



# Dairy market trends

AUGUST 2019

## Executive summary

The MPO is concerned about the milk: feed price ratio. The ratio decreased on the back of higher grain prices in June and July. At a ratio of 1.3:1 the production of unprocessed milk will be slowing down. The August 2019 derived feed price is higher than the July 2019 derived feed price and the August 2019 on August 2018 derived feed price is 22% higher. The recent announcements by milk processors of reduced producer prices in August and September will drive the milk: feed price ratio even lower and will negatively impact on unprocessed milk production.

Milk production for July 2019 is estimated at 252-million litres, -0.46% less than in July 2018. The comparative growth percentage for July 2018 was 6.1% and 2.64% for July 2017. Cumulative milk production for 2019 inclusive of July is 1, 768 million litres registering a negative growth of -0.13% if compared over the same period in 2018 the growth was 7.0%.

Although the growth for the first seven months of 2019 seems subdued, it should be viewed against the high production growth experienced in the first seven months of 2018.

If for example the production level of unprocessed milk for the next five months is at the same level as the corresponding months in 2018, we will reach a similar total unprocessed milk production number as in 2018. That will put the average growth over the past two years, 2018 and 2019 at 2.4% per year.

Dairy demand is on a positive trend and this is a good sign for the industry. The trend should be viewed against the backdrop of a struggling SA economy that expanded with less than one percent in 2018, disposable income of consumers being under constant pressure due to increased administered prices such as increased property taxes and the increased cost of electricity. During 2017 and 2018 retailers used price reductions in UHT milk, maas and butter to stimulate market demand and successfully increased demand for these products.

For the time period ending July 2019, the SA dairy industry continued to be a net exporter of dairy products (60 million litres milk equivalent). This is due to reduced imports while exports were maintained at the same levels as previous years. The SA dairy Industry regained its status as a net exporter of dairy products in 2018. Exports in 2018 exceeded imports with 82 million litres. Net exports in 2018 were higher than in 2017 and 2016 and only slightly below the level of 2015.

The total cumulative supply of unprocessed milk in July 2019 if compared over the same period as in 2018 is 2% lower.

Figure 14 shows international prices for milk powders, butter and cheddar cheese as reported by USDA in Rand/ton inclusive of August 2019. The upward trend for dairy product prices since the beginning of 2019 was led by cheese with butter providing further momentum. This trend reversed in June and July with all product prices reducing but maintaining levels higher than in July 2018 with the exception of butter which is lower. In August 2019 prices for all the dairy products increased in both US Dollar and Rand terms. Growth in unprocessed milk production in the major dairy exporting countries is not performing well and that is creating uncertainty in the world market regarding export availability.

Trends in international producer prices of unprocessed milk is a mixed bag. The USA entered a new producer price regime from Jan 2015 onwards. The average price level dropped but started to increase since May 2018. Prices in New Zealand followed a declining trend since April 2017. In recent months the New Zealand producer prices are moving sideways. Prices in Uruguay started to increase since November 2018 and plateaued in June 2019 where after the price moved sideways.

Unprocessed milk production at farm level is down for all the major exporting countries. This provides illumination on the strong increases in international product prices all round for the first 5 months of 2019 and the producer price increases since the end 2018.

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.

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# 1. Milk supply, demand and prices

## 1.1 Milk production

Unprocessed milk production for July 2019 is estimated at 252-million litres, -0.46% less than in July 2018. The comparative growth percentage for July 2018 was 6.1% and 2.64% for July 2017. Cumulative unprocessed milk production for 2019 inclusive of July is 1 768 million litres registering a negative growth of -0.13% if compared over the same period in 2018 the growth was 7.0%.

Although the growth for the first seven months of 2019 seems subdued, it should be viewed against the high production growth experienced in the first seven months of 2018.

If for example the production level of unprocessed milk for the next five months is at the same level as the corresponding months in 2018, we will reach a similar total unprocessed milk production number as in 2018. That will put the average growth for the past two years, 2018 and 2019 at 2.4% per year.

In 2017 the average producer price of milk was R4.90 – moving from R4.70 in January to R5.00 in December. In 2018 the average producer price of milk was R4.45 – moving from R5.00 in January to R4.05 in December. In 2019 the average producer price of milk for the first seven months was R4.50 – moving from R4.15 in January to R4.57 in July.

Monthly milk production is reflected in Figure 1 below.

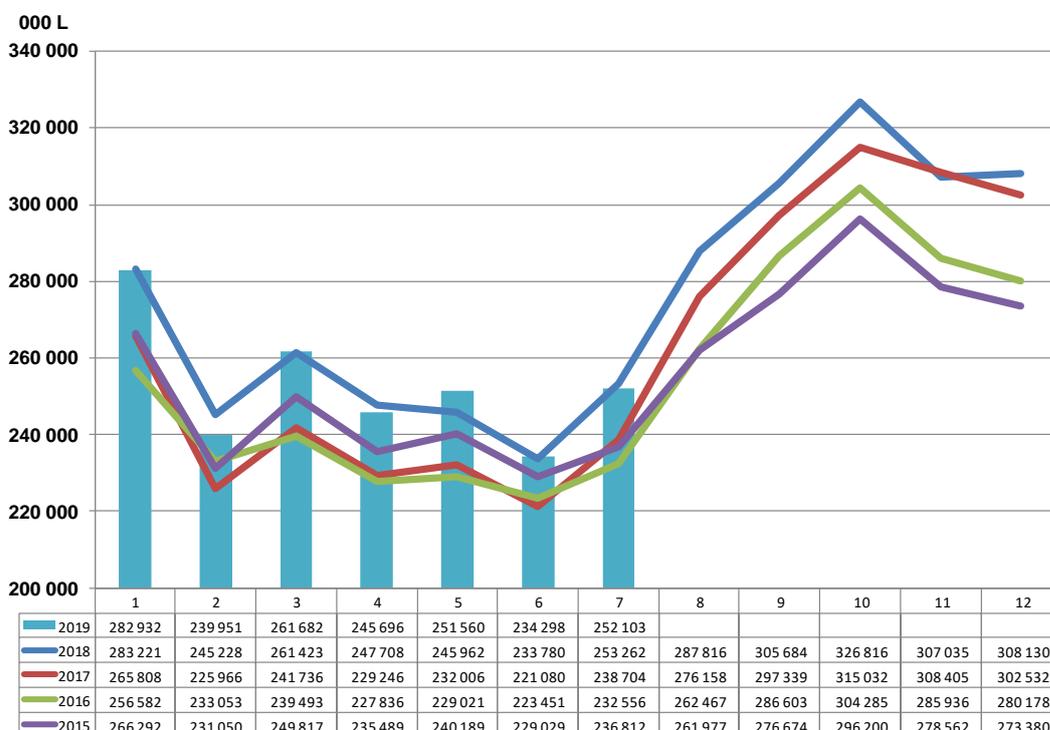
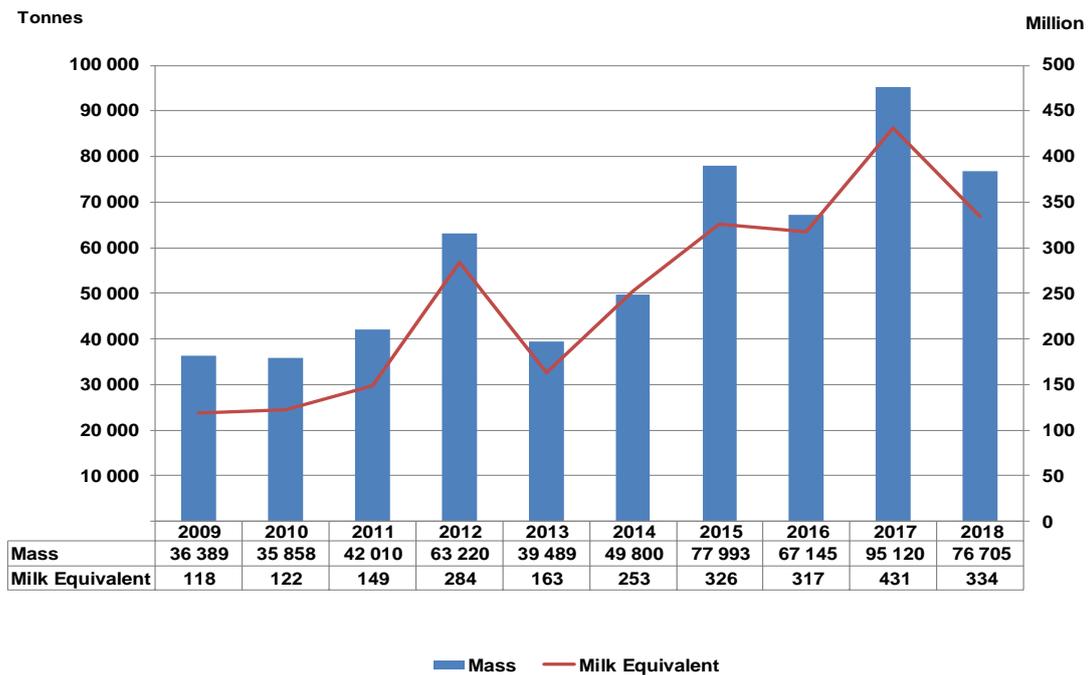


Figure 1 Monthly milk production ('000 L).

Source: Milk SA, June and July preliminary

## 1.2 Dairy imports



**Figure 2 Annual imports, mass and milk equivalent basis, 2009-2018**

*Source: Agrilnspec*

Figure 2 illustrates the fluctuation in dairy imports on a mass and milk equivalent basis over the past 10 years. Imports for 2018 are at the same level as in 2015, registering a 19% drop in imports when compared to 2017. This is mainly due to reduced imports of UHT milk as a result of high levels of milk production in SA and the accelerated depreciation in the value of the rand in the second and third quarter of 2018.

Figure 3 illustrates cumulative dairy imports. It is evident when compared to 2015, 2017 and 2018 dairy imports are at a much lower level. The July 2019 cumulative import figure is 21% less than the July 2018 cumulative figure and 20% less than the July 2017 cumulative figure.

Million litres milk equivalent

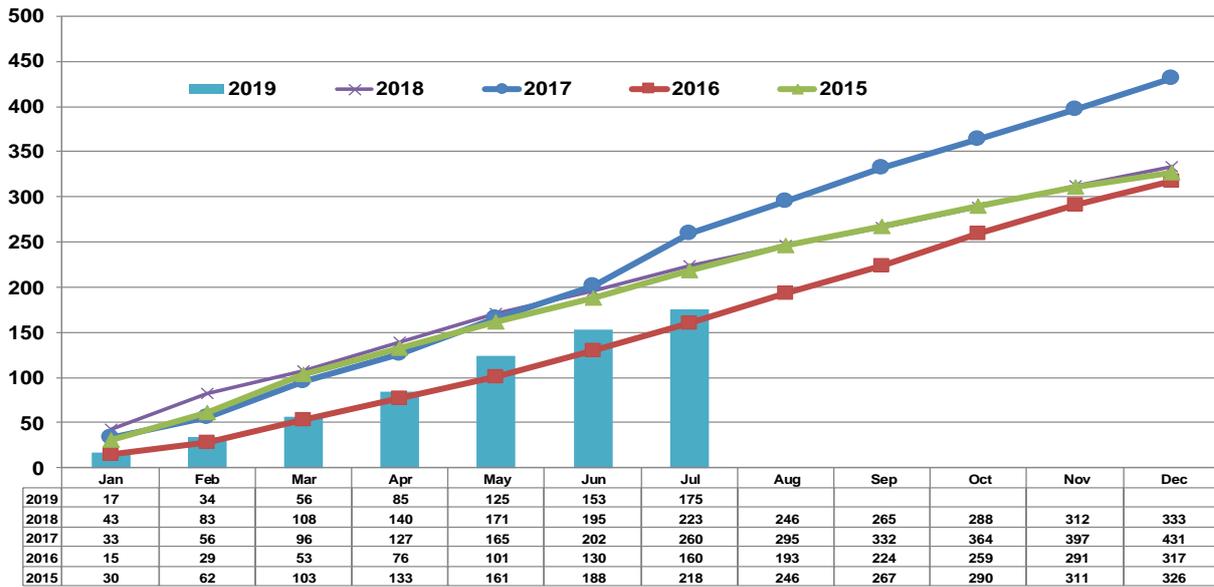
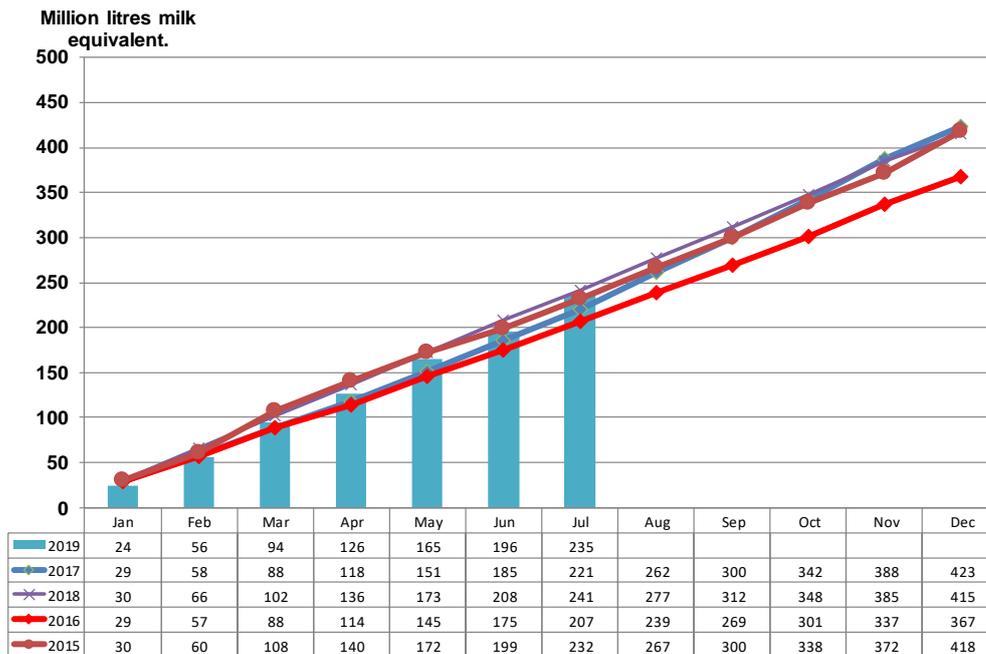


Figure 3 Monthly cumulative imports, (Mil. L.) milk equivalent basis

Source: AgriInspec

### 1.3 Dairy exports and sales to BLNS countries

Monthly cumulative exports on a milk equivalent basis are reflected in Figure 4 below. Cumulative dairy exports inclusive of July 2019 remain at the same levels as for the previous four years. This is an indication that export markets are well looked after by the SA exporters and that the markets are satisfied with the product range and quality.



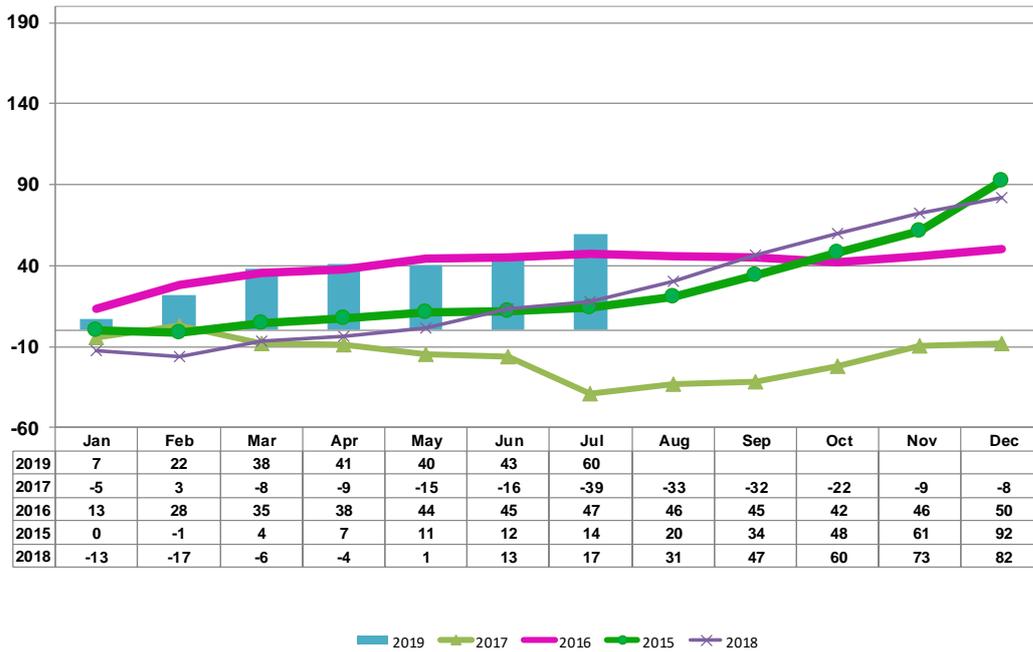
**Figure 4 Monthly cumulative dairy exports (Mil. L.), milk equivalent basis**

*Source: Agrilnspec*

### 1.4 Net exports

For the time period end July 2019, the SA dairy industry continued to be a net exporter of dairy products (exporting 60 million litres milk equivalent). This is due to reduced imports while exports were maintained at the same levels as previous years. The SA dairy Industry regained its status as a net exporter of dairy products in 2018. Exports in 2018 exceeded imports with 82 million litres. Net exports in 2018 were higher than in 2017 and 2016 and only slightly below the level of 2015. Cumulative net exports (total exports plus sales to BLNS countries less total imports) on a milk equivalent basis are shown in Figure 5 below.

Mil. L. ME

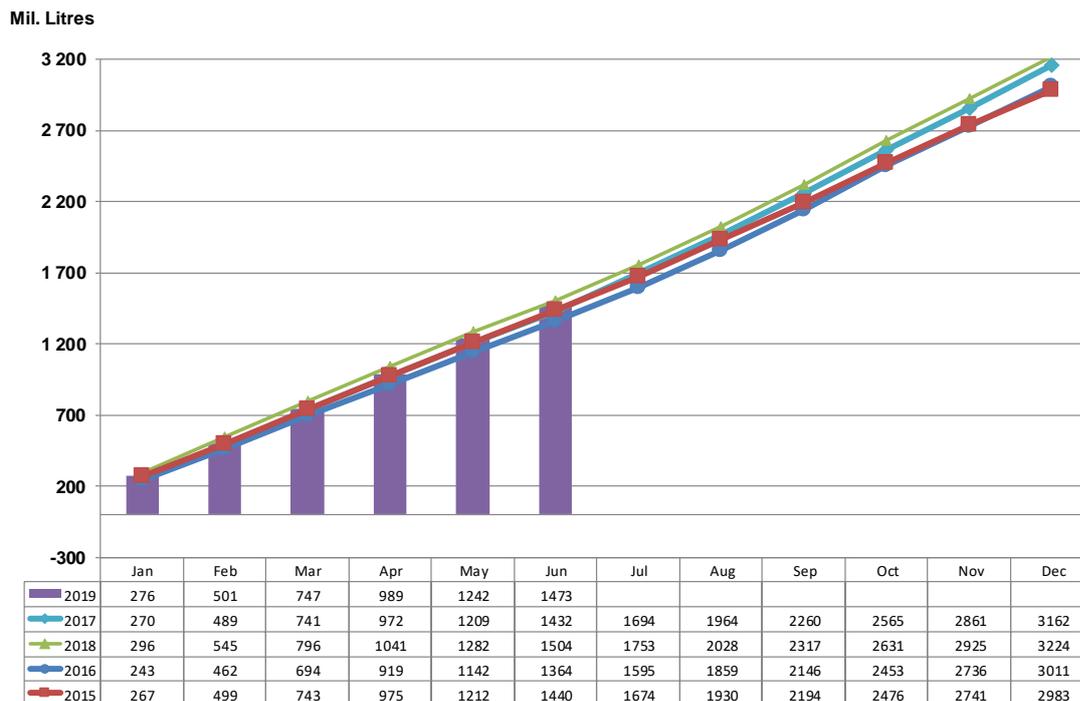


**Figure 5 Cumulative net exports, milk equivalent basis (Mil. L.)**

Source: Agrilnspec

### 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 BLNS countries less total imports) is reflected in Figure 6. The total cumulative supply of milk in July 2019 if compared over the same period as in 2018 is 2% lower.



**Figure 6 Total Cumulative monthly milk supply**

*Source: MPO calculation*

## 1.6 Milk demand

Table 1 contains information with regard to the change in retail demand for dairy products for different periods. The figure in brackets in the Dec 2018 column is the percentage change in the retail price for the product. Demand for fresh milk in 2018 continued the downward trend of the previous three years while the price remained flat. Although the demand for UHT milk and Maas in 2018 showed strong growth and increased per capita consumption, it was only achieved through lower retail prices. Prepacked cheese and yoghurt are increasing its market share despite increased prices and even butter gained increased sales albeit at lower prices. In the case of fresh milk the drivers of the downward trend are the changing profile of the traditional consumer and the profile of “new consumers”.

Dairy demand is on a positive trend and this is a good sign for the industry. The trend should be viewed against the backdrop of a struggling SA economy that expanded with less than one percent in 2018, disposable income of consumers being under pressure due to increased administered prices such as increased property taxes and the increased cost of electricity.

An industry that can produce these levels of sales growth amid timid consumer financials needs to be looked after. The capacity in the value chain needs to be nurtured especially at farmer level given the multiplier effect up and down the value chain. If the industry can guard this capacity it will improve even more when proper economic growth is achieved in future.

**Table 1 Retail market growth, formal market**

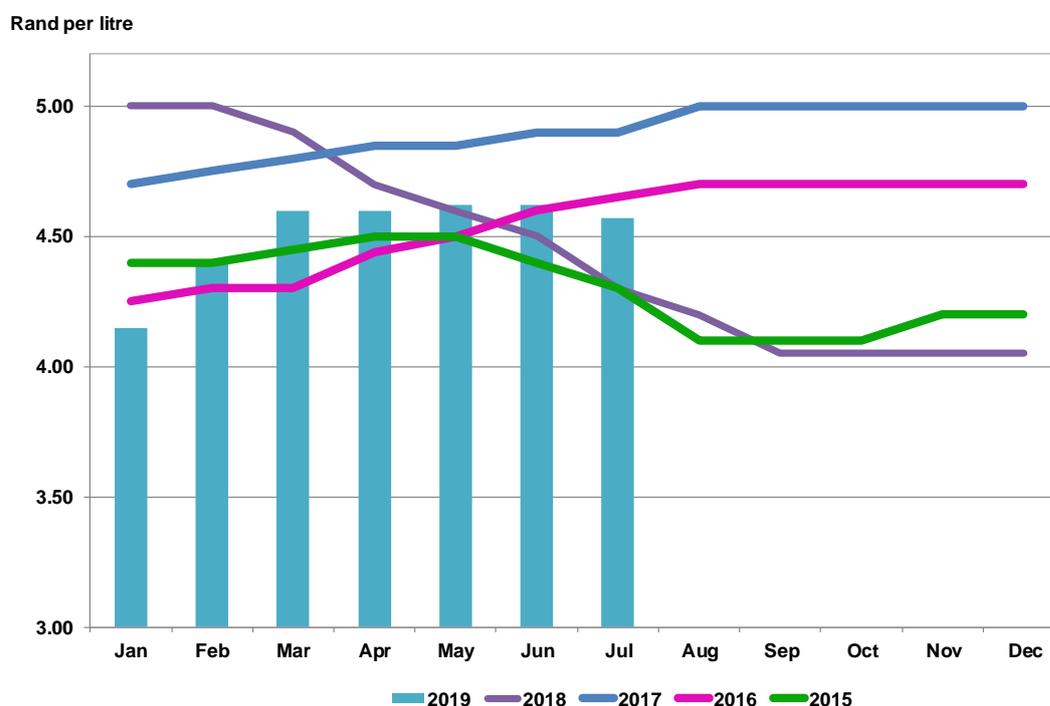
Product	Percentage growth for 12 months to:					
	Dec-13	Dec-14	Dec-15	Dec-16	Dec-17	Dec-18
Fresh milk	-5,9	1,2	-1,6	-3,9	-3,7	-5.2 (1)
UHT milk	8,0	4,1	14,4	1,0	9,0	14.5 (-4)
Flavoured milk	1,5	-2,2	6,7	5,5	-6,7	5.8 (4)
Yoghurt	1,2	2,5	6,5	3,7	-0,1	3.1 (.4)
Pre-packed cheese*	17,1	29,0	7,2	10,8	8,2	6.8 (2)
Butter	17,2	1,4	5,0	-2,1	-5,5	1.5 (-3)
Maas		5,3	8,6	9,2	4,0	15.9 (-7)

\* Market movement from bulk to pre-packed cheese may have inflated figures in the past.

Source: Nielsen figures supplied by SAMPRO

## 1.7 Producer prices

Producer prices are indicated in Figure 7. Milk buyers announced price decreases in June 2019 some taking effect in July others only in August.

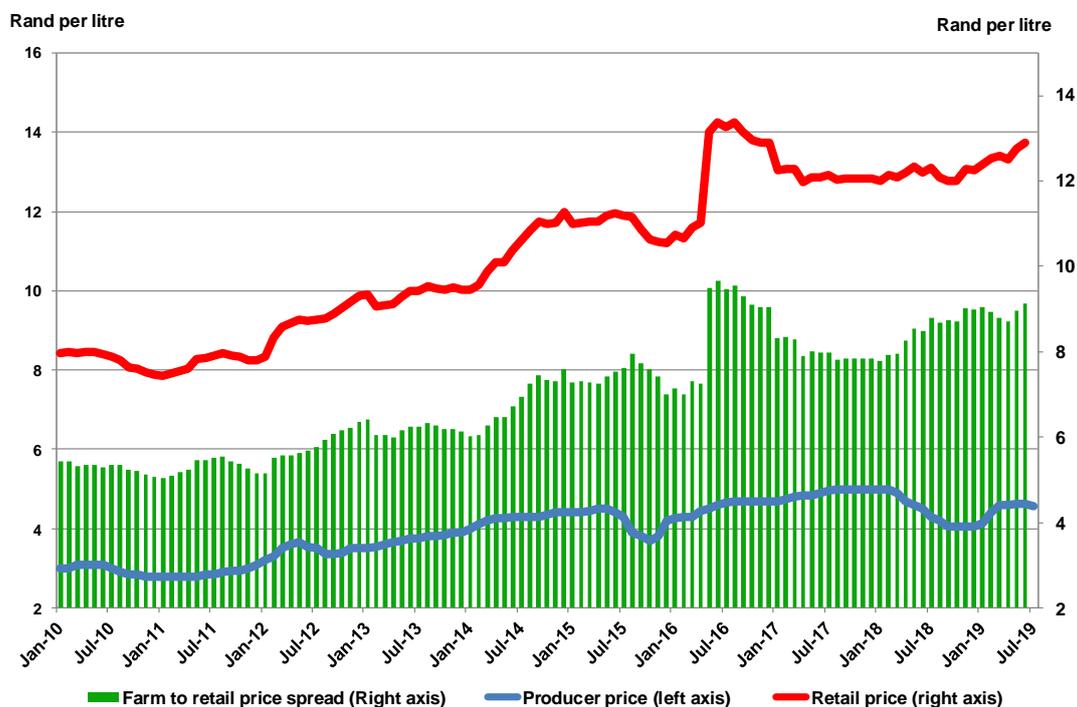


**Figure 7 Monthly milk producer prices, 2015-2019**

Source: 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 graph indicates that the spread was most favourable for retailers in July 2016 due to a strong uptick in retail prices while producer prices were kept level. The spread bottomed out towards the end of 2017 and increased since then, up to and including, January 2019. The following three months presented a decline in the spread with May and June 2019 increasing once again.



**Figure 8 Monthly producer and retail prices, 2010- 2019**

Source: MPO, SANCU

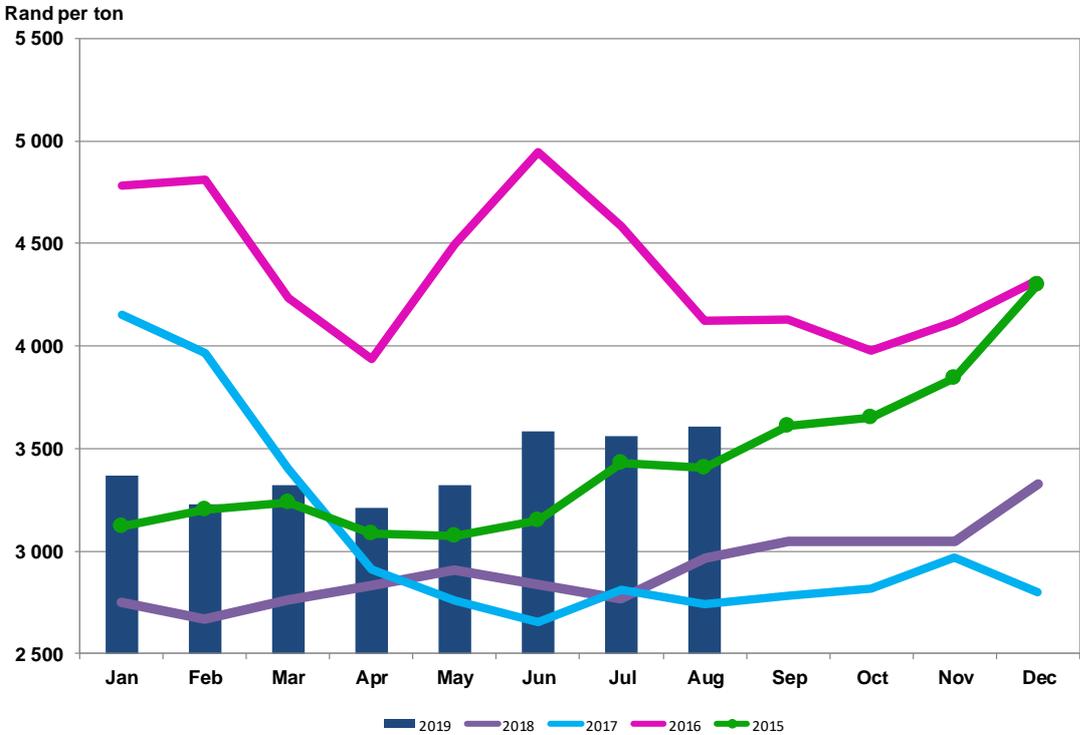
## 1.9 Feed prices

Feed cost is the most important cost item for milk producers. Internationally the price of maize and soybeans are used as a proxy for feed prices. A derived feed price is thus 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 producer milk prices 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 December 2018 milk: feed price ratio of 1.2 reflects lower producer price versus increased feed cost. At a milk: feed price ratio of 1.2

many dairy farmers are below breakeven level and that will consequently reduce production and may lead to dairy farmers exiting the industry.

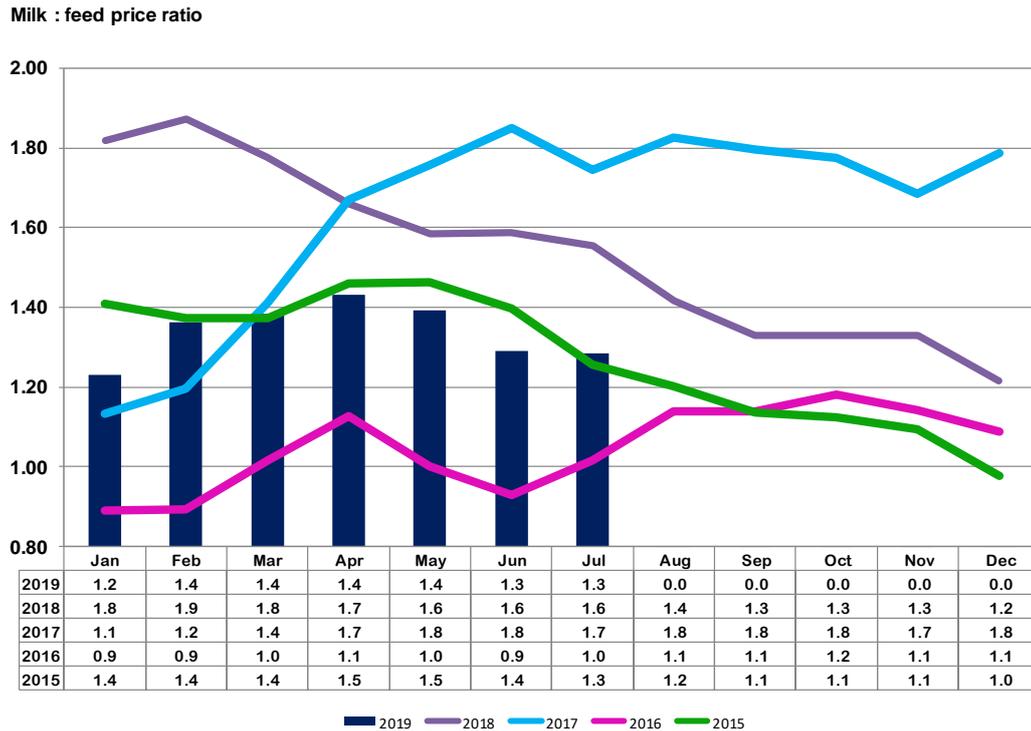
The upward trend in feed cost is clearly visible since July 2018 while December prices registered a spike as a result of late and inadequate rain in many summer crop producing areas. The August 2019 derived feed price compared to August 2018 is 22% higher.

The milk: feed price ratio is illustrated in figure 10. The ration decreased on the back of higher grain prices in June and July. At a ratio of 1.3 production will be slowing down. The August 2019 derived feed price is higher than in the July 2019 derived feed price, the August 2019 on August 2018 derived feed price being 22% higher and the recent announcements by milk processors of reduced producer prices in August and September will drive the milk: feed price ratio even lower and will negatively impact on unprocessed milk production.



**Figure 9      Calculated dairy feed prices, 2015-2019**

*Source: Safex nearest month data*



**Figure 10 Milk: feed price ratio, 2015-2019**

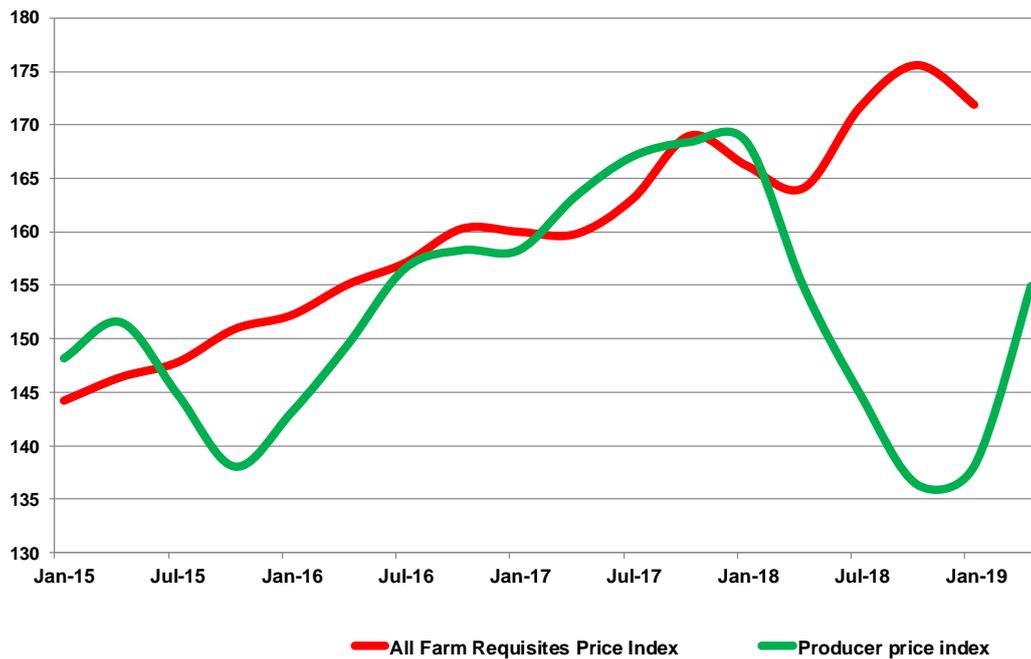
*Source: MPO calculations*

### 1.10 Input prices

The Department of Agriculture, Forestry and Fisheries 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 farm requisite index and producer price index are shown in Figure 11. The developments early in 2019 indicate that the cost price squeeze has reduced slightly, however still at a severe level. Cost management will be crucial over the coming months and optimising energy utilisation will play a big role in containing costs.

The slope of the downward trend in producer prices during 2018 is more severe than the slope of the trend that occurred in July 2015 which resulted in financial difficulty for many farmers. The downward trend depicted in the All Farm Requisite Price Index from the beginning of 2018 was reversed in the third quarter of 2018 on the back of the continued weak rand resulting in, amongst other, higher fuel and fertiliser prices.

Index (2010 = 100)



Source: DAFF, MPO calculation

**Figure 11 Quarterly Farm Requisites Price Index and Producer Price Index**

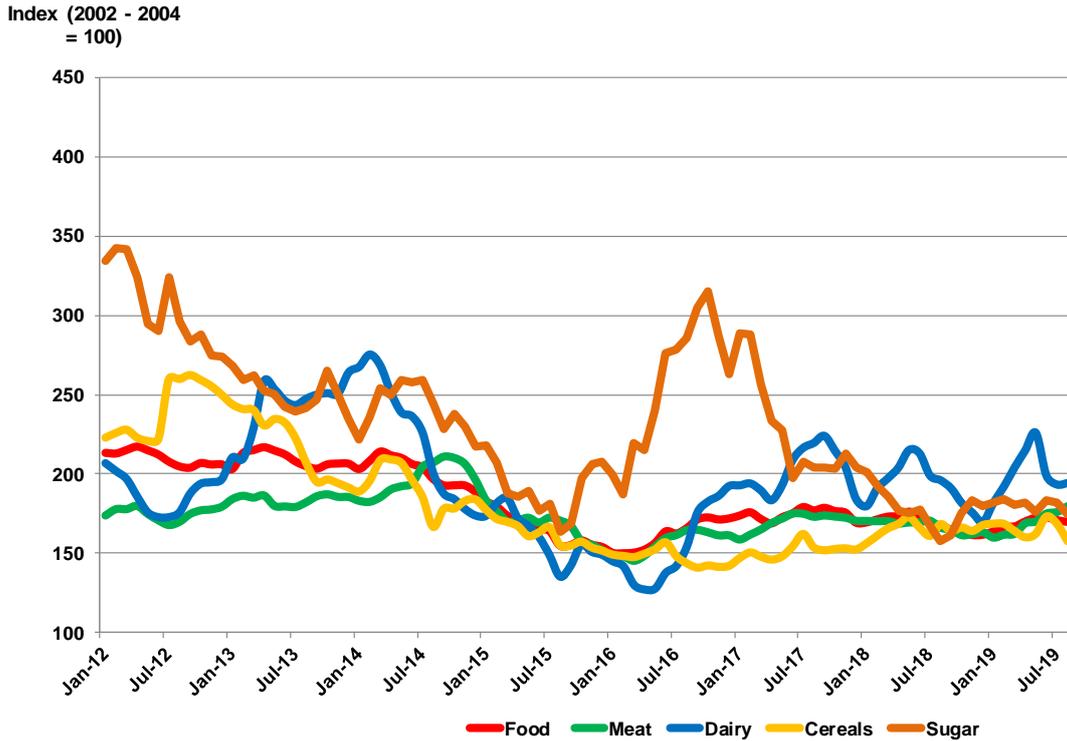
### 1.11 International prices

The price index of food and other foodstuffs in figure 12 started to increase since mid- 2016 (excluding sugar), as the world economy started with an expansive cycle that resulted in increased demand for food. There are shorter cycles evident within the different time series that are food type specific. The sugar spike was a result of adverse weather conditions in South America that created a shortage on the world market. The high volatility of the sugar market is clearly visible in the graph while the meat market exhibits a lower volatility compared to all other foodstuffs.

For the first five months of 2019, international dairy product prices were on an upward trend due to strong export demand while export availability from Oceania was low and being reinforced by the seasonal decline in production in Oceania. Milk production in Europe and the USA stagnated in terms of growth compounding short supply. Adverse climate conditions are centre to slower supply.

International dairy product prices started to pull back in June and July as illustrated in figure 12. The downward momentum reduced in July and in August prices moved sideways.

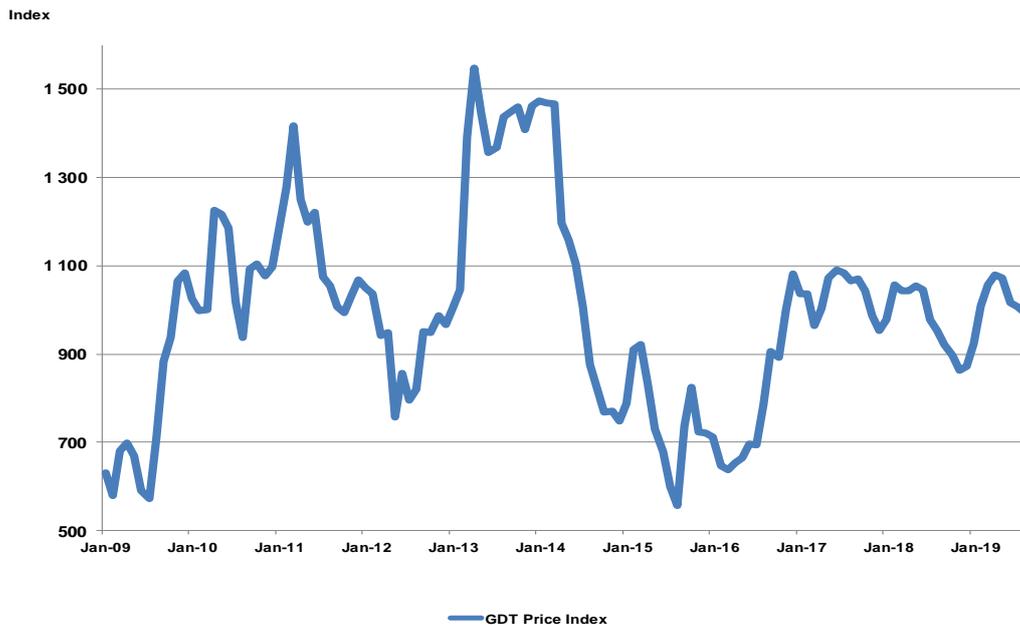
The Global Dairy Trade Index in figure 13 confirms these events which is reflected in figure 14 (international dairy product prices).



**Figure 12 Monthly FAO food price indexes**

*Source: FAO food price index*

Figure 13 shows the movement of the Global Dairy Trade (GDT) price index inclusive of July 2019. The price support at the 900 index level came strongly into play. The January 2019 price bounced off it with upward momentum through April with May slowing down close to the resistance index level at 1100 points. The upward trend was reversed in June and continued in July. The downward momentum in July did slow down with August showing signs of further reduced downward momentum.



**Figure 13 Global dairy trade-weighted price index**

Figure 14 shows international prices for milk powders, butter and cheddar cheese as reported by USDA in Rand/ton inclusive of August 2019. The upward trend for dairy product prices since the beginning of 2019 was led by cheese with butter providing further momentum. This trend reversed in June and July with all product prices reducing but maintaining levels higher than in July 2018 with the exception of butter which is lower. In August 2019 prices for all the dairy products increased in both US Dollar and Rand terms. Growth in unprocessed milk production in the major dairy exporting countries is not performing well and that is creating uncertainty in the world market regarding export availability.

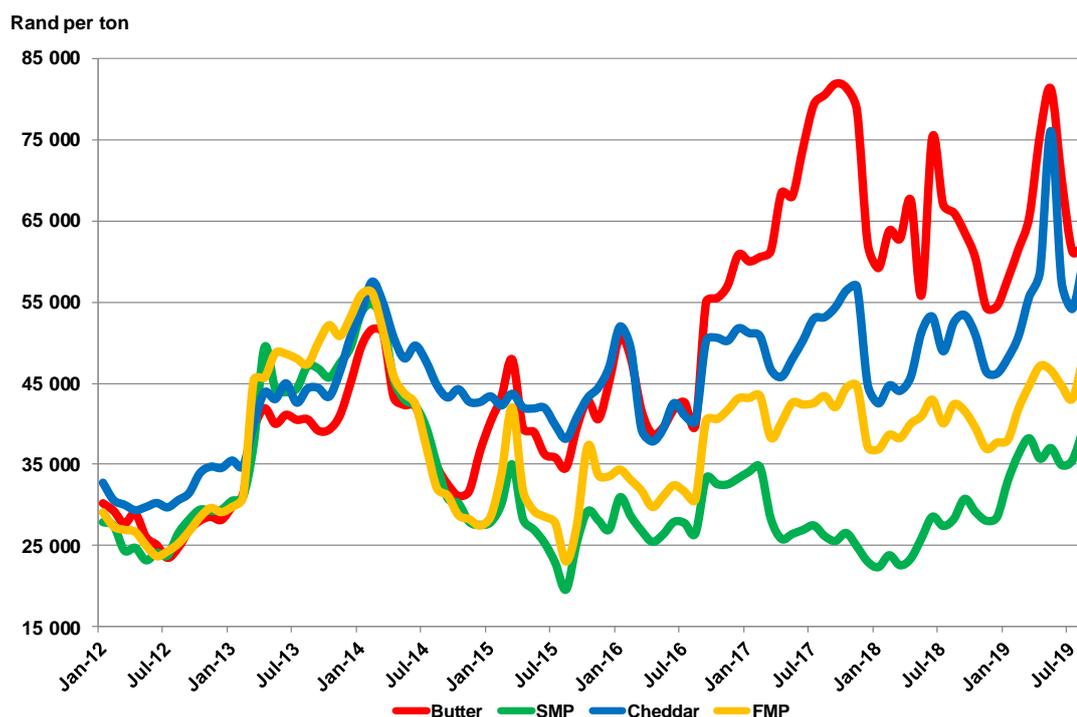


Figure 14 International dairy product prices (Rand/ton)

Source: USDA, SA Reserve Bank

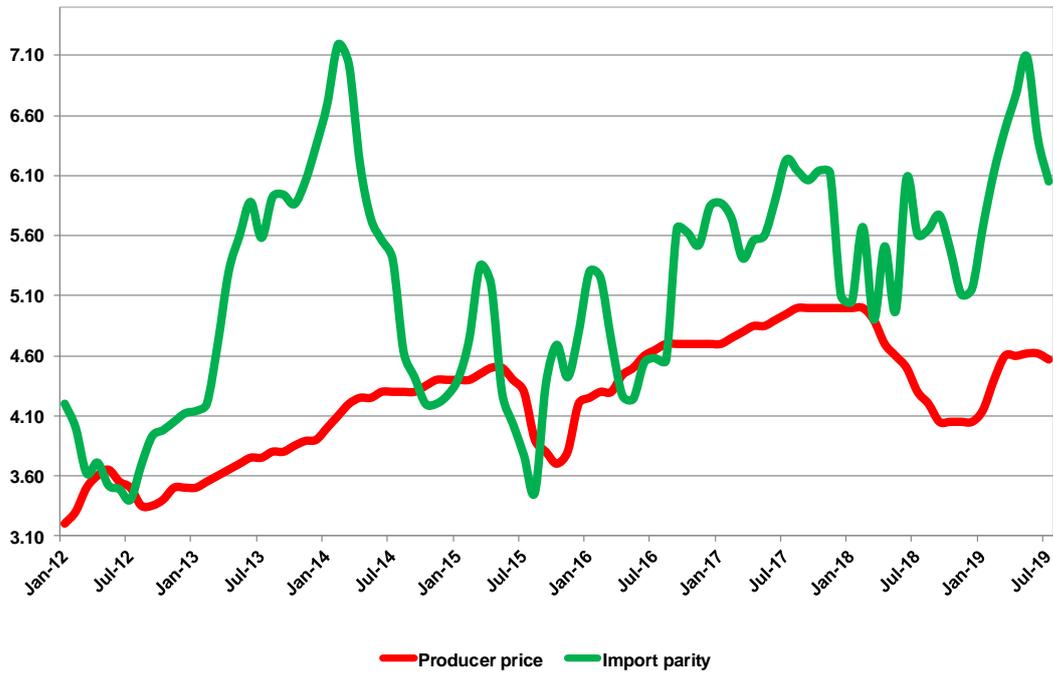
### 1.12 Import parity and producer prices

The MPO's benchmark import parity is based on the published USDA 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

Import parity and producer prices are reflected in Figure 15.

The current difference in import parity and SA producer prices reduced from the extreme level registered in May 2019.

Rand per litre



**Figure 15 Monthly producer and import parity prices**

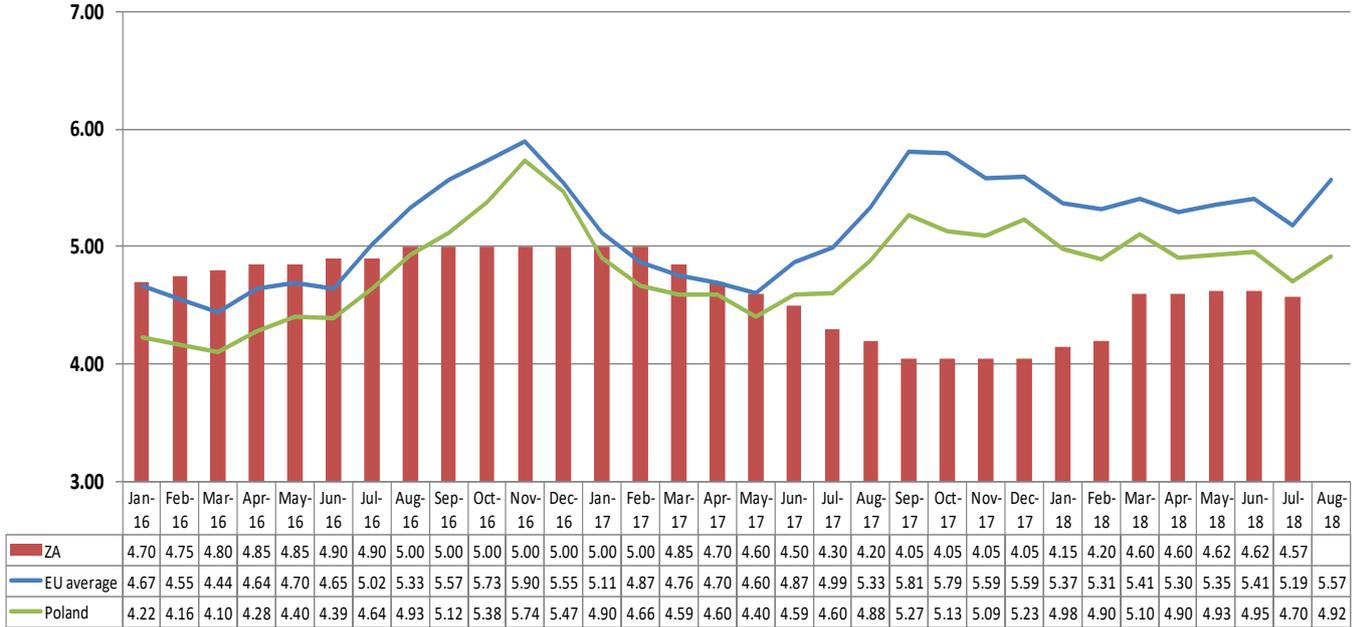
*Source: MPO calculations*

**Import parity and producer prices**

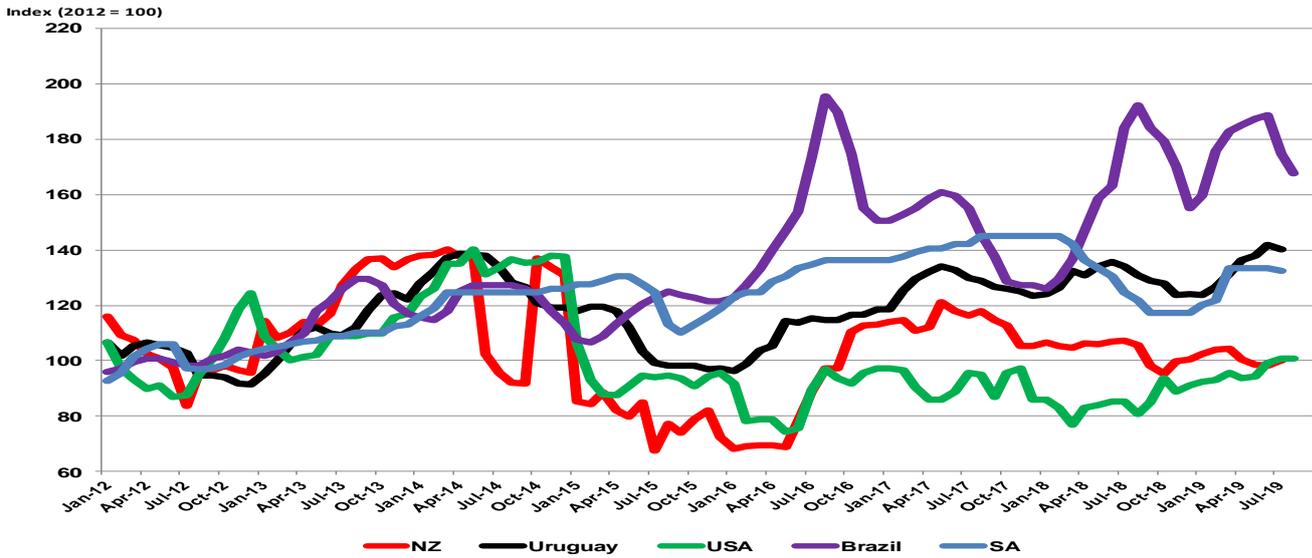
Import parity at or below average producer prices implies that processors can import dairy products at current international prices at a lower price per litre than they have to pay local producers. An importing processor will still have to service the fixed cost on infrastructure and an importing retailer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

## 2. International producer prices

(R/l)



In the above graph it is clear that the producer price for unprocessed milk in Poland is constantly lower than the average EU price and that SA is even lower than Poland. (Source EU Commission and MPO). The average producer price in the EU, inclusive of Poland increased from July to August while announcements in SA indicated reduced producer prices for August.



(Sources: Hoard's Dairyman, New Zealand CLAL, Brazil CLAL, Uruguay Inale)

The above graph illustrates the trends in producer prices for New Zealand, Uruguay, USA, Brazil and SA. This is not price levels and cannot be compared as such but the trends in the producer prices of the different countries can be analysed. The significant lower indices level

for USA prices is evident. The USA entered a new producer price regime from Jan 2015. Prices in the US started to increase since May 2018 while prices followed a declining trend in New Zealand since April 2017. In recent months the New Zealand producer prices are moving sideways. Prices in Uruguay started to increase since November 2018 and plateaued in June 2019 where after the price moved sideways.

It is also significant to note how close the different country indices stayed together until Jan 2015 and since then the subsequent divergence that took place. This coincides with the abolishment of milk quotas in the EU and could indicate less government involvement all round with market forces playing a bigger role in price discovery.

Changes (%) in cumulative unprocessed milk production in the major dairy exporting countries and South Africa 2015 – 2019 (2019 only first 6 months). SA first 7 months, last two preliminary.

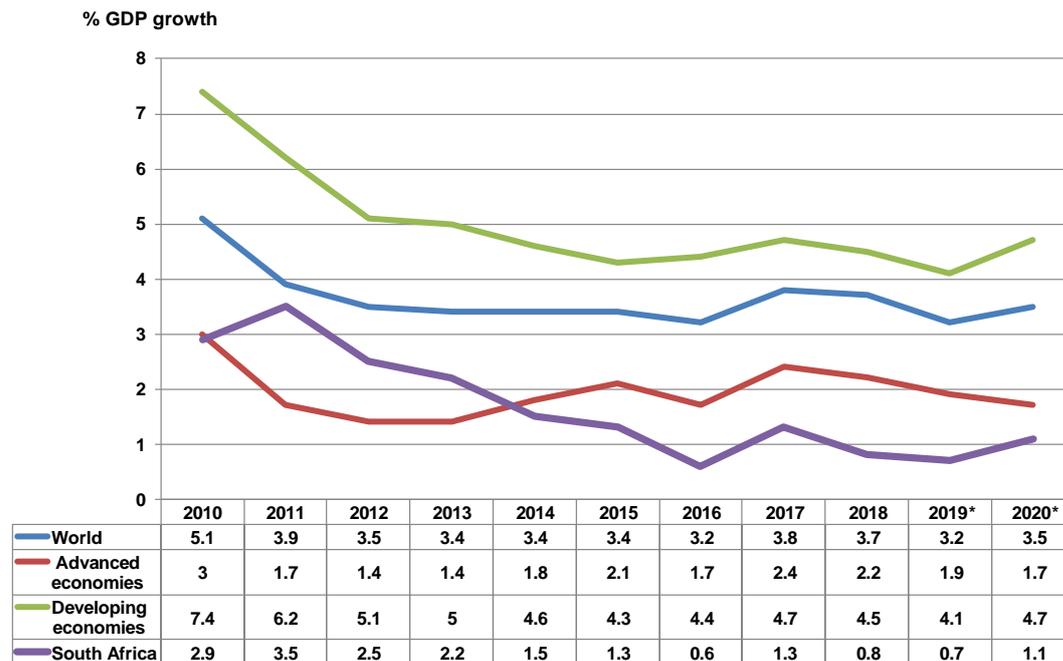
	2015	2016	2017	2018	2019
<b>USA</b>	1.2	1.6	1.7	1.1	0.0
<b>EU</b>	2.1	0.2	2.1	1.4	0.2
<b>AUS</b>	2.2	-6.9	0	0.9	-9.3
<b>NZ</b>	-1.4	-2.0	1.7	1.3	-0.7
<b>URU</b>	-2.0	-10.4	7.6	5.7	-7.4
<b>ARG</b>	1.5	-14.4	-1.6	6.4	-4.9
<b>ZA</b>	6.4	-0.5	3.0	5.0	-0.13

Milk production at farm level is down for all the major exporting countries. This provides illumination on the strong increases in international product prices all round for the first 5 months of 2019 and the producer price increases since end 2018.

### 3. Economic overview

#### 3.1 International economic outlook

The global economic expansion has softened with 2018 estimated at 3.7% down from 3.8% in 2017. In its June 2019 publication the IMF again adjusted growth predictions slightly downward. The influencing factors are a softer momentum in demand in 2019 in countries like Germany (automobile industry slowing), Turkey due to tighter macro-economic policy, stricter credit policies in China and the uncertain world trade environment. International economic growth and estimated growth are shown in Figure 16. SA is not participating adequately in the current expansion of the world economy or in the growth levels achieved in the emerging economies. Although the projected growth for SA in 2019 and 2020 is higher than 2018 it is uncertain. Government remains unclear on policy with continued utterances of policy directions that failed in other countries and internal conflict regarding government's role in the economy.



**Figure 16 International economic growth and estimated growth**

\* Estimate \*\* Projection

Source: IMF WEO Jan 2019

## 3.2 South African economy

### 3.2.1 Economic activity and growth

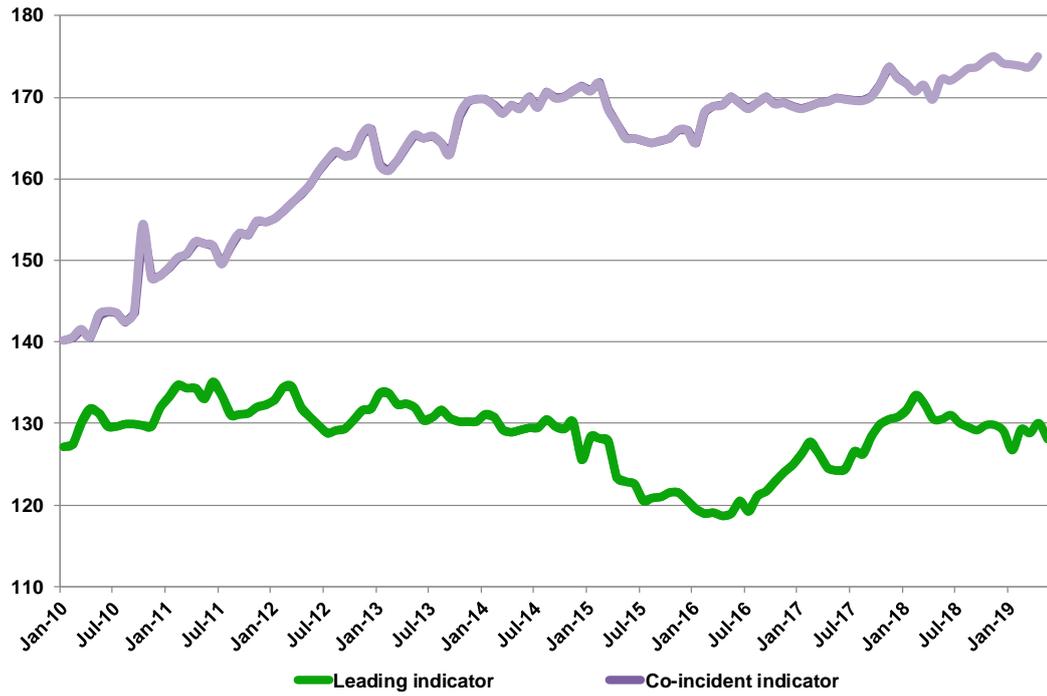
Indicators of economic activity are provided by the SA Reserve Bank in the form of a co-incident, leading and lagging indicator. The monthly movement of the leading and co-incident indicator of economic activity is reflected in Figure 17. The leading indicator signals future economic activity while the co-incident indicator reflects what is happening now in the economy.

Figure 18 shows the quarterly growth rate of the SA gross domestic product. The SA economy contracted with 3.2% in the first quarter of 2019 while a second quarter growth rate of 3.1% was registered. The second quarter growth is coming of a very low base and it seems that the SA economic growth will fall far short of 1% for the year. The continued struggle between the factions in the ANC regarding the role of government in the economy leaves investors out in the cold.

#### **Indicators of economic activity**

The coincident indicator of economic activity show whether the economy is in an upwards or downwards phase of the business cycle. The current slow downwards trend indicates a slowdown in economic activity. The leading indicator shows possible changes in economic activity in future. The decreasing trend points towards still lower economic growth in future.

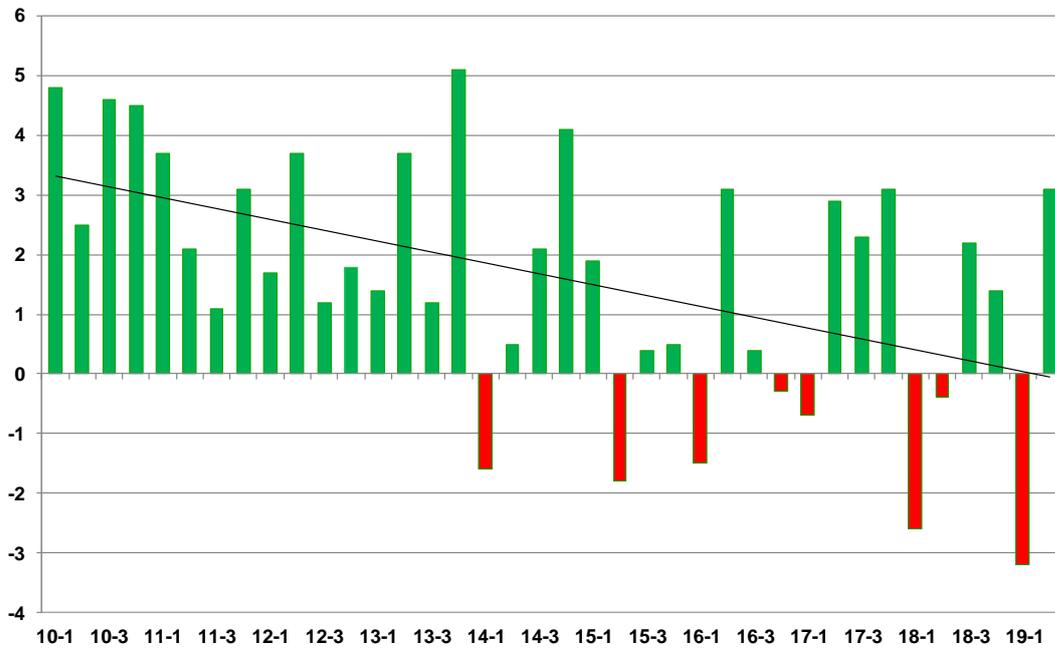
Index (2000 = 100)



**Figure 17** Leading and co-incident indicator of economic activity

Source: SARB

Annual % change



**Figure 18** Quarterly change in real gross domestic product

Source: Stats SA

**3.2.2 Household debt and income**

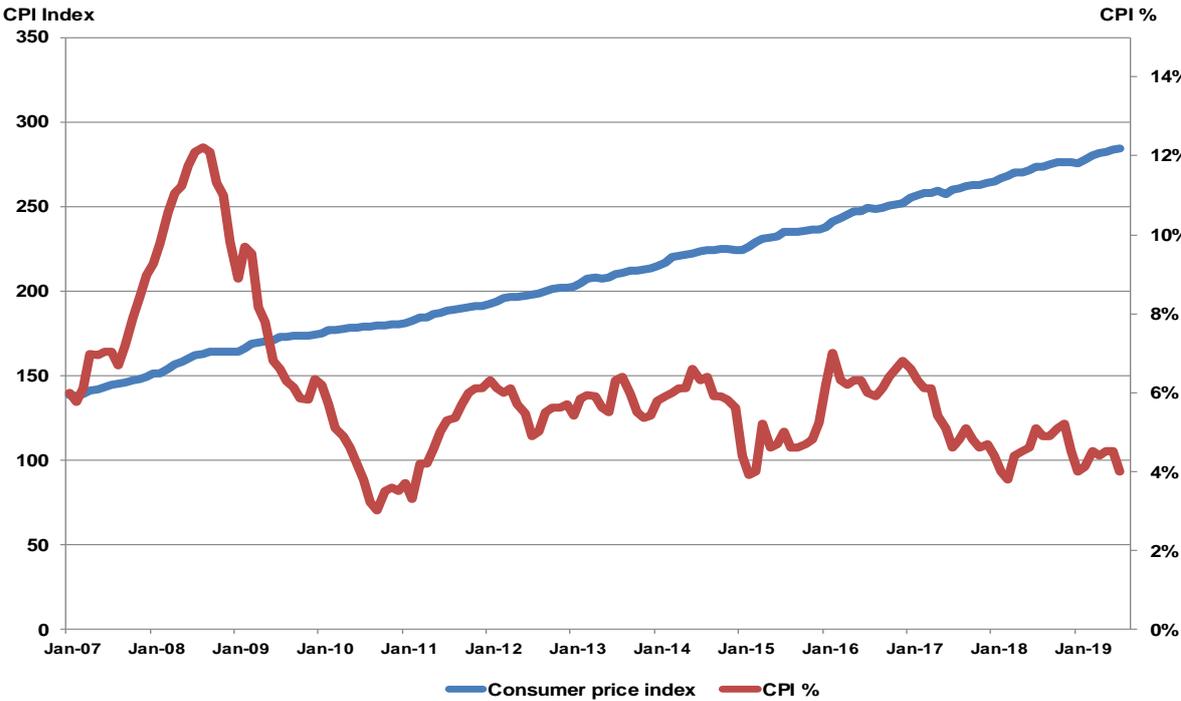
Household debt at current prices as a percentage of household income has been on a steady decline since the first quarter of 2008. Household debt decreased from 87.8 to 71.3 in the third quarter of 2018.

**3.2.3 Inflation**

The consumer price index and monthly inflation rate are reflected in Figure 19. A record low inflation rate in March 2018 enabled the Reserve bank to decrease the repo rate in March 2018. There was a slight upward trend in the inflation rate from March 2018 to July 2018, but the trend was reversed in August 2018 going down from 5.1% to 4.9%, September staying on 4.9%, rising to 5.1% in October and staying on 5.1% in November and a strong move down to 4.5% in December. The slowdown in the inflation rate for December is mainly due to the reduced price of fuel in December and the decrease in the price for food and non-alcoholic beverages flowing through to January 2019 with a further reduction in the inflation rate down to 4%.

The inflation rate increased slightly February 2019 through May 2019 to 4.5% and staying level for June. The rate came down one tic in July to 4.0%. Inflation is under control with the SARB doing a sterling job.

**Consumer price index (CPI) and inflation**  
 The CPI is the value of a basket of goods and services on 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, 2007-2019**

**4. The performance of the South African dairy industry in the next three months will especially be shaped by:**

- The climatic conditions for spring and early summer.
- The unfavourable milk: feed price ratio that is expected for August will slow down the production of unprocessed milk.
- UHT imports started to arrive in noteworthy volumes in June 2019. Although these imports expressed as a percentage of production is negligible, it changes the mood in the market and negotiation tactics. The balance of power from the milk farmer's perspective seems to tilt even more towards the processors and other role players further down the value chain.