

Dairy market trends



Executive summary

Dairy product prices at three-year high

International dairy product prices recovered since July 2016. Prices increased by 47% during 2016 to reach a 30-month high in December 2016. After a slight downturn at the beginning of 2017, prices increased steadily. The Global Dairy Trade index is currently at 1075, 99% up on the lowest level in 2015. Butter prices remain at record levels above US\$ 6 000. Very low butter and cheese stock levels in the European Union will further bolster prices. High skimmed milk powder stocks limit chances of higher skimmed milk powder prices.

South African milk production in the first eight months of 2017 is virtually the same as during same period last year. While the more favourable milk:feed price ratio may encourage higher concentrate feeding, the general condition of dairy cattle, high roughage prices and severe drought in the Southern and Eastern Cape will limit production growth at least until late spring.

During the first six months of 2017, 38 800 tonnes of dairy products were imported, double the 2016 quantity. Exports are marginally more than during the same period last year. The main reason for higher imports is the fear amongst processors and retailers that production may not be enough to supply in the demand during winter.

The global economy is growing, albeit with uncertainty and with stronger growth in developing than in advanced economies. The International Monetary Fund (IMF) adjusted their global and South African growth forecasts for 2016 and 2017 slightly upwards. The US economy shows signs of recovery with unemployment down to the lowest level since the recession. South African consumer debt decreased while disposable income grew by 5%. The SA economy surprised with positive growth in the second quarter of 2017, after two quarters of negative growth. Higher unemployment and the deterioration of the quality of debt are putting pressure on retail demand. However a slight improvement in retail sales are evident.

Info blocks

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 in a series of "info blocks", similar to this one. 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

Milk production during August 2017 is estimated at 278-million litres, 5,9% more than in August 2016. Production during the first eight months of 2017 is 1% more than in the same period last year. Total production during 2016 of 3 062-million litres was 0,5% less than 2015. Production during 2015 was 6,4% higher than during 2014. Monthly milk production is reflected in Figure 1 below.

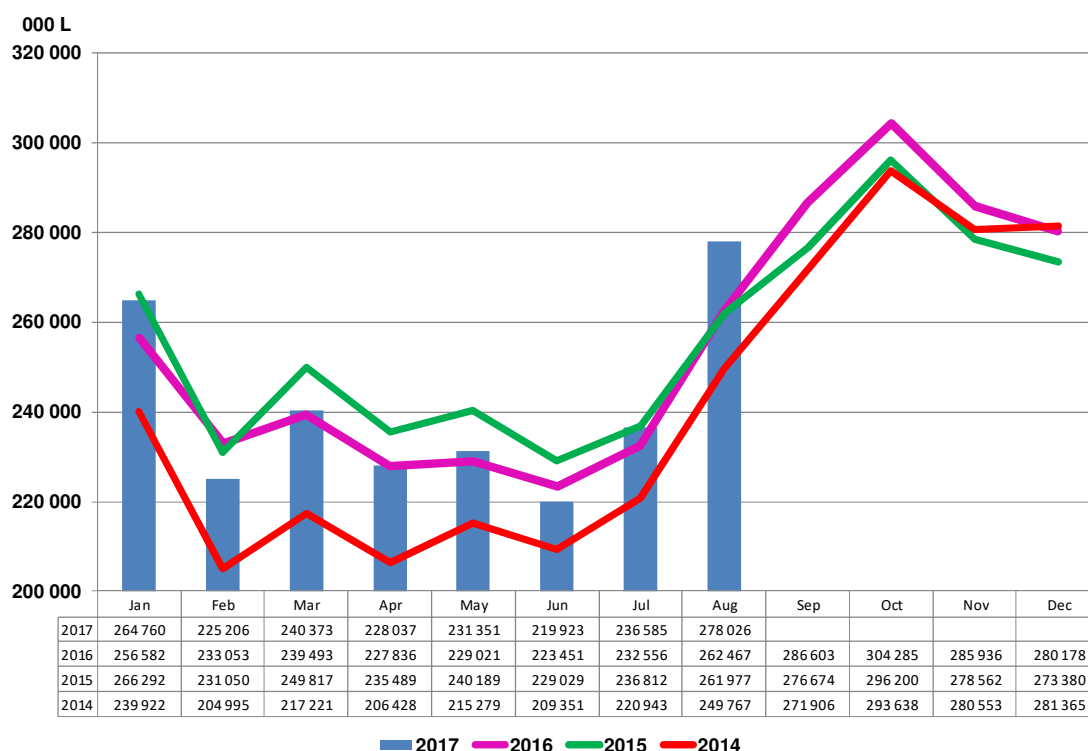


Figure 1 Monthly milk production ('000 L.).

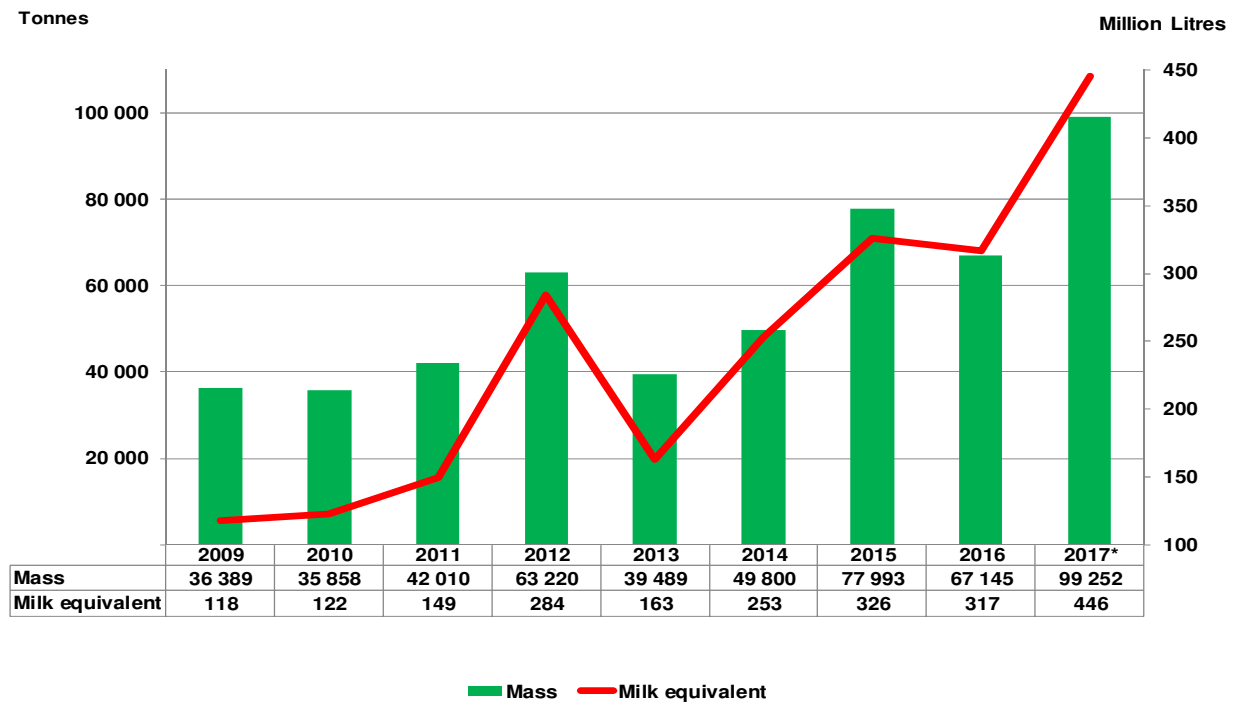
Source: Milk SA, January – February preliminary

1.2 Dairy imports

Figure 2 indicates the increase in dairy imports in 2014, 2015 and decrease in 2016. Based on imports during the first seven months of 2017, total imports this year will exceed imports during 2016 by 12 000 tonnes. Monthly cumulative imports on a milk equivalent basis are reflected in Figure 3.

Slower milk production growth since 2016

A slowdown in production growth, evident since July 2015 culminating in negative growth from December 2015 to August 2016. Total production in 2016 is 0,5% less than in 2015. Production during the first eight months of 2017 is 1% more than during the same period last year.



* Estimate based on Jan – July 2017

Figure 2 Annual imports, mass and milk equivalent basis, 2009-2016

Source: MPO calculation from SARS data

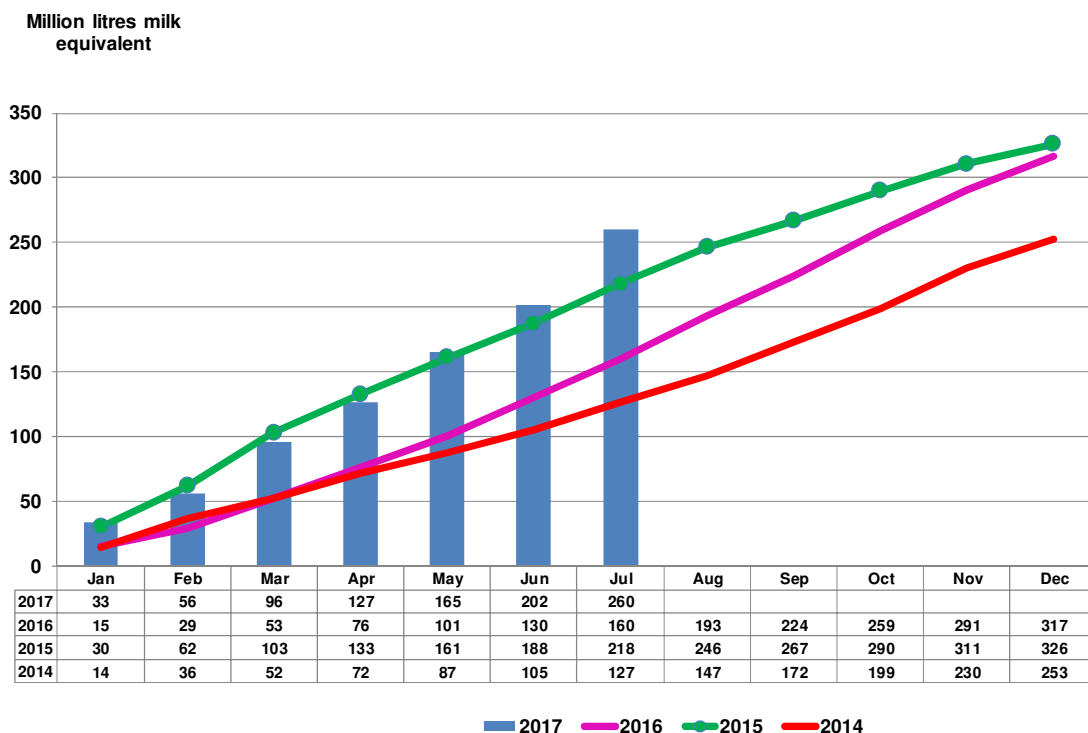


Figure 3 Monthly cumulative imports, (Mil. L.) milk equivalent basis

Source: MPO calculation from SARS data

1.1 Dairy exports

During 2016, 367-million litres of milk equivalent were exported, 12.3% less than in 2015. Monthly cumulative exports on a milk equivalent basis are reflected in Figure 4 below.

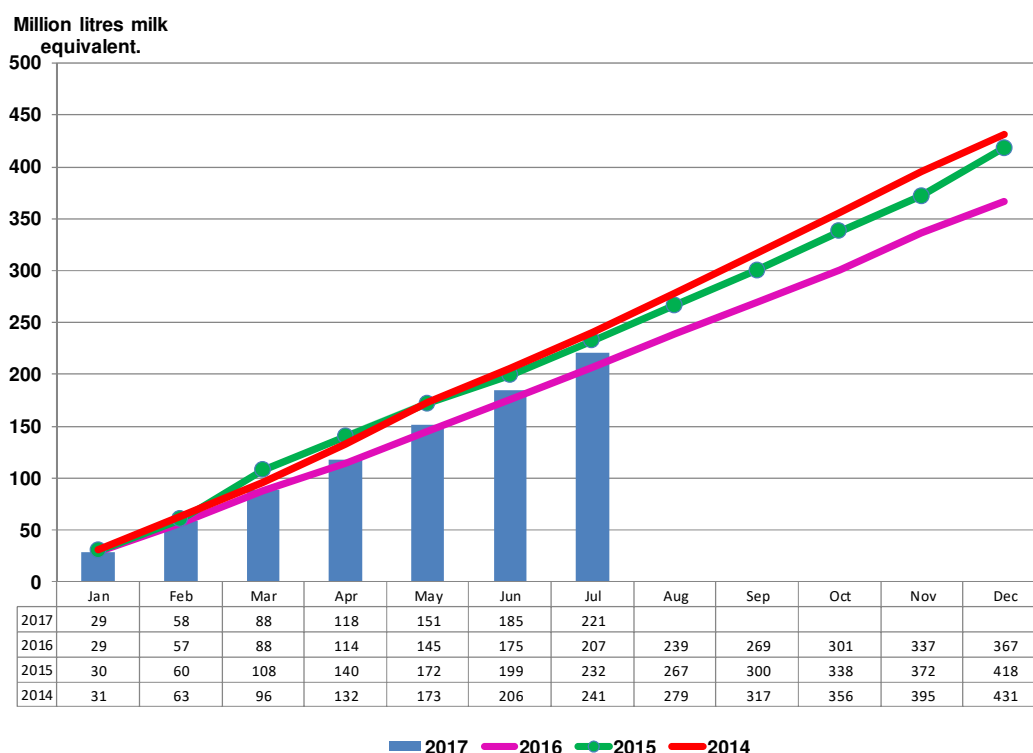


Figure 4 **Monthly cumulative dairy exports (Mil. L.), milk equivalent basis**

Source: MPO calculation from SARS data

1.2 Net exports

Cumulative net exports (total exports less total imports) on a milk equivalent basis are shown in Figure 5. Exports exceeded imports by 50-million litres in 2016 which was 46% lower than in 2015. Net exports equalled 3% of local production during 2015, and decreased to 2% in 2016. Higher imports and slightly lower exports resulted in net imports of 39 million litres in the first seven months of 2017.

Mil. L. ME

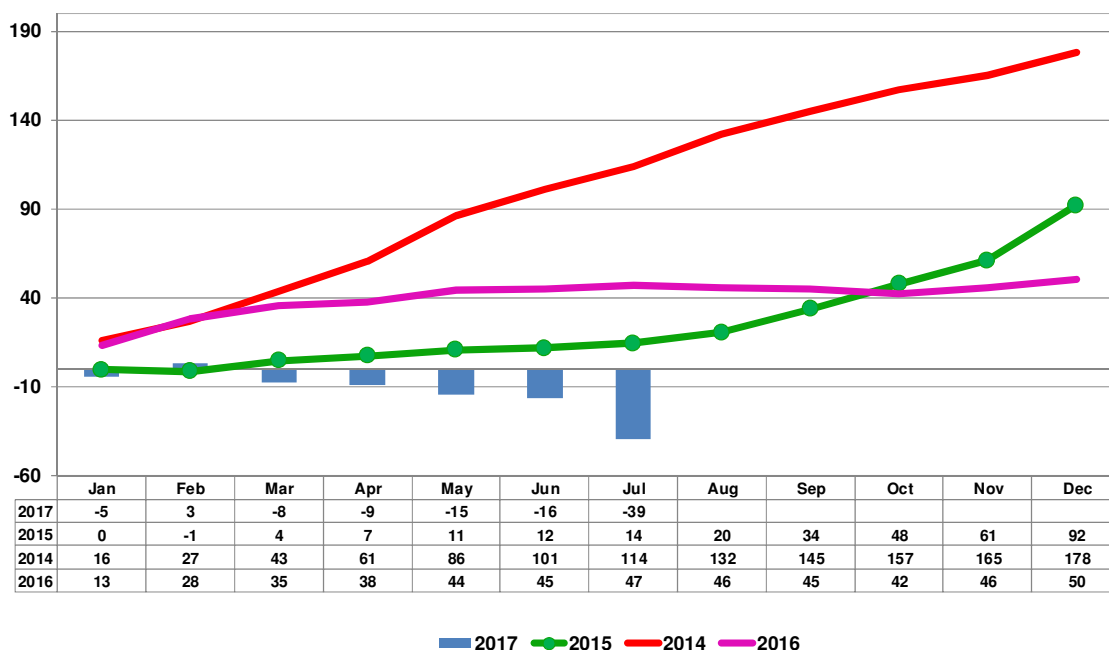


Figure 5 Cumulative net exports, milk equivalent basis (Mil. L.)

Source: MPO calculation from SARS data

1.3 Total milk supply

The total cumulative monthly supply of milk, consisting of locally produced milk less net exports (total exports less total imports) is reflected in Figure 6. The total supply, during 2014, remained at 2013 levels to September. Since then higher production and imports resulted in a small increase in the total supply. The 6,4% higher production and lower net exports resulted in a total supply during 2015 of 2 983-million litres, 270-million litres more than during 2014. The total supply in 2016 was marginally more than in 2015. The total milk supply in the first seven months of 2017 is 5,4% higher than in the same period last year, mainly as a result of higher imports.

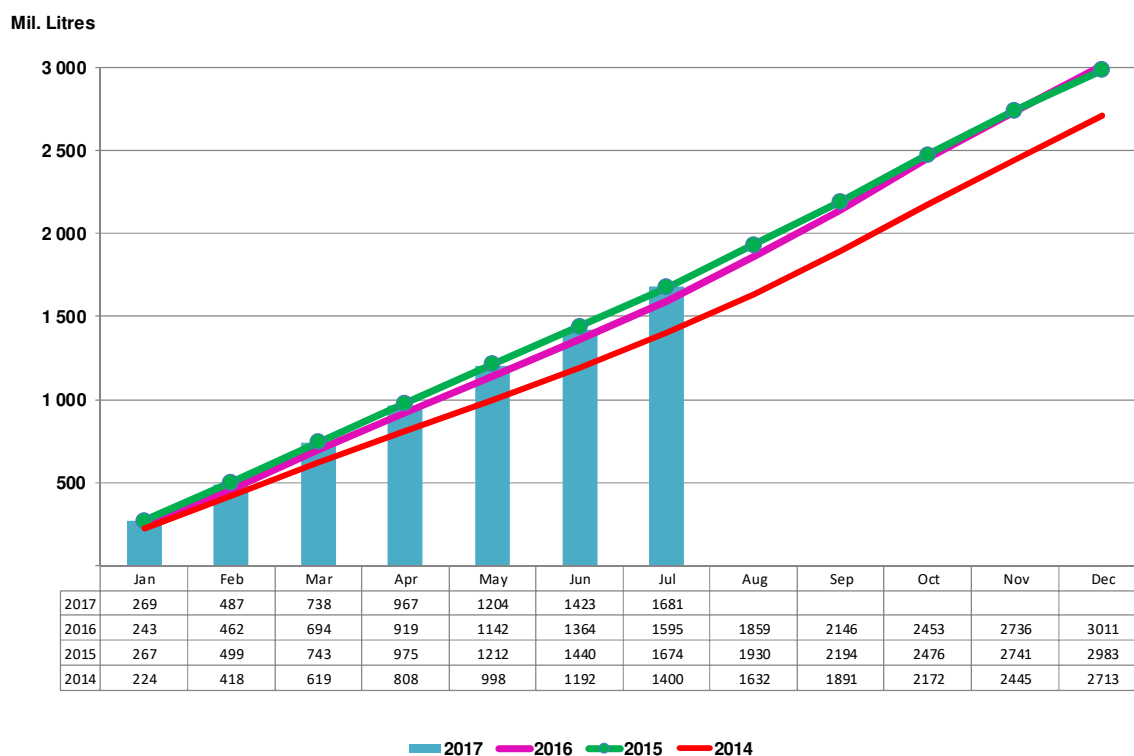


Figure 6 Total Cumulative monthly milk supply

Source: MPO calculation

Total milk supply

Total milk supply consists of milk production less net exports. Lower production and lower imports resulted in the depletion of the 2015 surplus stock in the first half of 2016. The total supply in 2016 was in balance with the total demand. No significant stocks were carried over to 2017. The total supply in the first seven months of 2017 is 5,4% higher than in the same period last year.

Milk demand

Total market demand figures are not available but Nielsen figures supplied by the secondary industry can be used to determine demand trends. Table 1 contains information with regard to the change in retail demand for dairy products for different periods.

Table 1 Retail market growth, formal market

Product	Annual percentage growth for 12 months to:					
	Dec-12	Dec-13	Dec-14	Dec-15	Dec-16	Jun-17
Fresh milk	-4,8	-5,9	1,2	-1,6	-3,9	-4,0
UHT milk	7,6	8,0	4,1	14,4	1,0	-1,6
Flavoured milk	16,0	1,5	-2,2	6,7	5,5	-7,4
Yoghurt	3,9	1,2	2,5	6,5	3,7	-1,8
Pre-packed cheese*	21,1	17,1	29,0	7,2	10,8	8,4
Butter	4,3	17,2	1,4	5,0	-2,1	-5,6
Maas			5,3	8,6	9,2	2,4

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

Source: Nielsen figures supplied by SAMPRO

1.4 Producer prices

Producer prices were reduced in June, July and August 2015 as production remained at high levels. Prices increased slightly to year-end. Further price increases were announced from February 2016 onwards. Some major milk processors have announced price increases from February 2017 and again from June/July 2017. Producer prices are shown in Figure 7

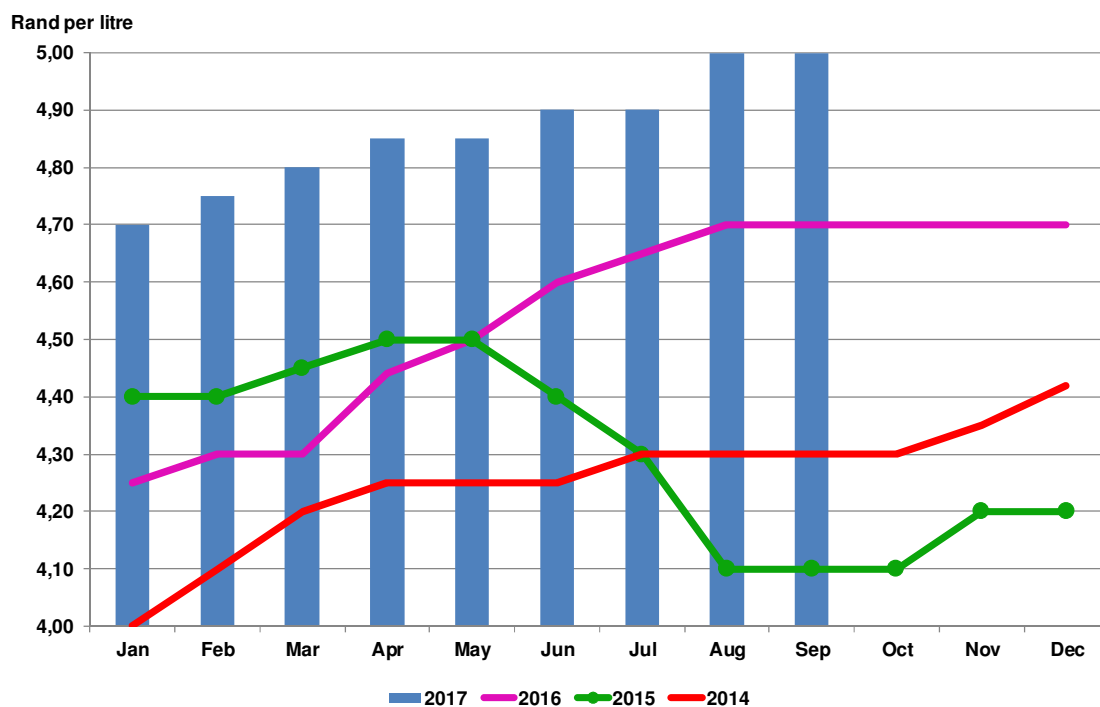


Figure 7 Monthly milk producer prices, 2012-2017

Source: MPO calculations

1.5 Retail prices

Retail prices of fresh milk in different packaging are supplied by Statistics SA. The retail prices of fresh milk per litre for milk packaged in 2-litre plastic containers are compared to producer prices in Figure 8.

Farm to retail price spread

The difference between retail and producer prices increased from R5,44 per litre in January 2010 to the current R8.95. A slowdown in retail prices was evident during 2015. Prices increased sharply from January 2016 to July 2016. Since January 2017 prices decreased slightly.

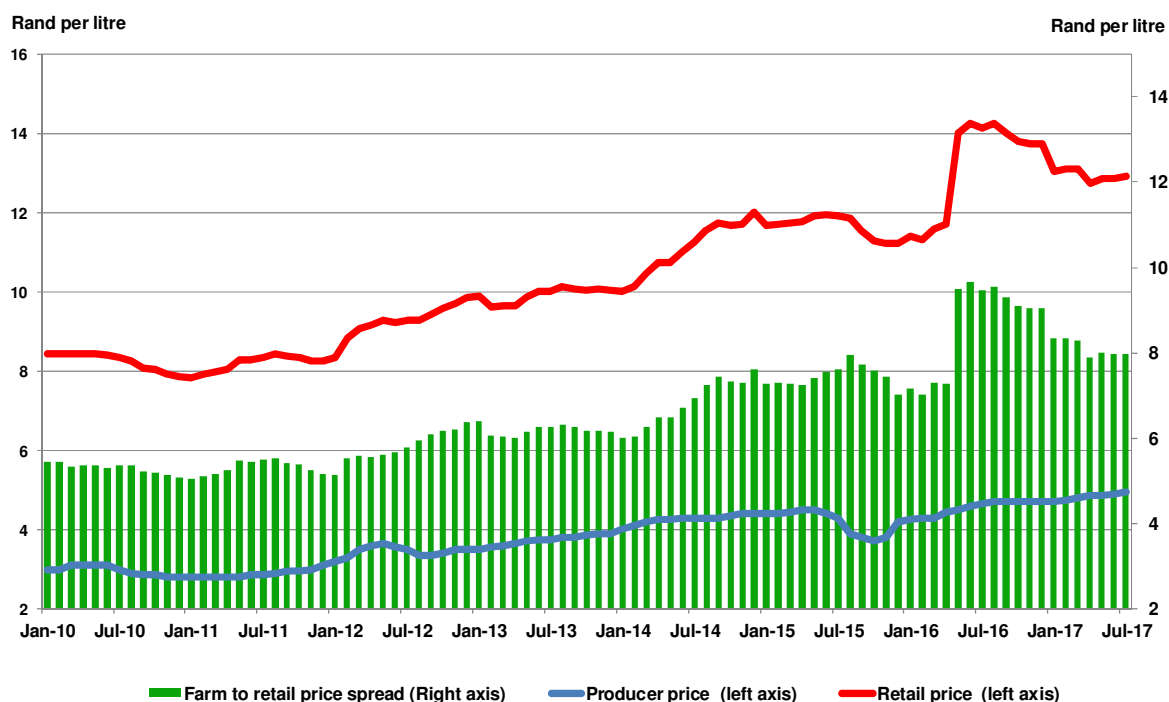


Figure 8 Monthly producer and retail prices, 2010-2016

Source: MPO, Stats SA

1.6 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. The 2016 maize crop was higher than originally expected and caused a slowdown in price increases. The large 2017 crop resulted in much lower current and futures prices for maize. Current indications are that future prices in 2018 will follow the same trend.

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. As milk production is determined by a combination of biological, environmental and economic factors, production does not react directly to changes in prices. However, unfavourable milk:feed price ratios will result in slower production growth or lower production over time. The milk:feed price ratio is shown in Figure 10.

Milk:feed price ratio (Producer milk price/Feed price (70% maize,30% soy)

Lower grain prices resulted in an improvement in the milk:feed price ratio. Safex future grain prices and proposed producer price increases in coming months will result in a further improvement in the ratio.

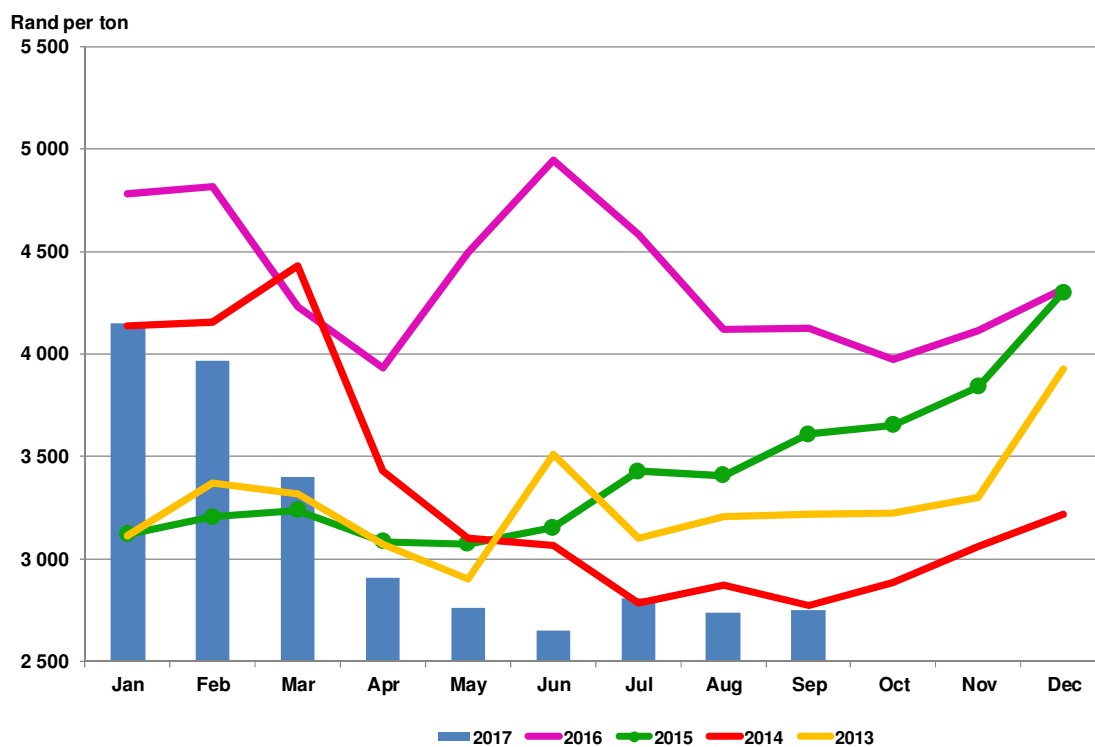


Figure 9 Calculated dairy feed prices, 2014-2017

Source: Safex nearest month data

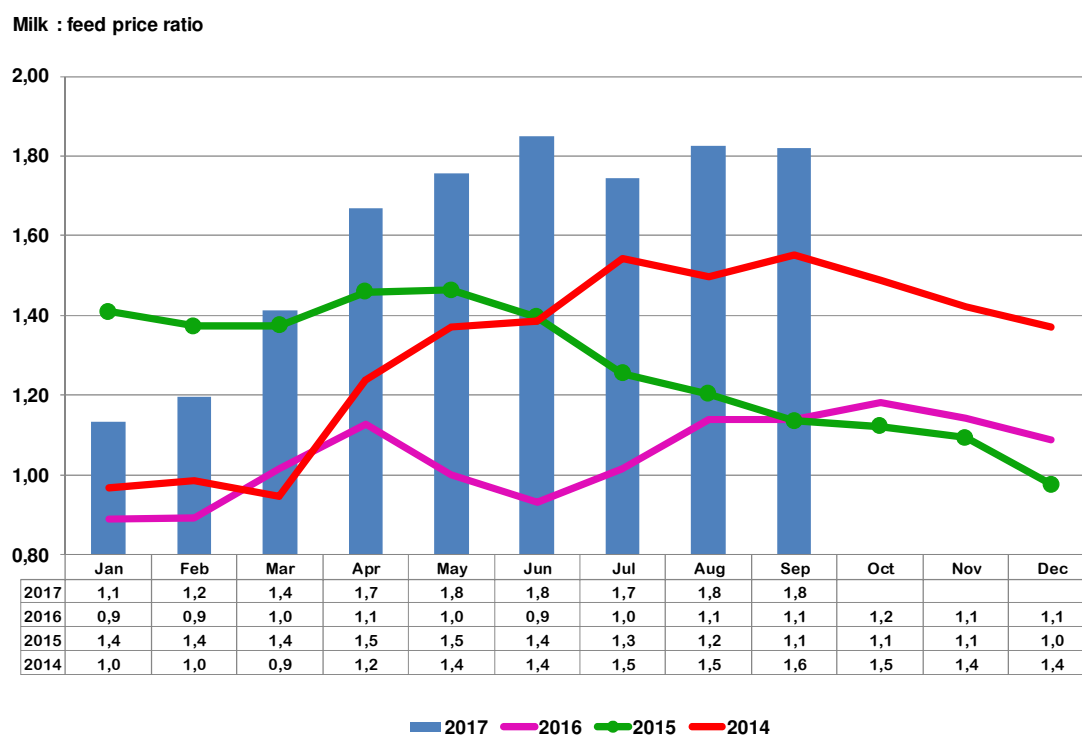


Figure 10 Milk: feed price ratio, 2014-2017

Source: MPO calculations

1.7 Input prices

The National Department of Agriculture publishes price indexes for farm requisites on a quarterly basis. As milk producer cost compositions differ markedly from the weighted cost for agriculture as a whole, the MPO has developed a milk production cost index based on the weight of the different requisites for an average dairy farmer. As with all indexes, this index simplifies a very complex data-set to a level that do not correspond to individual farm data-sets. However, the trend in this index gives an indication of the direction of input price changes. The dairy farm production cost index and producer price index are shown in Figure 11.

Index (2000 = 100)

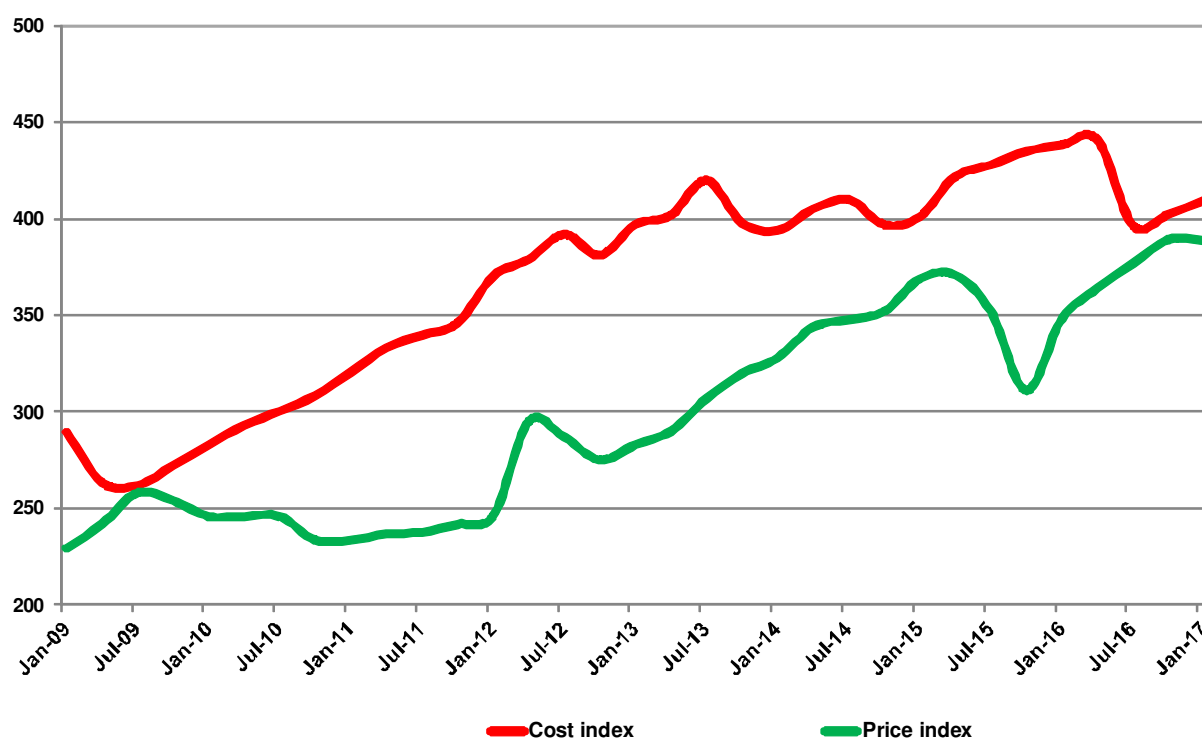


Figure 11 Quarterly milk production cost and producer price index, 2009-2017

Source: DAFF, MPO calculation

1.8 International prices

The FAO food price indexes for cereals, meat, sugar and dairy products are shown in Figure 12. International dairy product prices decreased from 2014 to its lowest level in 5 years at the beginning of 2016. Dairy product prices are currently at the highest level since April 2016. Higher production in the Southern Hemisphere, resistance to record prices and the Russian ban on EU products were the main causes for this decrease. The increase in prices were caused by lower production and improved demand.

Figure 13 shows the movement of the Global Dairy trade price index and Figure 14 show international prices for milk powders, butter and cheese as reported by USDA in Rand/ton. Prices on the Fonterra Global Dairy Trade trading platform increased slowly in December and January and accelerated to 10% growth by end February. From March to August 2015,

international prices continued to decrease to the lowest level in eight years. After a slight recovery prices continued the downwards trend to July 2016. Prices increased to the end of January 2017 and again in April 2017. Current expectations are that prices will move sideways during 2017. Butter prices are currently at an all-time high and are expected to remain high.

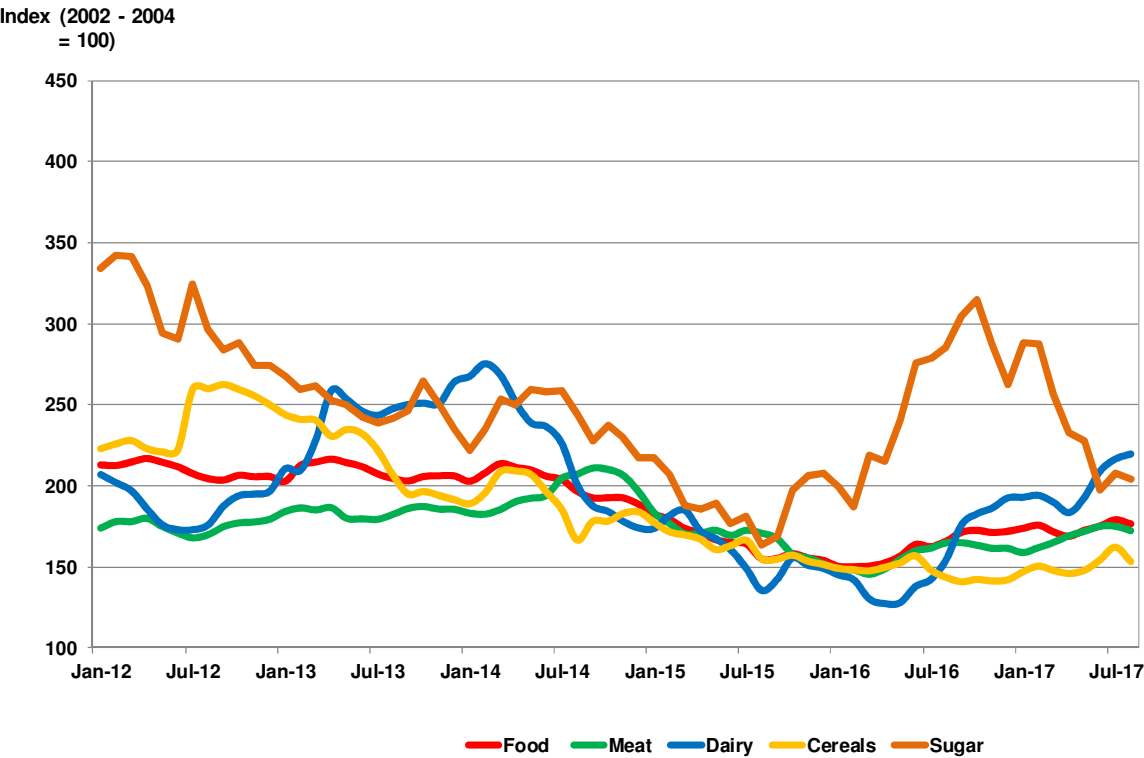


Figure 12 Monthly FAO food price indexes, 2012-2017

Source: FAO food price index

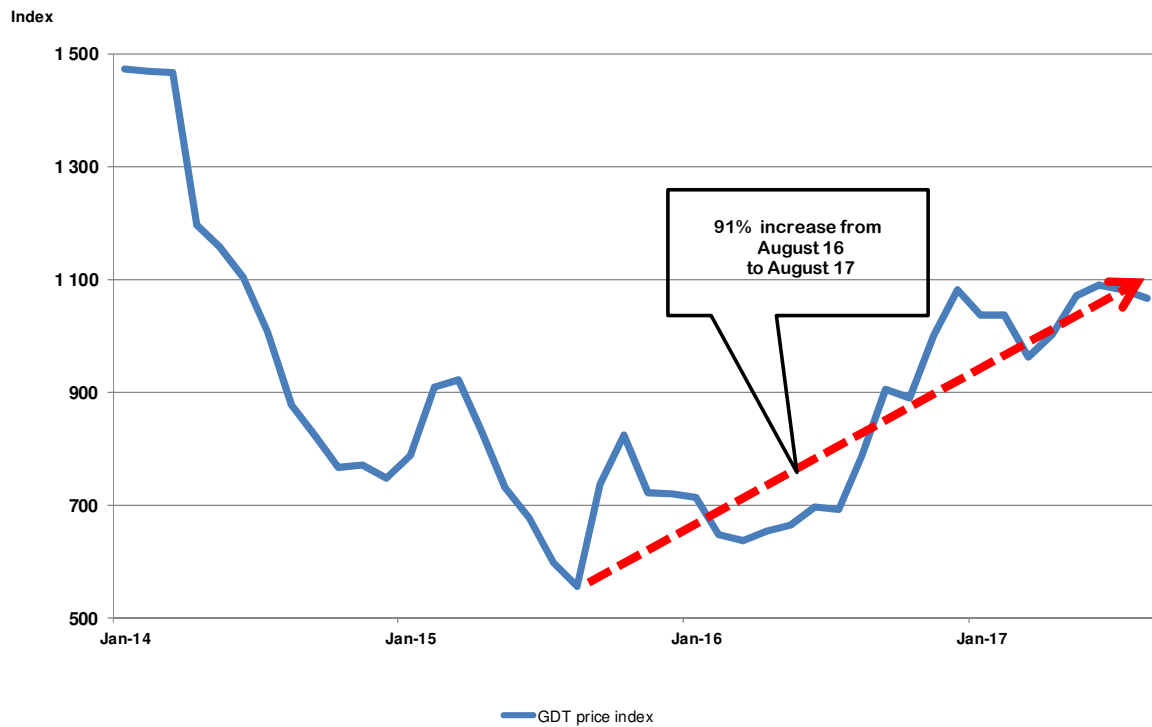


Figure 13 Global dairy trade trade-weighted price index, 2014 to 2017

Source: Global dairy trade

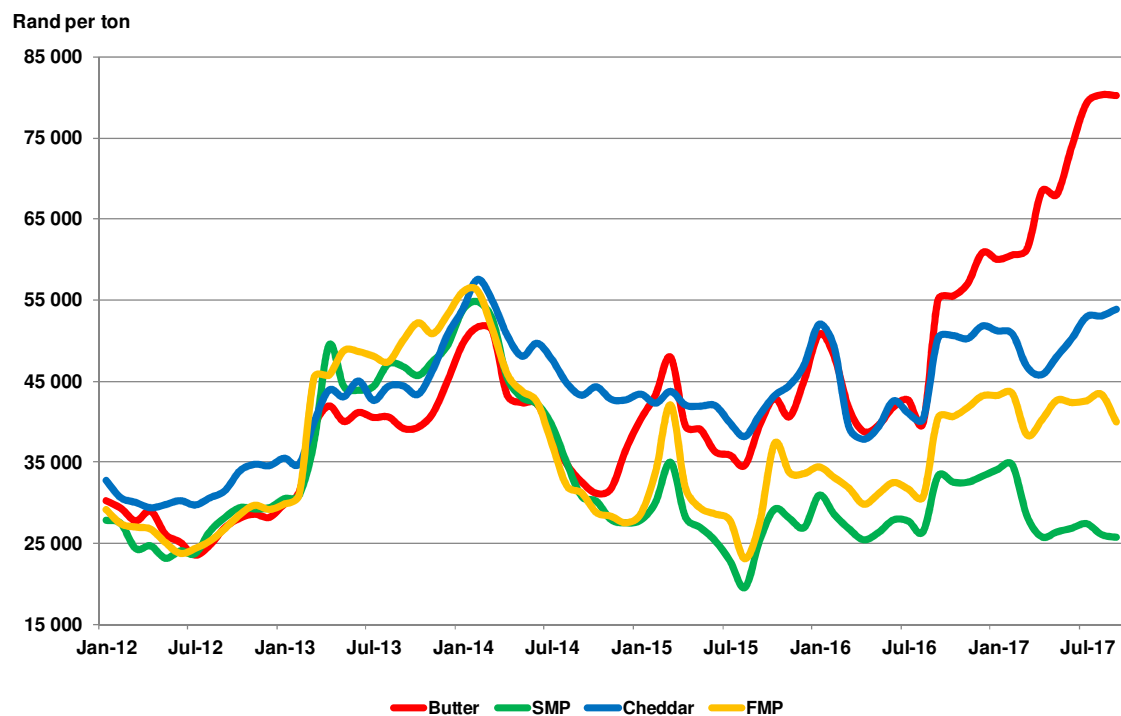


Figure 14 International dairy product prices (Rand/ton), 2012-2017

Source: USDA, SA Reserve Bank

1.9 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. The decrease in international prices since the beginning of 2014 has for a short time moved import parity downwards to below the average South African price. The higher global prices and weaker rand since the beginning of 2015, moved import parity to levels above the producer price again. A weakening rand partially isolated SA import prices against the weaker international market. However, the decrease in international product prices since March 2015 pushed import parity below producer prices again. The recent improvement in international prices and further weakening of the rand has lifted import parity again. Import parity and producer prices are reflected in Figure 15.

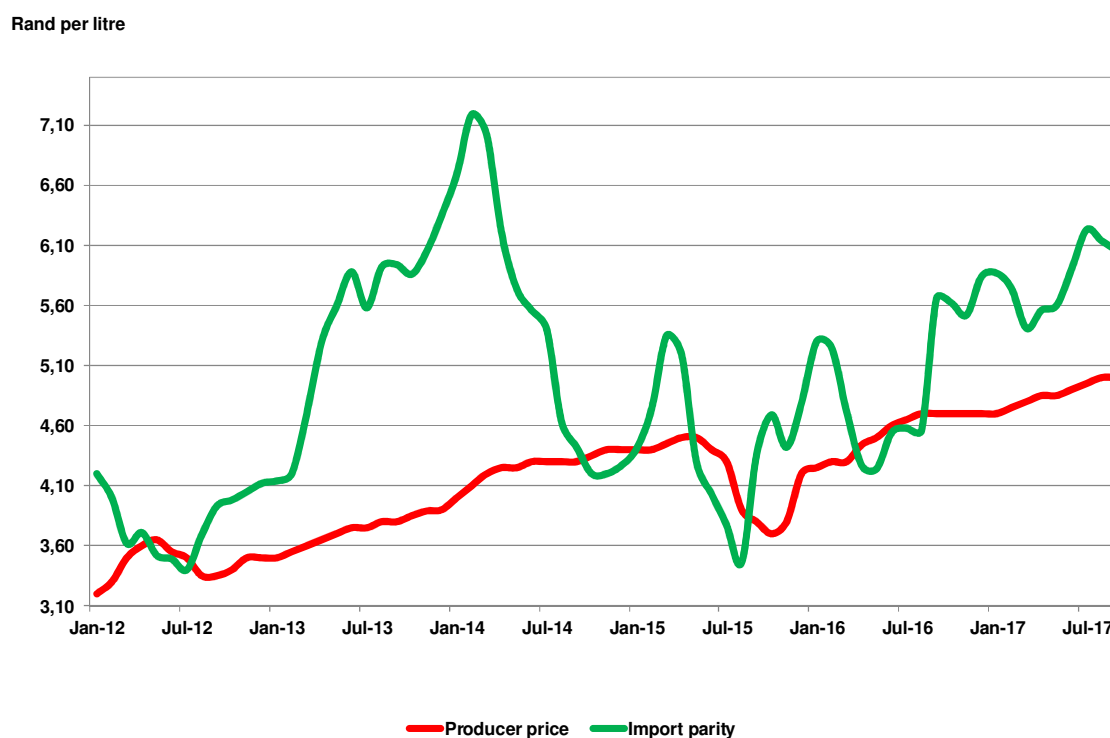


Figure 15 Monthly producer and import parity prices, 2012-2016

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. Economic overview

2.1 International economic outlook

The global economy is growing, albeit with some uncertainty and with stronger growth in developing than in advanced economies. The unexpected resignation of the United Kingdom from the EU created a lot of uncertainty in international markets. In its April 2017 publication the IMF again adjusted growth predictions for 2016 and 2017 slightly upwards. The international economic growth and estimated growth for 2010 to 2017 is shown in Figure 16.

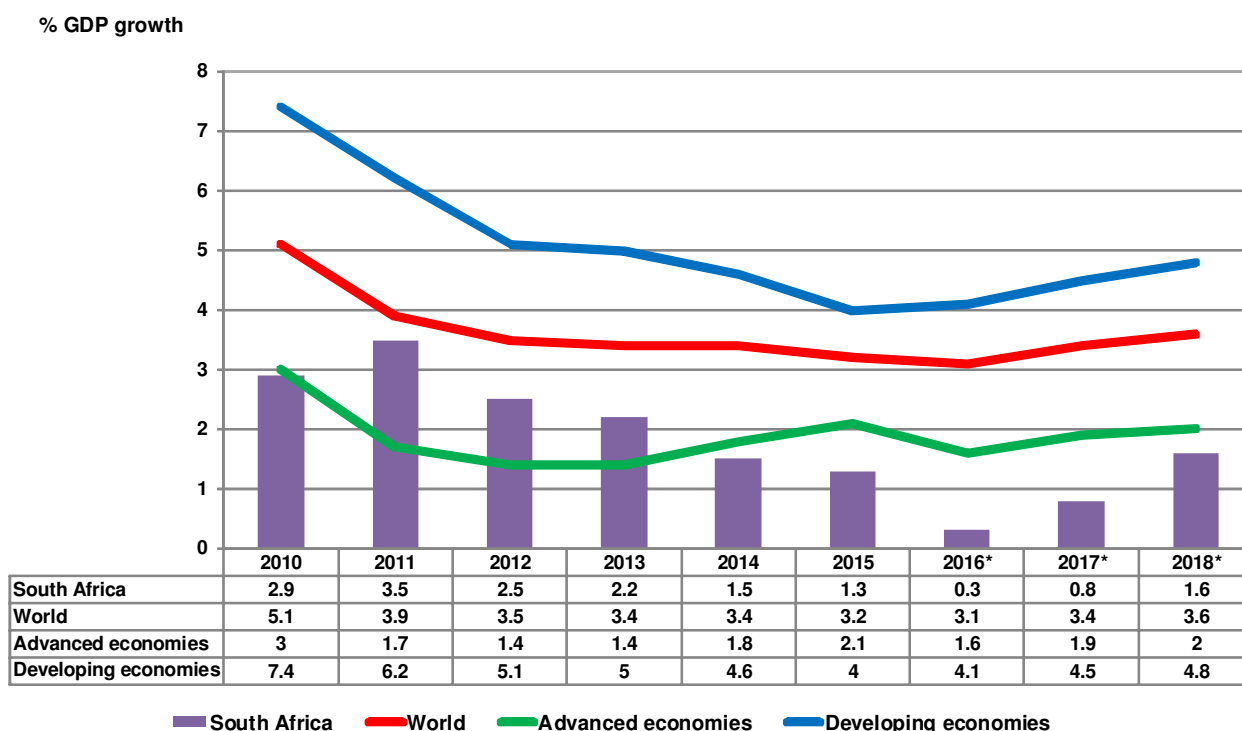


Figure 16 International economic growth and estimated growth, 2010-2018

Source: IMF WEO July 2017

2.2 South African economy

2.2.1 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 co-incident and leading indicators point towards slower current and future growth.

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.

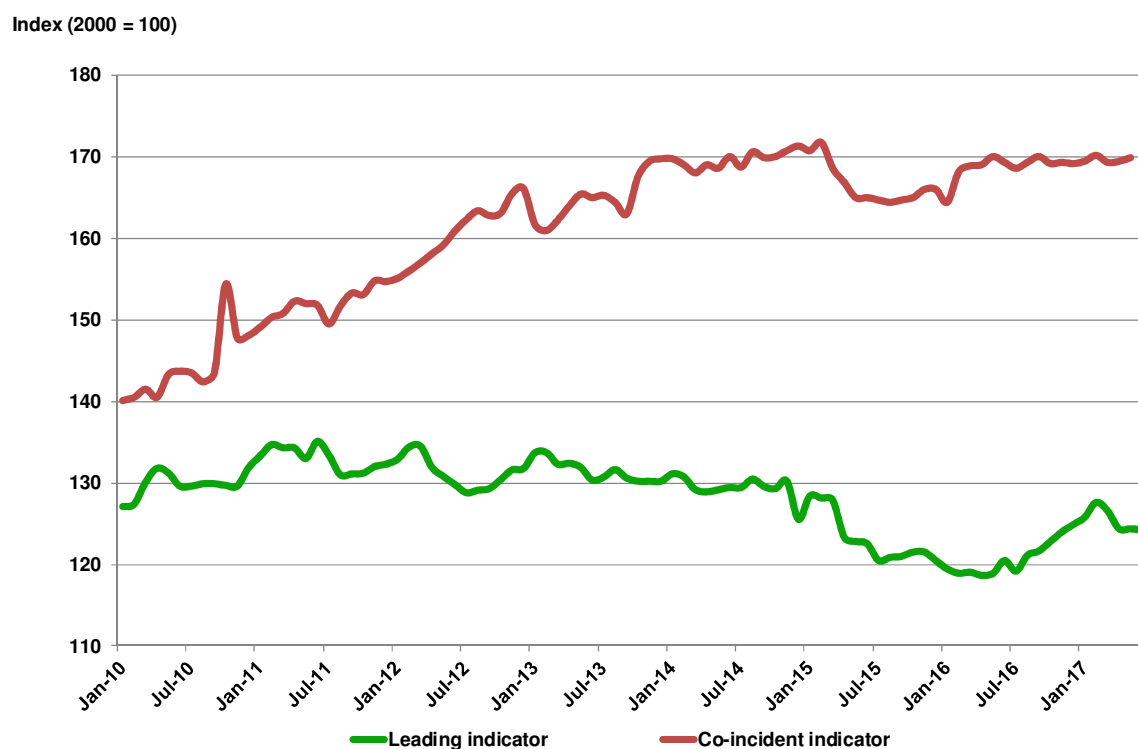


Figure 17 Leading and co-incident indicator of economic activity

Source: Stats SA

Economic growth slowed down since the beginning of 2015. After lacklustre growth of 1,3% in 2015 the economy further disappointed with 0,3% growth in 2016. Negative growth of 0,3% and 0,6% in the last quarter of 2016 and first quarter of 2017 was followed by a surprising 2,5% growth in the second quarter of 2017, mainly the result of good performance by the mining and agricultural sector.

Annual % change

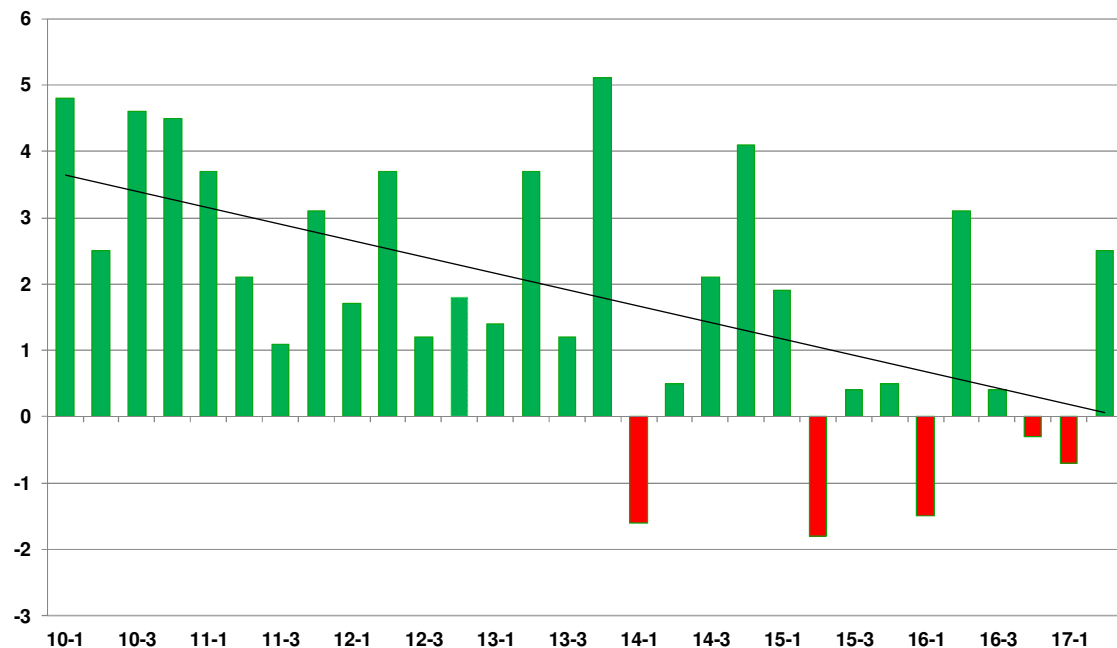


Figure 18 Quarterly change in real gross domestic product, 2010-2015

Source: Stats SA

2.2.2 Household debt and income

Household debt peaked during 2008 at 82,3% of disposable income. Since then it has slowed down to 78% in 2015. Households' per capita disposable income decreased from 2008 to 2009. It has since recovered slightly.

2.2.3 Inflation

Consumer price inflation moved below the 6% upper target in September 2014, weakened to 4,0% in March 2015 and increased to 5,2% in April 2015 and remained below the 6% target value to December 2015. After a spike from January to April 2017 the rate of inflation moved below the target rate and has already resulted in a decrease in the repo rate. Surprisingly the Reserve Bank did not reduce the repo rate in September. The consumer price index and monthly changes in the index are reflected in Figure 19.



Figure 19 Consumer price index and consumer price inflation, 2007-2017

Source: Stats SA

3. Outlook

After a slight downturn in the beginning of 2017, world dairy product prices increased again. There are distinct indications that international dairy product prices, with the exception of butter prices will remain stable in 2017 and increase in 2018. Chinese demand has recovered; production growth is lower in the EU and generally negative in Southern hemisphere countries. Significantly higher butter prices bolster the prices of other dairy products.

Negative growth in milk production continued to the end of August 2016. Total milk production for 2016 is 0,5% less than during 2015. Production in the first eight months of 2017 is 1% higher than production in the same period last year. Lower grain prices did result in higher production. Future production is uncertain in the light of the drought in pasture areas and scarcity of roughages. Drought conditions in the Eastern and Western Cape, the price and availability of roughage, the after-effects of the 2015/2016 drought and very high beef prices will limit production growth.

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%. The Reserve Bank recently reduced interest rates by 0,25 percentage points as they believe that inflation may remain low.