



SOUTH AFRICAN POULTRY ASSOCIATION  
SUID-AFRIKAANSE PLUIMVEEVERENIGING  
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## **Key Market Signals in the Egg Industry**

**For the  
first quarter of 2016**

**1Q 2016**

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## 1. EXECUTIVE SUMMARY

### *Pullets and laying hens*

A total of 6 127 034 day-old pullets was produced during the first quarter of 2016 (1Q 2016). This was 3.0 % less than 4Q 2015 and 3.8 % less than 1Q 2015. The weekly average number of day-old pullets hatched for 1Q 2016 was 471 791.

The average number of laying hens during 1Q 2016 was 24 970 568. This was an increase of 0.2 % compared to 4Q 2015 and an increase of 1.0 % compared to 1Q 2015.

### *Egg production*

Total egg production during 1Q 2016 was 5 312 792 cases. This was a 1.3 % decrease compared to 4Q 2015 but a 1.9 % increase compared to 1Q 2015. The average production per week for 1Q 2016 was 408 683 cases.

### *Egg imports*

During 1Q 2016, 99.5 % of egg imports into South Africa were dried egg products (on three tariff lines). The dried egg products comprised 45 947 kg dried egg albumin, 11 221 kg dried egg yolks and 10 600 kg dried egg product (not including yolk). South Africa imported 18 kg of raw egg pulp (not chicken) in 1Q 2016. Shell egg imports (chicken) amounted to 344 kg in 1Q 2016. Total egg imports in the 1Q 2016 reached 68 130 kg; at a rand value of R10.53 million.

In the 1Q 2016, imports from Italy accounted for 51.4 % of total imports; whilst 30.7 % came from Denmark and 17.4 % came from France. The remainder of egg imports in the 1Q 2016 arrived from Germany, Lesotho and the US.

Through 2015, egg imports into South Africa totalled 342.7 t; down 26 % on 2014 levels (462.5 t). Egg imports were valued at R37.44 million (FOB) in 2015. Dried egg products (including albumins) accounted for 97 % of egg imports into South Africa last year.

### *Egg exports*

During 1Q 2016, a total of 4 655 tonnes of eggs and egg products left South Africa, at a declared FOB value of R123.1 million. This tonnage decreased by 12.4 % compared to the 4Q 2015 (- 658 tonnes).

Of these total egg exports, fertile chicken eggs accounted for 2 787 t. This is 379 t (+ 15.7 %) more than in the previous quarter and 862 t (+ 45 %) more than the same quarter in the previous year (Q1 2015). The FOB value of fertile chicken egg exports in the 1Q 2016 was R74.7 million.

Besides fertile eggs, a total of 1 807 t of egg products (shell eggs, liquid and dried egg products included) were exported from South Africa in the 1Q 2016, at a declared FOB value of R 48.3 million. This is 1 010 tonnes less than in 4Q 2015 (35 % decrease); and 375 t less than in 1Q 2015 (17 % decrease). Egg product exports during the 1Q 2016 comprised: 10.5 % dried egg

product; 0.29 % liquid egg product; 73.1 % shell eggs from chicken; 16.0 % shell eggs from other sources excluding ostrich and 0.02 % preserved ostrich eggs.

The main countries of destination for South African exports of eggs and egg products during 1Q 2016 were Mozambique (69 % of exports), Zimbabwe (9.9 %), Swaziland (7.9 %), Lesotho (4.1 %), Namibia (3.1 %), Angola (2.1 %), Cote d'Ivoire (1.9 %), Botswana (1.6 %) and others (0.3 %).

The main countries of destination during 2015 as a whole were Mozambique (56 % of exports), Angola (9.5 %), Zimbabwe (12 %), Namibia (4.1 %), Swaziland (8.8 %) and Lesotho (4.4 %). In 2015, South Africa exported 8 920 t of fertile chicken eggs; 365 t of fertile eggs from other species; 2 799 t of fresh chicken eggs; 3 404 t of preserved/cooked chicken eggs; 2 396 t of fresh and preserved eggs from other species; 1 029 t of dried egg products and 200 t of liquid egg products. Total egg exports for 2015 amounted to 19 113 t, valued at R885.6 million. South Africa also exported 9 775 t of ostrich eggs in 2015, of which 4 900 t were fertile eggs and 4 875 were shell eggs. Ostrich egg exports were valued at R0.574 million (fertile) and R1.55 million (shell).

### ***Egg prices: producer***

The monthly average egg producer price for March 2016 was R11.92 per dozen. Compared to February 2016, the egg price decreased by 0.6 % but, on a year-on-year basis, it increased by 10.7 %. The quarterly average egg producer price for 1Q 2016 was R12.31 per dozen; a decrease of 5.5 % over 4Q 2015 prices.

During March 2016, the average egg price for *graded* eggs was R12.69 per dozen, a decrease of 0.6 % in comparison with February 2016 but an increase of 5.5 % when compared to the same month in the previous year. The quarterly average egg producer price for *graded* eggs in 1Q 2016 was R12.98 per dozen; a decrease of 6.2 % over 4<sup>th</sup> quarter 2015 prices.

The average egg price for *ungraded* eggs was R10.20 per dozen in March 2016, a 2.1 % decrease when compared to February 2016 but an increase of 11 % on March 2015 prices. The quarterly average egg producer price for *ungraded* eggs in 1Q 2016 was R10.63 per dozen; a decrease of 2.0 % over 4<sup>th</sup> quarter 2015 prices.

The average egg price for 2015 was R11.65 per dozen (graded R12.88; ungraded R9.90); an increase of 8.3 % over the average price for 2014 (R10.77). During 2015, 66 % of eggs were sold graded and 34 % ungraded. Year-on-year, the price of graded eggs increased by 6.7 % and the price of ungraded eggs increased by 5.5 %.

### ***Cull price***

The average price for cull laying hens was R28.00 in March 2016, a 3.7 % increase when compared to February 2016 and an increase of 6.3 % on March 2015 prices. The average price for cull laying hens in the 1Q 2016 was R27.67 and for 2015 was R27.78; an increase of 4 % over the average price for 2014 (R26.72).

***Egg prices: retail***

During March 2016, the average retail price for eggs, size large, was R24.85 per dozen and the average producer price was R14.33 (Stats SA). The mark-up between producer and retailer was 73.4 %. The retail and producer price increased by 11.9 % and 7.4 %, respectively, on a year-on-year basis.

On a quarterly basis, the average retail price for eggs, size large, was R24.69 per dozen and the average producer price was R14.25 (Stats SA). The retail mark-up on producer prices was 73.3 %. The retail and producer price increased by 10.2 % and 5.4 % on a quarterly basis, respectively.

On an annual basis, the average retail price for eggs, size large, was R23.10 per dozen in 2015 and the average producer price was R14.03 (Stats SA). The retail mark-up on producer prices was 64.6 %. The retail and producer price increased by 7.2 % and 4.0 % over 2014 prices, respectively.

***Egg prices in comparison with chicken, beef and pork***

Eggs and poultry meat remain the most affordable of all protein sources. In 2015, the average egg price was R16.65 per kg, the average beef producer price at the abattoir (A2/A3 carcass price, excluding the fifth quarter) was R34.17 per kg, the average producer price of class C2/C3 beef was R27.27/kg and the average pork price (all classes) was R22.83/kg. The average producer price for broilers (total realisation) for 2015 was R18.43 per kg.

In 1Q 2016, the average egg price was R17.56 per kg; the average beef producer price at the abattoir (A2/A3 carcass price, excluding the fifth quarter) was R37.32 per kg; the average producer price of class C2/C3 beef was R30.19/kg and the average pork price (all classes) was R23.46/kg. The average producer price for broilers (total realisation) for 1Q 2016 2015 was R18.13 per kg.

***Feed prices***

The monthly average feed price for March 2016 was R3 988 per tonne. It increased by 2.6 % on a monthly basis and by 19 % on a year-on-year basis.

The average layer feed price indicator for 1Q 2016 was R3 861 per tonne; an increase of 8.8 % in comparison with the previous quarter and an increase of 16.9 % in comparison with the same quarter in the previous year.

The average feed price for 2015 was R3 422; an increase of just 0.5 % over 2014. The average feed price indicator for 2014 was R3 405.

### ***International economic outlook for the egg industry***

Over the past six months it has become clear that the transition to cage-free egg production *will* happen in the US; the question is now simply “*by when?*” It can be expected that the next six months will reveal just how widespread this transition will become in Europe, South America and Australasia. In the first four months of 2016, the number of US companies pledging to source cage-free eggs increased exponentially. Executives are now seeking to differentiate their businesses from the competition by promising to make the transition to cage-free eggs sooner rather than later. Too many big corporations making early commitments will put suppliers under pressure. The United Egg Producers organisation predicts that the country’s cage-free flock will need to increase by over 900 % by 2030 (WattAgNet) at a cost in excess of \$5.6 billion (USDA). Over the next ten years, local government, the USDA, equipment manufacturers, pharmaceutical companies, feed manufacturers, nutritionists, behavioural scientists, etc. will all need to apply their collective energies to making the new production systems work on every level possible – including efficiency, welfare, cost and environmental sustainability.

There is disquiet amongst many EU producers that heavy investments in enriched cage systems may have been wasted as US developments evidence a stampede towards entirely cage-free production. UK poultry producers invested £400 million in enriched cages in the lead-up to the 2012 deadline for phasing out battery cages. An announcement by retailer Aldi UK that they would be phasing out cage-free eggs by 2025 has UK producers concerned that this recent investment and the industry’s commitment to hen welfare will be overlooked.

In 1Q 2016, the Canadian egg industry announced its intention to phase out conventional cages by 2036. The National Farm Animal Care Council now looks set to accelerate this move away from caged egg production, in draft legislation aimed at phasing out cages by 2031, five years ahead of schedule. In Massachusetts, US, a ballot measure will likely appear on November ballot forms, which proposes that Massachusetts farms and businesses produce and sell only cage-free eggs. Egg exporting producers, states and nations need to be aware of what is happening in their target markets and be proactive, rather than reactive, in steering egg production into the future.

Outbreaks of highly pathogenic avian influenza continue to occur around the world. France experienced 78 separate outbreaks of the Eurasian strains between November 2015 and April 2016. There have been no new outbreaks of avian influenza in the US since January 2016. Through the first six months of 2016, there have been reported cases of highly pathogenic avian influenza in Nigeria, Ghana, France, Mexico, Vietnam, China, Chinese Taipei, Cote d’Ivoire, Russia, Bangladesh, Myanmar, India, Korea, Cambodia, Cameroon, Iraq, Hong Kong, Italy, the US and Niger. In addition, outbreaks of low pathogenic AI have been reported from Germany, France, the US, the UK, South Africa (ostriches), Cote d’Ivoire, the Netherlands and Mexico.

US table egg production in 2016 is currently forecast at 8.35 billion dozen (+5.4 % y-on-y; USDA WASDE). Egg prices in the US are at the lowest level in a decade. Exports have dropped by almost 50 % and, domestically, the industry expects some buyers never to return because of changes to recipes and the use of substitute ingredients in 2015. Imports of eggs

into the US reached 123 million dozen in 2015, up from the 34.7 million dozen imported in 2014 (USDA WASDE). Imports of 108.6 million eggs are forecast for 2016 as contracts are honoured.

Since 2012, egg prices in the UK have collapsed from about £1.48 to 85p a dozen (theguardian.com). DEFRA reports farm gate prices are down 13 % on 1Q 2015 prices. Egg consumption in the UK is at the highest level since the late 1980's, having increased 15 % in the past 5 years, but supply has exceeded demand. The fall in sterling experienced after the Brexit vote may give some relief to UK egg farmers, making imported product more expensive.

In the EU, egg production in 2015 totalled 6.38 billion dozen (EC CIRCABC). In the first half of 2016, shell egg production was 2.8 % higher than in the first six months of 2015. In June, packing stations prices for Class A eggs were 16.4 % lower than the same week in 2015. Imports of shell eggs into the Union were up 38 % in 2015, to 18 869 tonnes (egg equivalent) but were down 3.4 % year-on-year for the first 4 months of 2016 (ec.europa.eu). Imports from the Ukraine increased dramatically from 475 t egg equivalent between January and April 2015 to 2 698 t in the same period in 2016. From April 2016, the Ukraine will enjoy 1 500 t of tariff-free access to the EU for eggs and albumins, increasing to 3 000 t within 5 years (www.ukraine-arabia.ae).

Exports of shell eggs from the EU increased by 21.4 % in 2015 to 282 688 t. In the first four months of 2016, EU egg exports to third parties increased by 7.9 %, to 82 025 t egg equivalent (ec.europa.eu). Reduced exports to Japan (- 60 %) were balanced by big increases in exports to the US (+ 11 768 t, year on year January to April) and Israel (+ 8 614 t).

In Nigeria, the federal government is testing a school feeding programme which aims to reduce malnutrition, tackle stunted growth in children and improve enrolment in schools. Authorities plan to supply 5.5 million children with one meal a day, and estimate a billion eggs would be needed in a 200 day school calendar (www.vanguardngr.com). Current production is estimated at a billion eggs per year. The feeding programme thus has the potential to double the output of the industry (www.dailytrust.com.ng).

### ***South African economy***

The perfect storm crashing around the South African economy has not abated. South Africa is still suffering from stalled domestic growth, devastating drought, a volatile currency, rising oil prices and political and social upheaval in the run up to local elections in August. While sunny skies continue to punish drought-ravished farmlands, the only sign of silver-linings on the economic front have been Pravin Gordhan and his successful warding off of a further credit rating downgrade. Sadly, it is quite possible that this mid-year reprieve will be short-lived. The South African egg industry faces a year of real challenges including high commodity prices related to drought conditions; a volatile South African rand; recent and forecast increases in interest rates; soaring food inflation and constrained consumer spending; the possibility of recession in South Africa and weak export demand. Locally, consumption of eggs remains low compared to many other countries (150 per person per year).



*Rising feed costs and interest rates, as the worst drought in 23 years drives inflation*

The severe drought and a weak rand have pushed maize prices to challenging highs in 2016. Estimated prices for yellow maize in March 2016 were almost 40 % higher than in March 2015, and soya prices were approximately 17 % higher. With both the food inflation and exchange rate outlooks deteriorating badly in early 2016, the Reserve Bank increased the repurchase rate by 50 basis points on the 26 January 2016, to 6.75 %, and by a further 0.25 %, to 7.0 %, in March 2016.

*Reduced consumer spending in a recessionary environment*

Headline inflation is expected to average 6.7 % in 2016, having breached the upper end of the target range (6 %) in January 2016. Inflation is expected to peak at 7.3 % in the 4Q 2016 and the protracted breach of the target range is forecast to continue until 3Q 2017 (SARB). Food and NAB inflation was recorded at 6.9, 8.6, 9.5 and 11.0 % in January, February, March and April, respectively (Stats SA). The unemployment rate in the 1Q 2016 increased to 26.7 % from 24.5 % in the previous quarter. The expanded unemployment rate, which includes discouraged work-seekers, rose to 36.3 %. With an anticipated average increase of 6.9 % in 2016, inflation is likely to erode or exceed salary increases this year.

*Rising oil, electricity and gas prices*

Oil prices rose from \$25 a barrel in January (a 13 year low) to remain above \$50 a barrel for a week in early June. In late April, the World Bank raised its forecast for 2016 crude oil prices to \$41 a barrel. Domestic fuel prices have increased steeply from 1 April - the fuel levy increased by 30 c/litre and the weak rand has made the steady increase in the oil price even harder on South African pockets. With a 61c/litre increase in the diesel price expected at the beginning of July, the wholesale diesel price will have increased by 18 % in the first half of 2016. A more reliable electrical supply has been experienced over the past six months, reducing the need for expensive alternatives to be installed. However, Eskom was granted a 9.4 % tariff increase by the regulatory body, NERSA; effective 1 April 2016.

*An increasingly weak South African rand*

The rand touched R16 to the US dollar in mid-December 2015, this being a depreciation of 38 % in its value since January 2015. By mid-January 2016 it had slumped to R16.90 to the dollar. From mid-January to early May, the rand staged a wobbly recovery, closing at R14.20 to the dollar on May 1<sup>st</sup> (23 % down on January 2015). Since then, it has been buffeted by credit rating concerns, government statements, Brexit jitters, the possibility of a US interest rate hike and then Brexit fall-out. Inextricably linked to the euro and sterling, the rand will remain volatile as the European divorce plays out and risk-adverse investors avoid the currency.

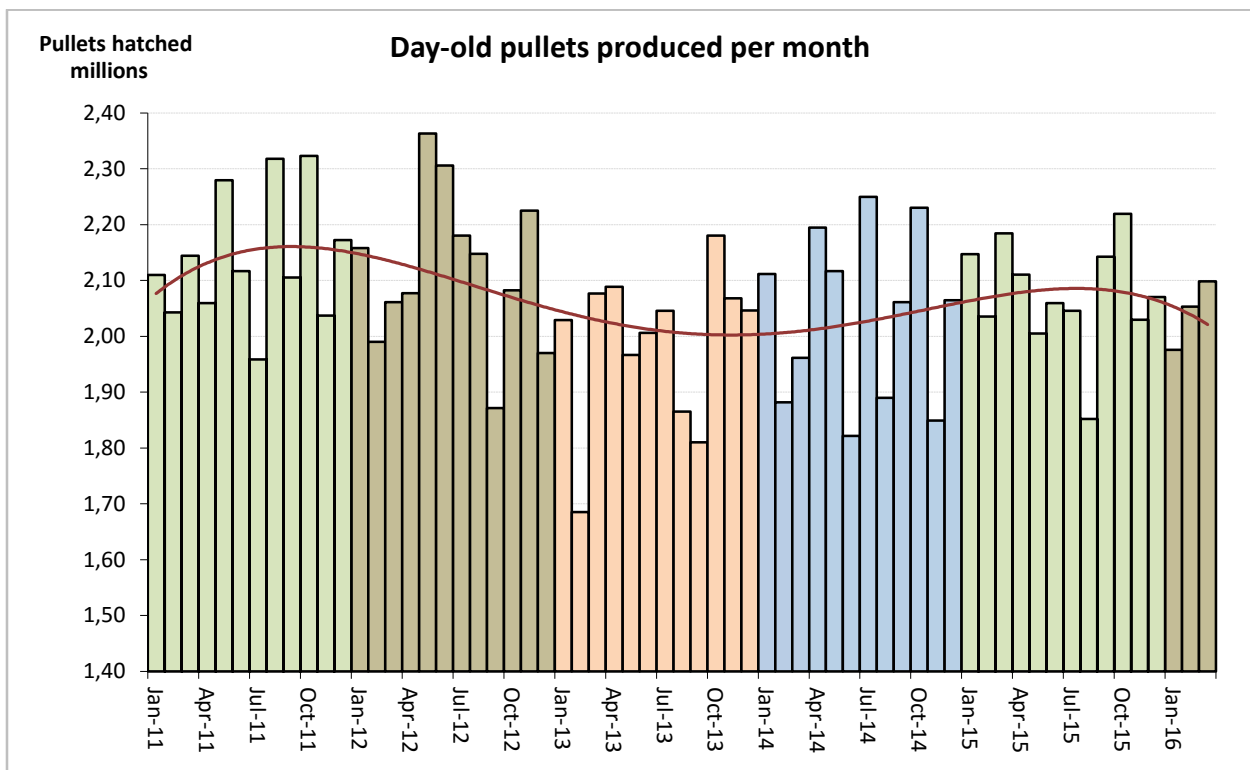
## 2. EGG SUPPLY AND DEMAND 1Q 2016

### 2.1 Egg production

#### ***Day-old pullet production:***

A total of 6 127 034 day-old pullets was produced during the first quarter of 2016 (1Q 2016). This was 3.0 % less than 4Q 2015 and 3.8 % less than 1Q 2015.

The weekly average number of day-old pullets hatched for 1Q 2016 was 471 791; 1.6 % less than 4Q 2015 and 5.2 % less than 1Q 2015 (monthly figures given in *Figure 1*).



**Figure 1:** The number of day-old pullets produced per month.

#### ***Projected laying flock:***

The average number of laying hens during 1Q 2016 was 24 970 568. This was an increase of 0.2 % compared to 4Q 2015 and an increase of 1.0 % compared to 1Q 2015.

The projected laying flock for July 2016 is 24 915 962 hens; a 0.2 % year-on-year decrease (*Figure 2*).

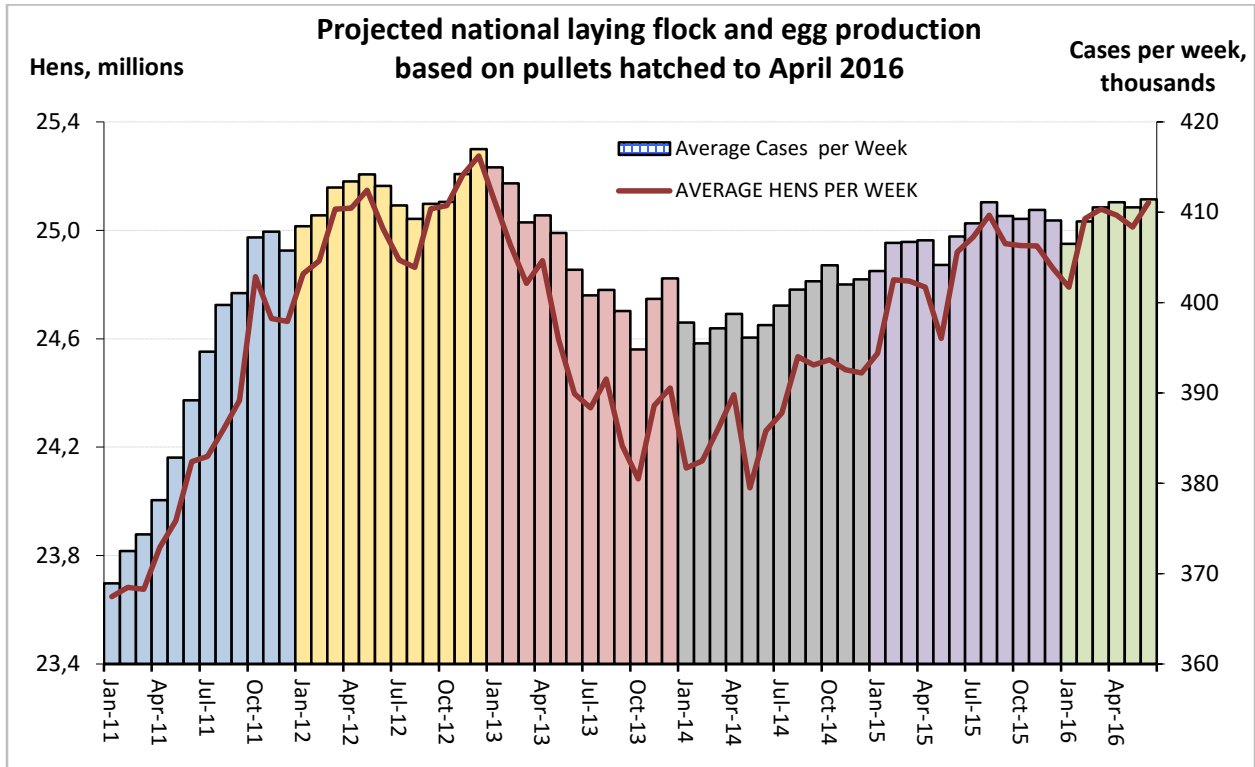


Figure 2: Projected national laying flock and egg production

**Forecasted egg production:**

Total egg production during 1Q 2016 was 5 312 792 cases. This was a 1.3 % decrease compared to 4Q 2015 but a 1.9 % increase compared to 1Q 2015.

The average production per week for 1Q 2016 was 408 683 cases. Compared to the 4Q 2015, there was a 0.2 % decrease but compared to 1Q 2015 there was a 0.8 % increase.

**Table 1: Egg industry: key results (March 2016)****(Projections are based on day-old pullets placed per week to March 2016)**

	Hatch days	Calendar Days	Day-old Pullets placed		Laying hens	Eggs Produced (Cases)	
Month on Month	/Month	/Month	/Month	/Week	Average	/Month	/Week
March 2016	23	31	2 098 382	456 170	25 078 544	1 818 137	410 547
February 2016	21	29	2 052 962	488 800	25 043 256	1 694 425	408 999
Change			45 420	-32 631	35 288	123 712	1 548
% Change			2.21%	-6.68%	0.14%	7.30%	0.38%
Year on Year	/Month	/Month	/Month	/Week	Average	/Month	/Week
March 2016	23	31	2 098 382	456 170	25 078 544	1 818 137	410 547
March 2015	22	31	2 184 482	496 473	24 812 398	1 801 108	406 702
Change			-86 100	-40 303	266 146	17 029	3 845
% Change			-3.94%	-8.12%	1.07%	0.95%	0.95%
Year to date	/Period	/Period	/Period	/Week	Average	/Period	/Week
	January>March		January>March		Jan>Jun	Jan>Jun	
2016	65	91	6 127 034	471 791	25 012 869	10 656 077	409 849
2015	64	90	6 366 860	497 758	24 745 356	10 493 718	405 834
Change			-239 826	-25 967	267 513	162 359	4 015
% Change			-3.77%	-5.22%	1.08%	1.55%	0.99%
Full year forecasts	/Period	/Period	/Period	/Week	Average	/Period	/Week
Jan>Dec 2015	261	365	24 901 078	477 385	24 850 899	21 262 344	407 771
Jan>Dec 2014	261	365	24 432 190	467 785	24 341 303	20 836 953	399 613
Change			468 888	9 600	509 596	425 391	8 158
% Change			1.92%	2.05%	2.09%	2.04%	2.04%
Next year	/Period	/Period	/Period	/Week	Average	/Period	/Week

NOTE:

Month or Period: Refers to a calendar month or period

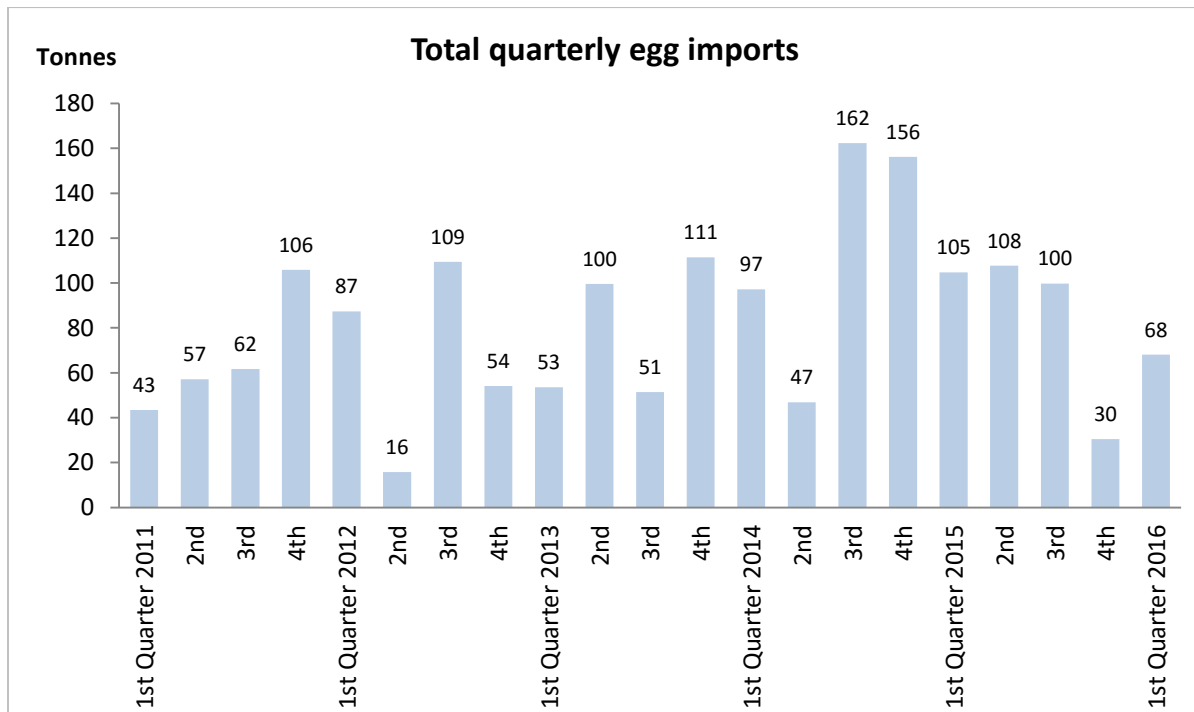
Week: Refers to an average 7 day week of which all 7 days fall within the specified month or period

## 2.2 Egg imports

During 1Q 2016, 99.5 % of egg imports into South Africa were dried egg products (on three tariff lines). Imports were recorded on the following tariff lines:

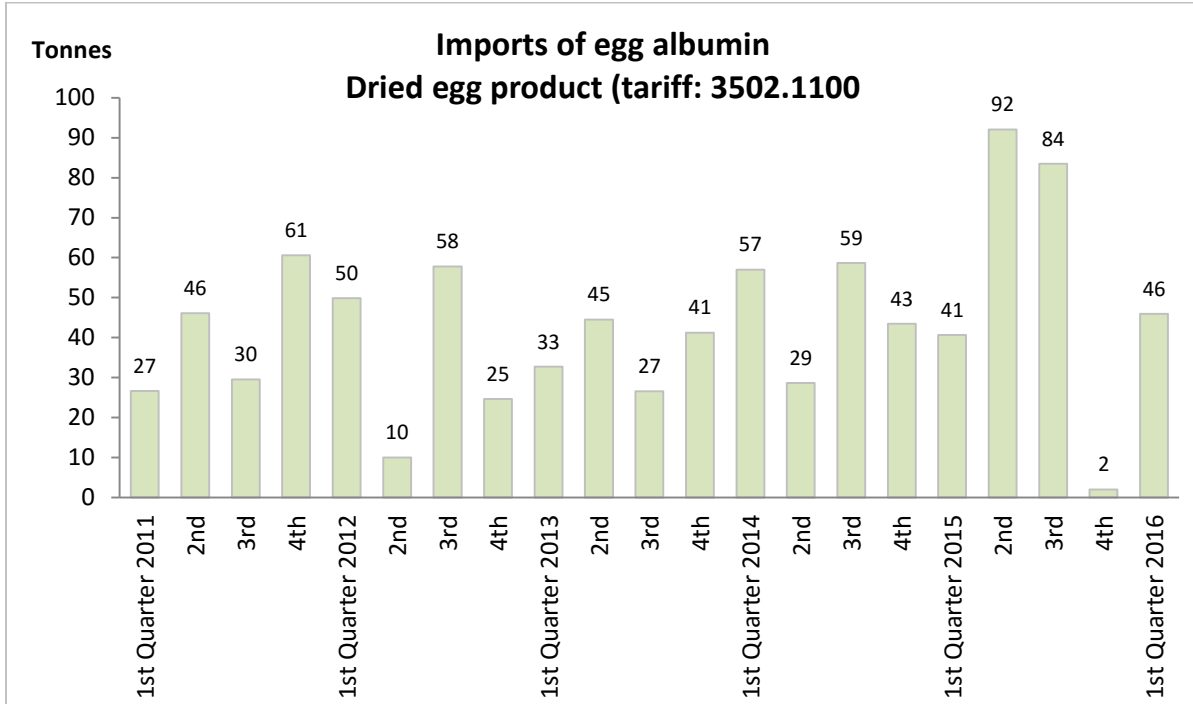
45 947 kg	dried egg albumin ( <i>tariff line 3502.1100</i> )
11 221 kg	dried egg yolks ( <i>tariff line 0408.1100</i> )
10 600 kg	dried egg product (not including yolk; <i>tariff line 0408.9100</i> )
294 kg	uncooked, preserved chicken eggs <i>tariff line 0407.9020</i>
50 kg	fresh chicken eggs ( <i>Gallus domesticus</i> , not fertilised) <i>tariff line 0407.2190</i> (value >150 c)
18 kg	raw egg pulp, not chicken <i>tariff line 0408.9990</i>

Total egg imports in the 1Q 2016 amounted to 68 130 kg; at a rand value of R10.53 million. Quarterly volumes of total egg imports since 1Q 2011 are given in *Figure 3*. The quarterly imports of dried egg albumin are given in *Figure 4*.



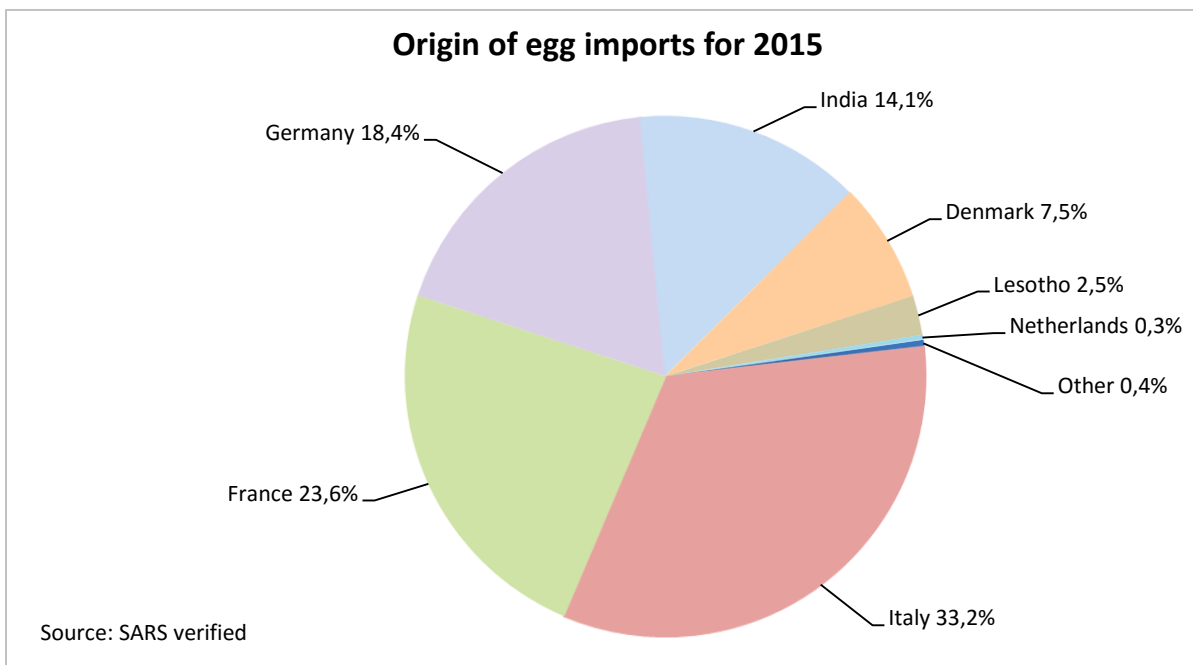
**Figure 3:** Total quarterly egg imports from 1Q 2011

In the 1Q 2016, imports from Italy accounted for 51.4 % of total imports; whilst 30.7 % came from Denmark and 17.4 % came from France. The remainder of egg imports in the 1Q 2016 arrived from Germany, Lesotho and the US.



**Figure 4:** Quarterly imports of egg albumin from 1Q 2011

Through 2015, egg imports into South Africa totalled 342.7 t; down 26 % on 2014 levels (462.5 t). Egg imports were valued at R37.44 million (FOB) in 2015. Dried egg products (including albumins) accounted for 97 % of egg imports into South Africa last year. The percentage contribution by the major egg importers to total egg imports for 2015 is shown in *Figure 5*.



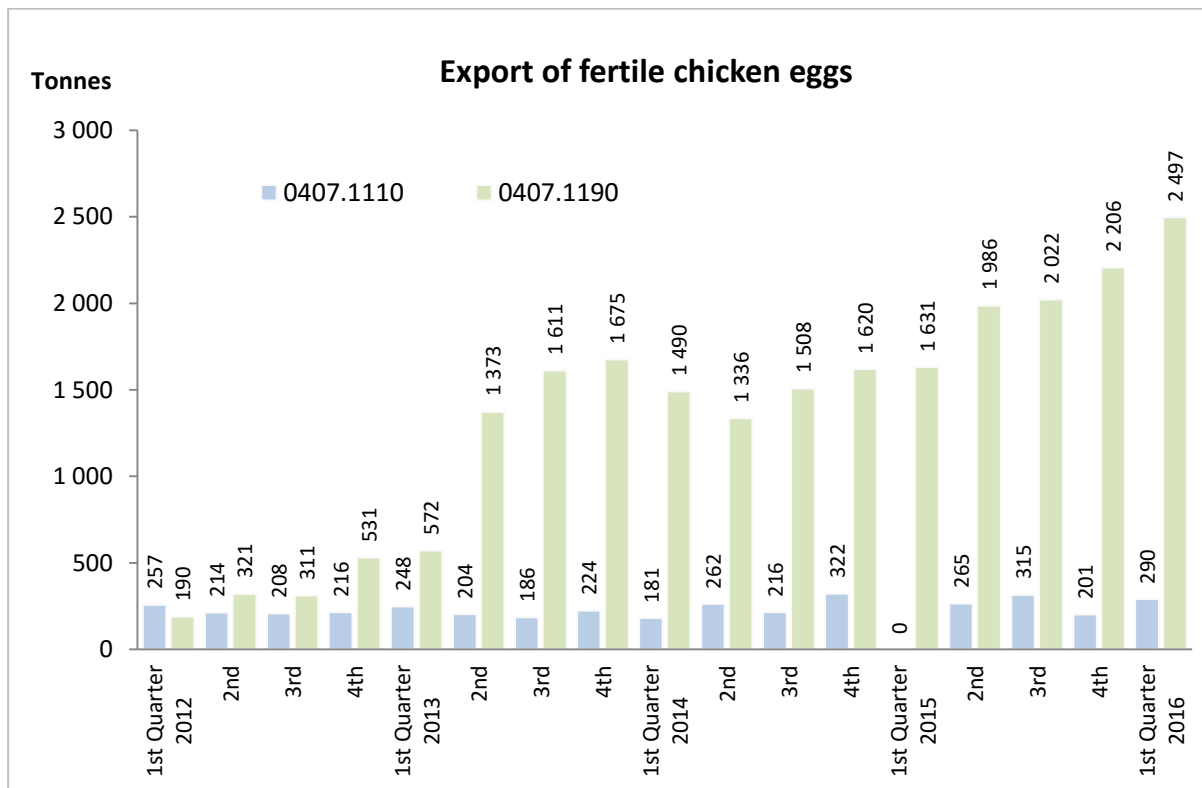
**Figure 5:** The main countries of origin for egg imports.

## 2.3 Egg exports

During 1Q 2016, a total of 4 655 tonnes of eggs and egg products left South Africa, at a declared FOB value of R123.1 million. This tonnage decreased by 12.4 % compared to the 4Q 2015 (- 658 tonnes).

Of these total egg exports, fertile chicken eggs accounted for 2 787 t; 60 % of the total export tonnage. This is 379 t (+ 15.7 %) more than in the previous quarter and 862 t (+ 45 %) more than the same quarter in the previous year (Q1 2015). Fertile chicken eggs were exported under two tariff codes: 290 t and 2497 t were exported under codes 0407.1110 and 0407.1190, respectively. The FOB value of fertile chicken egg exports in the 1Q 2016 was R74.7 million.

The quarterly exports of fertile eggs under these two tariff codes since 1Q 2012 are shown in *Figure 6*.



**Figure 6:** Quarterly export of fertile eggs

The amount of egg products exported during the 1Q 2016 under each of the most regularly used tariff codes (including fertile eggs and shell eggs (fresh, cooked or preserved)) is given in *Table 2*, along with the amounts exported in the previous quarter and in the 1Q 2015.

Besides fertile eggs, a total of 1 807 t of egg products (shell eggs, liquid and dried egg products included; *Figure 7*) were exported from South Africa in the 1Q 2016, at a declared FOB value of R 48.3 million. This is 1 010 tonnes less than in 4Q 2015 (35 % decrease); and 375 t less than in 1Q 2015 (17 % decrease). Egg product exports during the 1Q 2016 comprised: 10.5 % dried egg product; 0.29 % liquid egg product; 73.1 % shell eggs from chicken (0407.2110; 2190; 9020); 16.0 % shell eggs from other sources excluding ostrich (0.407.2990; 9090) and 0.02 % preserved ostrich eggs (0407.9010).

**Table 2.** Quarterly exports of eggs and egg products from South Africa

	Tariff code	units	1Q 2015	4Q 2015	1Q 2016
Fertile eggs	0407.1110/1190	t	1925	2 408	<b>2 787</b>
Fertile eggs (ostriches)	0407.1910	kg	0	4 228	<b>0</b>
Fertilised eggs (other: not chicken/ ostrich)	0407.1990	t	226.7	28.1	<b>61.1</b>
Shell eggs chicken (< 150 c)	0407.2110	t	390.3	144.2	<b>126.8</b>
Shell eggs chicken (>150 c)	0407.2190	t	26	461	<b>446</b>
Shell eggs (ostrich)	0407.2910	kg	0	5	<b>0</b>
Shell eggs (not chicken/ostrich)	0407.2990	t	81	281	<b>120</b>
Ostrich eggs	0407.9010	t	1.5	0.012	<b>0.35</b>
Shell eggs: chicken (fresh, preserved cooked)	0407.9020	t	725	1327	<b>748</b>
Shell eggs: other (fresh preserved, cooked)	0407.9090	t	479	387	<b>170</b>
Dried egg yolks	0408.1100	kg	4	134	<b>491</b>
Liquid egg yolks	0408.1900	t	32.8	16.6	<b>2.5</b>
Dried egg product (not yolks)	0408.9100	t	242	253	<b>190</b>
Raw yolks/whites (chicken)	0408.9910	kg	197	3725	<b>800</b>
Raw yolks/white (not chicken)	0408.9990	t	38.5	3.7	<b>1.8</b>
Dried egg albumin	3502.1100	kg	187	70	<b>143</b>
Liquid egg albumin	3502.1910	kg	27	0	<b>200</b>
Egg albumin, not dried but not liquid	3502.1990	kg	0	15	<b>0</b>

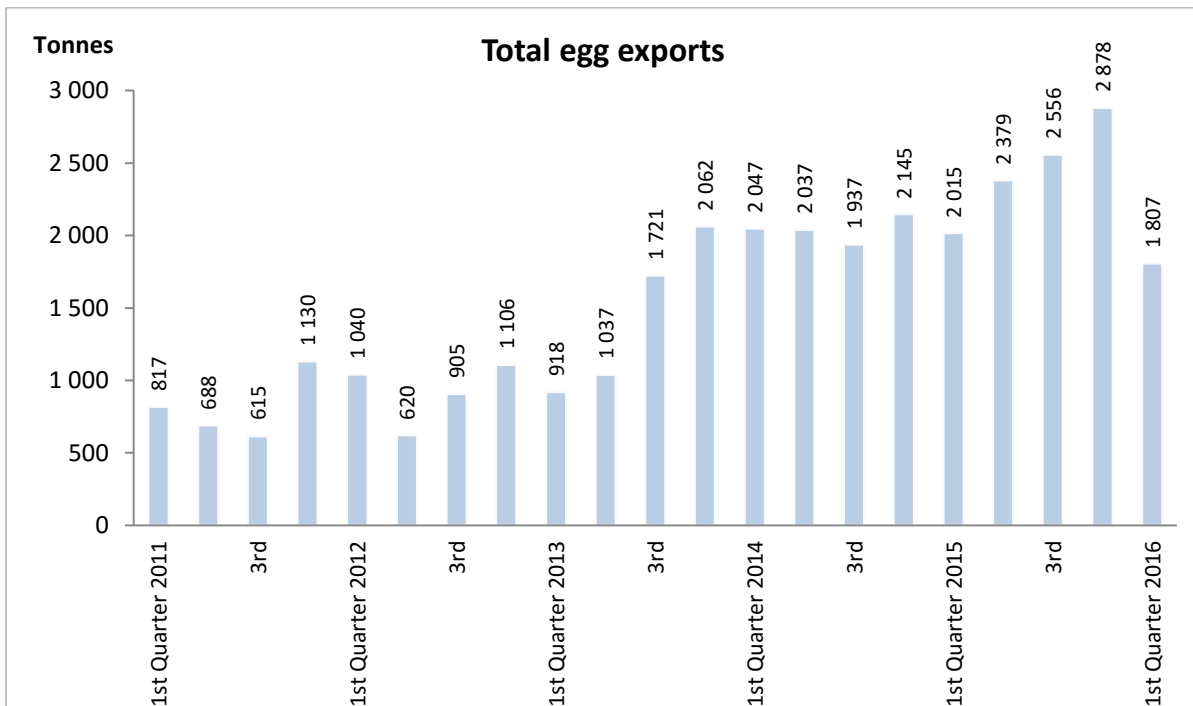
In summary, total egg exports comprised 2 787 t of fertile chicken eggs, 61.1 t of fertile eggs (not chickens or ostriches), and 1 807 tonnes of egg products (including shell eggs and preserved ostrich eggs).

The main countries of destination for South African exports of eggs and egg products during 1Q 2016 were Mozambique (69 % of exports), Zimbabwe (9.9 %), Swaziland (7.9 %), Lesotho (4.1 %), Namibia (3.1 %), Angola (2.1 %), Cote d'Ivoire (1.9 %), Botswana (1.6 %) and others (0.3 %) (*Figure 8*).

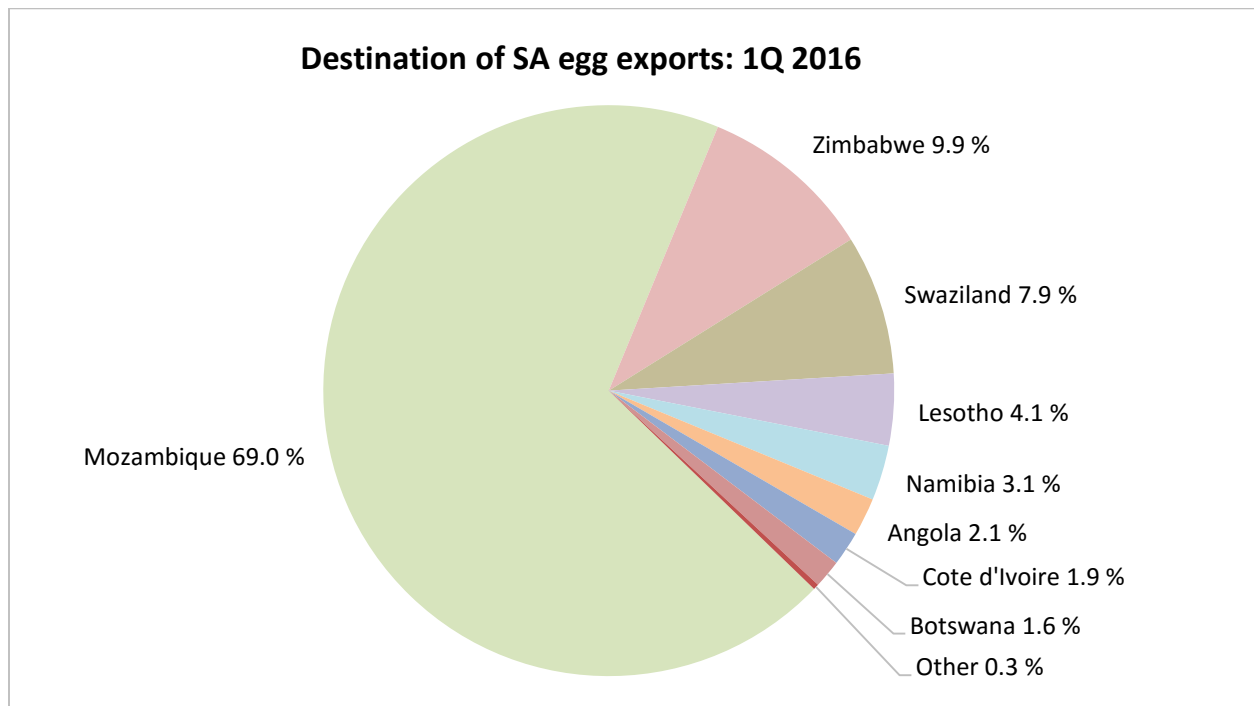
The main countries of destination during 2015 as a whole were Mozambique (56 % of exports), Angola (9.5 %), Zimbabwe (12 %), Namibia (4.1 %), Swaziland (8.8 %) and Lesotho (4.4 %). In 2015, South Africa exported 8 920 t of fertile chicken eggs; 365 t of fertile eggs from other species; 2 799 t of fresh chicken eggs; 3 404 t of preserved/cooked chicken eggs; 2 396 t of fresh and preserved eggs from other species; 1 029 t of dried egg products and 200 t of liquid egg products. Total egg exports for 2015 amounted to 19 113 t, valued at R885.6 million. South Africa also exported 9 775 t of ostrich eggs in 2015, of which 4 900 t were fertile eggs and 4 875



were shell eggs. Ostrich egg exports were valued at R0.574 million (fertile) and R1.55 million (shell).



**Figure 7:** Quarterly total exports of shell eggs and egg product excluding fertile eggs and ostrich eggs (source: SARS)



**Figure 8:** The main countries of destination for egg exports 1Q 2016

### 3. EGG PRICE TRENDS

#### 3.1 Producer prices

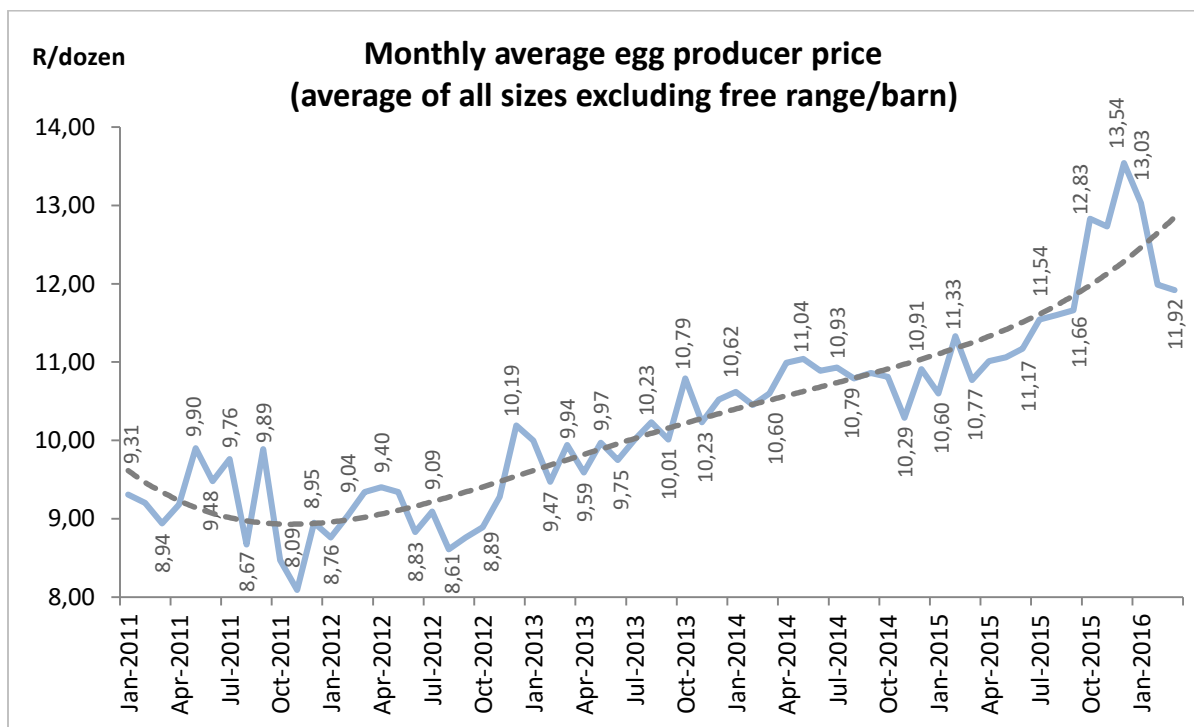
The monthly average egg producer price for March 2016 was R11.92 per dozen (*Figure 9*). Compared to February 2016, the egg price decreased by 0.6 % but, on a year-on-year basis, it increased 10.7 %. The quarterly average egg producer price for 1Q 2016 was R12.31 per dozen; a decrease of 5.5 % over 4<sup>th</sup> quarter 2015 prices but an increase of 13 % compared to the 1Q 2015.

- Graded egg prices

During March 2016, the average egg price for *graded* eggs was R12.69 per dozen, a decrease of 0.6 % in comparison with February 2016 but an increase of 5.5 % when compared to the same month in the previous year. The quarterly average egg producer price for *graded* eggs in 1Q 2016 was R12.98 per dozen; a decrease of 6.2 % over 4<sup>th</sup> quarter 2015 prices.

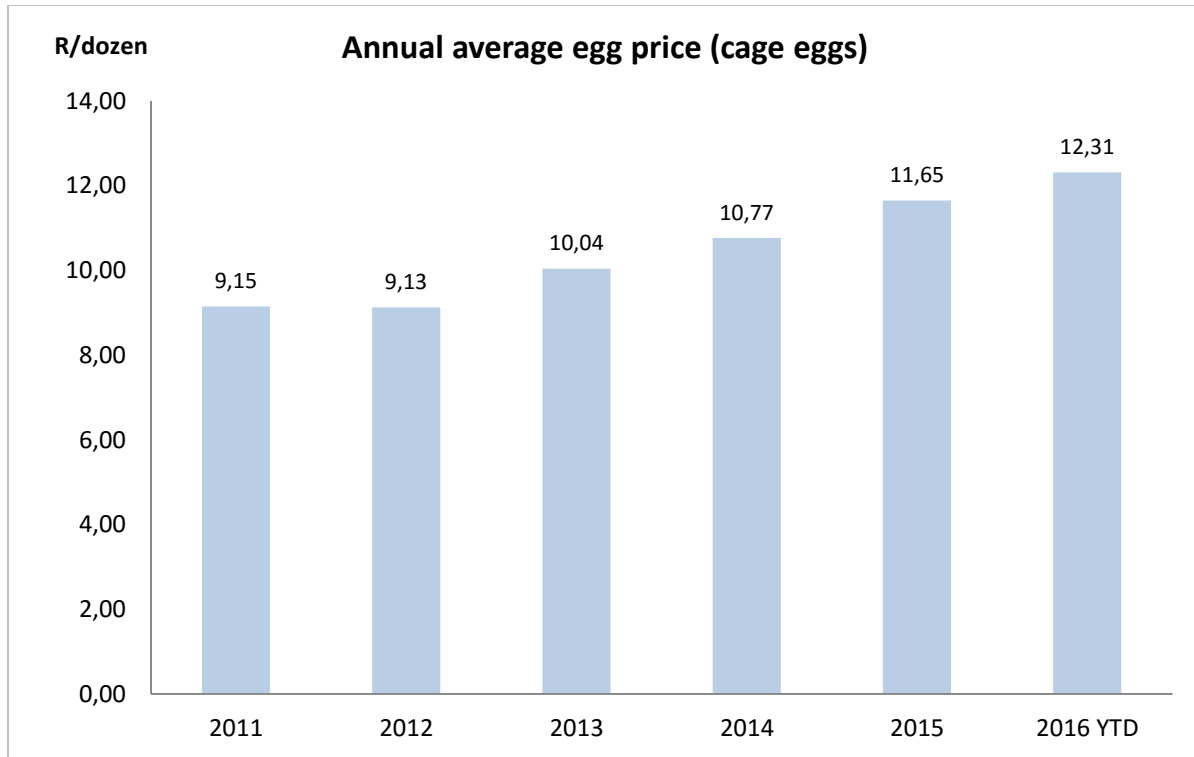
- Ungraded egg prices

The average egg price for *ungraded* eggs was R10.20 per dozen in March 2016, a 2.1 % decrease when compared to February 2016 but an increase of 11 % on March 2015 prices. The quarterly average egg producer price for *ungraded* eggs in 1Q 2016 was R10.63 per dozen; a decrease of 2.0 % over 4<sup>th</sup> quarter 2015 prices.



**Figure 9:** Monthly egg price from January 2011 to the end of the 1Q 2016

The average egg price for 2015 was R11.65 per dozen; an increase of 8.3 % over the average price for 2014 (R10.77; *Figure 10*). During 2015, 66 % of eggs were sold graded and 34 % ungraded. Graded eggs averaged R12.88 per dozen (a year-on-year increase of 10.1 %) and ungraded eggs sold at R9.90 per dozen (a year-on-year increase of 7.65 %).



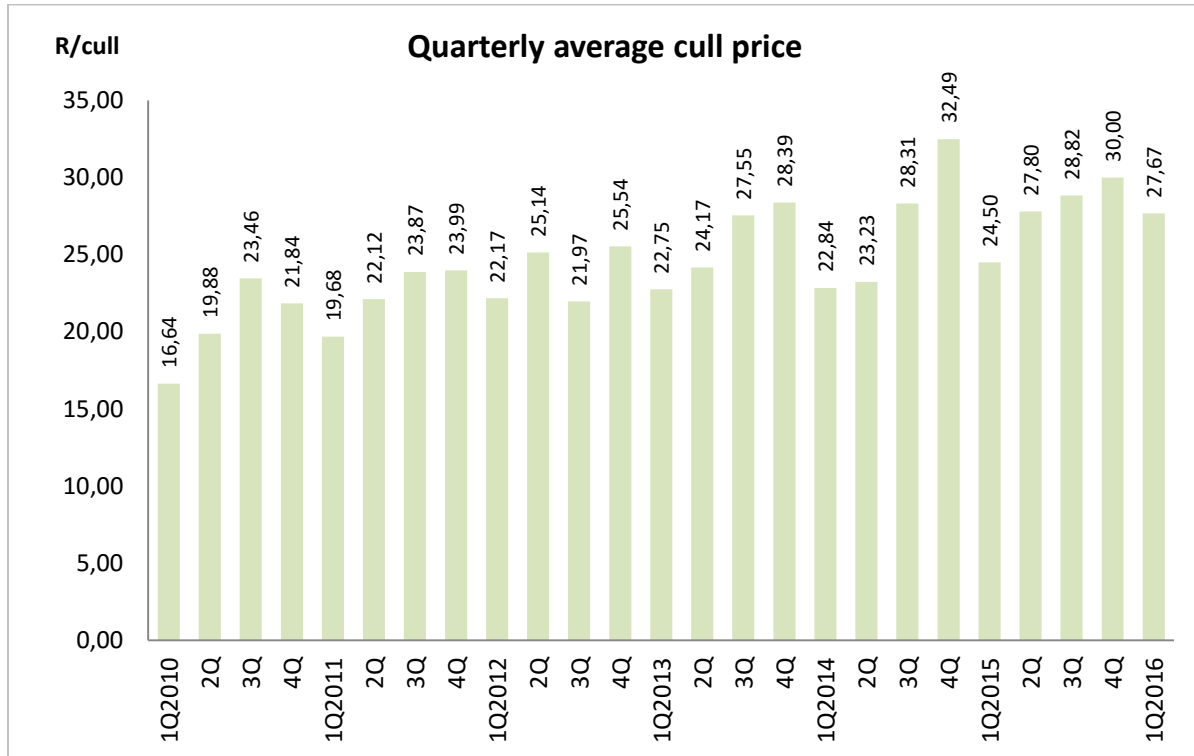
**Figure 10:** Average annual egg producer price

### **Cull price**

The average price for cull laying hens was R28.00 in March 2016, a 3.7 % increase when compared to February 2016 and an increase of 6.3 % on March 2015 prices.

The average price for cull laying hens in the 1Q 2016 was R27.67 (*Figure 11*). This is a decrease of 7.8 % over 4Q 2015 prices (- R2.33 per hen).

The average cull price for 2015 was R27.78; an increase of 4 % over the average price for 2014 (R26.72).



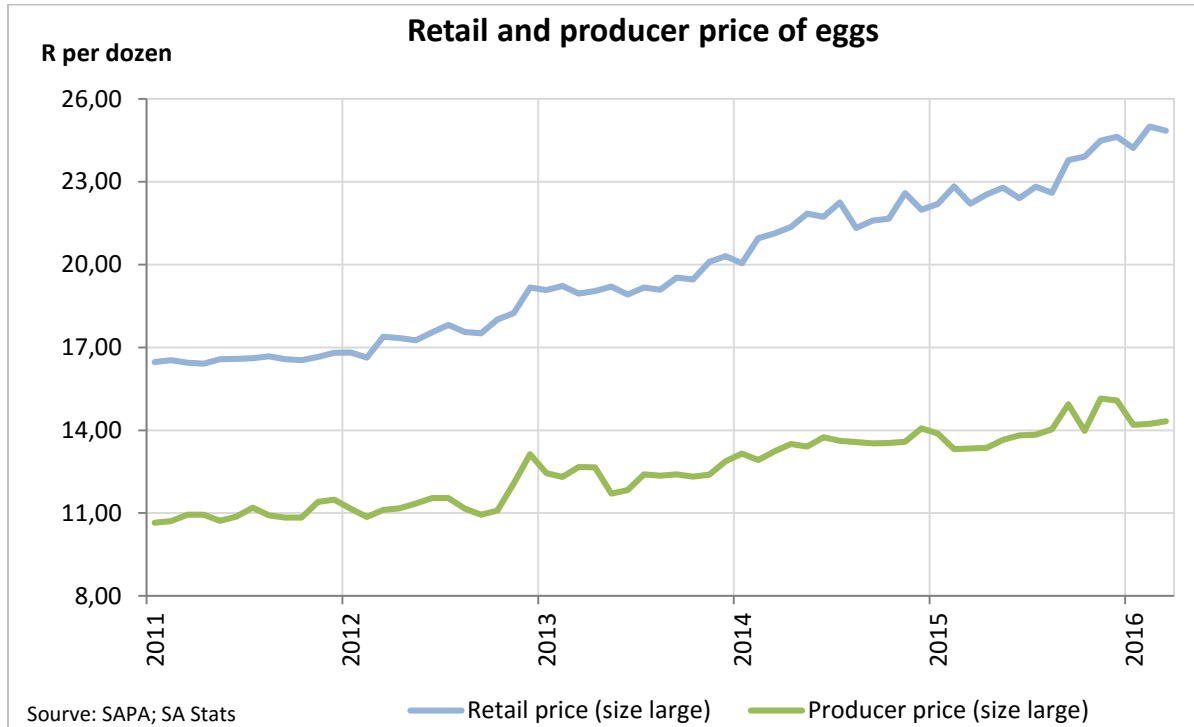
**Figure 11:** Average quarterly cull prices

### 3.2 Retail prices

During March 2016, the average retail price for eggs, size large, was R24.85 per dozen and the average producer price was R14.33 (*Figure 12*; Stats SA). The mark-up between producer and retailer was 73.4 %. The retail and producer price increased by 11.9 % and 7.4 %, respectively, on a year-on-year basis.

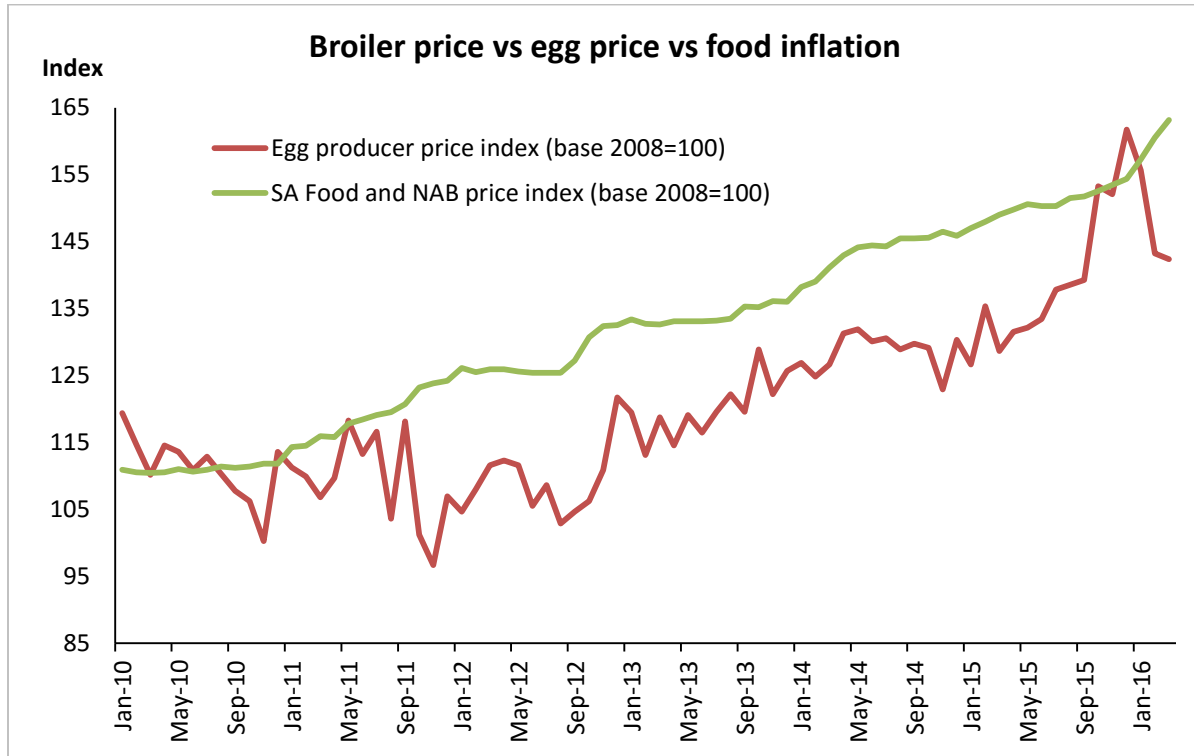
On a quarterly basis, the average retail price for eggs, size large, was R24.69 per dozen and the average producer price was R14.25 (Stats SA). The retail mark-up on producer prices was 73.3 %. The retail and producer price increased by 10.2 % and 5.4 % on a quarterly basis, respectively.

On an annual basis, the average retail price for eggs, size large, was R23.10 per dozen in 2015 and the average producer price was R14.03 (Stats SA). The retail mark-up on producer prices was 64.6 %. The retail and producer price increased by 7.2 % and 4.0 % over 2014 prices, respectively.



**Figure 12:** Production price and retail price of eggs (size: large)

The egg producer price index presented in *Figure 13* uses the average egg producer price in 2008 as the index base (= 100). The broiler producer price index is compared to the SA food and non-alcoholic beverages (NAB) price index (base 2008 = 100; Statistics SA). Using 2008 as the base year, egg prices increased in line with inflation from 3Q 2013 to the end of 2Q 2014. However, in contrast to the broiler producer price index, the gap between the egg price index and the food inflation index did not narrow in 1H 2015. In the case of broilers, if we were to take 2012 as the base year, the broiler price index would be greater than the food price index for almost every month through 2013, 2014 and 2015. However, where broiler producers benefited from lower input costs and price increases in excess of food inflation in 2015 (with a return to profitability), egg producers saw their prices slide in relation to overall food inflation in 1H 2015. In the 3Q 2015, a level of recovery began so that egg price inflation began to exceed the food inflation rate. This recovery continued in 4Q 2015, with the inflation rate for eggs strongly exceeding the inflation rate for food and non-alcoholic beverages. This improvement in price inflation deteriorated dramatically in the 1Q 2016, with the sharp deflation in egg prices in contrast to the increase in general food price inflation.



**Figure 13:** Production egg price index and food price inflation (base 2008 = 100)

### 3.3 Egg prices in comparison with chicken, beef and pork

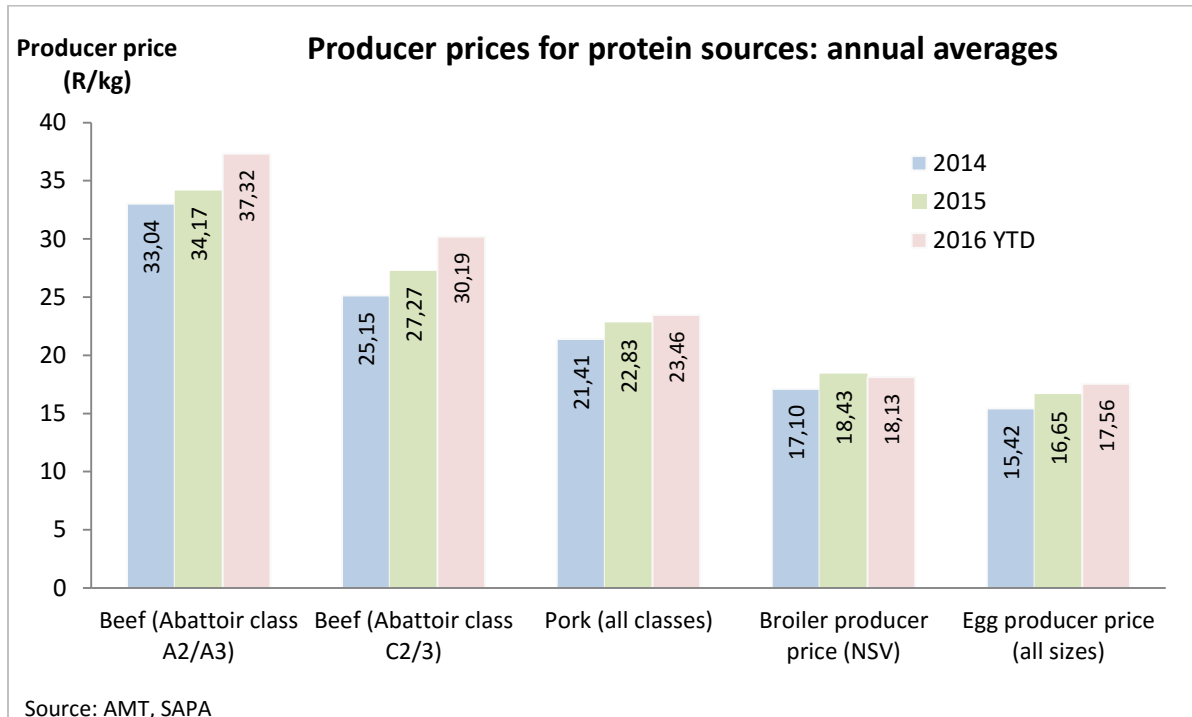
#### *In comparison with pork, beef and chicken: 2015*

Eggs and poultry meat remain the most affordable of all protein sources described in the graph below (*Figure 14*). Please note that the mean egg weight used to calculate egg prices per kilogramme has been increased in SAPA models from 55 g to 58.2 g for 2014 and 58.3 g for 2015, so average egg producer prices for 2014 have changed since the 3Q 2015 report.

The average egg producer price for 2015 was R16.65 per kg (R11.65 per dozen (SAPA; all sizes). In 2014, it was R15.42 per kg. In March 2016, the egg producer price was R17.00 per kg (R11.92/dozen); an increase of 10.4 % on a yearly basis (*Figure 15*).

The average beef producer price at the abattoir (A2/A3 carcass price, excluding the fifth quarter) for 2014 was R33.04 per kg and for 2015 was R34.17/kg. In March 2016, beef classes A2/A3 fetched R39.02 per kg; a year-on-year increase of 14.6 %. The average producer price of class C2/C3 beef was R25.15 per kg in 2014 and R27.27/kg in 2015. In March 2016, C2/C3 beef fetched R30.83 per kg; a year-on-year increase of 22.8 %. (*Figure 15*; Source: Stats SA; SAPA).

The average pork price (all classes) was at R21.41 kg in 2014. In 2015, it rose to R22.83 per kg (+ 6.6 %) and, in March 2016, pork fetched R24.00 per kg, a year-on-year increase of 0.62 %. The average producer price for broilers (total realisation) for 2014 was R17.10 per kg and for 2015 was R18.43 per kg (+7.7 %). During March 2016, the broiler producer price was R18.05 per kg. The March producer price has decreased by 1.5 % in comparison with the same month in the previous year (*Figure 15*).



**Figure 14:** Comparison of annual producer prices of protein sources: 2014/2015

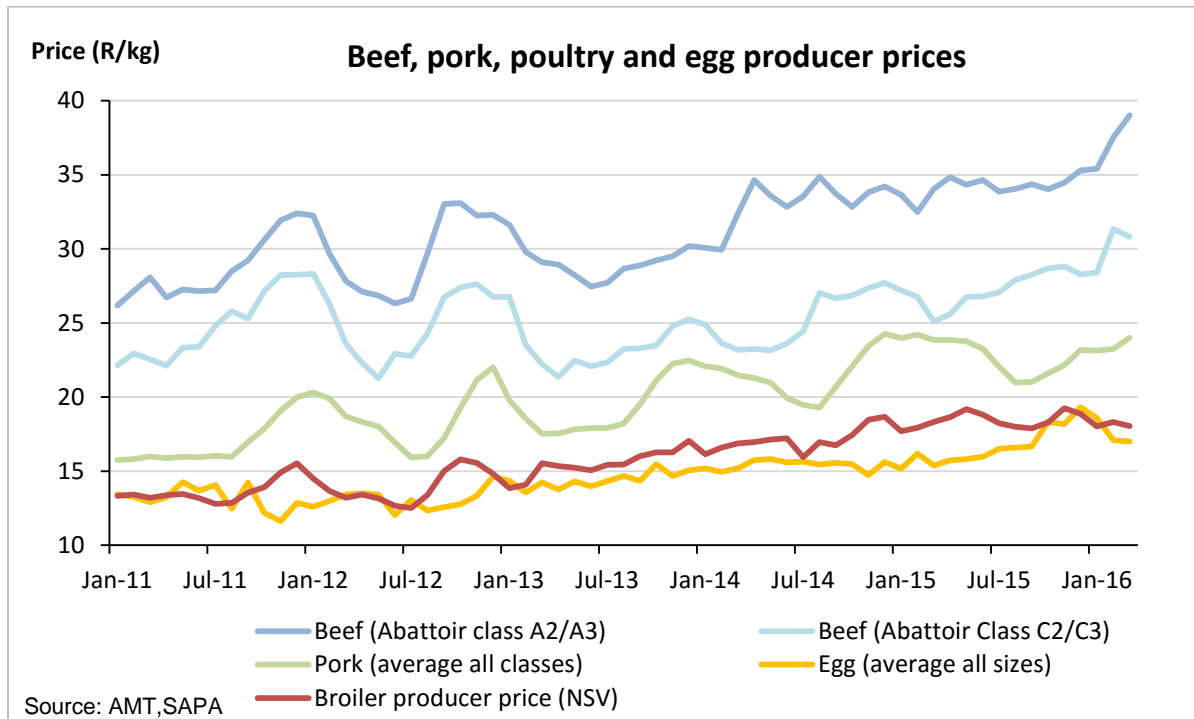
### ***In comparison with pork, beef and chicken during the 1Q 2016***

The average egg producer price for 1Q 2016 was R17.56 per kg; a quarterly decrease of 5.6 %, but an increase of 12.7 % on a year-on-year basis (SAPA; average all sizes).

In comparison, the average beef producer price at the abattoir (class A2/A3 carcass price excluding the fifth quarter) for 1Q 2016 was 37.32 per kg; a 7.9 % increase on a quarterly basis and an 11.8 % increase on a year-on-year basis. The average producer price of class C2/C3 beef was R30.19 per kg for 1Q 2016; a 5.6 % increase on a quarterly basis and a 14.6 % increase on a year-on-year basis (SA Stats; SAPA).

The average price of pork (all classes) was R23.46 per kg in the 1<sup>st</sup> quarter of 2016; a quarterly increase of 5.1 %, but a year-on-year decrease of 2.3 %.

The average producer price for broilers (total realisation) for 1Q 2016 was R18.13 per kg; a decrease of 3.6 % on a quarterly basis and a 0.85 % increase on a year-on-year basis.



**Figure 15:** Monthly producer prices of protein sources

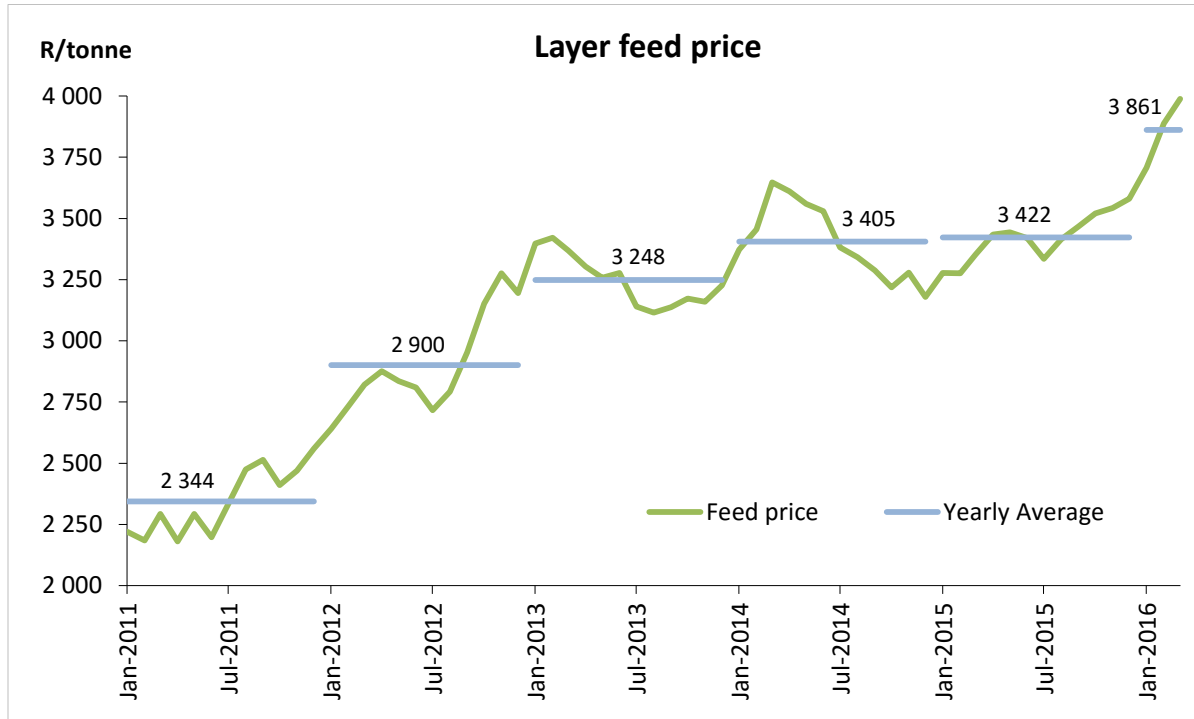
### 3.4 Feed price indicator

The weighted average feed price includes distribution, excludes medication & additives and excludes VAT. Therefore, it should be treated as an indicator. The monthly average feed price for March 2016 was R3 988 per tonne (*Figure 16*). It increased by 2.6 % on a monthly basis and by 19 % on a year-on-year basis.

The average layer feed price indicator for 1Q 2016 was R3 861 per tonne; an increase of 8.8 % in comparison with the previous quarter and an increase of 16.9 % in comparison with the same quarter in the previous year.

The average feed price for 2015 was R3 422; an increase of just 0.5 % over 2014. The average feed price indicator for 2014 was R3 405 (*Figure 16*).





**Figure 16:** Monthly and yearly feed price indicator

## 4. Economic Overview

### 4.1 International economic outlook for the egg industry

As 2016 rolls on, commentators on global egg production remain firmly focused on the steady stream of big corporations pledging to move away from caged housing systems for laying hens. Over the past six months it has become clear that the transition to cage-free egg production *will* happen in the US; the question is now simply “*by when?*” It can be expected that the next six months will reveal just how widespread this transition will become in Europe, South America and Australasia. In other news, outbreaks of avian influenza continue to affect West Africa, Asia and Europe and disrupt world trade in eggs, poultry meat and breeding stock; the Ukraine has become a major importer of eggs into the EU and the Nigerians have rolled out a school feeding programme which could see millions of children receive an egg a day.

#### **Hen welfare**

McDonald’s continues to benefit materially from its September 2015 decision to transition to eggs reared in cage-free facilities. The move is viewed by many industry commentators as a defining moment for the global egg industry. In 2H 2015, 19 large North American companies voiced their commitment to transitioning away from conventional caged production to non-caged systems - by some, variable date within the next ten years. In the first four months of 2016, the

number of companies pledging to source cage-free eggs increased exponentially. By April, close to 50 grocery chains and a further 40 restaurant chains had promised changes to their buying policies and, in May alone, a further 30 US companies moved to align their companies with industry sentiment, along with food service and cruise companies (WattAgNet). Sysco Corps, the world's largest foodservice distributor, has committed to sourcing only cage-free eggs across its entire US supply chain by 2026. With sales of \$48.7 billion in 2015, the company is bigger than McDonalds and adds considerable weight to the movement away from battery farming (ecowatch.com). Perhaps of more interest to local producers, multinational retail corporation Walmart announced in April that it would make the transition in its US operations by 2025, whilst Nestlé has now promised to completely overhaul their US egg supply chain within the next five years. Walt Disney has now pledged to use only cage-free eggs in its parks and on its cruise ships by the end of 2016.

Executives are now seeking to differentiate their businesses from the competition by promising to make the transition to cage-free eggs sooner rather than later; trying to impress customers with a speedy, and sometimes almost immediate, conversion to cage-free eggs. Too many big corporations making early commitments will put suppliers under pressure. In the US, less than 10 % of 300 million laying hens are currently housed in cage-free systems and the United Egg Producers organisation predicts that the country's cage-free flock will need to increase by over 900 % by 2030 (WattAgNet) at a cost in excess of \$5.6 billion (USDA). The transition will require much more from egg farmers than a hefty capital investment. Egg laying hens will need to be reared differently to allow them to develop the immune system and temperament to cope in cage-free housing; flock management will need to improve to deal with less efficient but more challenging production systems; flock sizes will have to decrease but behavioural issues will increase; and, still, some consensus needs to be reached on what "cage-free" actually means. However, the sheer scale of the exodus from caged production will help to make the transition easier for farmers. In the past, a small number of cage-free producers and a limited volume of research were focused on improving alternative systems to produce eggs - for a niche market. Now, over the next ten years, local government, the USDA, equipment manufacturers, pharmaceutical companies, feed manufacturers, nutritionists, behavioural scientists, etc. will all need to apply their collective energies to making the new production systems work on every level possible – including efficiency, welfare, cost and environmental sustainability. Where farmers learned, over decades, how to keep birds in cages, they will now, in less than a decade, have to learn how to rear and house birds out of cages. Jennifer Chaussee's online article, "*The insanely complicated logistics of cage-free eggs for all*", is well worth a read ([www.wired.com/2016/01/the-insanely-complicated-logistics-of-cage-free-eggs-for-all](http://www.wired.com/2016/01/the-insanely-complicated-logistics-of-cage-free-eggs-for-all)).

McDonald's experienced four straight years of declining sales until the launch of its All Day Breakfast in late 2015, which has underpinned three straight quarters of rising sales and increased hopes that a sustained turnaround is taking hold. McDonald's claim that the change in menu and the transition to cage-free egg production were made in response to their customers' two biggest complaints and were the company's best guess at what customers would be demanding in the future (WattAGNet). Ethical branding and the increased product value associated with higher welfare standards can be good for business, but a company has to market its actions effectively to the public in order to derive maximum benefit from the changes.

Once a company starts advertising its welfare stance and differentiating itself from the competition, consumer trust must then be retained through operational transparency and verification processes. Welfare audits need to back up any claims made by advertising campaigns. McDonald's seem to be getting it right and its UK operations were recognised at this year's Good Farm Animal Welfare Awards for their TV advertisements relating to the role of tree cover in hen welfare and for their integrated marketing campaign "Good to Know" (WattAgNet).

In the EU, 56 % of birds are housed in enriched colonies and 44 % are housed in non-cage systems (barns, aviaries, free-range, organic; EU Commission). Nevertheless, there is disquiet amongst many producers that heavy investments made since 1999 in enriched cage systems may have been wasted as US developments evidence a stampede towards entirely cage-free production – a stampede which will impact both multinational operations and exporters. UK poultry producers invested £400 million in enriched cages in the lead-up to the 2012 deadline for phasing out battery cages. An announcement by Aldi UK that they would be phasing out cage-free eggs by 2025 has UK producers concerned that this recent investment and the industry's commitment to hen welfare will be overlooked. Already, Sainsbury's, Waitrose and Marks and Spencers sell only eggs from cage-free hens. This month, Tesco committed to selling only cage-free eggs by 2025. In Denmark, the country's largest retailer announced it would be moving to cage-free egg supply within a few years. The Dansk Supermarked Group, which operates 1400 stores in five countries, will phase out caged eggs in its Netto, Føtex and Bilka outlets by 2017. All egg products in manufactured goods will be sourced from cage-free suppliers by the end of 2019 ([www.thelocal.dk](http://www.thelocal.dk)). The group's largest competitor, Coop, announced in March that it would phase out caged eggs by 2020.

In 1Q 2016, the Canadian egg industry announced its intention to phase out conventional cages by 2036. The National Farm Animal Care Council now looks set to accelerate this move away from caged egg production, in draft legislation aimed at phasing out cages by 2031, five years ahead of schedule. The Egg Farmers of Canada organisation, which represents 1000 regulated egg producers across the country (90 % of Canada's production) expects half the country's hens to be out of cages within 8 years. The draft legislation also includes regulations for cage-free production, ensuring the provision of perches, nest boxes and foraging space. The draft regulations will be discussed until August 29 ([CTVnews.ca](http://CTVnews.ca)).

Whilst, much of the movement towards cage-free production has been driven by consumers and committed to voluntarily by retailers, in some US states legislative changes in production regulations have been implemented or are currently being sought. A landmark animal welfare law, voted on initially in 2008, took effect in California on New Year's Day 2015. Californian hens now have to be housed in a way which allows them to stand up, lie down, turn around freely and fully extend their limbs. While not explicitly banning battery cages, the legislation sets a requirement for an additional 70 % of square space per bird and will necessitate significant retrofitting of existing cage systems or a change to free range or barn systems. As California imports 9.2 m cases of shell eggs and 3 m cases of liquid/dry egg products annually from neighbouring states, the legislation has obvious ramifications beyond state boundaries. In Massachusetts, a ballot measure will likely appear on November ballot forms, which proposes that Massachusetts farms and businesses produce and sell only cage-free eggs. Under the

proposed legislation, each hen would have access to 1.5 square feet of usable floor space. If approved, the ban would come into effect in 2022. Currently, the State has only one producer still using cages and so importing states would be hardest hit by any changes in the legislation. Whether the ballot measure will appear on the election ballot later in the year depends on the collection of a further 10 792 signatures in support of the changes, now that a court action to have the measure declared unconstitutional on a technicality has failed ([www.bostonglobe.com](http://www.bostonglobe.com)). The important point here is that egg exporting producers, states and nations need to be aware of what is happening in their target markets and be proactive, rather than reactive, in steering egg production into the future.

### ***Avian influenza outbreaks***

Outbreaks of highly pathogenic avian influenza continue to occur around the world. France experienced its first avian influenza outbreaks in eight years in November 2015, with the affected area being in the south-west of the country, bordering Spain. Between November and April 19<sup>th</sup>, 78 separate outbreaks of the Eurasian strains were reported. Five different strains were isolated: highly pathogenic H5N1; H5N2 and H5N9 and low pathogenic H5N2 and H5N3 (French Ministry of Agriculture).

There have been no new outbreaks of avian influenza in the US since the January 13<sup>th</sup> outbreak of highly pathogenic avian influenza on a turkey farm in Indiana. On 26 April 2016, there was an outbreak of low pathogenic AI (strain: H5N1) in commercial turkeys in Jasper County, Missouri. In this event, 39 000 birds were destroyed.

Through the first six months of 2016, there have been reported cases of highly pathogenic avian influenza in Nigeria (H5N1); Ghana (H5N1); France (H5N9; H5N1); Mexico (H7N3); Vietnam (H5N1; H5N6); China (H5N6); Chinese Taipei (H5N2; H5N8); Cote d'Ivoire (H5N1); Russia (H5 in wild birds); Bangladesh (H5N1 in crows); Myanmar (H5 N1); India (H5 N1); Korea (H5 N8); Cambodia (H5 N1); Cameroon (H5 N1); Iraq (H5 N1); Hong Kong (H5 N1); Italy (H7 N7); the US (H7 N8) and Niger (H5 N1). In addition, outbreaks of low pathogenic AI have been reported from Germany, France, the US, the UK, South Africa (ostriches), Cote d'Ivoire, the Netherlands and Mexico.

### ***Global production***

US table egg production in 2016 is currently forecast at 8.35 billion dozen (+5.4 % y-on-y; USDA WASDE). If the forecast holds, US production for the year will be higher than in 2015 (7.98 billion dozen) but still remain below 2014 levels (8.4 billion dozen). June egg prices in the US are at the lowest level in a decade. Predicted annual egg prices remain subdued at 97 - 100 c/dozen in comparison with 2015 prices (181.8 c/dozen average; USDA WASDE) as production recovers solidly from avian influenza-related depopulations but demand remains low. In 3Q 2015, egg prices were at a 30 year high because of AI-related shortages, but wholesale prices have slipped to as low as 55 c a dozen in June 2016 ([nbcNewYork.com](http://nbcNewYork.com)). Exports have dropped by almost 50 %, with countries which used to import eggs from the US before the avian influenza outbreak proving slow to re-establish imports. The industry expects some buyers never to return: in the food supply and manufacturing sectors, recipes and ingredients were

modified during the 2015 shortages, weakening local demand in 2016 (triblive.com). Imports of eggs into the US reached 123 million dozen in 2015, up from the 34.7 million dozen imported in 2014 (USDA WASDE). Imports of 108.6 million eggs are forecast for 2016 as contracts are honoured, and expected to drop steeply in 2017. US consumption of eggs is predicted to increase to 263 eggs per person per year in 2016; up from the 253 eaten in 2015 but still below the 267 per person eaten in 2014 before the AI outbreaks (USDA).

Since 2012, egg prices in the UK have collapsed from about £1.48 to 85p a dozen (theguardian.com). Iceland sold free-range eggs at 50p a dozen for a limited period in June (www.fwi.co.uk). DEFRA reports farm gate prices at 72.6p per dozen in 1Q 2016; down 13 % on 1Q 2015 prices. Egg consumption in the UK is at the highest level since the late 1980's; having increased 15 % in the past 5 years and almost 5 % since 2014. Total egg consumption in the UK through 2015 was 1.02 billion dozen and per capita consumption was 189 eggs per person per year. Rising consumption stimulated investment in the industry and increased volumes but prices have crashed. Discounters Aldi and Lidl are triggering price wars amongst the major supermarkets (www.dailymail.co.uk), with food prices in general now into 23 months of deflation (www.bbc.com). The fall in sterling experienced after the Brexit vote may give some relief to UK egg farmers, making imported product more expensive.

The British Egg Industry Council (BEIC) is investing in a marketing campaign to push egg consumption in the elderly (www.fwi.co.uk). This follows a report from the Advisory Committee on the Microbiological Safety of Food, which found lightly cooked or raw eggs carrying the UK's Lion brand to be safe for pregnant women and the elderly, 28 years after the industry's salmonella crisis (www.telegraph.co.uk). The Committee has advised the Food Standards Agency to amend its official advice on the eating of raw and runny eggs. The BEIC is also using social media platforms to push fashionable egg recipes and target younger consumers.

In the EU, egg production in 2015 totalled 6.38 billion dozen (EC CIRCABC). In the first half of 2016, shell egg production was 2.8 % higher than in the first six months of 2015. In June, packing stations prices for Class A eggs were 16.4 % lower than the same week in 2015. Prices of egg whites in the EU crashed 48 % between September 2015 (at the height of the fallout from the US AI outbreak) and February 2016, as low international milk prices made whey substitutes cheaper (www.mintecglobal.com). Imports of shell eggs into the Union were up 38 % in 2015, to 18 869 tonnes (egg equivalent) but were down 3.4 % year-on-year for the first 4 months of 2016 (ec.europa.eu). Imports from the US and India were down by 69 and 86 %, respectively, year-on-year January to April. In contrast, Argentina maintained a steady market share of around 20 %; whilst imports from the Ukraine increased dramatically from 475 t egg equivalent between January and April 2015 to 2 698 t in the same period in 2016, to account for 49.7 % of total EU egg imports in 2016 YTD. Ukrainian producers benefit from lower feed prices, less regulation and less costs in terms of hen welfare than their EU counterparts, making them competitive even with trade tariffs in place (www.fwi.co.uk). From April 2016, the Ukraine will enjoy 1 500 t of tariff-free access to the EU for eggs and albumins, increasing to 3 000 t within 5 years (www.ukraine-arabia.ae).

Exports of shell eggs from the EU increased by 21.4 % in 2015 to 282 688 t, despite a halving in exports to Russia (embargo) and to Angola (oil price crash limiting purchasing power). In the first four months of 2016, EU egg exports to third parties increased by 7.9 %, to 82 025 t egg equivalent (ec.europa.eu). Reduced exports to Japan (- 60 %) were balanced by big increases in exports to the US (+ 11 768 t, year on year January to April) and Israel (+ 8 614 t); both from very low bases. In 2015, the EU exported 41 045 t of eggs to the US (from an almost zero base in 2014) because of the effect of AI on local egg production.

Japan is the world's 4<sup>th</sup> largest egg producer (after China, the US and India) and is an interesting consumer market, egg-wise, with a per capita consumption of around 320 eggs a year (www.japantimes.co.jp). In 2013, Japan produced 2.5 million tonnes of eggs (Statistical Handbook of Japan 2015). The Japanese eat a lot of raw eggs, including a staple dish (with rice and soya sauce) for breakfast (tamagokake gohan). Sophisticated technology is used to safeguard consumers from *Salmonella enterica* infections. Eggs are washed, disinfected and sterilised, checked for cracks and spectroscopically analysed for bloodspots, before being packed (web-japan.org). The latest trend in Japan is for white-yolked eggs. The popularity of rice as a staple food is decreasing and the government is attempting to sustain paddy fields and rice producers by promoting the use of locally-produced rice in livestock feeds. Kometsuya eggs (*kome*: rice) are produced by birds fed rice-based diets, and have an almost white yolk because of the lack of carotenoids in the feed. Kometama eggs are produced by hens raised on pasture and fed rice-based diets and are also pale-yolked (www.japantimes.co.jp). Rice-based poultry feeds could become an important component of the Japanese government's efforts to stimulate local agriculture and reduce reliance on imported maize.

### **High quality animal protein in children's diets**

In Nigeria, the federal government is testing a school feeding programme which aims to reduce malnutrition, tackle stunted growth in children and improve enrolment in schools. A paper published this year in eBioMedicine (Semba *et al.*, EBioMedicine (2016), <http://dx.doi.org/10.1016/j.ebiom.2016.02.030>) suggests that feeding programmes targeting malnourished children (under 3 years of age) have put too much emphasis on supplying micronutrients instead of focusing on the child's intake of high quality animal protein. Without the essential amino acids necessary for normal growth, many children in the developing world will grow up stunted, even where micronutrients have been supplied. Small children need high quality, animal protein. The Nigerian federal government plans to supply 5.5 million children with one meal a day and estimates a billion eggs would be needed in a 200 day school calendar (www.vanguardngr.com). The programme has been rolled out in Kaduna state and egg farmers are benefiting from the increased demand for their product (www.naij.com). Currently, egg consumption in Nigeria is only about 65 eggs per person per year (Poultry Association of Nigeria) and production is estimated at a billion eggs per year. The feeding programme thus has the potential to double the output of the industry (www.dailytrust.com.ng).

Eggs are the cheapest animal protein available in South Africa, with the exception of milk – but, as a bonus, are high in choline (for brain development and memory) and also provide generous amounts of iron, selenium, phosphorus, omega-3 fatty acids and vitamins B<sub>2</sub>, B<sub>5</sub>, B<sub>12</sub>, A and E.

Per capita consumption of eggs in South Africa remains disappointingly low at 150 eggs per person per year. Contrast this to the other countries: 330 in Mexico, 242 in Russia, 256 in Argentina, 263 in the US, 220 in New Zealand, 192 in Brazil and 189 in the UK. It is clear we could be feeding many more eggs to our undernourished children, rather than the beans and soya mince more commonly used in school feeding programmes.

#### 4.2 The South African economy

The perfect storm crashing around the South African economy has not abated. South Africa is still suffering from stalled domestic growth, devastating drought, a volatile currency, rising oil prices and political and social upheaval in the run up to local elections in August. While sunny skies continue to punish drought-ravished farmlands, the only sign of silver-linings on the economic front have been Pravin Gordhan and his successful warding off of a further credit rating downgrade. Sadly, it is quite possible that this mid-year reprieve will be short-lived.

Going into 2016, South Africa's credit rating sat one notch above "junk status" (below-investment grade) after a December 2015 downgrade by the rating agencies Standard & Poor's and Fitch Ratings. A third agency, Moody's, put South Africa one notch above the other two agencies but also cut its outlook on South Africa's credit rating from stable to negative in mid-December 2015. In early March 2016, Moody's placed South Africa's rating on review for a downgrade. The finance ministry, under Pravin Gordhan, worked to prevent a further downgrade which would have had devastating consequences for the country's economy. The review process concluded in May, with Moody's leaving its rating unchanged at two notches above "junk status". In June, South Africa narrowly avoided downgrades from the other two agencies when Standard and Poor affirmed the country's BBB- foreign currency status; albeit it with a negative outlook. A week later, Fitch Ratings maintained South Africa's investment rating, with a stable outlook. Both agencies cautioned that slow GDP growth, government debt and a wide current account deficit are risks which needed to be addressed if a downgrade later in the year is to be avoided. The negative outlook attached to the Moody and Standard and Poor ratings effectively puts South Africa on warning – serious fiscal management and commitment to growing the economy need to be demonstrated, and quickly. The wider than expected current account deficit (5 % of GDP) announced in June will not help South Africa's cause with the rating agencies in the next round of reviews; nor will the IMF's downward revision of its GDP growth forecast to 0.6 % year on year.

The rand touched R16 to the dollar in mid-December 2015; representing a 38 % depreciation in value since January 2015. After a brief rally when Pravin Gordhan was reappointed as Minister of Finance, the rand began to slide again in late December, right through to mid-January 2016 when it slumped to R16.90 to the US dollar (testing the R17.50 level briefly), R24.50 to the UK pound and R18.40 to the euro. From mid-January to early May, the rand staged a wobbly recovery, closing at R14.20 to the dollar on May 1<sup>st</sup> (23 % down on January 2015). Concerns that the country's investment rating would be reduced to below-investment level took the rand down to R15.70 to the dollar through much of May, until Standard and Poor affirmed South Africa's BBB- rating at the beginning of June. Another brief rally in response to this news was

soon ended by contracting 1Q growth figures (- 1.2 %), the run up to the US Reserve Bank monetary policy meeting, disappointing current account data and Brexit concerns. The mid-June decision by the US Reserve Bank not to raise interest rates boosted the rand along with predictions that the UK would vote to remain in the EU. One the eve of the Brexit referendum, the rand trade at R14.51 to the dollar only to lose 8.5 % on June 24<sup>th</sup> when the polls proved to be wrong and the British voted to leave the common Union. Inextricably linked to the euro and sterling, the rand will remain volatile as this European divorce continues and risk-adverse investors avoid the currency.

In April, the International Monetary Fund cut its growth forecast for the South African economy for the second time this year to 0.6 % in 2016 and to 1.2 % in 2017. The South African Reserve bank has also cut its forecast (again) to 0.6 % in 2016 and 1.3 % in 2017. A 1.2 % (q/q; -0.2 % y/y) contraction in growth in the 1Q 2016 raises the possibility of recession later in the year. Although the mining sector was the biggest contributor to this contraction, agriculture remained in negative growth for the fifth consecutive quarter. Growth of between + 0.5 % and +1.9 % in the construction, services, manufacturing and financial sectors could not offset more substantial contractions in mining (-18 %), agriculture (-6.5 %), electricity (-2.8 %) and transport (-2.7 %). The IMF cited lower commodity prices, policy uncertainty and the higher cost of servicing debt as factors weighing down the South African economy.

The IMF has reduced its 2016 forecast for growth in other sub-Saharan countries to 3 %, down from 5 % in 2014 and 3.5 % in 2015. The World Bank's latest global economic outlook (2.4 %) is more pessimistic than the IMF's prediction of 3.2 %, made in April. The IMF's 3.2 % growth forecast derives from a forecast for growth of 2.0 % in the advanced economies and 4.1 % in emerging economies. In its January World Economic Outlook, the IMF cited the Chinese economy, commodity prices and US monetary policy as three major factors in determining global growth in 2016. As a commodity-based economy and an emerging market, South Africa GDP growth is just as effected by these three factors. Any slowdown in the Chinese economy reduces South African commodity exports and any strengthening of the US dollar attracts capital away from emerging markets and makes the country's dollar-delimited debt harder to service. Risks to the global outlook in 2016 include factors of a non-economic nature (refugee tides, Brexit, political tensions, terrorism, the Zika virus, etc.) and factors of an economic nature (China's performance, the oil price, etc.).

After hitting an historic 23-year low in December 2015 (79.6 index points), the South African Chamber of Commerce and Industry (SACCI) Business Confidence Index increased gingerly from January through to April to 82.5, before collapsing back 3.2 index points to 79.3 in May 2016. The index remains well below the 92.8 level recorded in February 2015. The latest crash in business confidence reflects weak demand for commodities, floundering domestic growth, the drought, high levels of imports and the weak exchange rate. On the upside, the 2Q 2016 Merchantec CEO Confidence Index was announced in June under the heading "*The crisis in CEO confidence is behind us*". A 10.4 % increase in CEO confidence over 1Q levels was recorded; ending five consecutive months of decline which had taken the index to an all-time low. All six sectors measured showed an increase in confidence, with the financial sector demonstrating a dramatic 68 % increase in confidence over 1Q levels. Of course, a 68 %



increase from a very low base still leaves confidence levels well below the peaks seen in 2010 and 2012 but any normalisation is welcome. The economic storm clouds associated with Nenegate, political infighting and looming junk status seemed to have dispersed a little, but the survey was conducted before the surprise move in favour of Brexit and it is unlikely that the financial institutions will be feeling so upbeat in the 2Q 2016 survey.

After dipping to -14 in 4Q 2015, the FNB/BER Consumer Confidence Index clawed back up to -9 in the 1Q 2016. When viewed against the long-term average for the FNB/BER index (+5), the first quarter level still shows depressed consumer confidence, which remains below 2008/9 levels (the recession years). Low consumer confidence translates into a reluctance to spend or use credit. Globally, consumer confidence remained stable in 1Q 2016 but, at 98, below the optimistic baseline of 100 (Nielsen CCI Report). Market-specific factors are driving the CCI in individual countries, so the global average reflects growing confidence in some countries and deteriorating confidence in others, even within a single continent.

In late April, the World Bank raised its forecast for 2016 crude oil prices to \$41 a barrel. Oil prices rose from \$25 a barrel in January (a 13 year low) to \$40 in April, on the back of production outages in Iraq, Nigeria and Libya and lower production in the US. Prices increased further in May and June to remain above \$50 a barrel for a week in early June, in reaction to wildfires in the oil sands of Alberta, Canada which cut production by 1.2 million barrels per day. However, a proposal to hold production at January 2016 levels failed at a meeting of OPEC and non-OPEC members in April and a continued lack of agreement to curtail production would put lasting pressure on oil prices. Even so, the World Bank forecast is based on the oversupply of oil diminishing as the year goes on.

The unemployment rate in the 1Q 2016 increased to 26.7 % from 24.5 % in the previous quarter. The rate is the highest since the survey began in 2008, with manufacturing, construction, retailers and wholesalers shedding jobs. The expanded unemployment rate, which includes discouraged work-seekers, rose to 36.3 %. The unemployment rate has not dropped below 21.5 % in the last 15 years.

The Minister of Labour has announced minimum wages for 2016/2017 in the agricultural and forestry sector; effective 1 March 2016. The minimum wage for a farm worker working a nine hour day has increased by 6.6 % (R14.25 per hour; R 2779 per month). The Minister promised to expeditiously assist in processing applications from farmers adversely affected by drought for ministerial variations in terms of section 50 of the Basic Conditions of Employment Act. With an anticipated average increase of 6.9 % in 2016, inflation is likely to erode or exceed salary increases this year.

Inflation averaged 4.6 % in 2015, up significantly on the SARB's initial forecast of 3.8 %. Inflation forecasts going forward have moderated a little since January and inflation is now expected to average 6.7 % in 2016, 6.2 % in 2017 and 5.4 % in 2018 (SARB). South Africa's headline inflation breached the upper end of the target range (6 %) in January 2016 (6.2 %), increased to 7.0 % in February and then moderated to 6.6 % and 6.5 % in March and April,

respectively. Inflation is expected to peak at 7.3 % in the 4Q 2016 and the protracted breach of the target range is forecast to continue until 3Q 2017 (SARB).

Food price inflation decreased from 6.6 % in January 2015, year on year, to 4.3 % in June 2015; but crept back up to 5.9 % in December (SARB). Food and NAB inflation was recorded at 6.9, 8.6, 9.5 and 11.0 % in January, February, March and April, respectively (Stats SA). In April 2016, year-on-year price inflation for bread exceeded 9 %; maize meal exceeded 40 %; vegetables 29.5 %; fats and oils 16 %; coffee and tea 12.8 % and eggs 9 %. Only fruit, dairy and bean products were less than 6 % more expensive than a year ago (BFAP/Stats SA). Meat prices are not discussed here, as averages presented by Stats SA have been affected by changes to the methodology in the collection of frozen chicken prices (discussed above under Retail Prices).

Higher food price inflation through 2016 is expected locally because of the drought-reduced harvest of maize and other food crops and an unsympathetic exchange rate. Globally, food prices remain below prices experienced in the same month in 2015, despite a four-month phase of steadily increasing food prices (FAO). Prices in May 2016 were 7 % below May 2015 prices.

In this difficult economic climate, the South African egg industry is experiencing another year of real challenges, including:

- High commodity prices, related to drought conditions and the embattled rand.
- Soaring food inflation and constrained consumer spending (as discussed above)
- Recent and forecast increases in interest rates
- Volatility in an already depreciated rand and its effect on input costs (e.g. fuel)
- The possibility of recession in South Africa
- Disappointingly low local consumption of eggs (150 per person per year)
- Weak export demand

Animal feed price inflation was lower in 2015 than in 2014 but the severe drought experienced in the 2014 – 2016 seasons, and a weak rand have pushed maize prices to challenging highs in 2016. In the new maize season, beginning May 2016, South Africa is expected to import 2.7 million tonnes of yellow maize; after importing over 1.7 million tonnes in the previous season. GrainSA had predicted that maize imports at a level of 2.4 m tonnes would cost the SA economy R8 billion, but the forecast level is now even higher. The South African crop is expected to total 7.1 million tonnes; 28 % down on last season's crop which was already 30 % lower than the 2014 harvest. Estimated prices for yellow maize in March 2016 were almost 40 % higher than in March 2015, and soya prices were approximately 17 % higher. Most forecast models report the demise of the El Niño weather pattern: surface waters in the Eastern and central Pacific have cooled and models now forecast a 60 – 75 % chance that El Niño will be followed by a La Niña pattern (National Oceanic and Atmospheric Administration). This last El Niño episode, nick-named Godzilla by NASA, lasted about 15 months and made 2015 the hottest year on record. While conditions in the Pacific may remain neutral through the South

African winter, a move towards La Niña conditions could bring above average rainfall in South Africa in the period December to March (National Agro-meteorological Committee).

With both the food inflation and exchange rate outlooks deteriorating badly in early 2016, the Reserve Bank increased the repurchase rate by 50 basis points on the 26 January 2016, to 6.75 %, and by a further 0.25 % to 7.0 % in March 2016. At the Monetary Policy Committee meeting in May 2016, the Committee felt there was some room to pause in the tightening cycle and left the repo rate unchanged in a move seen as sensitive to an economy bordering on recession. With economic growth still floundering, pundits are predicting that the Reserve Bank will again veer away from increasing interest rates in July, particularly as inflation is being driven primarily by supply pressures (drought related), rather than by consumer demand.

The lower prices at the pumps in the 1Q 2016 provided welcome relief to hard-hit South African consumers, but fuel prices have increased steeply from 1 April - the fuel levy increased by 30 c/litre and the weak rand has made the steady increase in the oil price even harder on South African pockets. As discussed above, June oil prices had almost doubled from the 13-year lows experienced in February 2016, to run at around \$50 a barrel. With a 61 c/litre increase in the diesel price expected at the beginning of July, the wholesale diesel price will have increased by 18 % in the first half of 2016. A more reliable electrical supply has been experienced over the past six months, reducing the need for expensive alternatives to be installed. However, Eskom was granted a 9.4 % tariff increase by the regulatory body, NERSA; effective 1 April 2016.