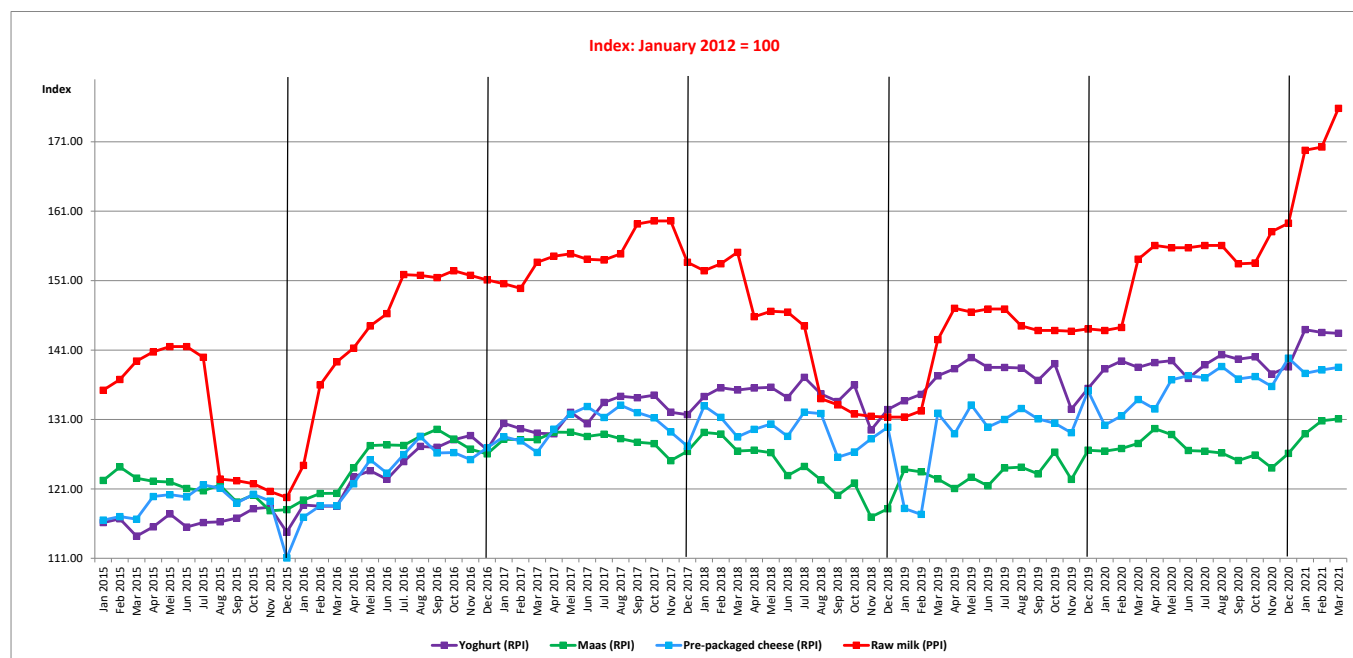
2015	2016	2017	2018	2019	2020
6.37	-0.45	3.02	4.82	0.65	-0.16

31) Graph prepared by the Office of SAMPRO based on information obtained from NielsenIQ and Statistics South Africa

32) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Graph 14³³⁾

THE PRODUCER PRICE INDEX (PPI) OF RAW MILK, JANUARY 2015 TO APRIL 2021 AND THE RETAIL PRICE INDICES (RPI) OF YOGHURT, MAAS AND PRE-PACKAGED CHEESE, FROM JANUARY 2015 TO MARCH 2021



INCREASE IN THE QUANTITY OF RAW MILK PURCHASES RELATIVE TO PREVIOUS YEAR (PERCENT)³⁴⁾

2015	2016	2017	2018	2019	2020
6.37	-0.45	3.02	4.82	0.65	-0.16

33) Graph prepared by the Office of SAMPRO based on information obtained from NielsenIQ and Statistics South Africa

34) Table prepared by the Office of SAMPRO based on information obtained from Milk SA.

Table 17³⁵⁾

THE HIGHEST AND LOWEST DIFFERENCES RECORDED BETWEEN THE AVERAGE MONTHLY RETAIL PRICES OF UHT MILK AND FRESH MILK AND THE DIFFERENCES BETWEEN THE AVERAGE ANNUAL RETAIL PRICES OF UHT MILK AND FRESH MILK, IN THE YEARS 2012 TO 2021

YEAR	Percentage difference ³⁶⁾		
	Highest monthly	Lowest monthly	Average annual
2012	17.1	0.7	11.4
2013	8.9	2.8	6.1
2014	12.5	5.8	10.0
2015	11.9	-0.7	7.0
2016	6.9	0.7	3.9
2017	1.8	-2.6	-0.2
2018	0.0	-7.9	-3.7
2019	3.8	-3.8	0.2
2020	4.3	0.4	2.3
Average	7.5	-0.5	4.1
2021 (Jan – Mar)	-1.9	-6.0	-3.9

35) Table prepared by the Office of SAMPRO based on the results of surveys by NielsenIQ.

Non-retail sales such as sales to industrial buyers are not part of the surveys.

36) The percentages indicated are the percentages which the average retail prices of UHT-milk were higher than that of fresh milk