Dairy market trends

December 2021

Compiled by Bertus van Heerden. Chief economist of the MPO.

Dairy Market Trends December 2021: Commodity prices used as major inputs for milk production and the level of international dairy product prices have been supporting increased unprocessed milk prices since September 2021.

Executive summary

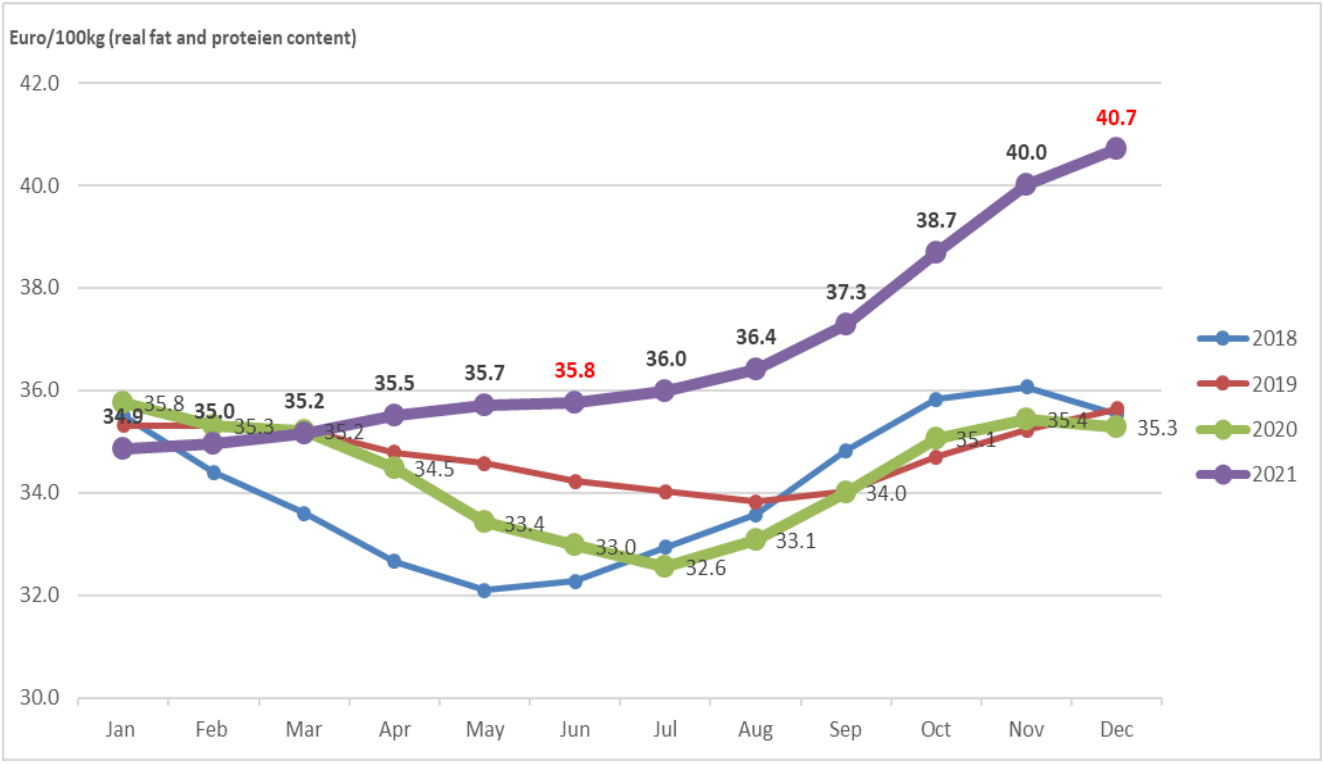
The upward trend in feed cost is clearly visible since January 2018 and continued into 2021. The average feed cost price (70% yellow maize and 30% soya) for 2021 is 36% higher than the same period in 2019 and 13% higher compared to the same period in 2020. Over the first eleven months of 2021, the producer price of unprocessed milk is on average, 12% higher than it was over the same period in 2020, and 28% higher compared to 2019. However, the increase in the cost of feed meal more than neutralised the better farmer price. Other inputs such as electricity increased with 17%, basic iron and steel with 40% and basic fertilisers and other chemicals with 51% over the period from November 2020 to November 2021. Some fertilisers like urea increased with more than 100%. Faced with this cost complex margins at farmer level will be paper thin or negative.

The Food and Agricultural Organisation (FAO) Food Price Index (FFPI) averaged 133.7 points in December 2021 up 25.1 points (23.1%) from December 2020. The Free On Board (FOB) prices (US$) of dairy product traded internationally achieved good growth in the last six months of 2021 and even more aggressive growth in ZAR terms and is supporting higher farmer prices. Three of the four dairy products are at the highest levels seen over the past 10 years with the fourth product Cheddar at the second highest level. Over the last six months of 2021, the ZAR depreciated with nine percent against the US$ and with the increased dollar prices of dairy products, the combined effect fuelled dairy product prices in ZAR terms to all-time highs: butter up 40%, SMP up 36%, Cheddar increased with 35% and FMP with 10%. The Global Dairy Trade index supports this data, and increased with 28% since January 2020.

The differential between the producer import parity price is at R3,50, the highest since January 2012.

All of the above indicate buoyancy for prices in the primary dairy value chain.

EU average farmer prices increased by 17% from January 2021 to December 2021 (last month estimate). The farmer price in South Africa increased by only 3,3% from January 2021 to November 2021.



High uncertainty and volatility are present in markets:
The following financial indicators in the United States (US) set the scene for the enormity of uncertainties that are currently plaquing economic and price projections of commodities and therefore planning. The headline inflation rate in the US in January 2021 was 1,2% and at the end of December 2021 it reached 7%, a 39 year high. The rate at which inflation increased, outstripping any previous period. The prime lending rate in the US is 3.75% and the saving rates are close to zero. This real negative interest environment will encourage people to spend since there is no point in saving and at the same time it will fuel buying activity before goods become more expensive.

The current mismatch between supply and demand stems from consumers experiencing the above economic reality and coming out of months of isolation or reduced movement which lead to the increase in spending while supply chain problems persist – some linked to the high energy prices and lower availability of energy (gas). Four rate hikes is expected by the Federal Reserve Bank of the US during 2022 to normalise the current interest rate/inflation environment.

The complexity of the current uncertainties is best described by the following statistics. In nominal Gross Domestic Product (GDP) terms, the US is the biggest economy in the world (21 428 billion dollars), China second (14 343 billion dollars) and the **American housewives (12 400 billion dollars) the third largest economy**. Japan coming in at 5 081 billion dollars. How will real positive interest rates in the US effect world demand?

While these uncertainties and volatility are recognised, the current cost complex facing dairy farmers will see production of unprocessed milk taking shots in the coming months. Dairy farmer's are now faced with the increased cost structure and it will be prudent and responsible for the down-stream role players to increase farmer prices to at least offset these abnormal cost increases. There are currently no indication that the prices of the major inputs used in milk production are normalising.

Although unprocessed milk production for past three months (latest two are estimates) reflects positive growth, this growth should not be confused with margin availability at farmer level. The increase in production is mostly a combination of favourable weather across most of South Africa during the time and some element of inputs bought earlier in the year at lower prices.

Frequently milk producers and other role players ask about the meaning and implications of specific market trends on the total dairy market balance and how it will change future markets. While the Milk Producers' Organisation cannot and will not try to predict the future in any detail, the possible general impact of specific changes will be discussed in this document. This information should not be regarded as financial advice.

While this report is compiled from sources that are deemed to be reliable, MPO cannot take responsibility for any decisions based on the information in this report.

Contents

List of figures

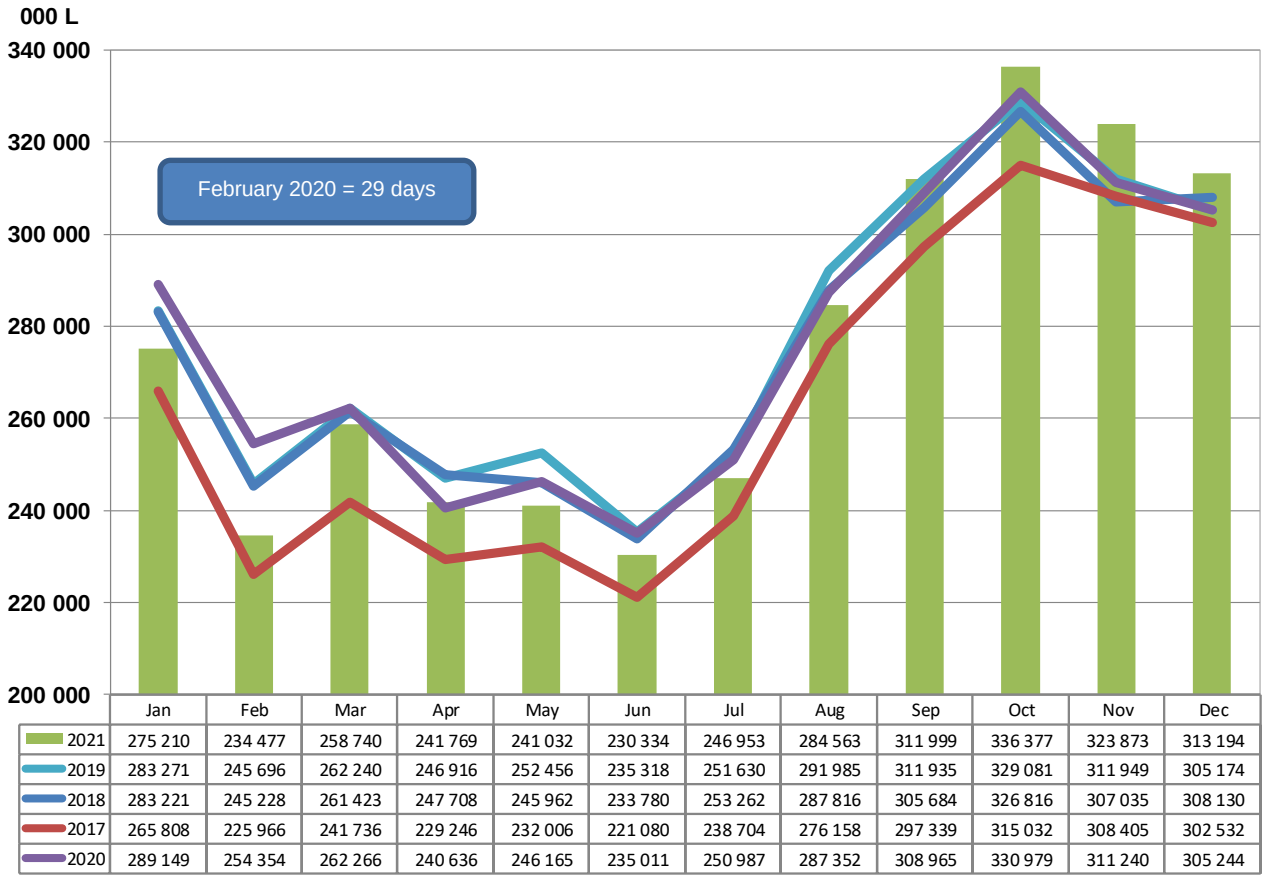
List of tables

1. Milk supply, demand and prices

1.1 Milk production

Unprocessed milk production for December 2021 is estimated at 313 million litres, 2,60% more than in December 2020. Cumulative unprocessed milk production for 2021 (inclusive of December 2021) was 3 299 million litres, indicating a decline of 0,72% in comparison to 2020.

Monthly milk production is reflected in Figure 1 below.

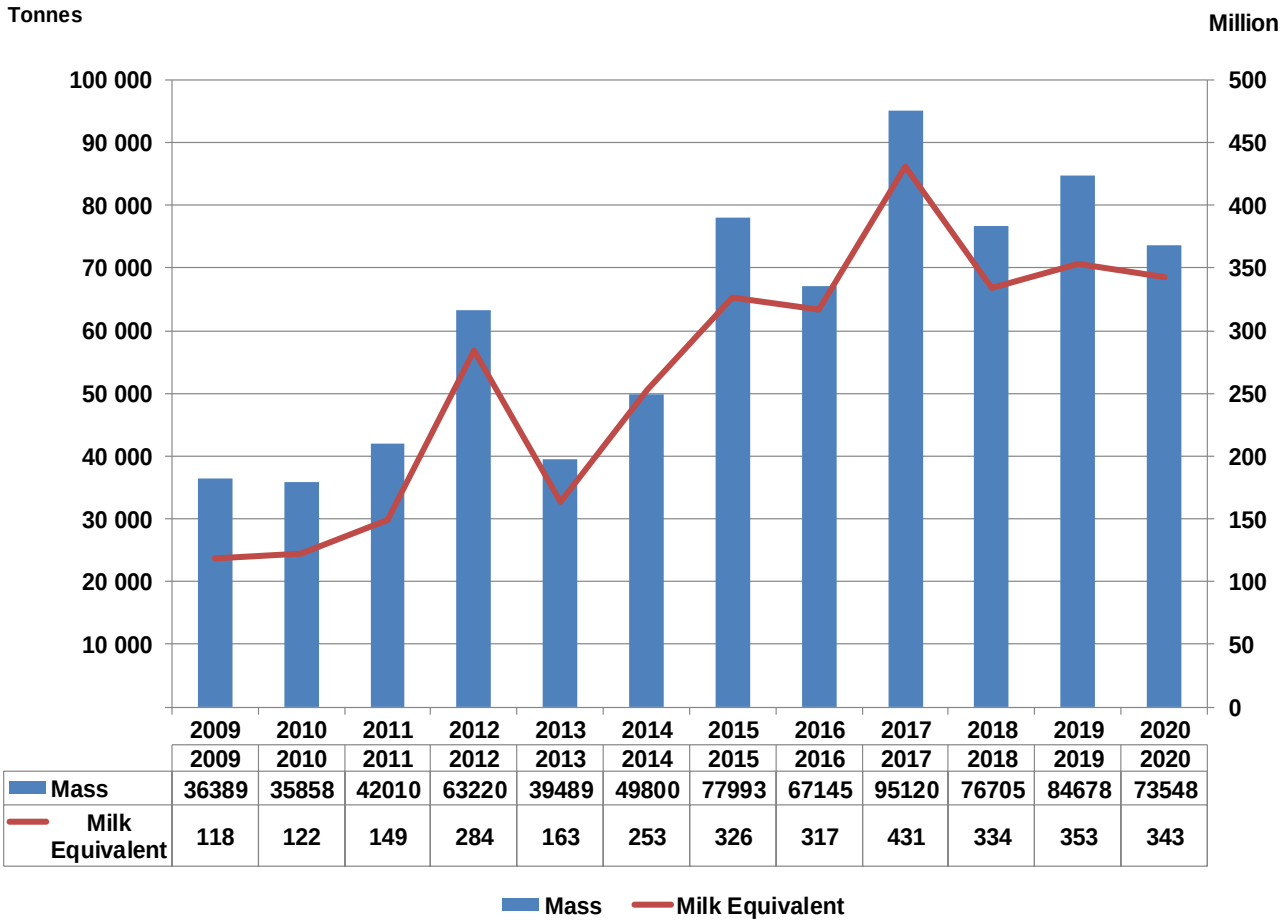


	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	275 210	234 477	258 740	241 769	241 032	230 334	246 953	284 563	311 999	336 377	323 873	313 194
2019	283 271	245 696	262 240	246 916	252 456	235 318	251 630	291 985	311 935	329 081	311 949	305 174
2018	283 221	245 228	261 423	247 708	245 962	233 780	253 262	287 816	305 684	326 816	307 035	308 130
2017	265 808	225 966	241 736	229 246	232 006	221 080	238 704	276 158	297 339	315 032	308 405	302 532
2020	289 149	254 354	262 266	240 636	246 165	235 011	250 987	287 352	308 965	330 979	311 240	305 244

Figure 1 Monthly milk production ('000 L.).

Source: Milk SA, Nov and December 2021 are preliminary

1.2 Dairy imports



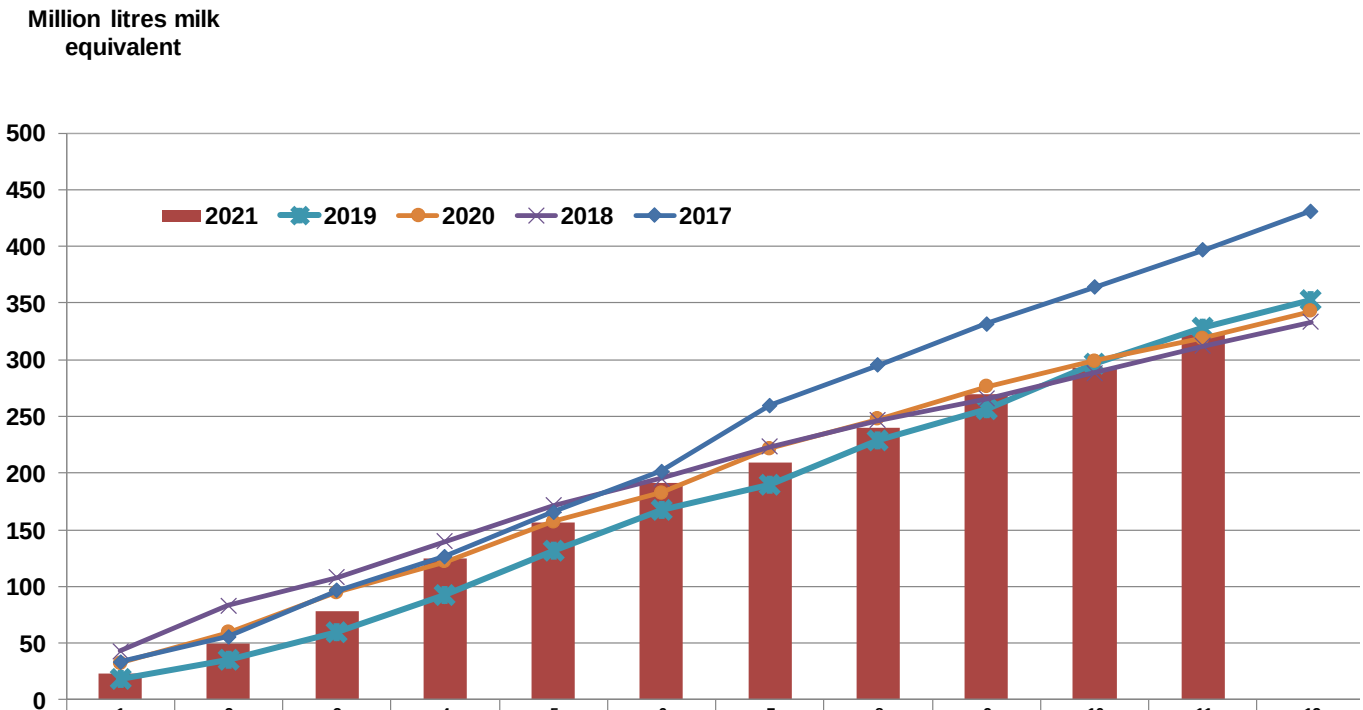
	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Mass	36389	35858	42010	63220	39489	49800	77993	67145	95120	76705	84678	73548
Milk Equivalent	118	122	149	284	163	253	326	317	431	334	353	343

Figure 2 Annual imports, mass and milk equivalent basis, 2009-2020

Source: Agri Inspec

Figure 2 illustrates the fluctuation in dairy imports on a mass and milk equivalent basis over the past 12 years. On a mass basis, imports declined in 2020 by 13,1% compared to 2019. On a milk equivalent basis, imports declined in 2020 by 2,8% compared to 2019. The reduction in imports is mainly due to drastic increases in dairy commodity prices in South African Rand (ZAR) terms during the second and third quarters of 2020. The depreciation of the ZAR was in reaction to the worldwide pandemic, specifically during the initial stages.

Figure 3 illustrates monthly cumulative dairy imports on a milk equivalent basis. Cumulative imports, year to date, were lower in 2020 and 2018 compared to 2021, while 2019 and 2017 were higher than in 2021. Imports for the first 11 months of 2021 are 1,3% higher than the corresponding period in 2020.



	1	2	3	4	5	6	7	8	9	10	11	12
2021	23	49	78	125	156	191	209	240	270	293	323	
2019	18	35	60	92	132	168	190	228	257	297	328	352
2020	32	59	95	122	157	183	222	247	276	299	319	343
2018	43	83	108	140	171	195	223	246	265	288	312	333
2017	33	56	96	127	165	202	260	295	332	364	397	431

Figure 3 Monthly cumulative imports, (Mil. L.) milk equivalent basis

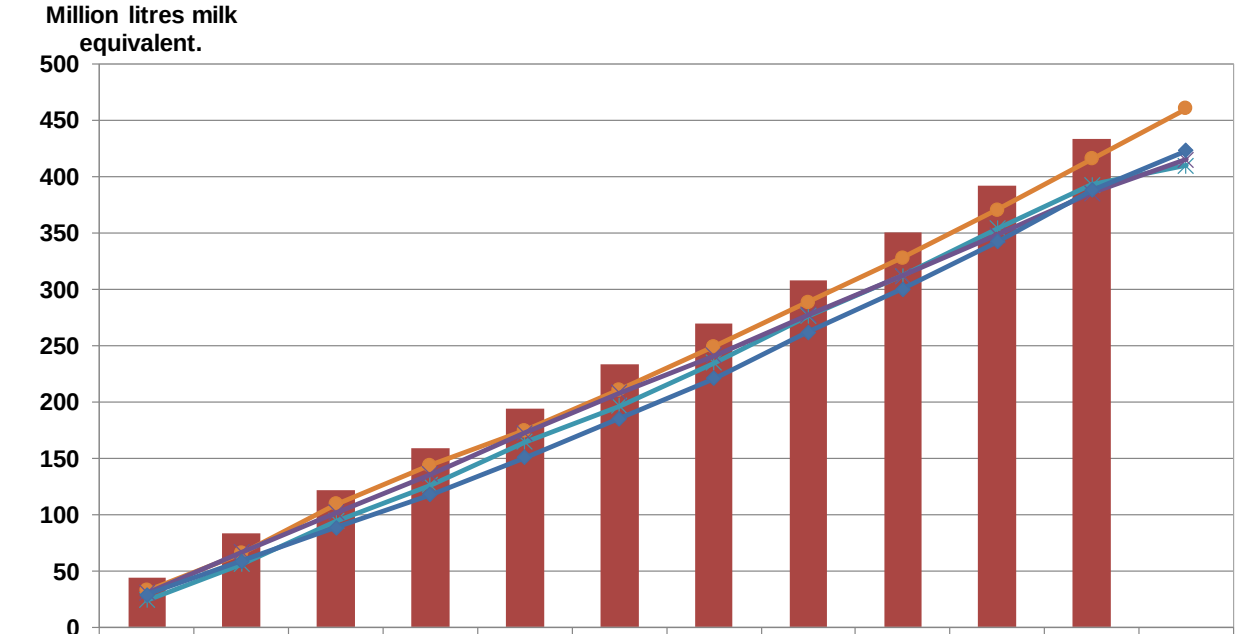
Source: Agri Inspec

1.3 Dairy exports (inclusive of sales to the BLNE countries)

Monthly cumulative exports on a milk equivalent basis are reflected in Figure 4 below. Exports in 2020 recorded an all-time high record, where SA exported 460 million litres of milk. This is a feather in the cap of the dairy value chain and affected government departments – the route to market was maintained despite the “lockdown”-restrictions in South Africa and by our trading partners.

Furthermore, it is an indication that export markets are well looked after by the SA exporters, that the markets are satisfied with the product range and quality and that untapped potential exist in the export market.

The positive export story continues into 2021. Cumulative exports for the first eleven months increased by 4% in comparison to the same period in 2020.



	1	2	3	4	5	6	7	8	9	10	11	12
2021	44	84	122	159	194	233	270	308	350	392	433	
2019	24	56	94	126	165	196	235	276	312	354	393	410
2020	33	65	109	144	175	211	249	288	328	370	416	460
2018	30	66	102	136	173	208	241	277	312	348	385	415
2017	29	58	88	118	151	185	221	262	300	342	388	423

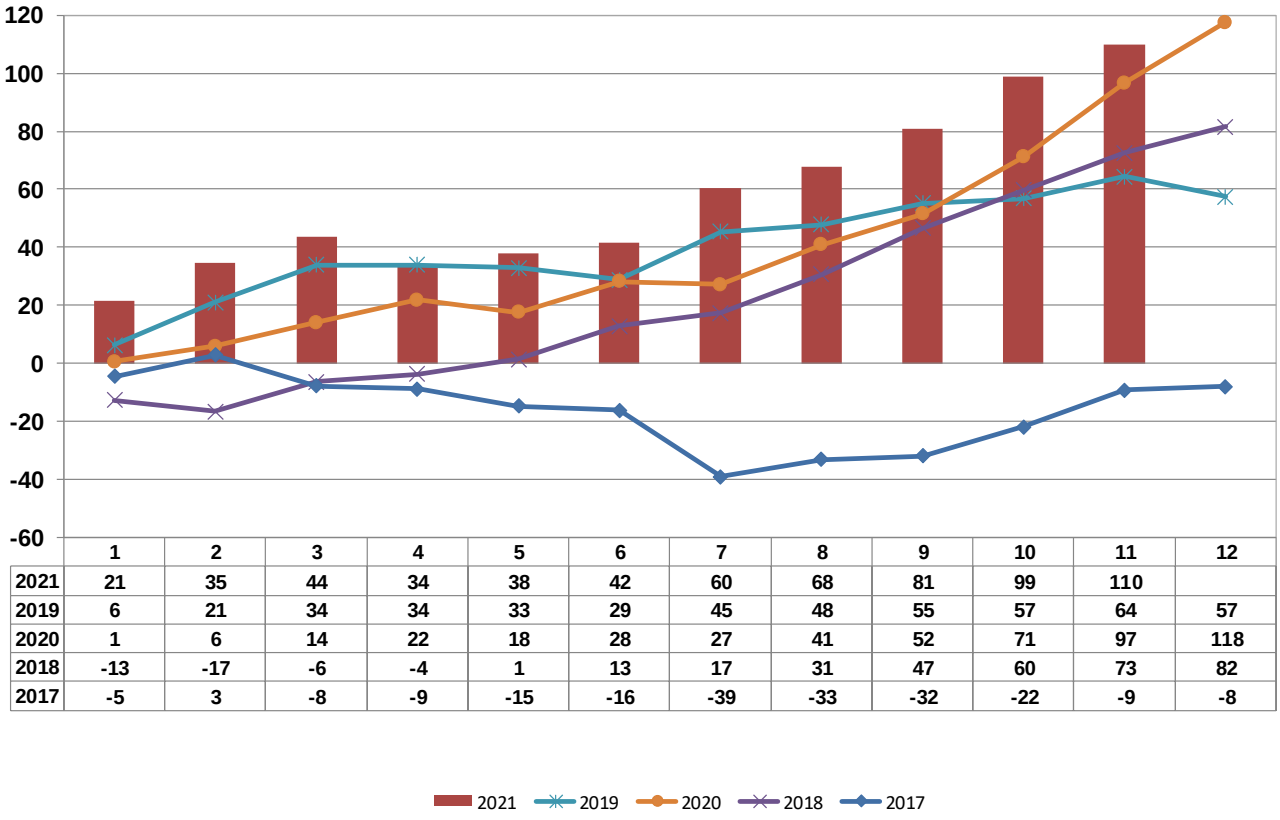
Figure 4 **Monthly cumulative dairy exports (Mil. L.), milk equivalent basis**

Source: Agri Inspec

1.4 Net exports (Inclusive of sales to BLNE countries)

The SA dairy industry regained its status as a net exporter of dairy products in 2018, maintained that status in 2019, 2020 and for the first eleven months in 2021. Cumulative net exports (total exports plus sales to BLNE countries less total imports) on a milk equivalent basis are shown in Figure 5 below.

Mil. L. ME



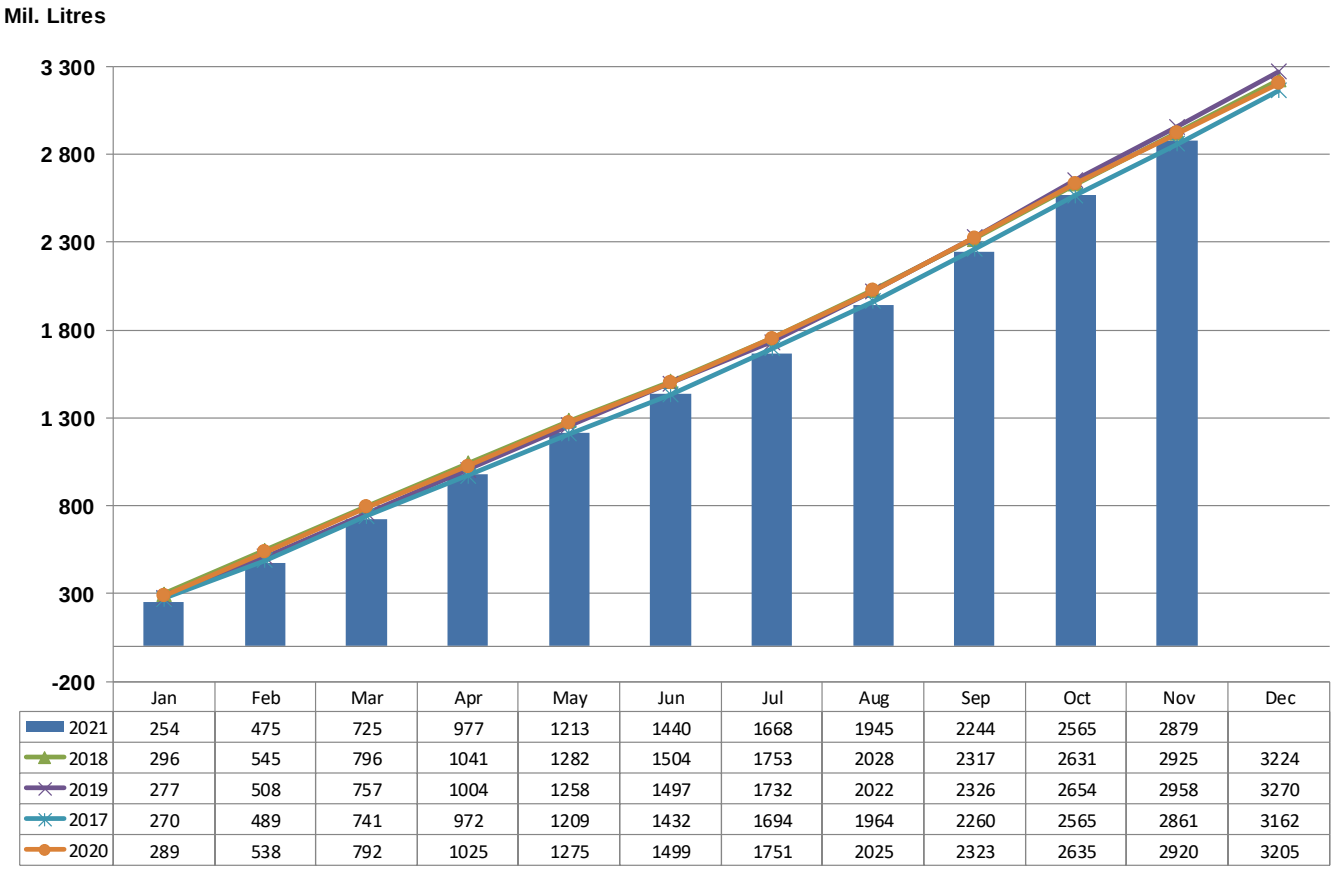
	1	2	3	4	5	6	7	8	9	10	11	12
2021	21	35	44	34	38	42	60	68	81	99	110	
2019	6	21	34	34	33	29	45	48	55	57	64	57
2020	1	6	14	22	18	28	27	41	52	71	97	118
2018	-13	-17	-6	-4	1	13	17	31	47	60	73	82
2017	-5	3	-8	-9	-15	-16	-39	-33	-32	-22	-9	-8

Figure 5 Cumulative net exports, milk equivalent basis (Mil. L.)

Source: Agri Inspec

1.5 Total milk supply

The total cumulative monthly supply of milk, consisting of locally produced milk less net exports (total exports inclusive of sales to BLNE countries less total imports) is reflected in Figure 6. The total cumulative supply of milk (milk equivalents) for the first eleven months of 2021 is 1,4% less than in 2020. Imports started to accelerate in August 2021 and the production of unprocessed milk moved into positive growth territory during October and November 2021, resulting in total milk supply approaching the same levels as in 2020.



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2021	254	475	725	977	1213	1440	1668	1945	2244	2565	2879	
2018	296	545	796	1041	1282	1504	1753	2028	2317	2631	2925	3224
2019	277	508	757	1004	1258	1497	1732	2022	2326	2654	2958	3270
2017	270	489	741	972	1209	1432	1694	1964	2260	2565	2861	3162
2020	289	538	792	1025	1275	1499	1751	2025	2323	2635	2920	3205

Figure 6 Total Cumulative monthly milk supply

Source: MPO calculation

1.6 Milk demand

Table 1 contains information regarding the change in retail sales quantities for specific dairy products. Changes in the retail price of dairy products impact sales quantities.

In the year that ended in September 2021, the retail sales quantities of eight of the nine dairy products were from 0,7 and 7,4 percent lower than in the year which ended in September 2020, while the retail sales quantity of one dairy product, namely pre-packaged cheese, was 0,1 percent higher.

Comparing 2021 sales quantities to 2020 sales need to be interpreted while taking cognisance of the distortion that occurred due to the hard lockdown and various further stages of lockdowns due to the pandemic.

TABLE 1: PERCENTAGE CHANGE IN RETAIL SALES QUANTITIES FOR SPECIFIC DAIRY PRODUCTS

PRODUCT	Sales in the month of September 2021 versus the sales in the month of September 2020	Sales in the 3 months from July 2021 to September 2021 versus the sales in the 3 months from July 2020 to September 2020	Sales in the 6 months from April 2021 to September 2021 versus the sales in the 6 months from April 2020 to September 2020	Sales in the 9 months from January 2021 to September 2021 versus the sales in the 9 months from January 2020 to September 2020	Sales in the 12 months from August 2020 to September 2021 versus the sales in the 12 months from August 2019 to September 2020
	percent		percent		percent
Fresh Milk	-7.2	-7.7	-5.9	-6.7	-7.4
UHT milk	-5.4	0.4	-7.7	-7.1	-5.2
Flavoured milk	1.2	2.0	4.1	2.8	-1.2
Yoghurt	-10.0	-11.4	-9.7	-6.5	-3.1
Maas	-4.9	-8.0	-7.7	-6.1	-3.7
Pre-packaged cheese	1.0	-1.3	-3.9	-2.9	0.1
Cream cheese	-3.1	-5.3	-9.4	-6.5	-5.0
Butter	5.2	-2.0	-9.7	-4.2	-2.8
Cream	-6.2	-5.8	-9.7	-3.6	-0.7

Source: Nielsen supplied by Sampro

Table 2 contains information regarding the changes in the average retail prices of specific dairy products.

The average retail prices of all 9 products were higher in September 2021 than in September 2020. The retail prices of 6 of the 8 dairy products of which the prices increased, increased with more than the inflation rate of 5,0 percent. Fresh milk, flavoured milk and cream cheese prices increased aggressively.

TABLE 2: CHANGES IN THE AVERAGE RETAIL PRICES OF SPECIFIC DAIRY PRODUCTS

PRODUCT	September 2021 versus August 2021 (1 month ago)	September 2021 versus July 2021 (3 months ago)	September 2021 versus April 2021 (6 months ago)	September 2021 versus January 2021 (9 months ago)	September 2021 versus September 2020 (12 months ago)	September 2021 versus April 2020 (18 months ago)	September 2021 versus September 2019 (24 months ago)
	Percent	Percent	Percent	Percent	Percent	Percent	Percent
FRESH MILK	0.4	1.1	3.6	6.6	8.1	8.4	10.6
UHT MILK	0.3	-0.6	3.9	4.1	3.8	8.7	8.3
FLAVOURED MILK	2.4	1.0	10.5	8.5	10.1	12.5	11.4
YOGHURT	-1.7	0.7	4.0	8.1	7.5	8.4	11.4
MAAS	-2.4	-1.0	0.5	4.5	5.4	3.3	7.0
PRE-PACKAGED CHEESE	-3.0	1.0	3.8	2.9	5.2	7.5	9.8
CREAM CHEESE	-1.7	-0.5	1.1	4.9	8.9	13.8	18.4
BUTTER	-4.7	-1.9	0.8	-2.5	-1.3	-2.3	6.8
CREAM	-1.0	0.5	3.3	1.6	4.4	4.6	6.9

Source: Nielsen figures supplied by SAMPRO

1.7 Producer prices

Producer prices are indicated in Figure 7. The graph is calculated by the MPO based on information supplied by members and other role players, **and is a national average.** Over the first eleven months of 2021, the producer price of unprocessed milk is on average, 12% higher than it was over the same period in 2020, and 28% higher compared to 2019. Compared to the same period in 2019, the cost of feed meal (yellow maize and soya combination) increased with 36%, more than neutralising the better farmer price with one stroke. Other inputs such as electricity increased with 17%, basic iron and steel with 40% and basic and other chemicals with 51% over the period from November 2020 to November 2021. The end-result and repercussions are crystal-clear.

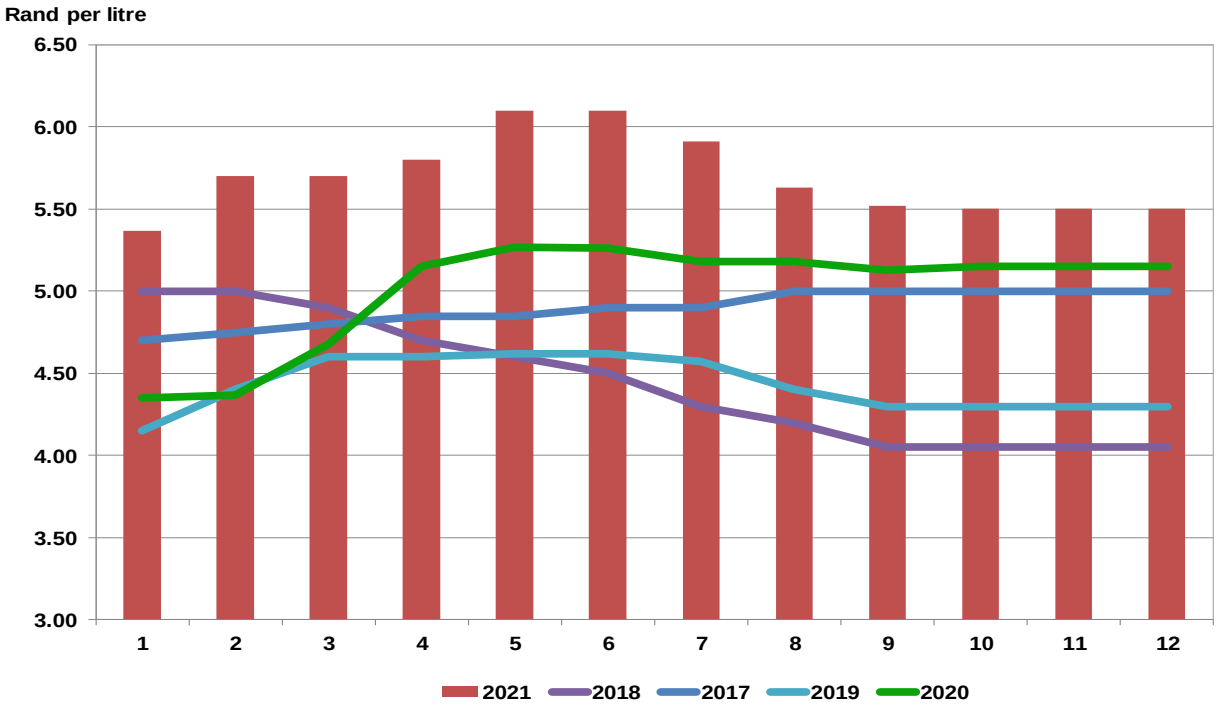


Figure 7 Monthly milk producer prices, 2017-2021

Source: October, November and December 2021, preliminary, MPO calculations

1.8 Retail prices

Retail prices of fresh milk in different packaging are supplied by the South African National Consumer Union (SANCU). The retail prices of fresh milk per litre for milk packaged in 2-litre plastic containers are compared to producer prices in Figure 8. The farm to retail price spread is too wide and exhibiting a divergent trend. The MPO is focusing on the negative implication of this trend for dairy farmers and consumers and are alerting various institutions in this regard.

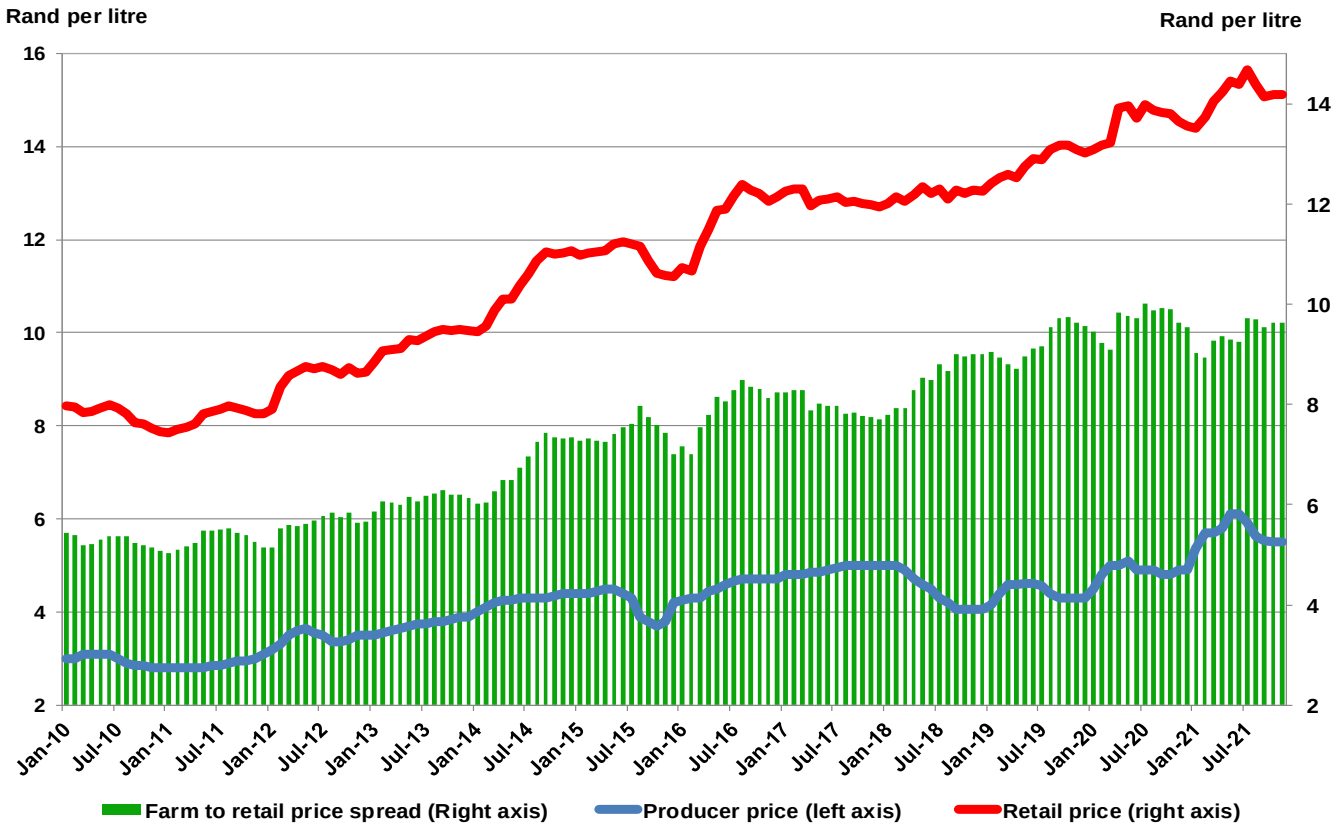


Figure 8 Monthly producer and retail prices, 2010 - 2021

Source: MPO, SANCU

1.9 Concentrate feed price

Feed cost is the most important cost item for milk producers. Internationally, the price of maize and soybeans is used as a proxy for feed prices. A derived feed price is, therefore, defined as the weighted price per kilogram of maize and soybeans (70% maize, 30% soybeans). Feed prices, based on Safex nearest month prices, are reflected in Figure 9. Farmers' production decisions are not based on absolute prices, but on relative prices. If the producer price of unprocessed milk decrease in relation to feed prices, farmers will tend to produce less, and if prices increase relative to feed prices, production will increase. Unfavourable milk: feed price ratios will result in slower production growth or lower production over time.

The upward trend in feed cost is clearly visible since January 2018 and continued into 2021. The average feed cost price for 2021 is 36% higher than the same period in 2019 and 13% higher compared to the same period in 2020.

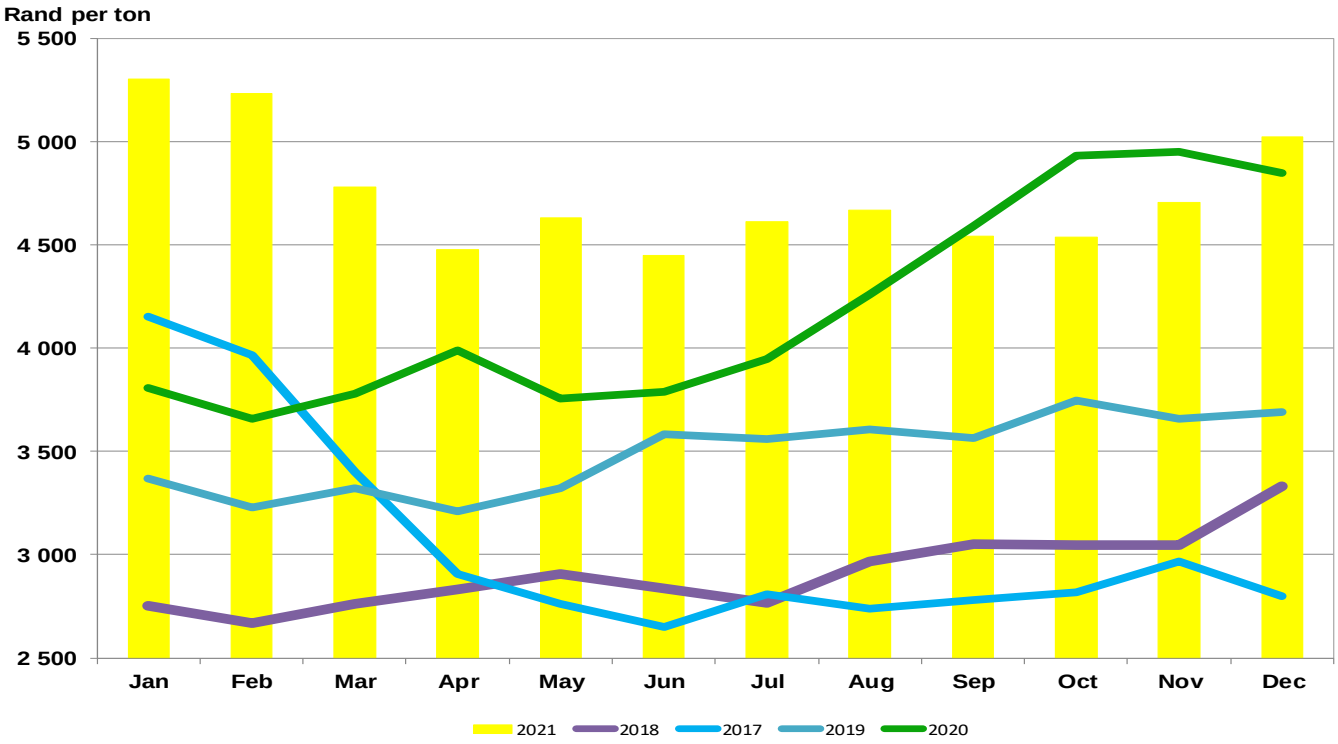
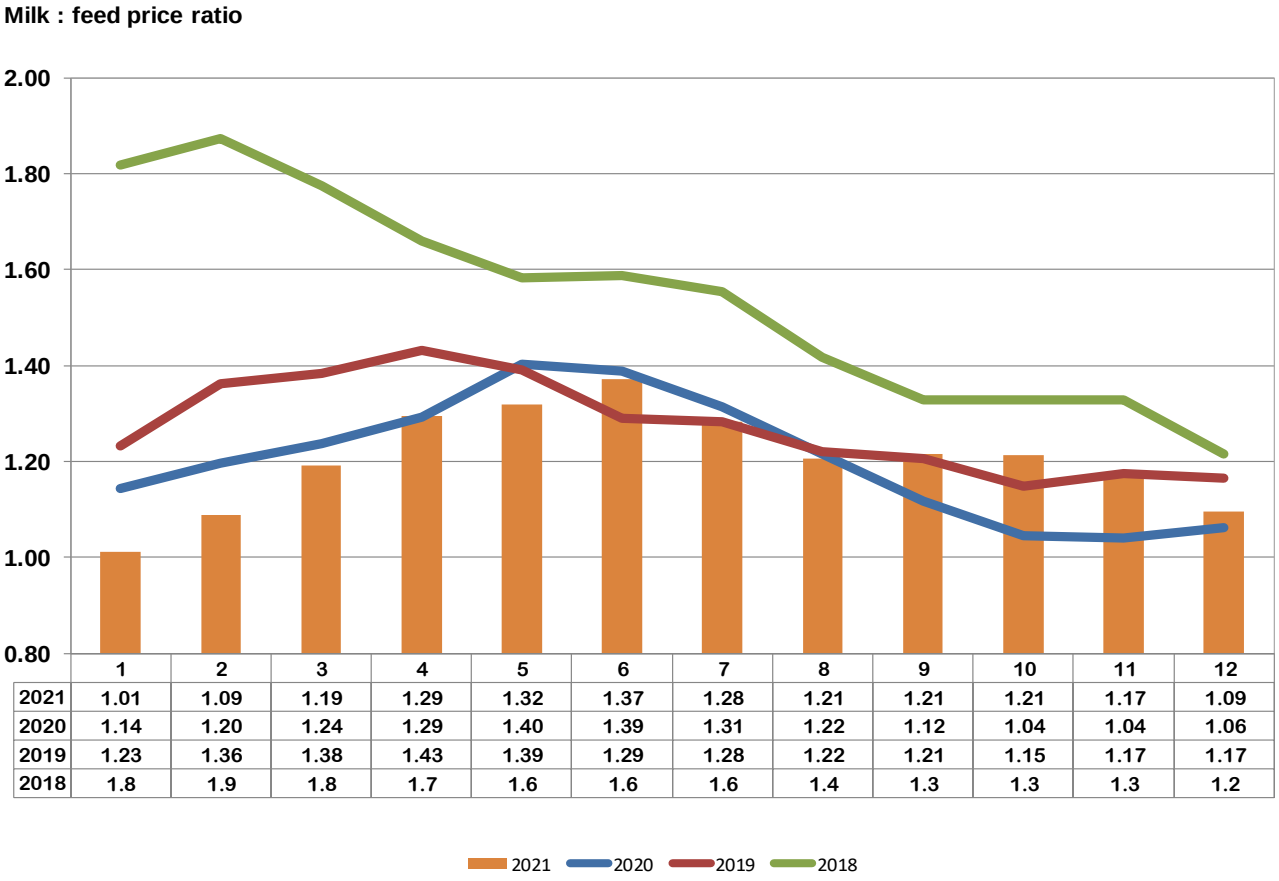


Figure 9 Calculated dairy concentrate feed prices, 2017-2021 *Source: Safex nearest month data*

The milk: concentrate feed price ratio is illustrated in Figure 10. The ratio is dangerously low since August 2020. The ratio improved somewhat in April 2021, but has slipped back to the 1.2:1 territory from August 2021 to November 2021 and in December to 1,09:1. At these levels many dairy farmers produce at a loss. The ratio started moving into negative territory in September 2018, with short periods of a month or two during the total period ending December 2021, where the ratio improved to breakeven levels. For the bulk of this period, the ratio did not support increased unprocessed milk production, indicative of losses being made at farmer level. This period eroded most dairy farmers' fodder banks, credit facilities and introduced a period where replacement heifers and other maintenance activities were starved off regarding capacity and funds. The current milk to feed ratio will force dairy farmers to reduce cost resulting in lower unprocessed milk production.

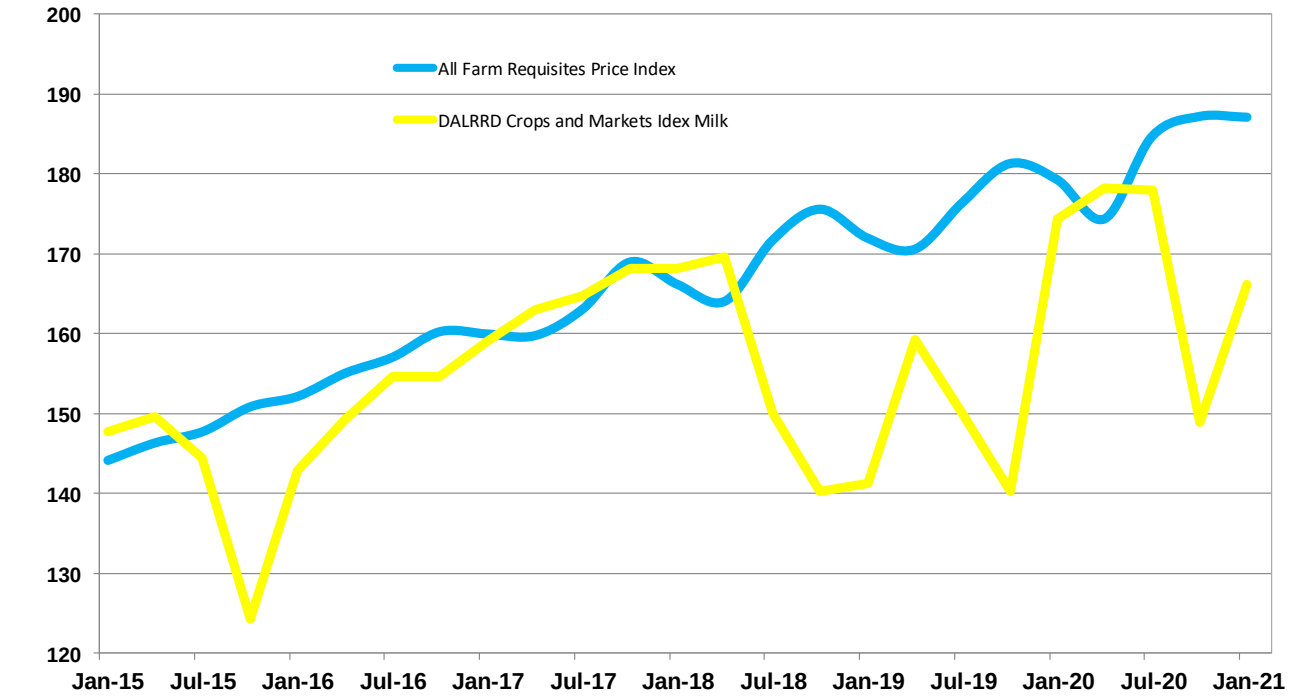


	1	2	3	4	5	6	7	8	9	10	11	12
2021	1.01	1.09	1.19	1.29	1.32	1.37	1.28	1.21	1.21	1.21	1.17	1.09
2020	1.14	1.20	1.24	1.29	1.40	1.39	1.31	1.22	1.12	1.04	1.04	1.06
2019	1.23	1.36	1.38	1.43	1.39	1.29	1.28	1.22	1.21	1.15	1.17	1.17
2018	1.8	1.9	1.8	1.7	1.6	1.6	1.6	1.4	1.3	1.3	1.3	1.2

Figure 10 Milk: concentrate feed price ratio, 2018-2021 (*Source: MPO calculations; October, November and December 2021 preliminary)*

1.10 Input prices

The Department of Agriculture, Land Reform and Rural Development (DALRRD) publishes price indexes for farm requisites on a quarterly basis. As with all indexes, this index simplifies a very complex data-set to a level that does not correspond to individual farm data-sets. However, the trend in this index gives an indication of the direction of input price changes. **The interaction between the cost index and the milk price explains the cost price squeeze experienced at farmer level.**



Source: DALRRD, Crops and Markets

Figure 11 Quarterly Farm Requisites Price Index and Producer Price Index Jan 2015 – January 2021.

1.11 International prices

The FAO Food Price Index (FFPI) averaged 133.7 points in December 2021, down 1.2 points (0.9 percent) from November, but still up 25.1 points (23.1 percent) from December 2020. Except for dairy, the values of all sub-indices encompassed by the FFPI registered monthly declines, with international prices of vegetable oils and sugar falling significantly month-on-month. For 2021 as whole, the FFPI averaged 125.7 points, as much as 27.6 points (28.1 percent) above the previous year with all sub-indices averaging sharply higher than in the previous year.

The FAO Dairy Price Index averaged 128.2 points in December, up 2.3 points (1.8 percent) from November and 19.0 points (17.4 percent) above its December 2020 value. In December, international quotations for butter and milk powders continued to increase, underpinned by high global import demand, coupled with tight export supplies, resulting from lower milk production in Western Europe and Oceania. Despite the low milk output, cheese production in Western Europe increased as producers preferred cheese over alternative dairy products, causing a marginal decline in cheese prices. In 2021, the FAO Dairy Price Index averaged 119.0 points, up 17.2 points (16.9 percent) from 2020, reflecting sustained import demand throughout the year, especially from Asia, and tight export availability from the leading producing regions.

The FAO Cereal Price Index averaged 140.5 points in December, down 0.9 points (0.6 percent) from November. Maize prices were firmer, underpinned by strong demand and concerns over persistent dryness in Brazil. For 2021 as a whole, the FAO Cereal Price Index averaged 131.2 points, up 28.0 points (27.2 percent) from 2020 and the highest annual average registered since 2012. In 2021, maize and wheat prices were 44.1 and 31.3 percent higher than their respective 2020 averages, mostly on strong demand and tighter supplies, especially among major wheat exporters. Rice was the sole major cereal to register a decline in prices in 2021, with quotations falling on average 4.0 percent below 2020 levels.

The FAO Meat Price Index averaged 111.3 points in December, marginally changed from November and 16.5 points (17.4 percent) above its year-earlier value. In 2021, the FAO Meat Price Index averaged 107.6 points, up 12.1 points (12.7 percent) from 2020. Across the different categories, ovine meat registered the sharpest increase in prices, followed by bovine and poultry meats, while pig meat prices fell marginally.

The FAO Sugar Price Index averaged 116.4 points in December, down 3.8 points (3.1 percent) from November and a five-month low. The December decline reflected concerns over the impact of the Omicron COVID-19 variant on global demand for sugar following the resumption of containment measures in many regions. For the year as a whole, the FAO Sugar Price Index averaged 109.3 points, up 29.8 points (or 37.5 percent) from 2020 and the highest since 2016. Throughout the year, concerns over the reduced output in Brazil amidst stronger global demand for sugar underpinned the increase in prices.

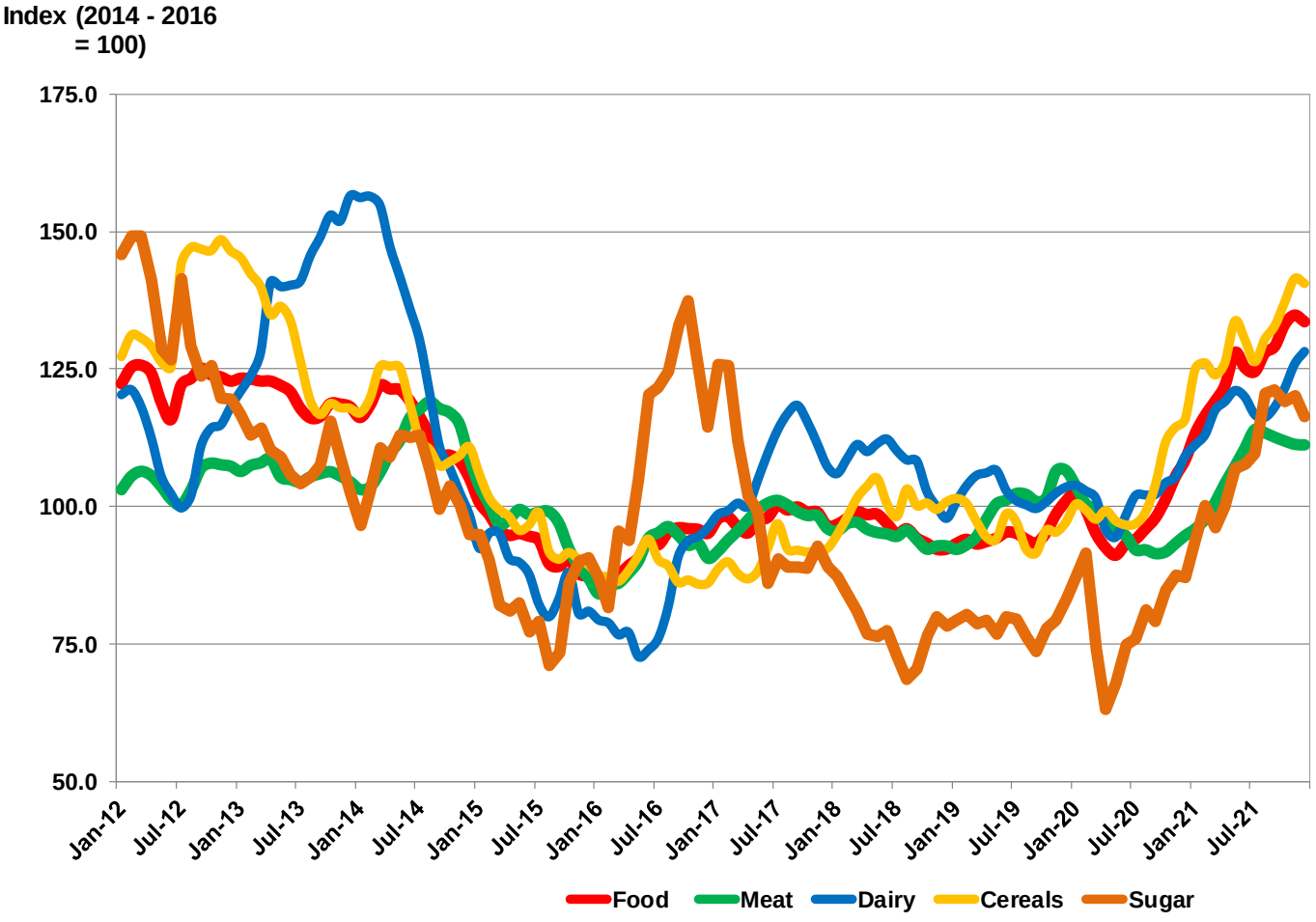


Figure 12 Monthly FAO food price indexes

Source: FAO food price index

The Global Dairy Trade platform is an online auction through which large volumes of dairy products can be sold or bought. There are two trading events per month where people across the globe can enter bids or offers.

Figure 13 shows the movement of the Global Dairy Trade (GDT) price index inclusive of December 2021. At the initial stages of the worldwide pandemic, the index zig-zagged with the index showing indication of a change in the wavelength and frequency regarding price movement, starting early in 2020. This usually indicates nervousness in the market when unknown variables are introduced which could relate to the influence of the worldwide pandemic. Both December 2020 and January 2021 registered strong upward momentum. A double break occurred in March 2021. **The 1 100 and 1 200 index resistance levels were sliced through, showing strong demand with limited supply.** The April index moved sideways, May retreated to below the 1 300 index level and the June through August trend remained downward. It seems that global manufacturing and shipping time lost during the hard lockdown in 2020 has been partially made good with better supply and distribution causing the prices to reduce. However, the September index bounced back from 1168 points in August 2021 to 1223 points in September 2021. The upward trend continued until December 2021, breaking the 1 300 resistance level once again at 1 344 points. The one available reading in January 2022 is slightly down, but still well into the 1 300 index level.

Figure 13 Global dairy trade-weighted price index

Source: Global dairy trade

Figure 14 shows international Free On Board (FOB) prices for milk powders, butter, and Cheddar cheese as reported by the United States Department of Agriculture (USDA) converted to Rand/tonne inclusive of December 2021. International dairy product prices (US$) achieved good growth in the last six months of 2021 and even more aggressive growth in ZAR terms and is supporting higher farmer prices. Three of the four dairy products are at the highest levels seen over the past 10 years with the remaining product cheddar at the second highest level. Over the last six months of 2021, the ZAR depreciated with nine percent against the US$ and with the increased dollar prices of dairy products, the combined effect fuelled dairy product prices in ZAR terms to all-time highs: butter up 40%, SMP up 36%, Cheddar increased with 35% and FMP with 10%.

Three of the major dairy products traded internationally achieved good price growth in terms of US$ prices in the last six months of 2021. Butter increased with 29%, skimmed milk powder (SMP) up by 25% and Cheddar up by 24%. Full cream milk powder (FMP) essentially moved sideways. The main driver of the higher prices is limited export availability.

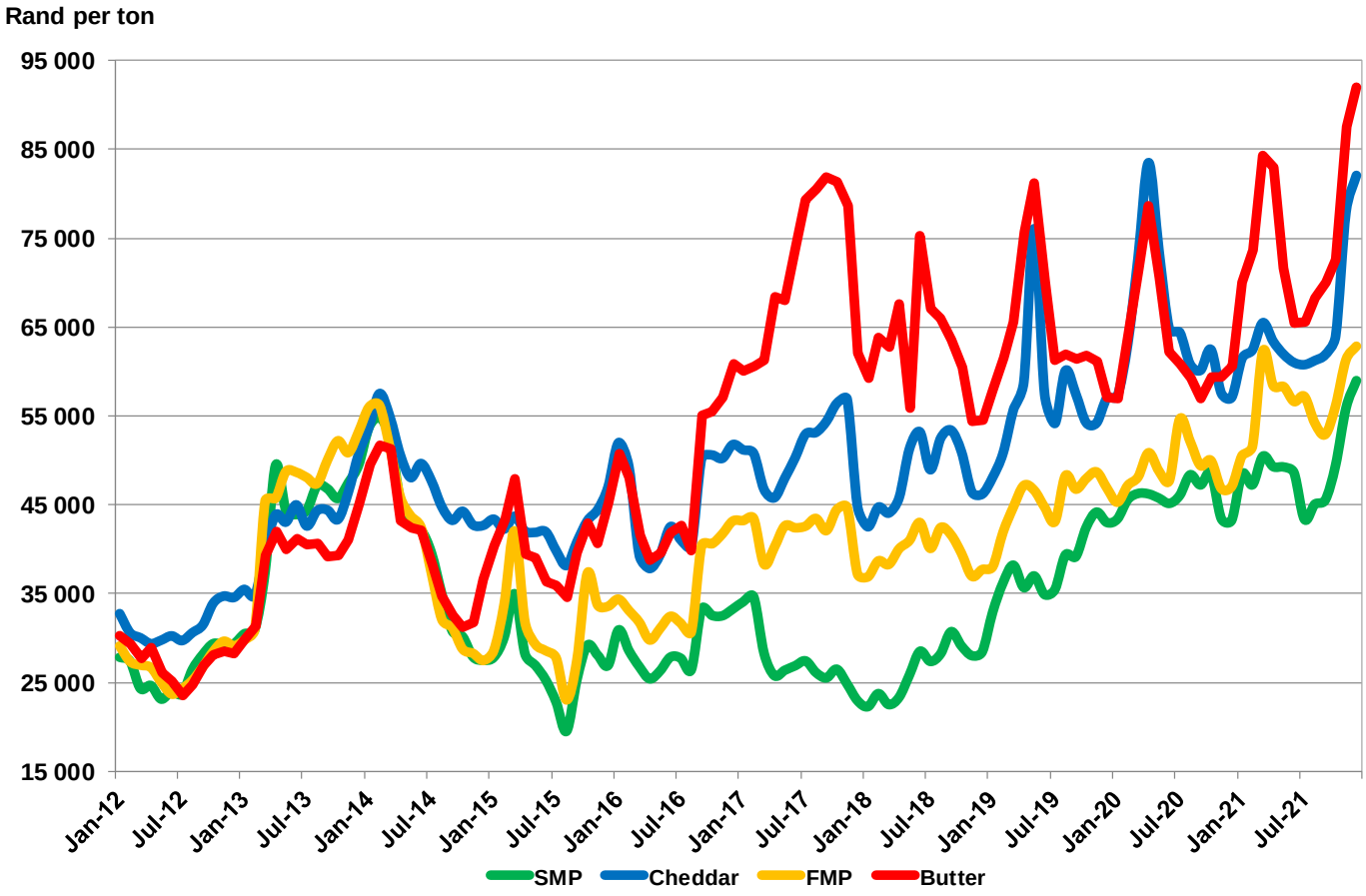


Figure 14 International dairy product prices (Rand/ton)

Source: USDA, SA Reserve Bank

1.12 Import parity and producer prices

The MPO's benchmark import parity is based on the published USDA FOB prices, SA Rand/$ exchange rates, standard import tariffs and import and production cost as supplied by industry sources. The calculation methodology is standardised and while import parity may differ for a specific importer, based on a specific import mix and individual cost structure, the trend indicated by the import parity index is applicable to all importers. The aggressive upward move of import parity since July 2021 is on the back of solid international dairy product prices and the depreciation of the ZAR. Although producer prices did not follow this trend, huge upward mobility is building up in the primary dairy value chain.

Import parity and producer prices are reflected in Figure 15.

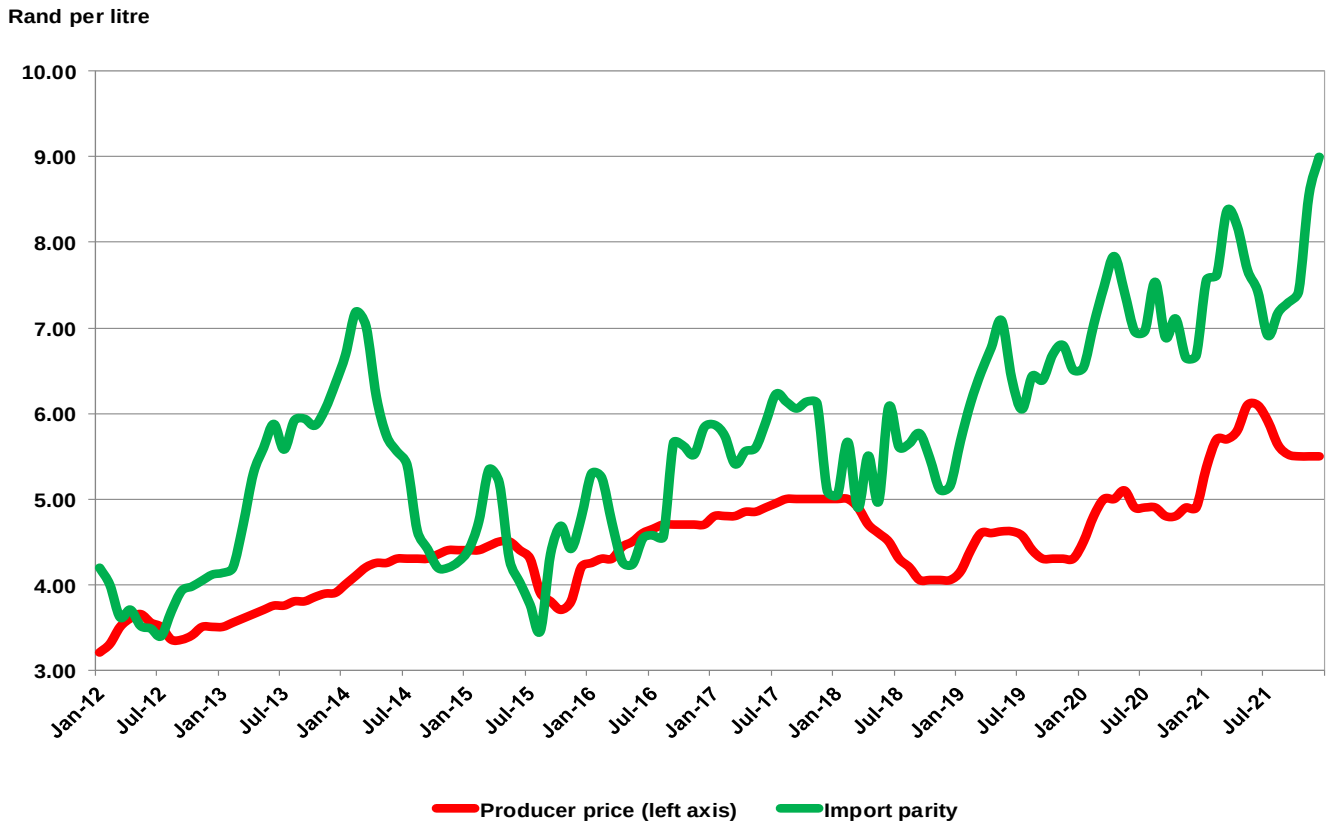


Figure 15 Monthly producer and import parity prices

Source: MPO calculations

Import parity and producer prices
Import parity at or below average producer prices implies that processors can import dairy products at current international prices at a lower price per litre than they have to pay local producers. An importing processor will still have to service the fixed cost on infrastructure and an importing retailer has to pay for packaging and manage returns.

2. Changes in cumulative unprocessed milk production in the major dairy exporting countries

Changes (%) in cumulative unprocessed milk production in the major dairy exporting countries and South Africa 2016 – 2021.

	2016	2017	2018	2019	2020	2021*
USA	**1.6**	**1.7**	**1.1**	**0.3**	**2.2**	**1.7**
EU27	**0.2**	**2.1**	**1.4**	**0.4**	**1.6**	**-0.2**
AUS	**-6.9**	**0**	**0.9**	**-7.3**	**2.8**	**2.0**
NZ	**-2.0**	**1.7**	**1.3**	**-0.8**	**0.4**	**1.2**
URU	**-10.4**	**7.6**	**5.7**	**-4.0**	**5.4**	**2.5**
ARG	**-14.4**	**-1.6**	**6.4**	**-2.3**	**7.4**	**4.0**
ZA	**-0.5**	**3.0**	**5.0**	**0.7**	**-0.16**	**-0.92**

(Source: CLAL and Milk SA) *(2021 first ten months; SA first 11months)

Milk production in 2021 at farm level for the major dairy exporting countries is mostly exhibiting slower growth over the first ten months of 2021 compared to 2020. All but one country (New Zealand) is growing at significantly lower levels.

3. Economic overview

3.1 International economic outlook

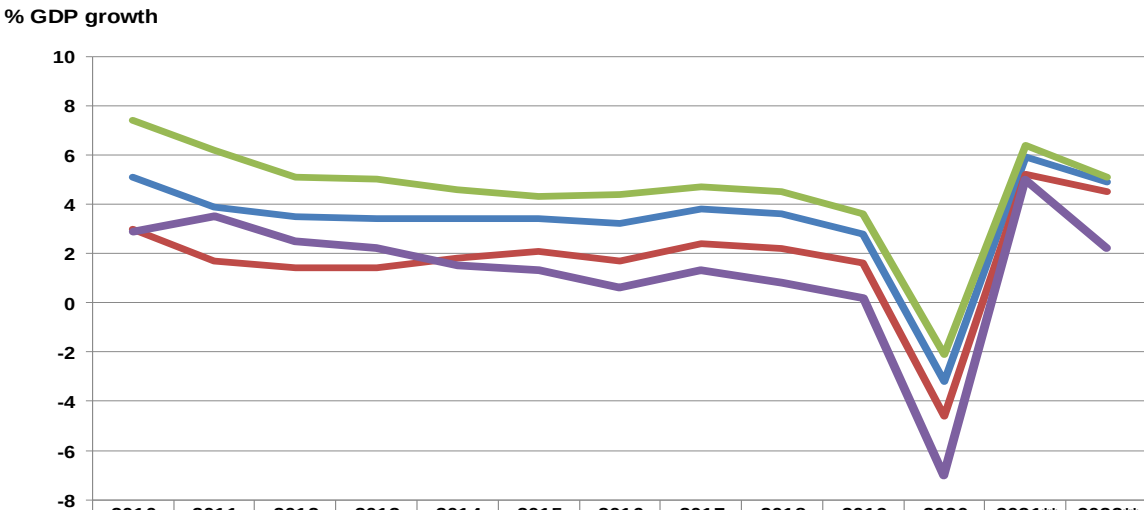
The following financial indicators in the United States set the scene for the enormity of the uncertainties that are currently plaquing economic and price projections of commodities and therefore planning. The headline inflation rate in the US in January 2021 was 1,2% and at the end of December 2021 it reached 7%, a 39 year high. The rate at which inflation increased, outstripping any previous period. The prime lending rate in the US is 3,75% and the saving rates are close to zero. This real negative interest environment will encourage people to spend since there is no point in saving and at the same time it will fuel buying activity before goods get more expensive.

The current mismatch between supply and demand stems from consumers experiencing the above economic reality and coming out of months of isolation or reduced movement, which lead to the increase in spending while supply chain problems persist – some linked to the high energy prices and lower availability of energy (gas). Four rate hikes is expected by the Federal Reserve Bank of the US during 2022 to normalise the current interest rate/inflation environment.

The complexity of the current uncertainties is best described by the following statistics. In nominal gross domestic product (GDP) terms, the US is the biggest economy in the world (21 428 billion dollars), China second (14 343 billion dollars) and the American housewives (12 400 billion dollars) the third largest economy. Japan coming in at 5 081 billion dollars. **How will real positive interest rates in the US effect world demand?** *High uncertainty and volatility are present in markets.*

The global economic recovery is continuing but fault lines opened up by COVID-19 are looking more persistent. Vaccine access and early policy support are the principal drivers of the gaps. Policy choices have become more difficult, confronting multidimensional challenges—subdued

employment growth, rising inflation, food insecurity, the setback to human capital accumulation, and climate change—leaves limited room to manoeuvre. In most cases, rising inflation reflects pandemic-related supply-demand mismatches and higher commodity prices compared to their low base from a year ago. Inflation risks are skewed to the upside. Overall, the balance of risks for growth is tilted to the downside.



	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021**	2022**
World	5.1	3.9	3.5	3.4	3.4	3.4	3.2	3.8	3.6	2.8	-3.2	5.9	4.9
Advanced economies	3	1.7	1.4	1.4	1.8	2.1	1.7	2.4	2.2	1.6	-4.6	5.2	4.5
Developing economies	7.4	6.2	5.1	5	4.6	4.3	4.4	4.7	4.5	3.6	-2.1	6.4	5.1
South Africa	2.9	3.5	2.5	2.2	1.5	1.3	0.6	1.3	0.8	0.2	-7	5	2.2

Figure 16 International economic growth and estimated growth

** Projection

Source: IMF WEO Oct 2021

3.2 South African economy

3.2.1 Economic activity and growth

Indicators of economic activity are provided by the SA Reserve Bank in the form of a co-incident, leading and lagging indicator. The monthly movement of the leading and co-incident indicator of economic activity is reflected in Figure 17. Both composite indicators support the hypothesis of a V-shape economic recovery for the South African economy. Both indicators trended north from May 2020. In June 2021 the co-incident indicator moved sideways indicating reduced economic activity, in tandem with what the June 2021 leading indicator, projected lower economic activity. In July 2021 through to October 2021, the leading indicator continued south, indicating reduced future economic activity.

Indicators of economic activity
The co-incident indicator of economic activity shows whether the economy is in an upwards or downwards phase of the business cycle. The leading indicator shows possible changes in economic activity in future.

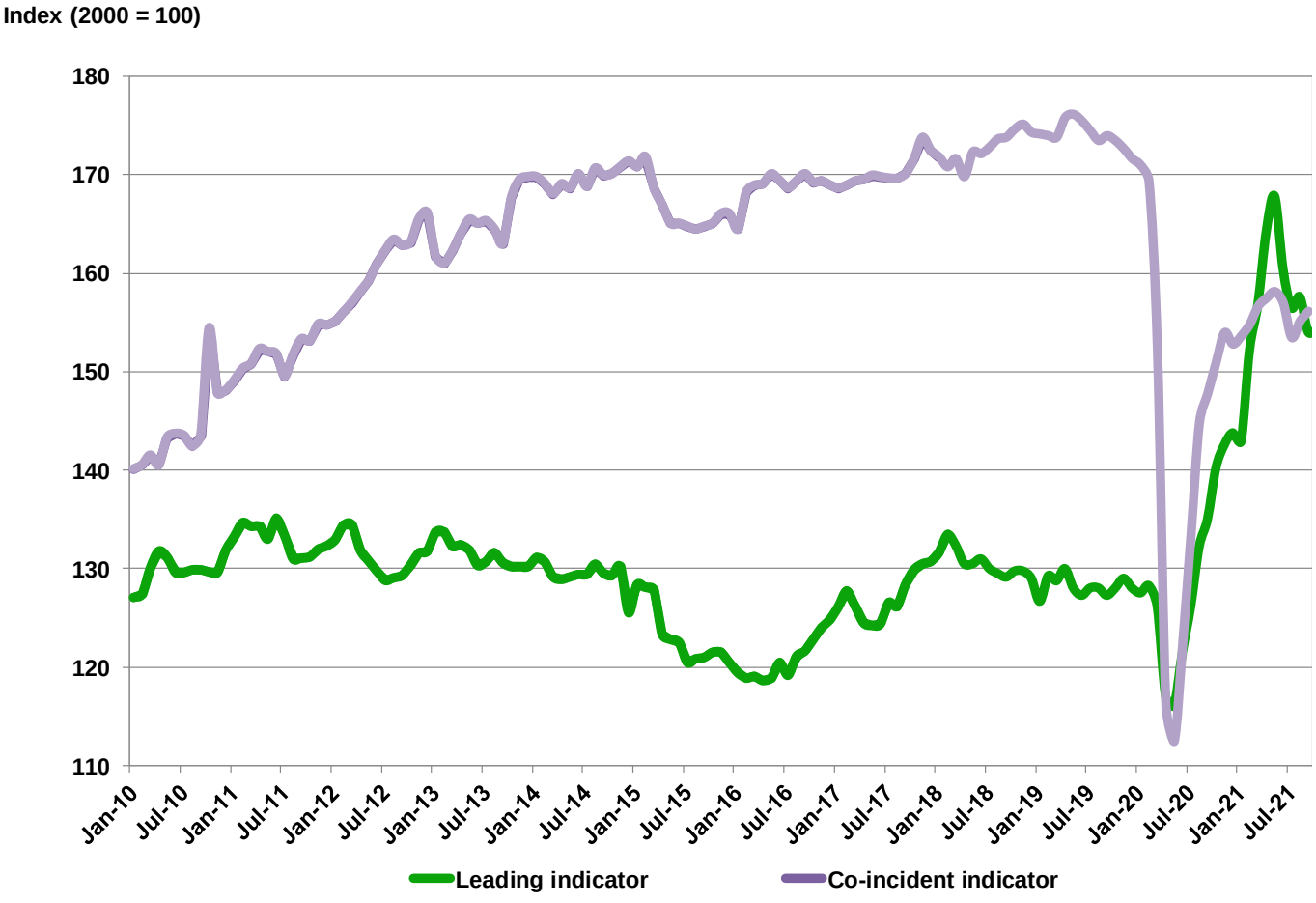


Figure 17 **Leading and co-incident indicator of economic activity** (*Source: SARB)*

Figure 18 shows the quarterly growth rate of the SA gross domestic product. The South African economy in 2020 expanded with 0.1% in the first quarter, then it contracted with 17,4% in the second quarter, expanded with 13,9% in the third quarter of 2020 and expanded with 2.5% in the last quarter of 2020. **The SA economy registered a growth rate of minus 6,4 for the full year of 2020, which is the lowest over the past 62 years.** In the first quarter of 2021, the economy expanded by 1,0%, the second quarter by 1,2% but contracted in the third quarter with 1,5%.

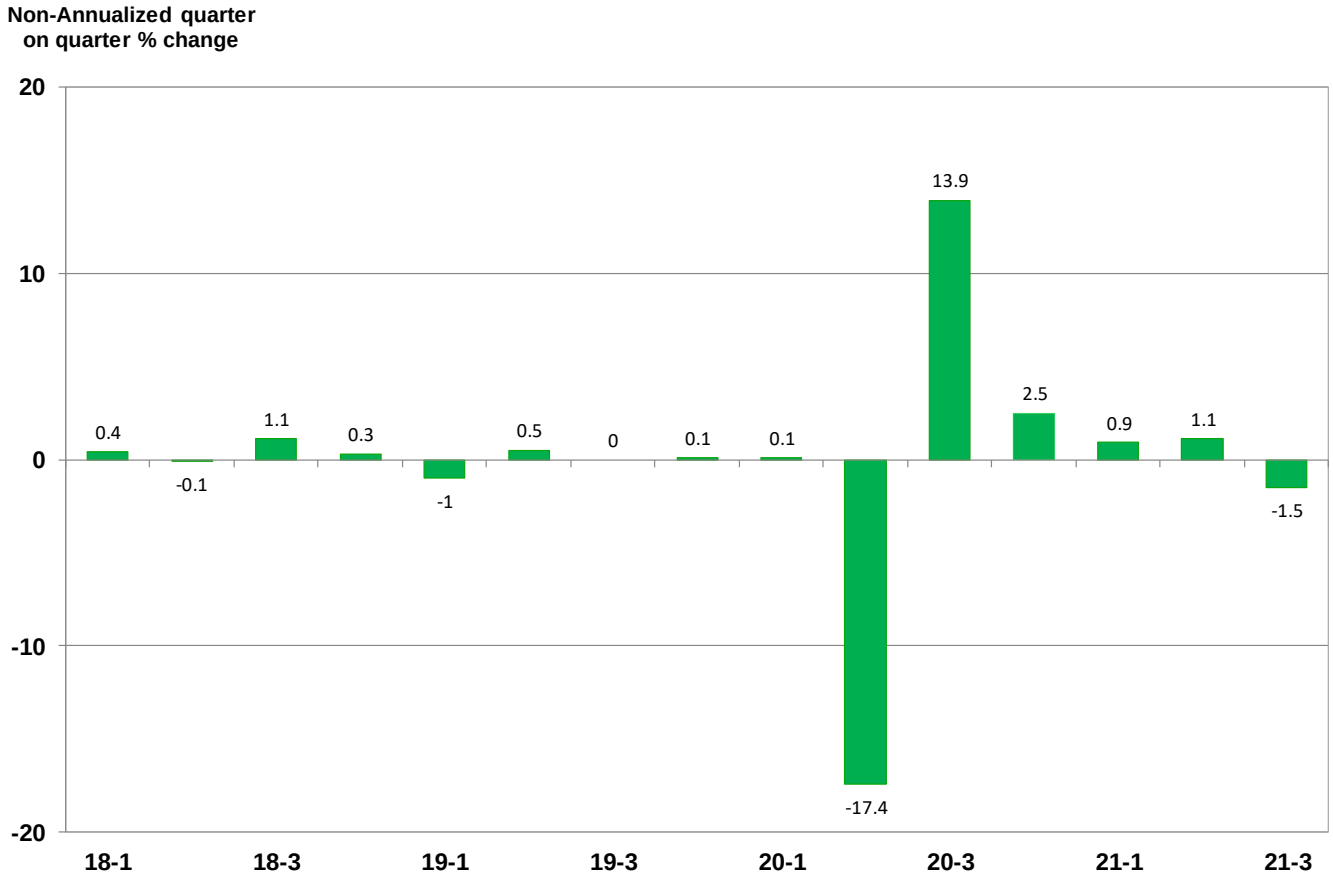


Figure 18 Quarterly change in real gross domestic product

Source: Stats SA

3.2.2 Household debt and income

Household debt increased in the third quarter of 2020 following an unprecedented decline in the second quarter. However, household debt as a percentage of nominal disposable income decreased from 86,5% in the second quarter of 2020 to 75,7% in the third quarter, as the increase in household disposable income exceeded the increase in debt, a result of the COVID-19 restrictions.

3.2.3 Inflation

The consumer price index and monthly inflation rate are reflected in Figure 19. Annual consumer price inflation was 5,9% in December 2021, up from 5,5% in November 2021. The main contributors were food and non-alcoholic beverages increasing by 5,5% year-on-year, housing and utilities increasing by 4,2% year-on-year and transport increasing by 16,8% year-on-year.

Consumer price index (CPI) and inflation
The CPI is the value of a basket of goods and services at retail price level. The change in the value of this basket compared to the same period a year ago is called the rate of inflation. The Reserve Bank tries to keep the rate of inflation between 3% and 6%.

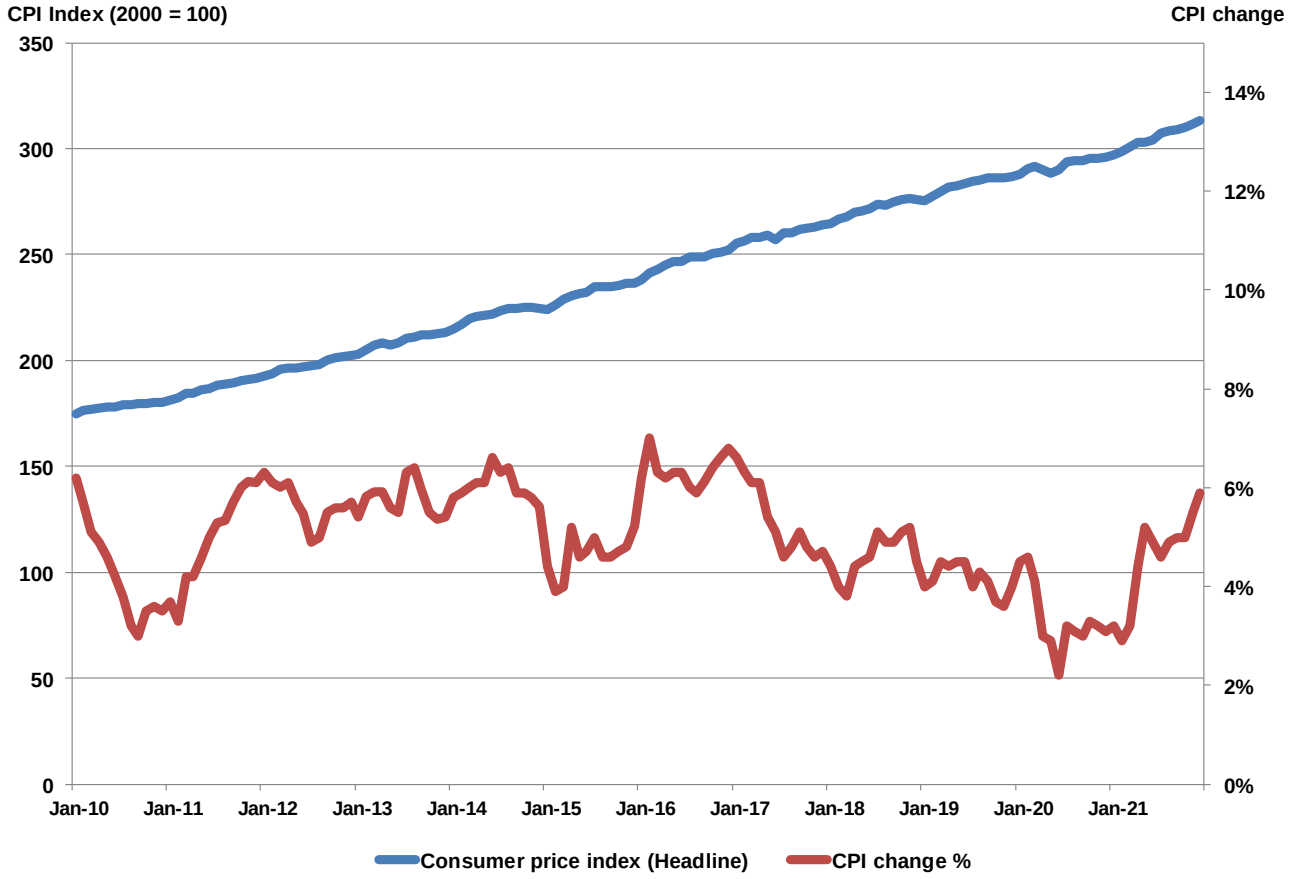


Figure 19 Consumer price index and consumer price inflation, 2010-2021

Source: Stats SA