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MELK SUID-AFRIKA/MILK SOUTH AFRICA

MELKPRODUSENTE-ORGANISASIE
MILK PRODUCERS' ORGANISATION

Suid-Afrikaanse Melkprosesseerdersorganisasie
South African Milk Processors' Organisation


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Milk SA foreword

The purpose of this publication is to make information available on the structure and performance of the dairy industry, with a view to promoting the optimal development of the industry to the benefit of the South African dairy industry and consumers.

Milk SA is proud to present this publication, which was made possible through the contributions of especially the persons or entities sharing their information via the statutory regulations, the SA Milk Processors' Organisation (Sampro), the Milk Producers' Organisation (MPO) and the Milk SA Advisory Committee.

A special word of thanks to the MPO for compiling the information contained in *Lacto Data.*

Executive summary

During the first eight months of 2017 South African milk intake is estimated at 1 985 000 t, 1,0% more than during the same period in 2016.

During the first half of 2017 South Africa imported 42 561 t of dairy products, up 123% on the first half of 2016. Exports in the first half of 2017 were at 23 380 t, 12,3% less than during the same period in 2016. Dairy product prices remain highly volatile. Based on the GlobalDairyTrade index, international product prices are currently 50% higher than at the end of 2016. Butter prices have increased to record levels of more than US$6 000/t.

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Lacto Data is also available on
www.milksa.co.za and
www.mpo.co.za/information/lactodata

This is a publication of Milk SA

Figure 1: International economic growth and expected growth, 2010 – 2018 (source: IMF, 2017 and 2018 IMF projection)

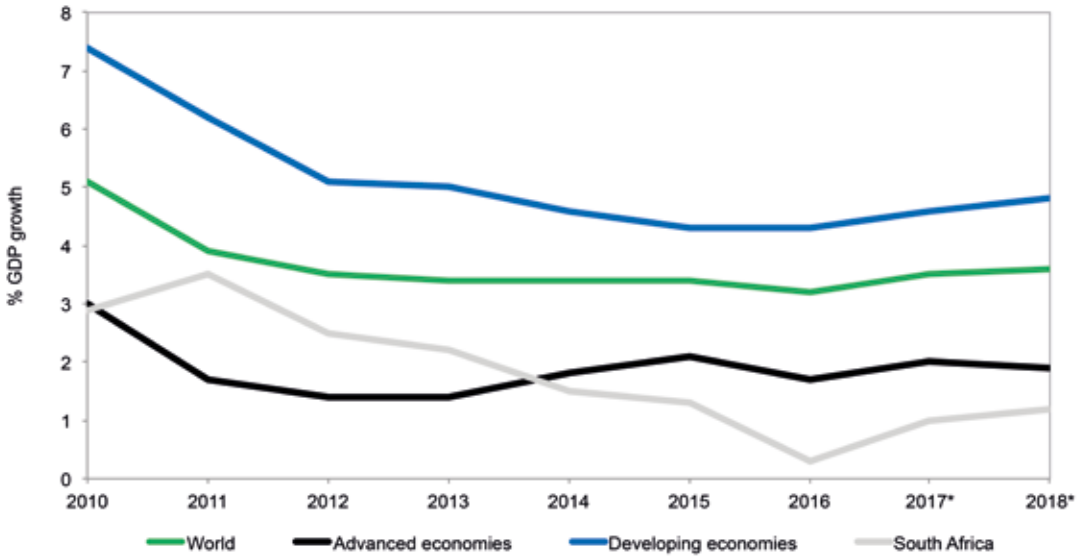
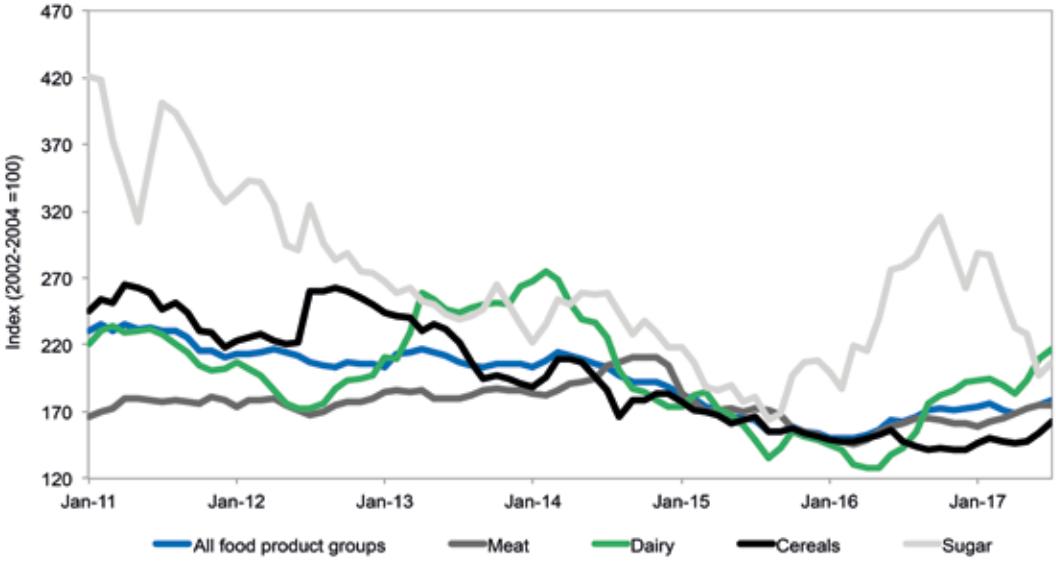


Figure 2: FAO food price indices of internationally traded product groups, 2011 – 2017 (source: FAO Food Price Index, 2017)



INTERNATIONAL SITUATION

Global economic growth

The global economy's cyclical recovery continues. In its July 2017 update to the *World Economic Outlook* the International Monetary Fund (IMF) estimated global economic growth of 3,5% in 2017, increasing to 3,6% in 2018. Emerging market and developing economies are expected to grow by 4,6% and 4,8% in 2017 and 2018. The developed world is expected to grow by 2,0% in 2017, slowing down to 1,9% in 2018. The positive global growth trend is not reflected in different countries. In the US, growth projections are lower than they were in April 2017, reflecting a less accommodative fiscal policy than previously anticipated. European growth is expected to improve as growth at the end of 2016 and beginning of 2017 was more positive than expected. Chinese growth is expected to remain at 6,7% in 2017 and decrease to 6,4% in 2018. The Chinese government is expected to continue public investment, thus bolstering growth.

Downside risks to the expected global growth are larger than the possibility of more positive growth. In the EU, political risks are lower. On the downside, the high valuation of equities and policy uncertainty may result in markets adjusting downwards. China's accommodative fiscal policy will result in higher debt, and a less accommodative fiscal policy in the US can result in tighter global financial conditions. Geopolitical risks still remain valid.

Global food prices

Global food prices are highly volatile. The Food and Agricultural Organisation (FAO)'s all-food price index increased by 7,2% from June 2016 to June 2017, and meat prices by 10,7%, while cereal prices decreased by 1,7% and sugar prices by 29,6%. Dairy product prices increased by 51% between June 2016 and June 2017. Dairy product prices are still highly volatile. Sugar prices showed huge volatility, peaking in October 2016 and then decreasing sharply since. Cereal prices have decreased slightly.

The short-term increase in the food price index from May to June 2017 was driven by large increases in dairy and cereal prices and slightly firmer meat prices. The increase in dairy prices was caused by increases in all product prices, but especially in the butter price.

NEED TO KNOW

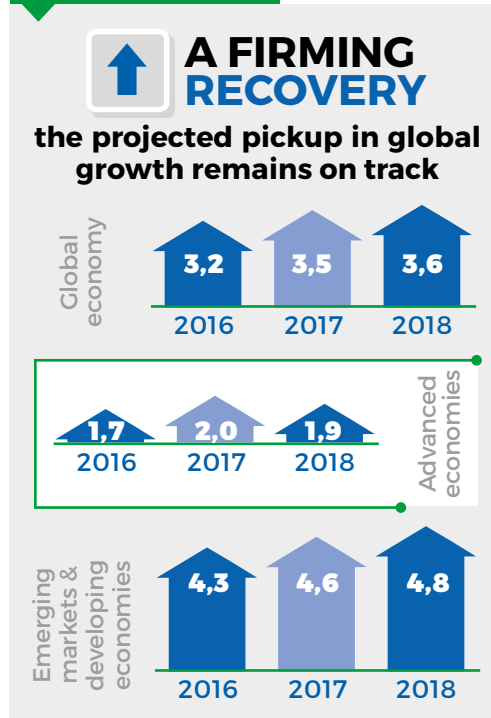


Figure 3a: International FOB dairy product prices, US$/tonne, Jan 2010 – Jul 2017
(source: USDA)

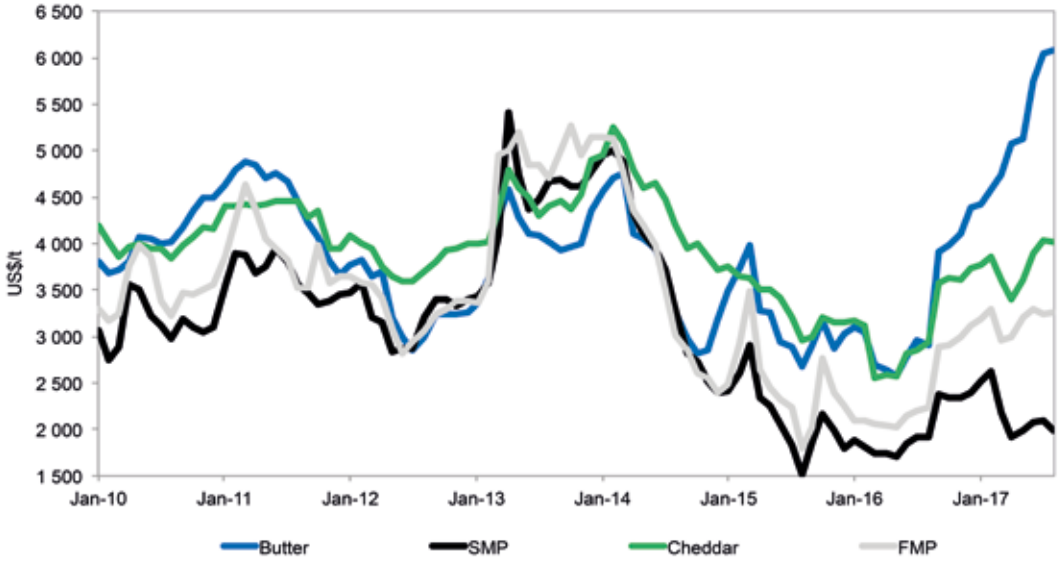
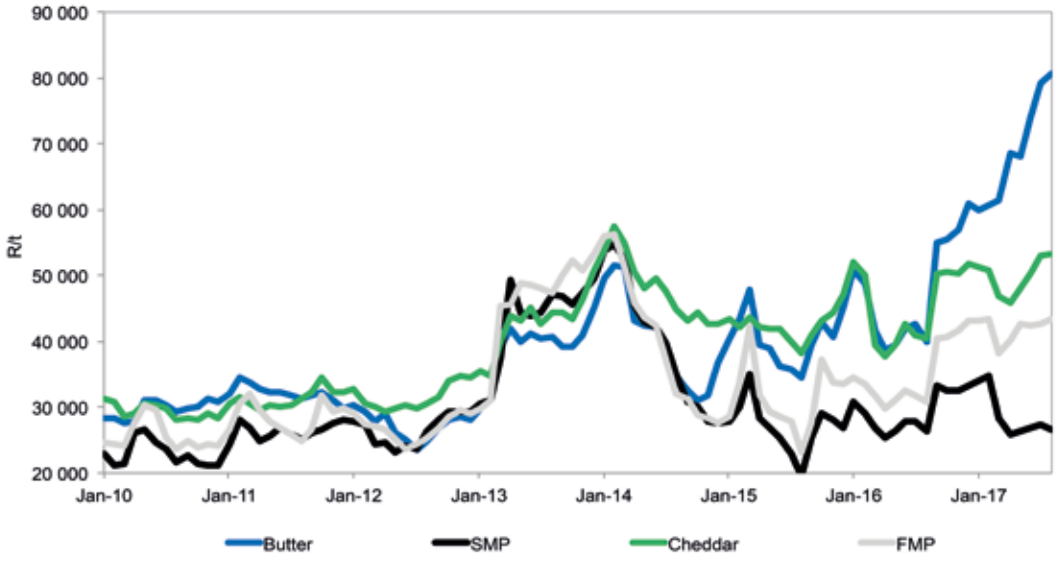


Figure 3b: International FOB dairy product prices, R/tonne, Jan 2010 – Jul 2017
(source: USDA, Reserve Bank)



International dairy product prices

Dairy product prices decreased in the first half of 2015, recovered to January 2016 and then decreased to mid-2016. Since then prices have recovered, with butter prices leading the recovery. Lower milk production in major exporting countries, a sharp decrease in butter stocks, an increased global demand for butterfat and the slow recovery of demand, especially in China, have been the main drivers of the price recovery. Skimmed milk powder stocks remain high and have resulted in a marginal increase in the prices of skimmed milk powder. Prices remain volatile. International dairy product prices are shown in Figure 3(a) and Figure 3(b).

international dairy product prices
=> result in =>
raw milk producer prices

International raw milk producer prices

Lower international product prices resulted in lower international raw milk producer prices. In countries with large export markets and countries that import significant quantities of dairy products, producer prices followed changes in product prices closely. In other countries the transmission from product prices to producer prices was slower. In most countries producer prices did not decrease at the same rate as product prices. The increase in product prices since mid-2016 has resulted in a narrowing of the difference between international product and producer prices. In May 2017 the US producer prices were strongly aligned with global product prices while EU prices were lower than global product prices.

Table 1: International calculated standardised raw milk producer prices, 2013 – 2017 (R/litre) (source: LTO Nederland. Based on 4% fat-corrected milk. See **www.milkprices.nl** for a detailed definition of LTO-standardised calculated price. Exchange rates: Reserve Bank monthly middle rates. *Based on MPO price survey)

Country	Jan '13	Jan '14	Jan '15	Jan '16	Jan '17	May '17
Belgium	3,94	5,54	3,85	4,55	4,60	4,81
Germany	3,84	5,51	3,72	4,72	4,18	4,64
Denmark	3,73	5,51	3,82	4,51	4,45	4,68
France	3,90	5,68	4,38	5,55	4,42	4,77
Great Britain	4,07	5,35	4,69	5,29	4,08	4,34
Ireland	3,75	5,25	3,95	4,41	4,09	4,64
Netherlands	3,92	5,60	3,84	4,90	4,41	4,96
New Zealand	3,15	5,44	3,26	3,66	4,38	4,50
USA	3,78	5,13	4,47	5,55	5,23	5,01
* South Africa	3,60	4,05	4,45	4,11	4,65	4,85

Figure 4: Global milk production per species, 2009 – 2015
(source: IDF Bull. 485/2016)

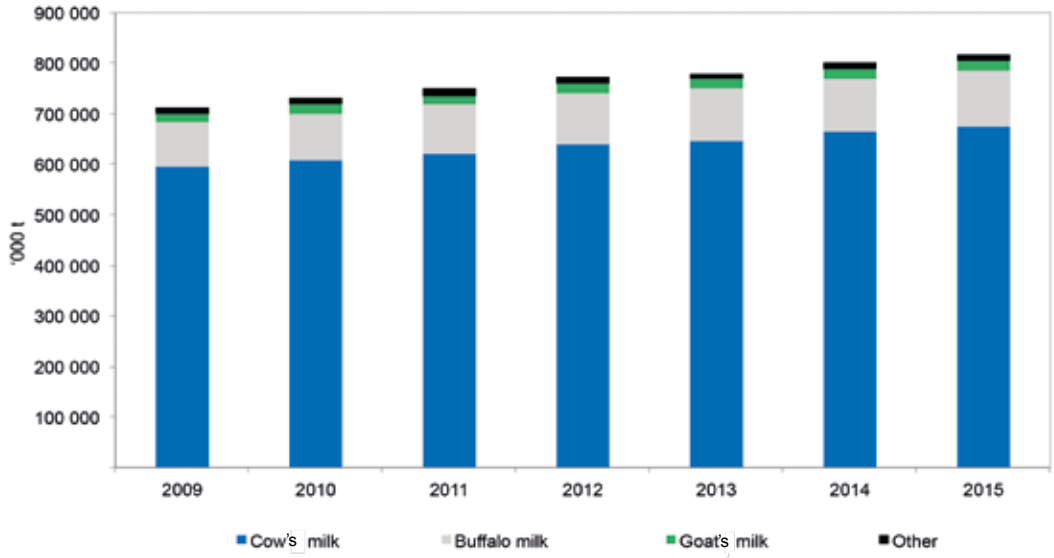
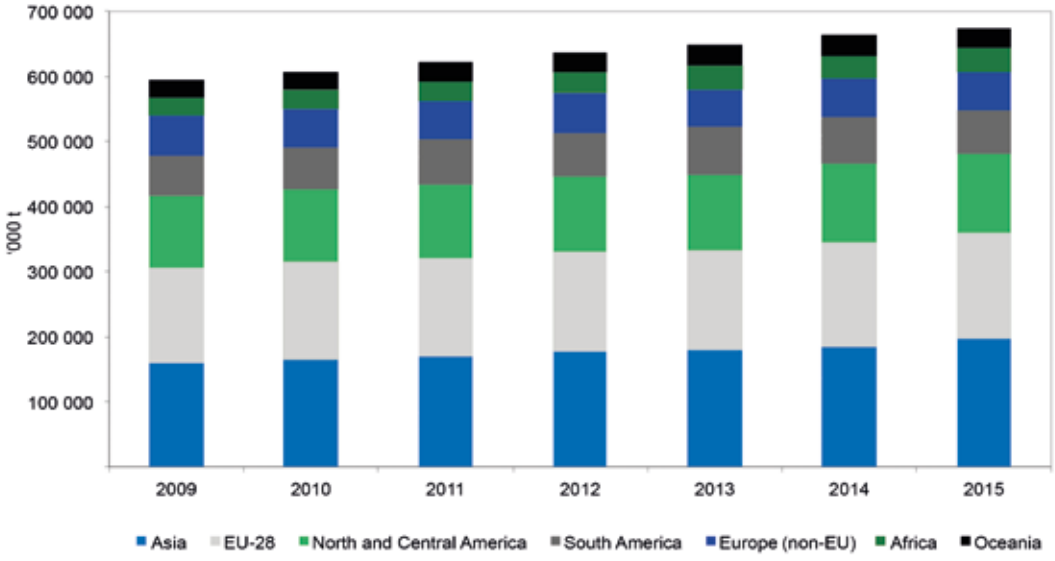


Figure 5: Cow's milk production per region, 2009 – 2015
(source: IDF Bull. 485/2016)



World milk production

After the fast growth of milk production in 2014, slower growth was expected for 2015 as producer prices in most regions followed the downward trend in dairy product prices. Cow's milk production represented 82,5% of total milk production in 2014. This figure grew by 2,0% to 674 million tonnes in 2015, slower than the 3,3% growth experienced in 2014. With the exception of India (+10,9%), milk production grew slowly in Asian countries in 2015. Chinese production only grew by 1%, causing the milk powder inventories from the previous two years to start disappearing quickly. The EU managed another 2% production growth in 2015 despite a slow start to the production season. After March 2015, production grew quickly in EU countries, with the Netherlands and Ireland leading the way. North American production grew by 1,6%, resulting from a combination of a robust 4,5% growth in Canada and a slow 1,3% growth in the US. Oceanic production decreased as farmers cut down on concentrate feeding to meet lower producer prices. This resulted in a 1,6% reduction in milk production. South America's milk output decreased by 1,2% in 2015. Despite a reduction in producer prices during the first half of 2015, production growth remained resilient. Milk production growth in selected countries is shown in Table 2.

In 2016, the lower producer prices in most countries, coupled with higher grain prices as well as unfavourable climatic conditions, resulted in slower and negative production growth. In the US, still favourable milk-to-feed price ratios resulted in a positive growth of 1,6%. Production decreased sharply in Argentina (-14,4%), Uruguay (-10,4%) Australia (-6,9%) and New Zealand (-2,0%). European production did not increase at the expected rate in 2015 and grew very slowly in 2016. Unfavourable producer prices, environmental restrictions and subsidies designed to limit production all contributed to the slower growth in the EU.

Production of dairy products

Milk production increased in 2015, resulting in a higher global production of dairy products, although growth rates were lower than in 2014. Only cheese and condensed milk production levels were higher than in 2010. Global production of packaged milk increased by 0,9% in 2015, with higher growth in developing countries and Chinese production growing by 5%. The US remained the world's top producer. Production of liquid

Table 2: Milk production growth: 2015 compared to 2014, 2016 compared to 2015 and Jan – May 2017 compared to Jan – May 2016 (source: CNIEL, 2017)

Country	2015/2014	2016/2015	Jan – May 2017/ Jan – May 2016
Australia	+2,2%	-6,3%	-5,4%
European Union	+2,1%	+0,2%	-0,5%
New Zealand	-1,4%	-2,0%	+2,8%
United States	+1,2%	+1,6%	+2,1%
Uruguay	-2,0%	-10,4%	+4,4%
Argentina	+1,5%	-12,8%	-0,5%

Figure 6: World population and per capita consumption of dairy products, 2005, 2008 – 2015 (source: IDF Bull. 485/2016)

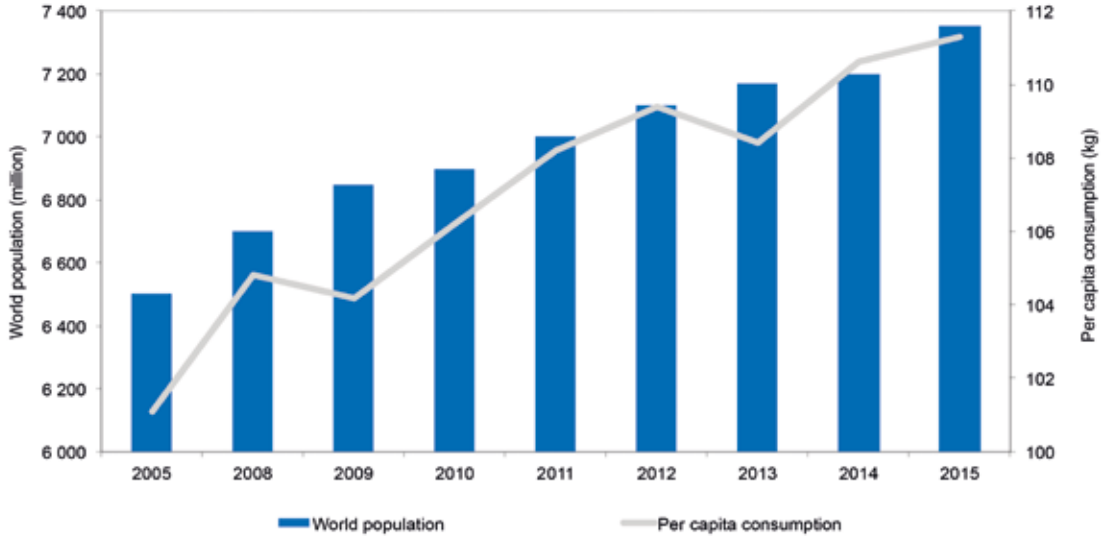
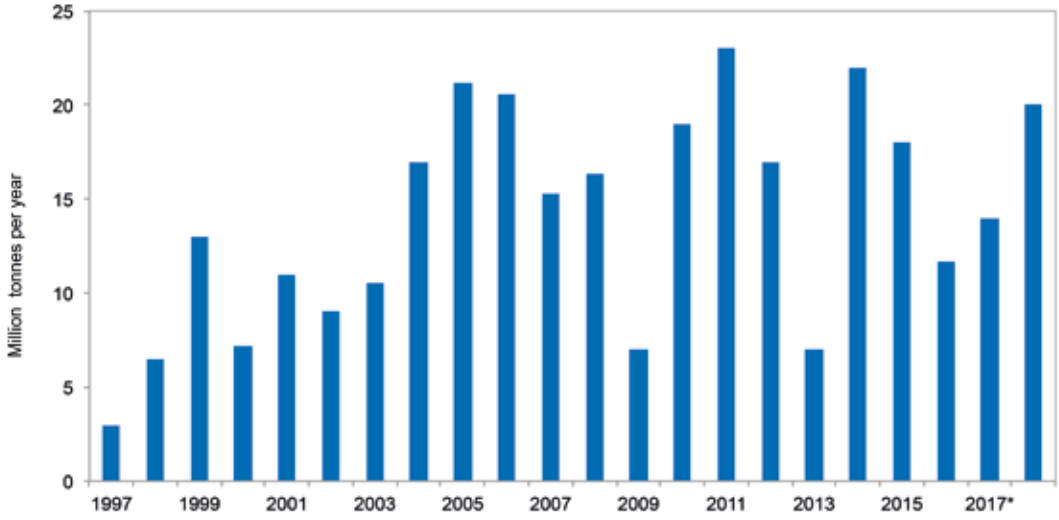


Figure 7: Annual increase in dairy demand, 1997 – 2018
(source: IFCN Conference 2016, *2017, 2018 IFCN projection)



milk decreased in developed countries, with a 1,7% decrease in the EU, 1,4% in the US, Canada (-2,8%) and Australia (-3,0%).

Global production of butter and other milk fats grew by 2,1% in 2015, down from the 3,2% average growth rate observed over the past five years. Butter and butter oil production was expected to grow further in 2016. Globally, approximately 23 million tonnes of cheese are produced, of which cow's milk cheese accounts for close to 90% of all cheese. The cheese category experienced a high growth of 2,8% in 2015, compared to an average growth of 1,9% over the past five years. Reduced deliveries in New Zealand resulted in a decrease in full-cream milk powder production. Chinese production remained stable while production in the EU increased by 2,9%. The EU, the top producer of skimmed milk powder, produced a record volume in 2015, growing by 4,6% from 2014.

Consumption of dairy products

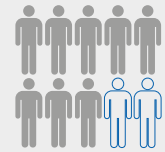
In 2015 the world population grew by close to 100 million people to a total of 7,3 billion. The average per capita milk consumption of milk and dairy products was 111,3 kg milk equivalent, up 0,6% on 2014. The world population and per capita consumption of dairy products are shown in Figure 6. A recent analysis by the International Farm Comparison Network (IFCN) shows that the global demand for dairy will grow by 22 million tonnes per year, of which 8 million tonnes will be as a result of population growth and 14 million tonnes as a result of increased per capita consumption. The actual and estimated demand for dairy products is shown in Figure 7.

The annual average consumption of dairy products differs vastly between the various regions. In Africa, per capita consumption is about 50 kg per capita per year. Asia consumes 42,3% of all dairy products, although per capita consumption remains low at 78 kg. Asia's per capita consumption is growing, but is still lower than consumption in mature markets. According to the *OECD-FAO Agricultural Outlook*, population growth, increasing income and dietary changes will continue to push consumption growth. An increase of 22% in global dairy products consumption is expected to 2025. The regional distribution of dairy consumption is shown in Figure 8.

"The global demand for dairy will grow by 22 million tonnes per year, of which 8 million tonnes will be as a result of population growth and 14 million tonnes as a result of increased per capita consumption."

NEED TO KNOW

>7,3 billion people – still increasing



ave per capita consumption

111,3 **kg per capita per year**

[up from 101 kg in 2005]

Figure 8: Regional distribution of total demand for dairy products, 2015
(source: IDF Bull. 485/2016)

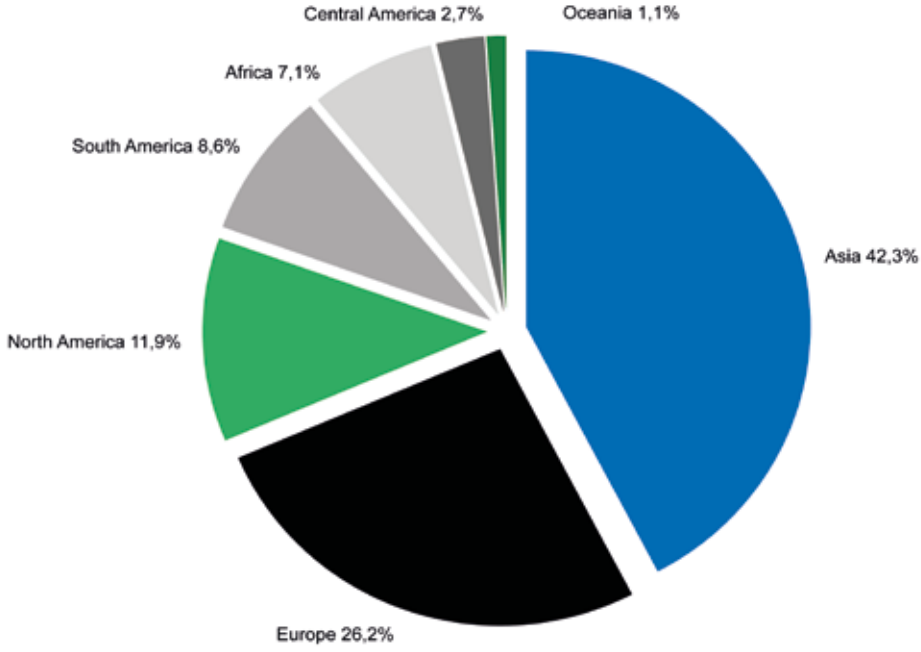
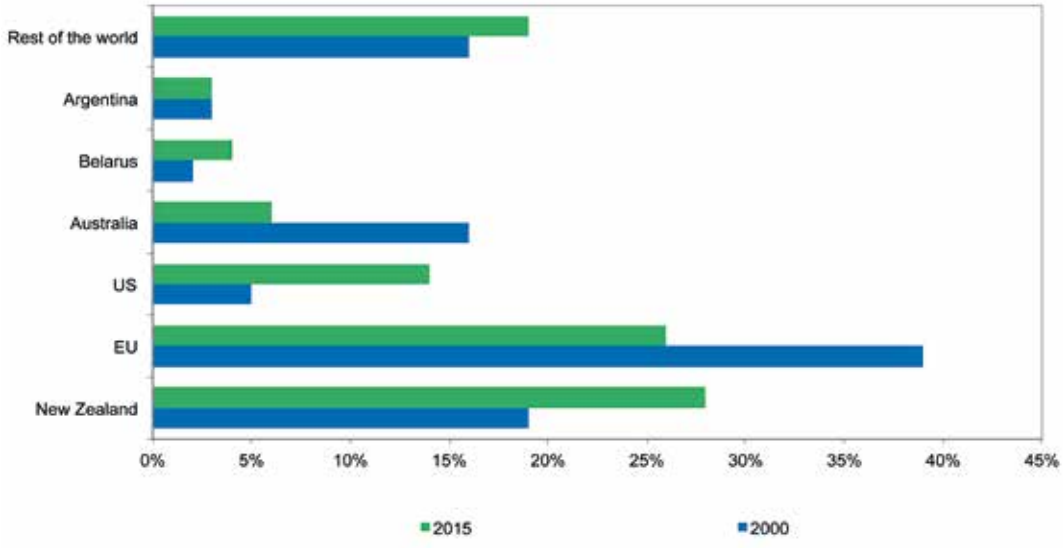


Figure 9: Share of key exporting countries in total trade in dairy products, 2000, 2015
(source: IDF Bull. 485/2016)



International dairy trade

In 2015, 69,4 million tonnes of dairy products were traded internationally. Dairy trade volumes were only 0,3% up on 2014. The main reason for the sluggish trade was the decrease in global demand, especially in China. The share of key exporters in global dairy trade is shown in Figure 9. New Zealand is still the world's largest exporter of dairy products, with a 28% share, followed by the EU (27%), the US (14%) and Australia (6%). Together, these three regions account for 75% of the total international dairy trade.

The secondary industry consists of many smaller, local companies and a few larger, multinational dairy companies that are active in various countries. Major international dairy companies are shown in Table 3.

Table 3: Major dairy companies, 2013 – 2015 (source: IDF Bull. 485/2016)

Rank	Company name	Country	Turnover (Bn US$)		
			2013	2014	2015
1	Lactalis	France	21,2	21,9	18,9
2	Nestlé	Switzerland	18,7	18,3	15,2
3	Fonterra	New Zealand	15,1	18,7	14,3
4	Dairy Farmers of America	US	12,8	17,9	13,8
5	Danone	France	15,7	14,8	12,3
6	Friesland Campina	Netherlands	15,1	15,0	12,2
7	Arla Foods	Denmark	13,1	14,7	11,4
8	Yili	China	7,8	8,8	9,6
9	Saputo	Canada	8,8	9,4	8,6
10	Dean Foods	US	9,0	9,5	8,1
11	Mengniu	China	7,1	8,1	7,8
12	Meiji Dairies	Japan	6,4	6,2	5,9
13	Müller	Germany			5,6
14	Sodiaal	France	6,1	7,2	5,5
15	DMK	Germany	7,1	7,1	5,1
16	Morinaga Milk Industry	Japan	6,0	5,4	5,0
17	Schreiber	US	---	---	5,0
18	Savencia	France	5,9	6,1	4,9
19	Agropur	Canada	3,7	4,2	4,6
20	Megmilk Snow Brand	Japan	4,6	4,3	4,3

Table 4: Average herd size, selected countries, 2016 (source: IFCN 2017 for international data, MPO survey 2016 for South Africa data)

Country	Average number of cows in herd (cows in herd = cows in milk plus dry cows)
Saudi Arabia	6 924
New Zealand	419
South Africa	354
Australia	283
Czech Republic	207
US	203
Denmark	185
Israel	171
Argentina	168
United Kingdom	143
Uruguay	115
Canada	85
Uganda	2
Kenya	3

Table 5: Milk production for the top 10 milk-producing countries and South Africa, 2015 (source: IFCN, 2016)

	Country	Milk produced (million tonnes)	Milk to market (million tonnes)	% of total production to market
1	India	164,5	28,0	17,0%
2	US	90,2	89,8	99,6%
3	Pakistan	45,6	1,4	3,0%
4	Brazil	34,7	24,4	70,3%
5	Germany	33,4	32,1	96,1%
6	China	31,8	28,5	89,6%
7	Russian Federation	28,5	18,6	65,3%
8	France	25,6	25,1	98,0%
9	New Zealand	24,6	24,6	100,0%
10	Turkey	15,7	8,2	52,2%
	South Africa	3,2	3,1	96,3%

International primary sector

The average dairy farmer internationally milks 2,8 cows. Larger dairy farms are found in Saudi Arabia, New Zealand, South Africa, Argentina, the US and Canada. In South Africa the average number of cows in a herd in 2016 was 354. Average herd sizes (cows in herd) for selected countries are shown in Table 4.

International milk production

In 2015, the total world milk production, including cow's, buffalo, sheep, goat's and camel milk, is estimated by the IFCN at 831 million tonnes. Cow's and buffalo milk account for 96% of this figure. India is the largest milk-producing country in the world, followed by the US, Pakistan, Brazil and Germany. An estimated 62% of total global cow's and buffalo milk is delivered to dairies. Milk production increased in the majority of the main milk-producing countries. Indian milk production grew by 4,5%, Pakistan by 1,8%, Germany by 1,2%, and the US by 1,1%. Brazil's milk production decreased by 2,8% and New Zealand's by 1,3%. Table 5 shows milk production and milk deliveries to market for the top 10 milk-producing countries. South Africa's figures are added for purposes of comparison.

Cost of milk production

Cost levels in 2015 were 12% below the cost levels in 2014. The average cost level for 120 farms analysed was at a level of US$40,5/100 kg of energy-corrected milk (ECM), a decrease of US$5,7/100 kg ECM. Sixteen percent of the farms analysed, mainly those in Africa, had a milk production cost below US$30/100 kg ECM. Another 12% had cost levels above US$60/100 kg ECM, and the remainder had cost levels of between 30 and

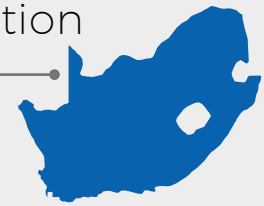
MORE INFO

World production

831 million tonnes

[96% = cow's + buffalo milk]

SA produces **0,5%** of global milk production



Main producing countries (2015 change)

- INDIA (↑ by 4,6%)
- US (↑ by 1,1%)
- PAKISTAN (↑ by 1,8%)
- BRAZIL (↓ by 2,8%)
- GERMANY (↑ by 1,2%)

Figure 10: Estimated milk production cost (US$/100 kg ECM) per average farm in participating countries, 2015 (source: IFCN, 2016)

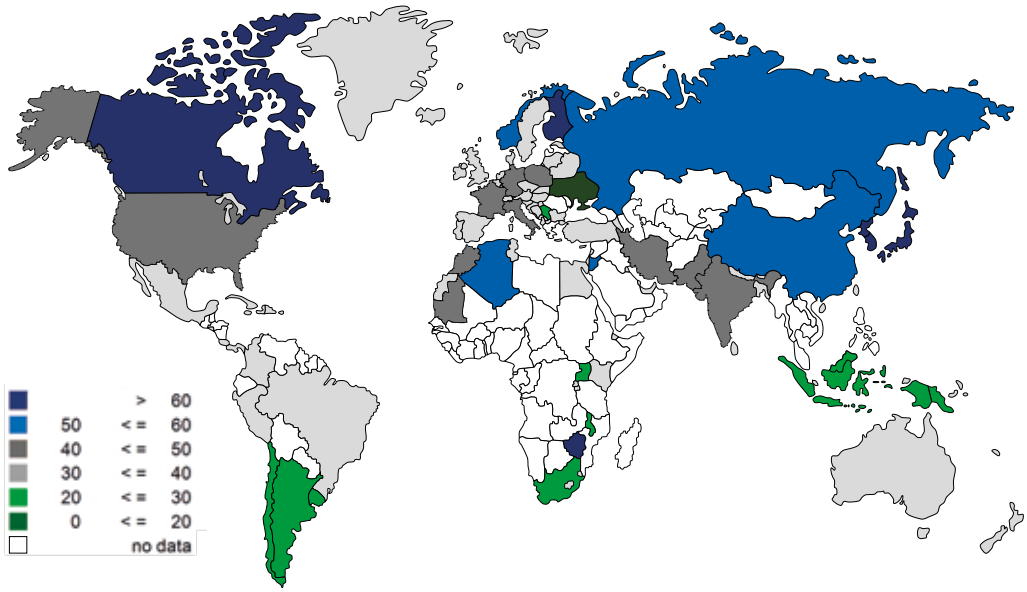
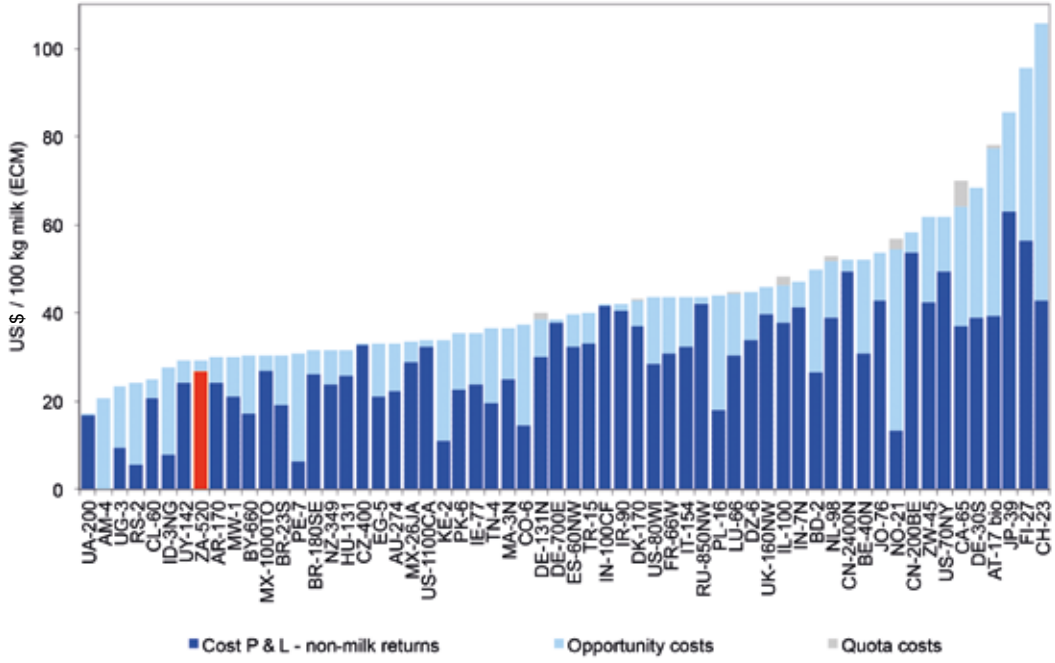


Figure 11: Estimated cost of milk production per farm (US$/100 kg), average farms in IFCN analysis, 2015 (source: IFCN, 2016)



**P & L – profit and loss account

Country by international country code and herd size, ZA 520 = ZA 520-cow herds.

US$60/100 kg ECM. Dairy farms in Africa, Latin America, the Central and Eastern European countries and Oceania were able to produce milk below the analysed average cost level. The top five lowest-cost countries were Uganda, Armenia, Ukraine, Serbia and Malawi, and the five countries with the highest production cost were Switzerland, Finland, Japan, Norway and Canada. The average estimated production costs for average-sized farms are shown in Figure 10.

In most cases, countries with very low milk production costs produce milk mainly for home consumption or direct sales to neighbours. South African dairy farms compare well with dairy farms in recognised dairy-producing countries such as New Zealand and Australia. South African production costs are higher than in Argentina and other South American countries, mainly because of lower grain prices in these countries. The very high production cost in Europe is evident from the figure.

Milk production costs per average farm for the countries participating in the IFCN analysis in 2015 are shown in Figure 11.

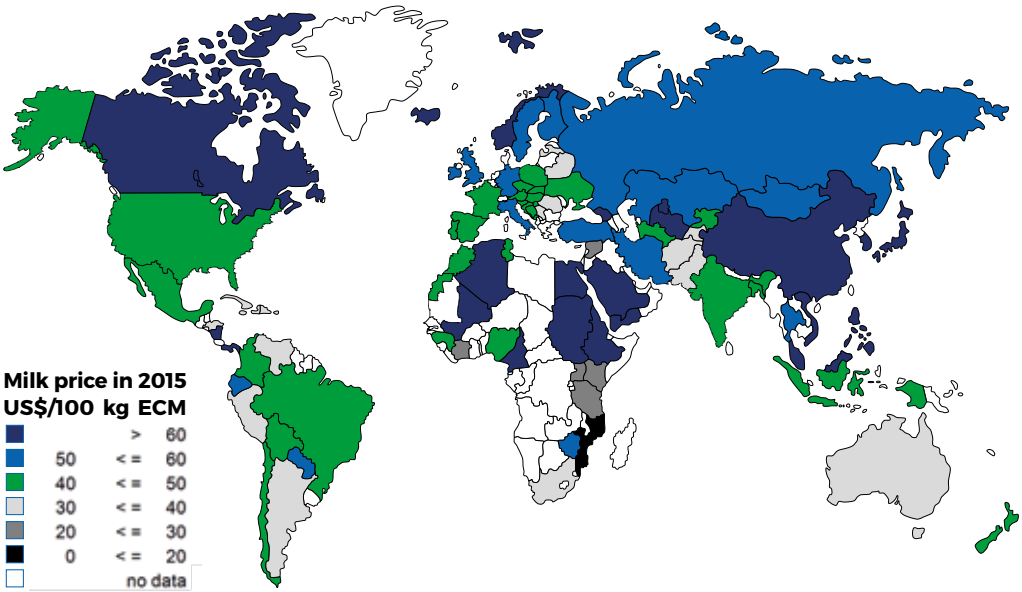
The IFCN is a global network of dairy researchers and provides globally comparable dairy data to scientists, policy makers and farmers internationally. This is done with the cooperation of dairy scientists in more than 90 countries. Milk production costs for typical dairy farmers are compared within the IFCN. Standardised models are used to ensure that figures are comparable across countries, types of dairy farming and herd sizes. More than 100 organisations use the information provided by the IFCN. The farm comparison data are validated by the research team at the IFCN centre in Kiel and presented annually at a conference of participating scientists in June. South Africa has been an active participant in the IFCN since 2000, with participation made possible through sponsorship from Milk SA.

The IFCN has two main activities: farm cost comparisons and the development of country dairy profiles. The latter, as well as the results of the cost comparisons, are published annually in a comprehensive dairy report, which is, under certain conditions, available from the Milk Producers' Organisation (MPO).

IFCN cost comparisons are based on full economic costs. This means that farm-produced feed is valued at a farm-gate market price and that the farmers own labour or management time is valued at comparable industry rates. All comparisons are done on a milk-equivalent basis and a standard of 100 kg of energy-corrected milk (4% butterfat and 3,3% protein) is used. The use of opportunity cost creates bias towards countries with very low or no opportunity cost for labour and without viable markets for feed. Milk production costs for typical, average-sized farms are shown in Figure 11. In the EU, farmers could in the past buy extra production quotas. The cost of extra quotas is also shown in Figure 11.

"In most cases, countries with very low milk production costs produce milk mainly for home consumption or direct sales to neighbours."

Figure 12: Estimated producer milk prices in various regions (US$/100 kg ECM), 2015 (source: IFCN, 2016)



Producer milk prices

The IFCN world milk price indicator, based on the price of major traded dairy products, averaged US$28,04/100 kg ECM in 2015, a drop of 34% from 2014. This was the second year of decreasing producer prices since the peak in February 2014.

In 2015, only a few countries such as Cuba and Uganda had producer prices below US$20/100 kg ECM. The majoritiy of countries analysed had producer prices of between US$20 and US$40, with Asian countries like Japan and China having very high producer prices.

The IFCN combined world milk price indicator is a weighted price for milk based on the prices of dairy products converted to milk-equivalent bases. While it provides a good basis for changes in international product prices, it does not closely follow producer prices in different countries.

Producer prices are indirectly linked to international product prices, depending on various factors such as the extent of openness of a specific market to international trade, the level of self-sufficiency in those markets and the extent of regulation or deregulation in the markets.

In 2015, only 20% of the farms analysed were able to produce at world market conditions. At farm level, 49% of farms analysed were able to cover their cost of milk production in 2015 at current country-specific producer prices. Milk prices per region are shown in Figure 12. In most low-priced regions, milk volumes per farm are low and the quality is not comparable to commercially produced milk.

MORE INFO

Lowest and highest cost countries in the world

Top 5 lowest cost

- UGANDA
- ARMENIA
- UKRAINE
- SERBIA
- MALAWI

Top 5 highest cost

- SWITZERLAND
- FINLAND
- JAPAN
- NORWAY
- CANADA

Figure 13: Milk production density (litres/km²) per district, 2016 (source: MPO estimates from October 2016 statutory survey)

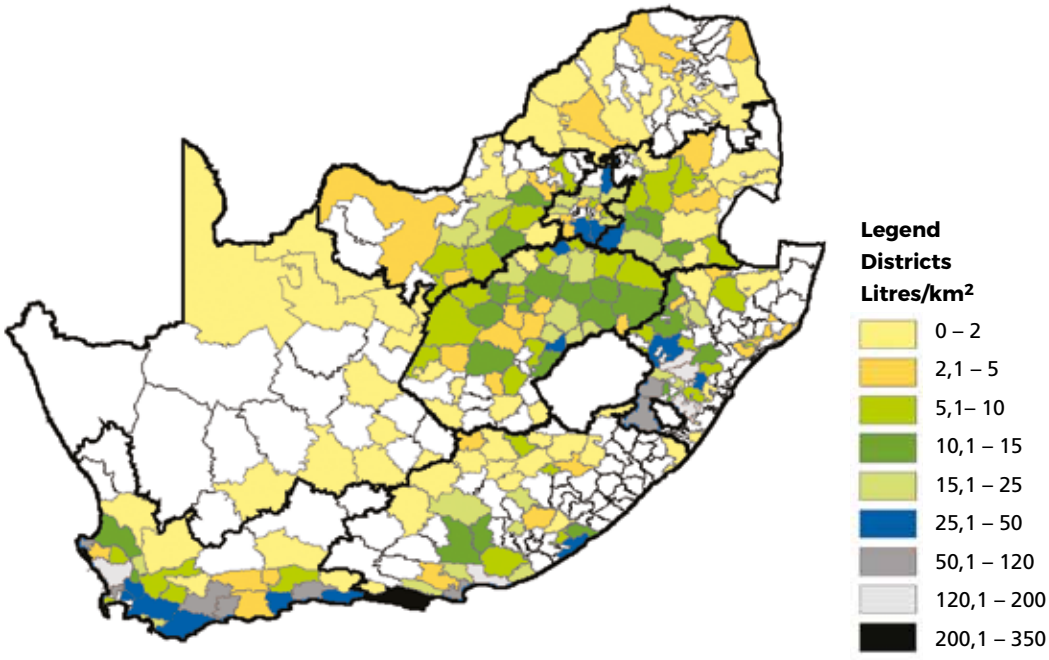
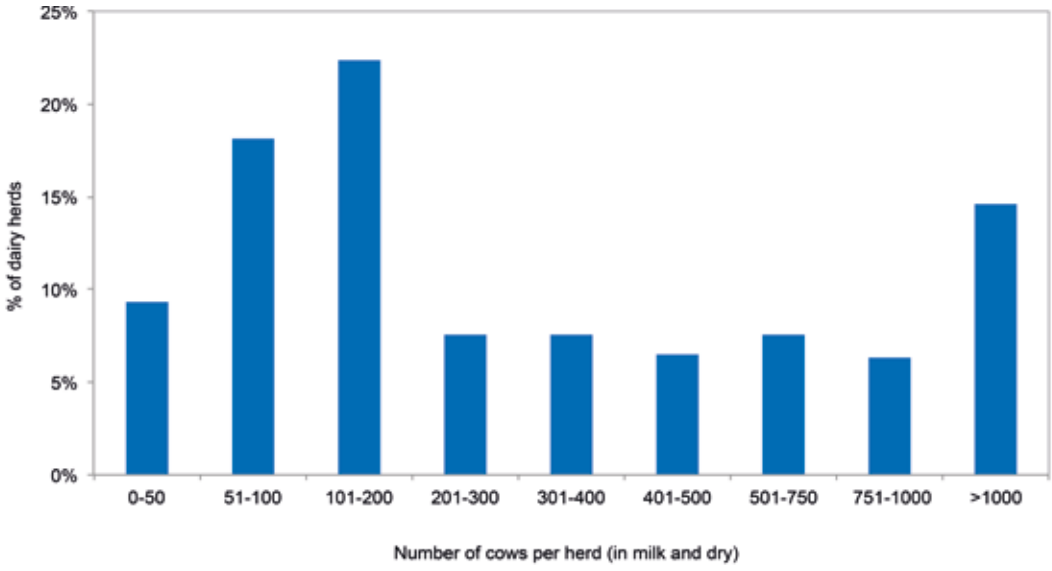


Figure 14: Size distribution of dairy cows per herd, 2016 (source: MPO estimates from October 2016 statutory survey)



SOUTH AFRICAN SITUATION

South African primary dairy sector

Structure of the primary dairy sector

The number of milk producers in South Africa has decreased from 3 551 in January 2009 to 1 503 in June 2017. The number of producers per province is shown in Table 6. Since 2008, the number of producers has decreased by 57,7%. The biggest percentage decrease in producer numbers occurred in the Free State (-72,6%).

The trend towards higher production in the pasture-based areas has continued. The concentration of milk production per district is shown in Figure 13. Milk production per province, according to MPO estimates taking into account the results of the October 2016 statutory survey, is shown in Table 7.

The number of cows varies widely among producers. The percentage distribution of herd size is shown in Figure 14.

NEED TO KNOW

Number of producers (↓58%)

Jan 2009	Jun 2017
3 551	1 503

Milk production (↑22%)

2009	2016
2 587 000 t	3 158 000 t

Milk production per producer (↑157%)

2009	2016
728 t	1 870 t

Table 6: Number of milk producers per province, 2009 – 2017 (source: MPO)

Province	Jan '09	Jan '11	Jan '12	Jan '14	Jan '15	Jan '16	Jan '17	Jun '17
Western Cape	795	683	647	529	533	502	481	451
Eastern Cape	387	314	283	264	262	251	244	232
Northern Cape	37	28	21	25	14	14	7	7
KwaZulu-Natal	373	323	322	281	267	253	247	233
Free State	884	601	535	389	328	280	249	242
North West	540	386	352	233	222	181	165	146
Gauteng	217	127	126	109	100	97	98	97
Mpumalanga	286	201	164	117	94	93	87	79
Limpopo	32	23	24	14	14	12	15	16
TOTAL	**3 551**	**2 686**	**2 474**	**1961**	**1 834**	**1 683**	**1 593**	**1 503**

Figure 15: Cow density per district (cows/km²), 2016 (source: MPO estimates from October 2015 statutory survey)

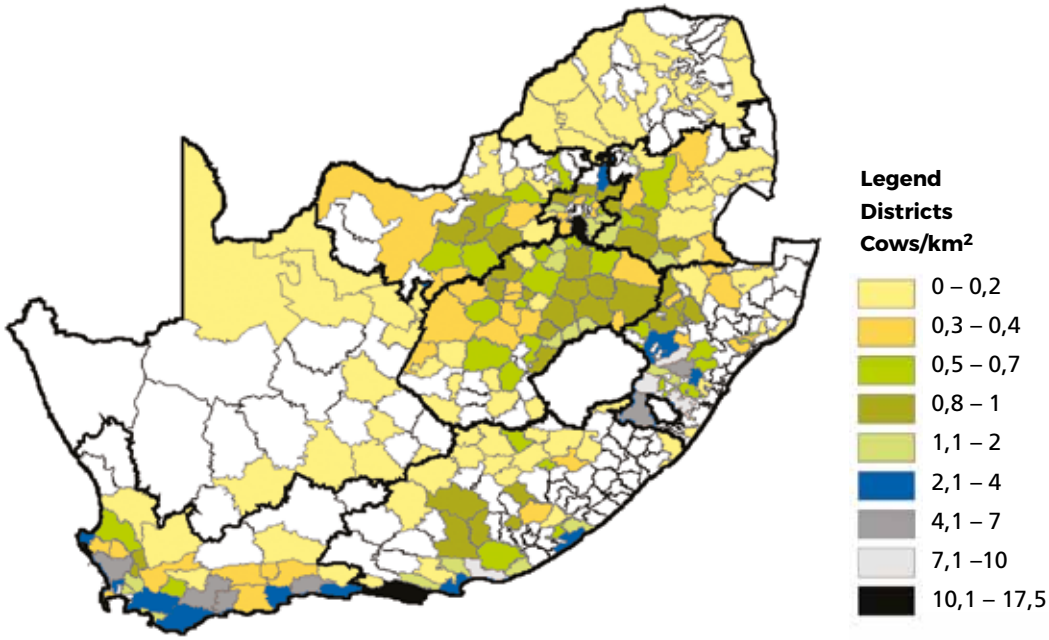
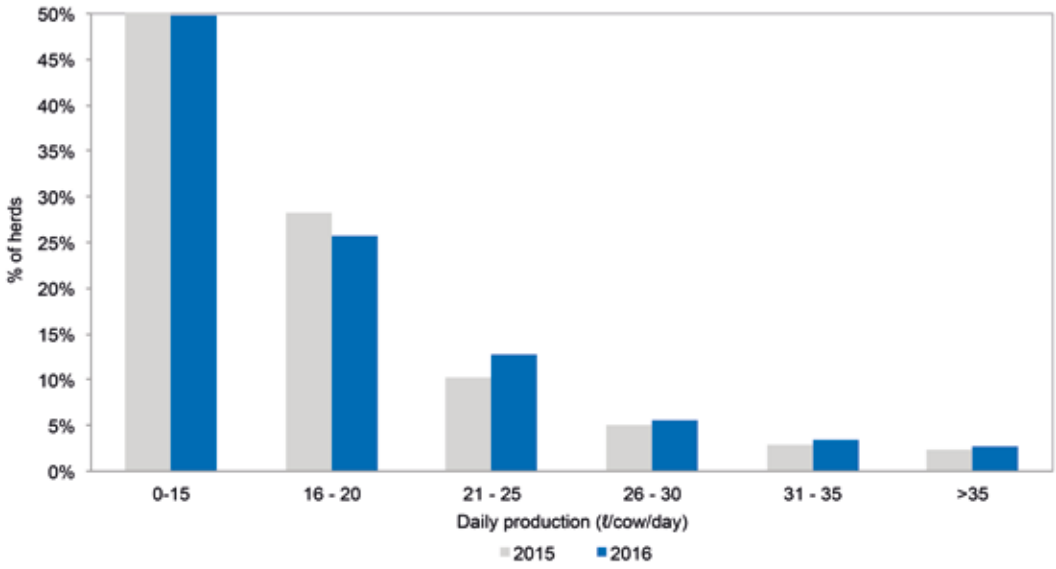


Figure 16: Distribution of herds based on daily production per cow in herd, 2015 & 2016 (source: MPO estimates from 2015 and 2016 statutory survey)

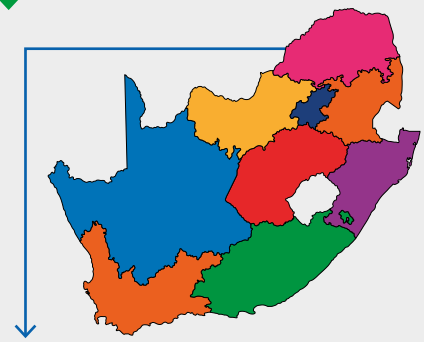


The average number of cows per producer in the different provinces is shown in Table 7 and the concentration of cows per district in Figure 15.

Average milk production per cow per day was 18,0 ℓ in 2016. A total of 98,1% of milk was delivered to the market. The rest was used for on-farm consumption. The distribution of herds on a production basis is shown in Figure 16.

> "The number of milk producers has decreased from 3 551 in January 2009 to 1 503 in June 2017. Since 2008, the number of producers has decreased by 57,7%."

NEED TO KNOW



Change in production per province (1997 – 2016)

Western Cape	+33,6%
Eastern Cape	+105,8%
Northern Cape	-66,7%
KwaZulu-Natal	+50,9%
Free State	-62,2%
North West	-64,3%
Gauteng	-43,2%
Mpumalanga	-76,4%
Limpopo	+25,0%

Table 7: Milk production per province and cows in milk per producer, specific years (source: MPO estimates from October 2016 statutory survey)

Province	% distribution of milk production		Number of cows in milk per producer, 2016
	Dec 1997	Oct 2016	Mean
Western Cape	22,9	30,6	244
Eastern Cape	13,8	28,4	584
Northern Cape	1,2	0,4	168
KwaZulu-Natal	15,7	23,7	433
Free State	18,0	6,8	173
North West	12,6	4,5	105
Gauteng	4,4	2,5	127
Mpumalanga	11,0	2,6	149
Limpopo	0,4	0,5	191
TOTAL	**100,0**	**100,0**	**303**

Figure 17: South African monthly raw milk purchases, Jan 2014 – Aug 2017 (source: Milk SA Statistics and 2017* estimate based on Milk SA sample)

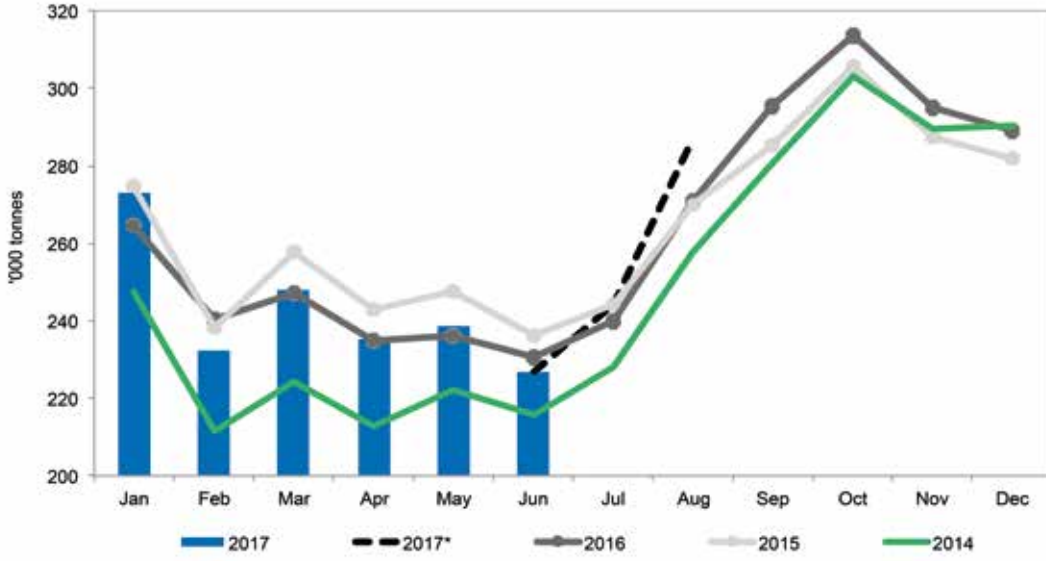
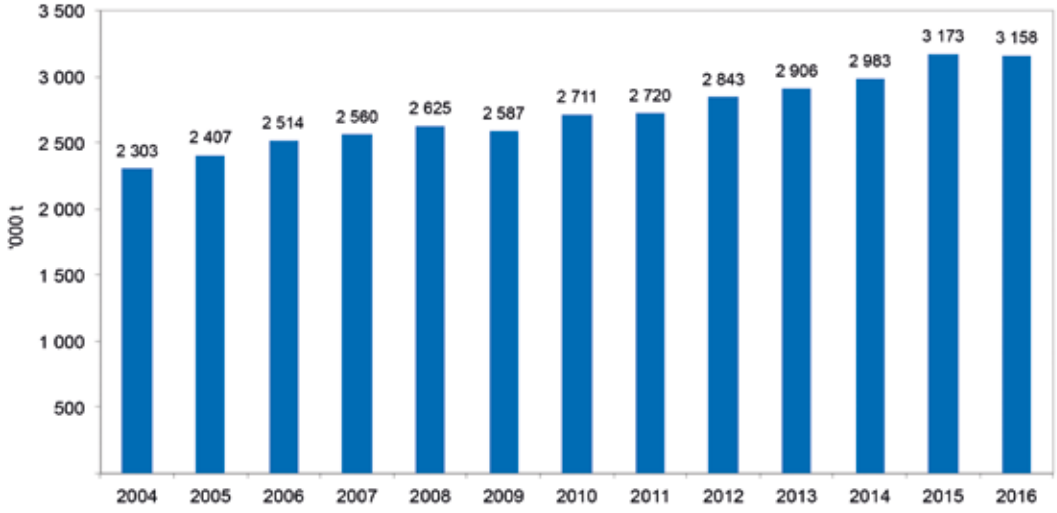


Figure 18: Annual raw milk purchases, 2004 – 2016 (source: 2004 – 2005 MPO, SAMO, Milk Board, 2006 – 2016 Milk SA)



Milk production

Annual milk production shows a steady linear upward trend over time. The total milk to market for 2016 is 3 158 000 t, 0,5% down on the previous year. Monthly milk purchases in 2014 to 2017 are shown in Figure 17.

Table 8: Farm requisite price indices, base 2010 = 100 (source: DAFF)

Period	Machinery & implements	Material for fixed improvements	Intermediate goods and services	All farming requisites
2012	123,0	115,5	126,3	125,4
2013	132,2	122,5	132,7	134,1
2014	143,2	129,5	138,9	142,4
2015	151,7	138,9	147,4	147,4
2016	162,6	149,1	155,7	156,2
CAGR 2012 - 2016*	**7,2%**	**6,6 %**	**5,4 %**	**5,6 %**
Jan-14	135,6	132,0	139,2	138,4
Apr-14	141,1	132,2	144,1	143,1
Jul-14	147,5	124,3	146,3	145,4
Oct-14	148,7	129,5	142,7	142,8
Jan-15	145,9	137,9	144,2	144,1
Apr-15	148,7	146,7	146,1	146,5
Jul-15	150,4	138,5	148,5	147,9
Oct-15	159,4	138,9	149,8	150,4
Jan-16	157,8	144,5	152,0	152,0
Apr-16	161,2	154,5	154,5	155,3
Jul-16	161,8	148,7	156,9	157,1
Oct-16	171,8	148,7	159,3	160,3
Jan-17	164,8	150,0	160,0	160,1
CAGR Jan-14 – Jan-17*	**6,5%**	**5,3%**	**4,9%**	**5,1%**

*CAGR = calculated average growth rate

Figure 19: Composition of the South African liquid products market on a milk equivalent basis, 2016 (source: industry estimate supplied by Sampro)

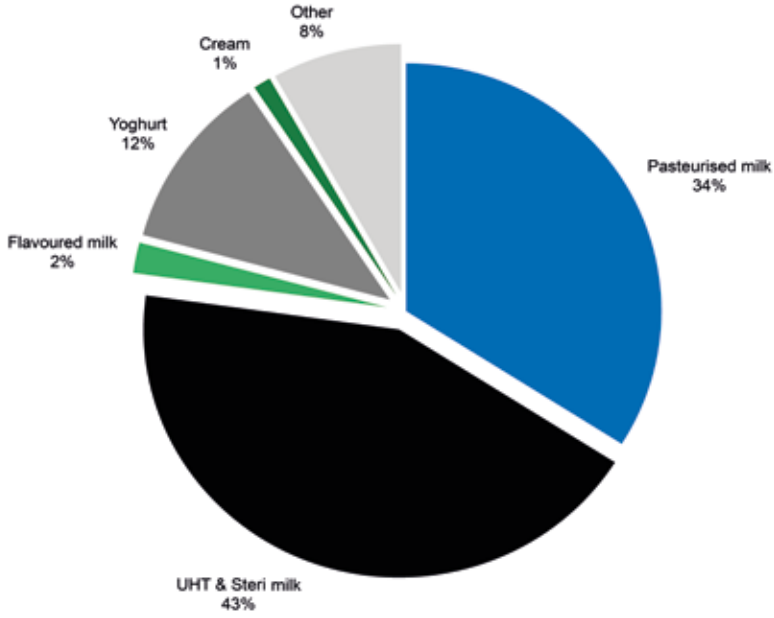
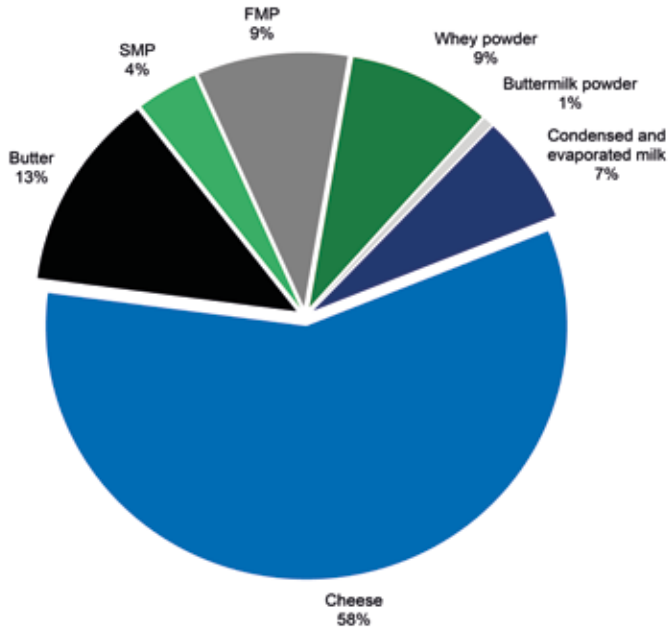


Figure 20: Composition of the South African concentrated products market on a mass basis, 2016 (source: industry estimate supplied by Sampro)



South African secondary dairy sector

Structure of the secondary dairy sector

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

The number of producer-distributors decreased by 83 from 2008 to 2017. Milk buyers decreased by 23 over the same period.

Production and consumption

The South African dairy market is divided into 63% liquid and 37% concentrated products. Pasteurised liquid milk and UHT milk are the major liquid products, while hard cheese is the major concentrated product. The estimated composition of the markets for liquid and concentrated products is shown in Figure 19 and Figure 20.

Imports and exports

Total dairy product imports and exports are shown in Figure 21 and Figure 22. In 2016, 58 000 t of products were imported. Total exports during 2016 were 50 248 t.

The total composition of imports and exports in 2016 is shown in figures 23 and 24. On a mass base, milk and cream were the most important products imported and exported.

Table 9: Number of producer-distributors (PDs) and milk buyers per province (indicated according to position of head office), as registered with Milk SA, 2008 – 2017 (source: Milk SA)

Province	Number of PDs					Number of milk buyers				
	Sep '08	Apr '16	Aug '16	Apr '17	Jul '17	Sep '08	Apr '16	Aug '16	Apr '17	Jul '17
Western Cape	20	24	23	22	19	29	37	37	36	36
Eastern Cape	21	14	15	12	11	14	14	12	9	9
Northern Cape	14	9	9	9	8	5	2	2	1	1
KwaZulu-Natal	18	11	10	10	9	19	22	23	24	23
Free State	29	11	10	10	9	15	12	12	12	11
North West	14	4	3	3	3	23	14	15	14	13
Gauteng	22	25	25	21	20	43	38	38	38	37
Mpumalanga	26	10	9	8	8	12	7	7	6	6
Limpopo	14	7	7	8	8	3	4	4	4	4
Total	**178**	**115**	**111**	**103**	**95**	**163**	**150**	**150**	**144**	**140**

Figure 21: Dairy product imports and exports ('000 tonnes), 2005 – 2016
(source: Sars data, as supplied by Sampro)

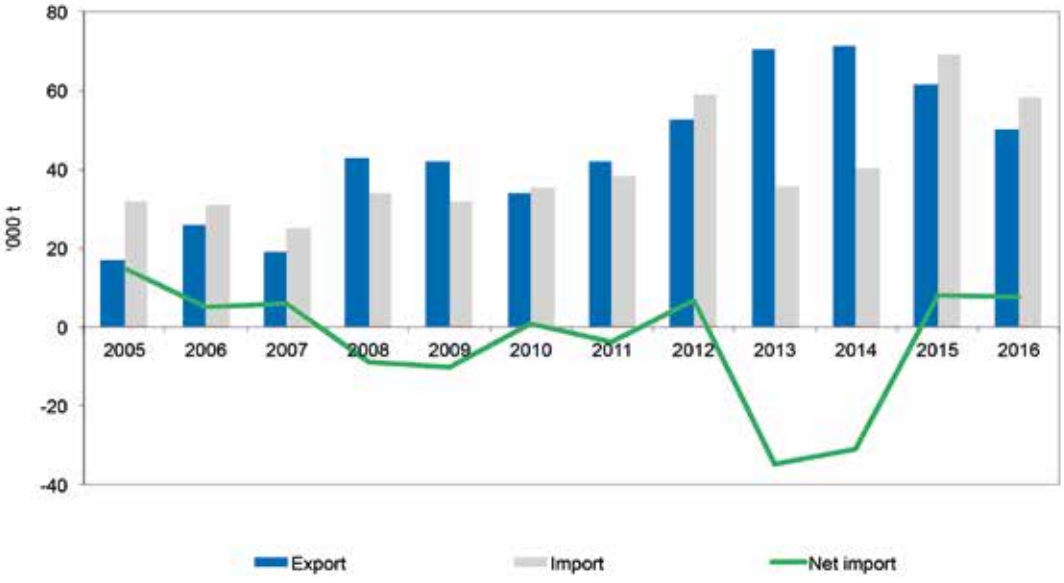


Figure 22: Dairy product imports and exports, milk-equivalent base, 2005 – 2016
(source: Sars data, as supplied by Sampro)

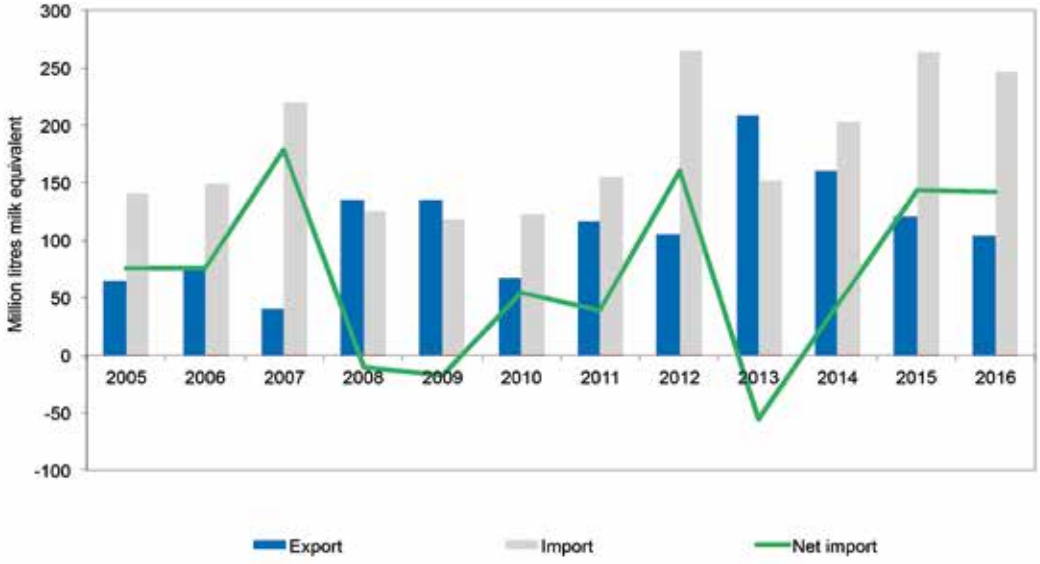


Figure 23: Percentage composition of imports (mass base), 2016
(source: Sars data, as supplied by Sampro)

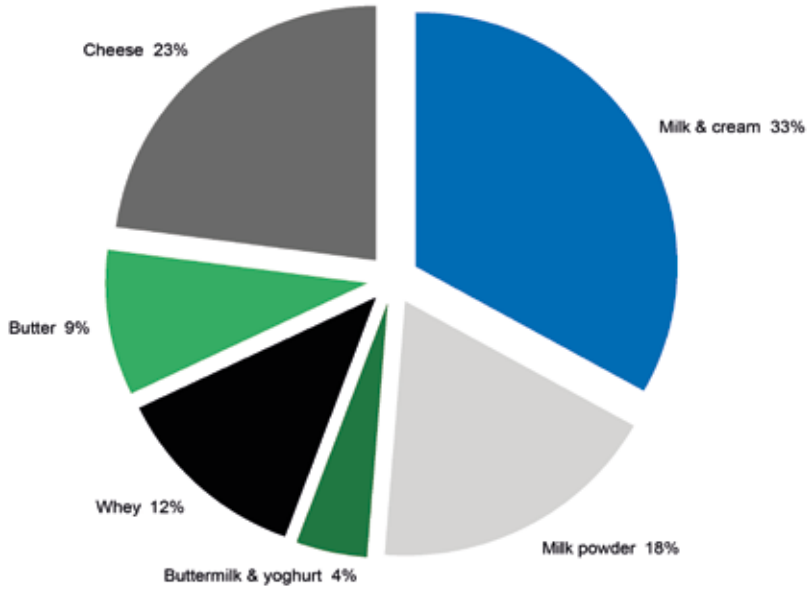


Figure 24: Percentage composition of exports (mass base), 2016
(source: Sars data, as supplied by Sampro)

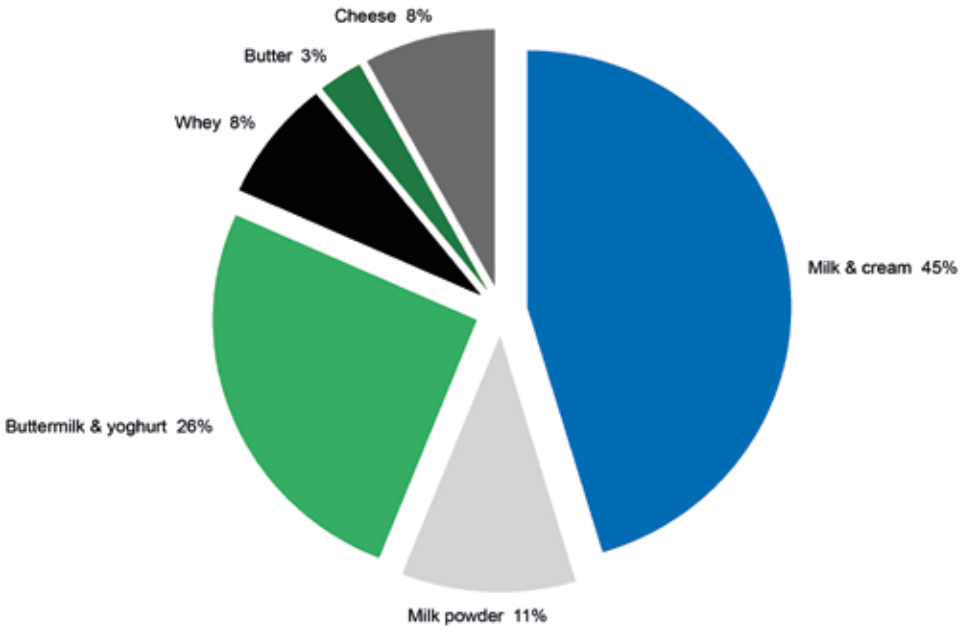
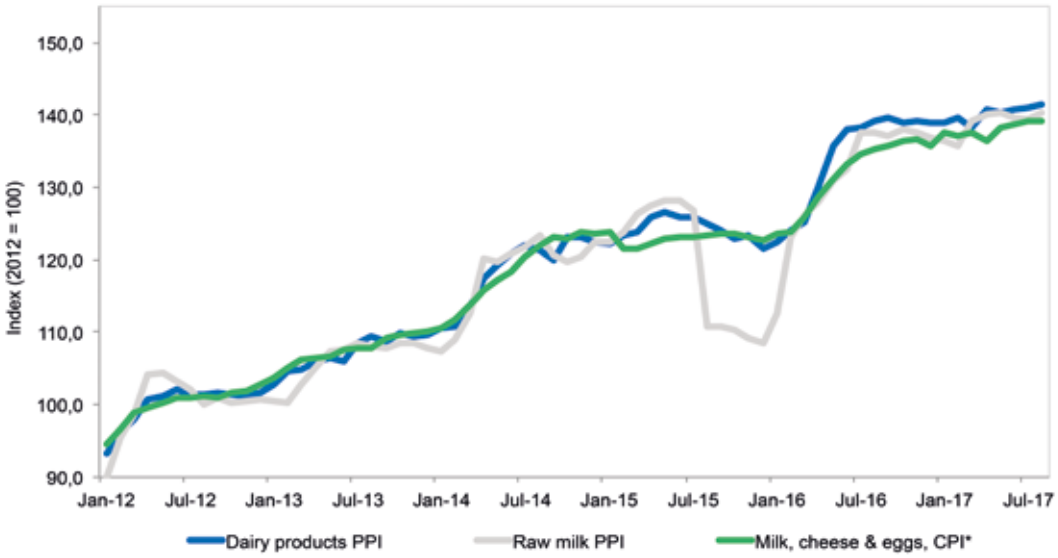


Figure 25: Price index of raw milk on farm level, dairy products at processor level and milk and eggs at consumer level, Jan 2012 – Aug 2017 (source: Stats SA)



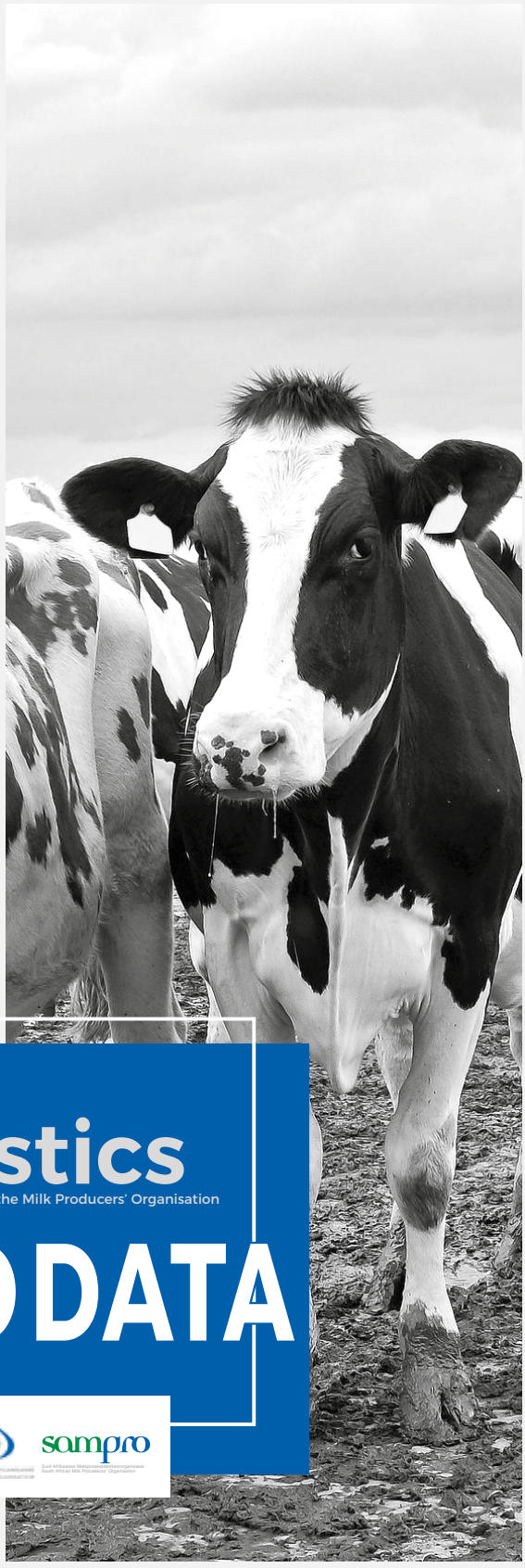
The South African dairy market is growing. Table 10 indicates changes in the size of the formal market for South African products and changes in retail prices, as reported by Nielsen SA and collated by Sampro. The sales quantities of all products, with the exception of fresh milk, cream cheese and butter, increased in the period. Total estimated liquid milk sales quantities (fresh and UHT) decreased by an estimated 1,3% during this period. The change in sales in a 12-month period for any product does not imply that quantities or prices changed at a uniform rate during the period. It is important to note:

- from December 2015 to December 2016, the retail prices of all nine dairy products increased;
- from November 2016 to December 2016, the retail prices of three of the nine dairy products decreased, while the price of one product remained unchanged; and
- the quantities of the retail sales of six of the nine dairy products were lower in the last three and six months of 2016 than in the corresponding periods in 2015.

Figure 25 shows the trend in the price indices of unprocessed milk on farm level, dairy products at processor level and milk, cheese and eggs at consumer level. Except for a period in 2015 when producer prices decreased relative to the other prices, prices follow the same general trend.

Table 10: Year-on-year change in retail demand and prices of dairy and other food products (source: Nielsen as supplied by Sampro)

Product	Change in demand (quantity) per cent Jul '16 – Jun '17 vs Jul '15 – Jun '16	Change in retail prices per cent Jun '16 vs Jun '15
Fresh milk	-4,0	4,8
Long-life milk (UHT milk)	-1,6	0,3
Flavoured milk	-7,4	8,3
Yoghurt	-1,8	8,0
Maas	2,4	2,7
Pre-packaged cheese	8,4	9,0
Cream cheese	-9,1	15,5
Butter	-5,6	17,8
Cream	1,3	4,7
Instant cereals	-1,4	3,2
Bread	3,6	4,7
Rice	-0,5	1,4
Maize meal	2,1	-11,7
Margarine	-0,8	5,1
Tea	-2,8	15,5
Coffee	3,0	1,5
Short-life juice	-2,2	2,9



Statistics

A Milk SA publication compiled by the Milk Producers' Organisation

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