



Key Market Signals in the Egg Industry

**For the
third quarter of 2017**

3Q 2017

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1. EXECUTIVE SUMMARY

Pullets and laying hens

A total of 5 873 160 day-old pullets was produced during the third quarter of 2017 (3Q 2017). This was 9.6 % less than 2Q 2017 and 1.1 % less than 3Q 2016.

The average number of laying hens during 3Q 2017 was 22 934 360. This was a decrease of 5.3 % compared to 2Q 2017 and a decrease of 7.3 % compared to 3Q 2016.

Egg production

Total egg production during 3Q 2017 was 4 924 000 cases. This was a 4.6 % decrease compared to 2Q 2017 and a 7.9 % decrease compared to 3Q 2016. The average production per week for 3Q 2017 was 374 440 cases.

Egg imports

During 3Q 2017, all but 6 kg of egg imports into South Africa were dried egg products. The dried egg products comprised 54 338 kg dried egg product (not including yolk), 22 066 kg dried egg albumin and 49 503 kg dried egg yolks. Total egg imports in the 2Q 2017 amounted to 125 913 kg; at a rand value of R9.45 million.

In the 3Q 2017, imports from France accounted for 39.6 % of total imports; whilst 35.7 % came from Italy, 24.3 % from Denmark, and 0.43 % from Belgium, Japan and the United Arab Emirates, combined.

In 2017 YTD, egg imports into South Africa totalled 236.3 tonnes; up 114 % on imports in the same months of 2016 (110.4 tonnes). The FOB value of imports in 2017 YTD (September) was R18.2 million.

Egg exports

During 3Q 2017, a total of 3 403 tonnes of eggs and egg products left South Africa, at a declared FOB value of R72.6 million. This tonnage decreased by 17.2 % compared to the 2Q 2017 (- 586 t).

Of these total egg exports, fertile chicken eggs accounted for 822 t. This is 156 t (- 15.9 %) less than in the previous quarter and 1 272 t (- 60.7 %) less than the same quarter in the previous year (3Q 2016). The FOB value of fertile chicken egg exports in the 3Q 2017 was R32.8 million. In addition to fertile chicken eggs, SARS reports that 15.7 t of fertile eggs from ducks, geese or guinea fowl were imported. SAPA continues to query these non-chicken volumes; the bulk of which, this month, went to Swaziland, Mozambique, Lesotho, Botswana and Zimbabwe.

Besides fertile eggs, a total of 2 565 t of egg products (shell eggs, liquid and dried egg products included) were exported from South Africa in the 3Q 2017, at a declared FOB value of R 39.4 million. This is 407 tonnes less than in 2Q 2017 (13.7 % decrease); but 1 183 t more than in 3Q 2016 (85.6 % increase). Egg product exports during the 3Q 2017 comprised: 1.3 % dried egg

product; 0.33 % liquid egg product; 95.8 % shell eggs from chicken (0407.2110; 2190; 9020; 9090); and 2.5 % shell eggs from other sources excluding ostrich (0.407.2990). The total tonnage and value of egg products above excludes 182 kg of ostrich eggs exported under tariff code 0407.9010 at an FOB value of R35 002.

The main countries of destination for South African exports of eggs and egg products during 3Q 2017 were Mozambique (79.3 % of exports), Swaziland (11.3 %), Lesotho (7.4 %), Namibia (1.7 %), Nigeria (0.15 %); Botswana (0.07 %) and others (0.11 %).

Egg prices: producer

The monthly average egg producer price for September 2017 was R15.37 per dozen. Compared to August 2017, the egg price increased by 2.8 % and, on a year-on-year basis, it increased by 17.3 %. The quarterly average egg producer price for 3Q 2017 was R15.00 per dozen; an increase of 5.3 % over 2nd quarter 2017 prices and an increase of 12.3 % compared to the 3Q 2016.

During September 2017, the average egg price for *graded* eggs (excluding barn eggs and free range eggs) was R15.77 per dozen; an increase of 2.7 % in comparison with August 2017 and an increase of 11.1 % when compared to the same month in the previous year. The quarterly average egg producer price for *graded* eggs in 3Q 2017 was R15.48 per dozen; an increase of 4.5 % over 2nd quarter 2017 prices.

The average egg price for *ungraded* eggs was R14.23 per dozen in September 2017, a 3.5 % increase when compared to August 2017 and an increase of 26.9 % on September 2016 prices. The quarterly average egg producer price for *ungraded* eggs in 3Q 2017 was R13.78 per dozen; an increase of 7.1 % over 2nd quarter 2017 prices.

The average egg price for 2016 was R12.84 per dozen; an increase of 6.4 % over the average price for 2015 (R12.07). Graded eggs averaged R13.61 per dozen and ungraded eggs sold at R11.16 per dozen. In 2017 YTD (September), the average egg price (weighted) was R14.18 per dozen.

Cull price

The average price for cull laying hens was R28.89 in September 2017, a 3.3 % increase when compared to August 2017 but a decrease of 3.3 % on September 2016 prices.

The average price for cull laying hens in the 3Q 2017 was R29.67. This is a decrease of 4.2 % on 2Q 2017 prices (- R1.24 per hen). The average cull price for 2016 was R27.84; an increase of 0.22 % over the average price for 2015 (R27.78). The average cull price for 2017 YTD (September) is R27.77

Egg prices: retail

During September 2017, the average retail price for eggs, size large, was R26.01 per dozen and the average producer price was R16.05 (Stats SA). The mark-up between producer and retailer was 62.0 %.

On a quarterly basis, the average retail price for eggs, size large, was R25.47 per dozen and the average producer price was R15.78 (Stats SA). The retail mark-up on producer prices was 61.4 %.

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). In 2016, the average retail price was R24.60 and the average producer price was R14.59. In 2017 YTD, the average retail price for large eggs was R25.29 and the average producer price was R15.29.

Egg prices in comparison with chicken, beef and pork

Eggs and poultry meat remain the most affordable of all protein sources. In 2016, the average egg price was R18.29 per kg, the average beef producer price at the abattoir (A2/A3 carcass price; excluding the fifth quarter) was R37.79 per kg; the average producer price of class C2/C3 beef was R31.11/kg and the average pork price (all classes) was R24.36/kg. The average producer price for broilers (total realisation) for 2016 was R18.92 per kg.

In 3Q 2017, the average egg producer price was R21.42 per kg; the average beef producer price at the abattoir (A2/A3 carcass price, excluding the fifth quarter) was R46.42 per kg; the average producer price of class C2/C3 beef was R40.95/kg and the average pork price (all classes) was R27.03/kg. The average producer price for broilers (total realisation) for 3Q 2017 was not available from producers.

Feed prices

The monthly average feed price indicator for September 2017 was R3 162/tonne. It decreased by 0.75 % on a monthly basis and by 22.9 % on a year-on-year basis.

The average layer feed price indicator for 3Q 2017 was R3 575 per tonne; a decrease of 10.7 % in comparison with the previous quarter and a decrease of 23.5 % in comparison with the same quarter in the previous year.

The average feed price indicator for 2017 YTD (September) was R3 575. The average feed price for 2016 was R4 069; an increase of 18.9 % over 2015.

International economic outlook for the egg industry

It is reported that as many as 144 of the 258 Dutch farms initially affected by contamination of their flocks with the banned insecticide, fipronil, remained under restrictions in October. Farmers are yet to receive any relief funding and many face financial ruin. In Belgium, the government has been more supportive of those affected and has secured consent from the EU to compensate farmers. Frustrated Dutch farmers are now suing the national food safety agency (NVWA), which they blame for not reacting timeously to tip-offs of fipronil usage within the Netherlands and for causing a 25 % reduction in sales. Over 2.5 million birds have been culled and millions more birds taken out of production and force-moulted. Two Dutch entrepreneurs have been arrested. EU officials put the initial damage to the industry at around €33 million. A Dutch farmers' federation has doubled that figure, citing on-going loss of production, sales and

reputation. Losses of up to €150 million further up the retail chain were suggested back in August.

The South African egg industry remains challenged by avian influenza outbreaks which have affected producers in seven provinces. Outbreaks have occurred in Mpumalanga, Gauteng, the Western Cape, KwaZulu-Natal, North West, the Free State and the Eastern Cape. State Veterinarians have reported 43 “outbreaks” in wild birds and hobbyist birds in a second report to the OIE. A total of 474 deaths were recorded in these birds to October 31. The toll on commercial poultry operations (SAPA) stood as follows in early November: laying hens 4.4 million birds (2.6 million in Western Cape; 797 000 in Mpumalanga; 525 000 in Gauteng; 237 000 in KZN; 200 000 in the Free State); layer breeders 31 000 (in the North West); and broiler breeders 360 000 (between northern and southern clusters). In local media, the total birds reported dead or culled to early November was 4.76 million. However, state veterinarians have only reported 1 996 904 culled and 474 577 dead to the OIE. No new outbreaks have been reported since late October in either the northern or southern clusters. Egg prices are expected to rise by 15 to 20 % as shortages affect the market. Prices may remain elevated for some time if producers hold off on restocking until they are sure the spread of the disease is contained.

A Fertile Egg Importation Protocol has been agreed upon, under which DAFF will allow producers to apply to import fertile eggs to replace lost stock. Brazil, the Netherlands, the US and Ireland have all been contacted in this regard. By mid-September, DAFF had only agreed to compensate farmers for uninfected birds culled as a result of measures to prevent the spread of an AI outbreak. Detailed guidelines on how compensation will be applied are still not available from the Department. An amount of R40 million had been released by Treasury to DAFF by October but, with the scale of the disaster now much clearer, Treasury will be approached for further relief.

Many of the avian influenza events in Europe have been declared resolved with the OIE. The last reported case in Belgium was recorded on 20 June and this event was closed with the OIE on 29 September 2017. The French reported their last case at the end of June, close to where outbreaks have been occurring in Belgium. This event was also declared resolved with the OIE on the 18 October 2017. Final reports on both Dutch events were submitted to the OIE on 17 May 2017. However, on 9 December 2017, the Dutch reported two cases of H5N6 HPAI in mute swans from Gelderland. The last confirmed outbreak in Germany was on 9 May 2017. On 11 August 2017, the Germans submitted final reports on all their HPAI events to the OIE, announcing that all have been resolved. The Hungarians submitted final reports on their outbreak on 16 June 2016. Between December 2016 and February 2017, the UK experienced countrywide outbreaks of H5N8 HPAI. In May, there were further cases in Pembrokeshire, Lancashire and Norfolk. In late July, the UK reported H5N8 in a mute swan on the Norfolk Broads. Final reports on these latest events were issued to the OIE on 13 September 2017.

Outbreaks of highly pathogenic avian influenza in Poland, Denmark, Spain and the US in 2016/2017 are all considered resolved in terms of OIE directives. In 2017 to date, there have also been reported cases of highly pathogenic avian influenza (H5N8) in Austria, Bangladesh, Bulgaria, Bosnia and Herzegovina, Cameroon, China, Chinese Taipei, Croatia, Cyprus, Czech Republic, Democratic Republic of Congo, Egypt, Finland, Greece, India, Iran, Israel, Italy,

Kazakhstan, Kuwait, Lithuania, Luxembourg, Nepal, Niger, Nigeria, Portugal, Romania, Republic of Korea, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, Switzerland, Sweden, Tunisia, Uganda, the Ukraine and Zimbabwe. In addition, the following countries have reported the H5N1 strain: Bangladesh, Cameroon, Cambodia, China, Côte d'Ivoire, France, India, Iran, Laos, Libya, Malaysia, Myanmar, Nepal, Niger, Nigeria, Togo and Vietnam. China, Chinese Taipei and the US have reported H5N2. There have been reports of H7N9 in China and the US. Chinese Taipei lays claim to H5N6, along with China, France, Greece, Hong Kong, Japan, Republic of Korea, Laos, Myanmar, the Netherlands, the Philippines and Vietnam. The H5N5 strain has been reported in Croatia, Italy, Netherlands, Germany, Greece, Poland, Serbia and the Czech Republic in 2017. Mexico reported H7N3 in May. France has reported H5N9.

Australia is in the process of revising its Animal Welfare Standards and Guidelines for Poultry, for the first time in 15 years. The process, which is led by New South Wales, is mired in controversy. The Western Australia government is threatening to withdraw support for the guidelines if its concerns about possible collusion between the New South Wales Department of Primary industry and producers are not addressed. The Australian Broadcasting Corporation aired allegations of meetings between NSW bureaucrats and local producers which, it is alleged, were aimed at manipulating the drafting process to ensure that battery cages would not be banned. There are fears that the new national welfare standards, designed to remove intra-state differences in welfare codes, will leave Australia trailing behind other developing nations in terms of their welfare legislation. The RSPCA feel the new welfare standards pander to big business and ignore global shifts in egg production practices, published research and consumer sentiment and expectations. At the end of the consultation process, any submissions will be considered and revised by an independent consultant and revised standards prepared for consideration by the Stakeholder Advisory Group (poultrymed.com).

Table egg production in the US for 2017 is forecast at 8.747 billion dozen; the highest on record. Production in 2018 is currently forecast to increase to 8.935 billion dozen; up 2.2 % over 2017. Per capita consumption of eggs in the US is expected to increase from 273.7 eggs per person in 2017 to 279.1 in 2018 (+ 2 %). Egg production has rebalanced through 2017. The USDA is now reporting increased local and international demand and predicts a 35 % increase in the price of Grade A eggs in 1Q 2018, over 1Q 2017 prices. Volume buyers of Grade A eggs paid 85.7 c per dozen in New York in 2016 and the predicted annual egg price for 2017 has firmed to 100.3 c/dozen. The USDA estimates prices between 106 – 112 c/dozen in 1Q 2018.

Egg exports from the US are estimated at 323 million dozen in 2017. Imports of eggs into the US reached 123.5 million dozen in 2015 during the AI crisis. Imports of 122.1 million eggs were received in 2016, but are expected to close at 34.4 million dozen for 2017. Exports for 2018 are currently forecast at 320 million dozen and imports at 40 million dozen (USDA WASDE).

The big story in the EU is the huge jump in egg prices across the Union as a result of the fipronil scandal in the Netherlands, Belgium and Germany. From a price of €115.6/100 kg in Week 28 (early July), the price of eggs in the EU had risen to €195/100 kg in Week 49 (early December). This is an average increase of 69 %. In the Netherlands, Belgium and Germany, prices are up by 111, 103 and 92 %, respectively, whereas prices in the UK and Ireland have risen by only 0.5

% and 5 %, respectively, over the same period. Prices for egg products have increased in line with shell egg prices; with the price of dried egg yolks rising by approximately 135 % in five months since early July, and pasteurised liquid yolks by around 190 %.

Production of eggs in the EU totalled 6.393 million tonnes in 2016 (excluding hatching eggs). Egg production within the Union (for consumption; excluding Romania) will amount to 6.395 million tonnes in 2017; an annual increase of only 0.2 %. The EU is a net exporter of eggs, with a trade balance of 246 947 tonnes of exports to 17 137 tonnes of imports in 2016 (egg equivalent; EU Commission); and 162 000 t exports to 14 000 t imports between January and September 2017. In the first nine months of the year, EU exports are 11.2 % below exports in the same period in 2016. Imports of shell eggs into the European Union totalled 17 137 tonnes in 2016. India has accounted for 34 % (4 986 tonnes) of EU egg imports in 2017 YTD (September). Imports from the US have increased by 81 % in the same period, to 2 559 tonnes of egg equivalent (17 % of total imports). Argentinian imports have increased 45 % over the first nine months of 2016, to 2 549 tonnes (17.6 % of the total).

South African economy

South Africa ended 2017 with the rand buoyed by Ramaphosa's victory in the ANC's December presidential election and the hope that further credit rating downgrades can now be avoided. No new outbreaks of avian influenza have been reported since late October but the egg industry has been seriously affected by the disease and over 4 million birds have been culled, squeezing egg production and pushing up prices. Good rains in the maize-growing regions of the country supported a bumper harvest in the 2016/2017 season and global soybean prices have also moderated – so market conditions support a return to profitability and growth for farmers not affected by the AI culls. However, some businesses may never reopen and others face huge losses with little assistance from government coffers.

Local consumption of eggs (141 per person per year in 2016) remains disappointingly low. With meat prices soaring as farmers restock and rebuild herds after years of drought, egg farmers might have enjoyed increased sales as the cheapest animal protein – but the avian influenza outbreak has resulted in egg shortages and pushed prices up by more than 20 %. Per capita consumption in 2017 may well fall short of the 2016 mark.

Besides avian influenza, egg producers in some regions still face challenges from lingering drought. On December 14, dam levels in the nine provinces were as follows: Western Cape 33 %; Eastern Cape 61 %; Free State 69 %; Gauteng 88 %; KwaZulu-Natal 47 %; Limpopo 66 %; Mpumalanga 70 %; North West 75 % and Northern Cape 79 %. In Cape Town, "Day Zero" (the day the taps run dry; with dams at average of 13.5 %) is currently set to arrive in mid-May 2018. The Cape Town drought is now into its third consecutive year. Level 6 water restrictions will come into force in Cape Town on January 1, which will restrict households to 10 500 litres per month and force non-residential users to cut consumption by 45 %. In its October 2017 *Seasonal Climate Watch* briefing, SAWS indicates the possibility of higher than average rainfall in the summer rainfall areas. This is associated with the El Niño Southern Oscillation (ENSO), which is expected to develop into a La Niña phase, albeit it a weak one, throughout the summer

months to February. The south-western Cape faces a long, hot summer with almost no rainfall days in the long term forecast.

South Africa is forecast to consume R10.47 million tonnes in the 2016/2017 season (AgBiz), whilst the harvest is currently expected to be a record 16.74 million tonnes; more than double the 2015/2016 crop of 7.778 million tonnes. Maize plantings are expected to drop by 6 % in the 2017/2018 season because of depressed prices. The National Agricultural Marketing Council (NAMC) estimates white maize available for export this season at 2.84 million tonnes at end of April 2018, and 2.38 million tonnes of yellow maize.

On 30 November, maize futures for December delivery of white and yellow maize were set at R1 882/t and R1 985/t, respectively. Maize futures for March 2018 delivery were set at R1 953/t and R2 045/t for white and yellow maize, respectively. Soybean futures, for December and March delivery, have moderated to R4 842 and R 4 960/tonne respectively, as of 30 November.

2. EGG SUPPLY AND DEMAND 3Q 2017

2.1 Egg production

Day-old pullet production:

A total of 5 873 160 day-old pullets was produced during the third quarter of 2017 (3Q 2017). This was 9.6 % less than 2Q 2017 and 1.1 % less than 3Q 2016.

The weekly average number of day-old pullets hatched for 3Q 2017 was 453 340; 9.4 % less than 2Q 2017 and 0.5 % less than 3Q 2016 (monthly figures given in *Figure 1*).

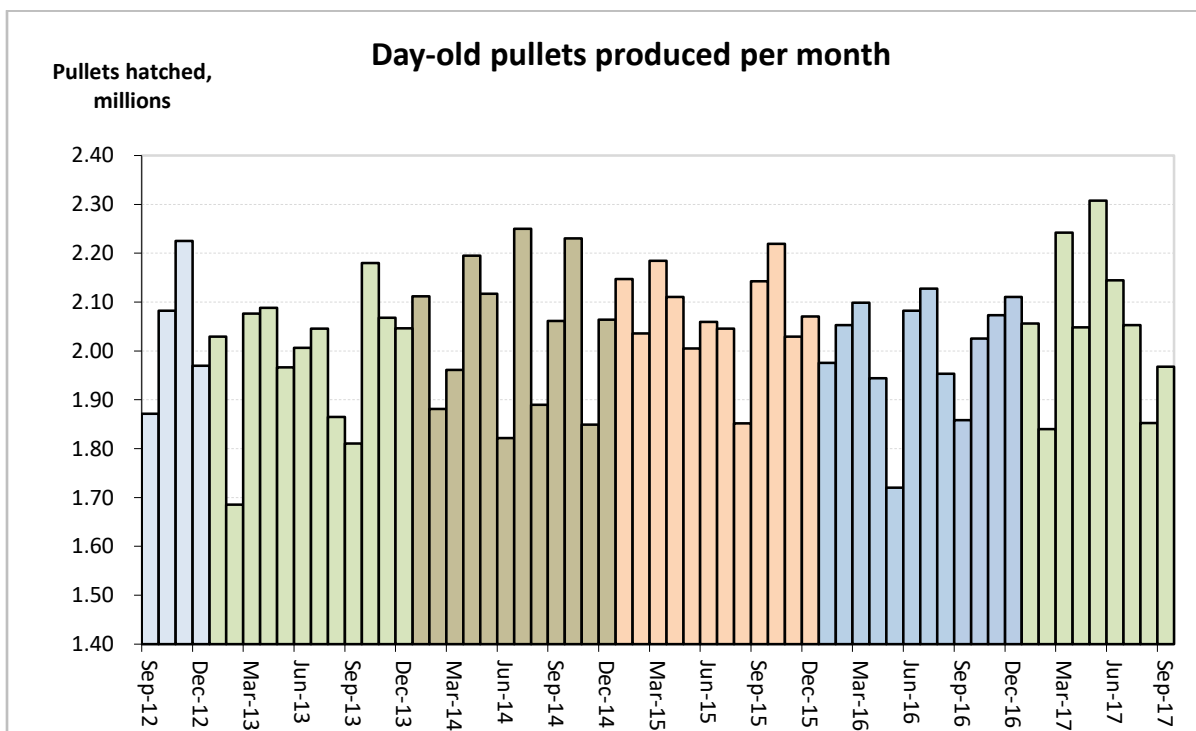


Figure 1: The number of day-old pullets produced per month.

Projected laying flock:

The average number of laying hens during 3Q 2017 was 22 934 360. This was a decrease of 5.3 % compared to 2Q 2017 and a decrease of 7.3 % compared to 3Q 2016.

The projected laying flock for January 2018 is 21 666 400 hens; a 10.9 % year-on-year decrease (*Figure 2*).

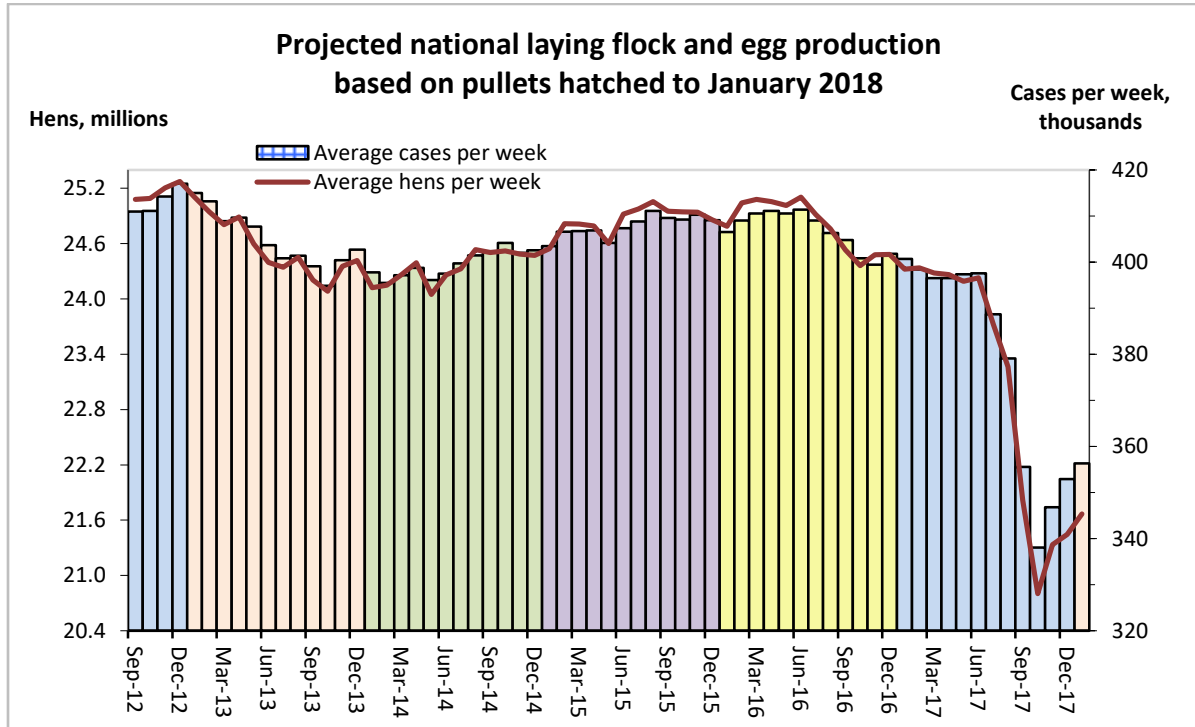


Figure 2: Projected national laying flock and egg production

Forecasted egg production:

Total egg production during 3Q 2017 was 4 924 000 cases. This was a 4.6 % decrease compared to 2Q 2017 and a 7.9 % decrease compared to 3Q 2016.

The average production per week for 3Q 2017 was 374 440 cases. Compared to the 2Q 2017, there was a 5.7 % decrease and compared to 3Q 2016 there was a 7.9 % decrease.

Table 1: Egg industry: key results (September 2017)**EGG INDUSTRY : KEY RESULTS - SEPTEMBER 2017****(Projections are based on day-old pullets placed per week to September 2017)**

	Hatch days	Calendar Days	Day-old Pullets placed		Laying hens	Eggs Produced (Cases)	
Month on Month	/Month	/Month	/Month	/Week	Average	/Month	/Week
September 2017	21	30	1,967,573	468,470	21,815,048	1,523,871	355,570
August 2017	23	31	1,852,630	402,746	23,263,476	1,678,797	379,083
Change			114,943	65,724	(1,448,428)	(154,926)	(23,513)
% Change			6.20%	16.32%	-6.23%	-9.23%	-6.20%
Year on Year	/Month	/Month	/Month	/Week	Average	/Month	/Week
September 2017	21	30	1,967,573	468,470	21,815,048	1,523,871	355,570
September 2016	22	30	1,858,514	422,390	24,531,695	1,734,766	404,779
Change			109,059	46,080	(2,716,647)	(210,895)	(49,209)
% Change			5.87%	10.91%	-11.07%	-12.16%	-12.16%
Year to date	/Period	/Period	/Period	/Week	Average	/Period	/Week
	January>September		January>September		Jan>Dec	Jan>Dec	
2017	195	273	18,511,491	475,087	23,160,645	19,756,841	378,898
2016	196	274	17,812,354	455,099	24,799,834	21,267,831	406,762
Change			699,137	19,987	(1,639,190)	(1,510,990)	(27,863)
% Change			3.93%	4.39%	-6.61%	-7.10%	-6.85%
Full year forecasts	/Period	/Period	/Period	/Week	Average	/Period	/Week
Jan>Dec 2016	261	366	24,021,063	460,740	24,799,834	21,267,831	406,762
Jan>Dec 2015	261	365	24,901,078	477,385	24,850,899	21,262,344	407,771
Change			(880,015)	(16,645)	(51,065)	5,487	(1,009)
% Change			-3.53%	-3.49%	-0.21%	0.03%	-0.25%
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

ASSUMPTIONS

- 1: All surviving day-old pullets placed will be transferred to the laying flock at 18 weeks of age.
- 2: Depopulation age: Feb. 2006 to April 2009 - 69 weeks, April to Aug. 2009 - 70 weeks, Aug. to Nov. 2009 - 71 weeks, Nov. 2009 - 72 weeks and Nov 2013 - 74 weeks
- 3: No deviation from the accepted production standards and procedures, due to disease, changes in production planning, etc. is expected.

2.2 Egg imports

During 3Q 2017, all but 6 kg of egg imports into South Africa were dried egg products (on three tariff lines). Imports were recorded on the following tariff lines:

- 54 338 kg dried egg product (not including yolk; *tariff line 0408.9100*)
- 22 066 kg dried egg albumin (*tariff line 3502.1100*)
- 49 503 kg dried egg yolks (*tariff line 0408.1100*)
 - 4 kg liquid egg yolks (*tariff line 0408.1900*)
 - 2 kg raw egg pulp not chicken (*tariff line 0408.9990*)

Total egg imports in the 3Q 2017 amounted to 125 913 kg; at a rand value of R9.45 million. Quarterly volumes of total egg imports since 1Q 2012 are given in *Figure 3*. The quarterly imports of dried egg albumin are given in *Figure 4*. In the 3Q 2017, imports from France accounted for 39.6 % of total imports; whilst 35.7 % came from Italy, 24.3 % from Denmark, and 0.43 % from Belgium, Japan and the United Arab Emirates, combined.

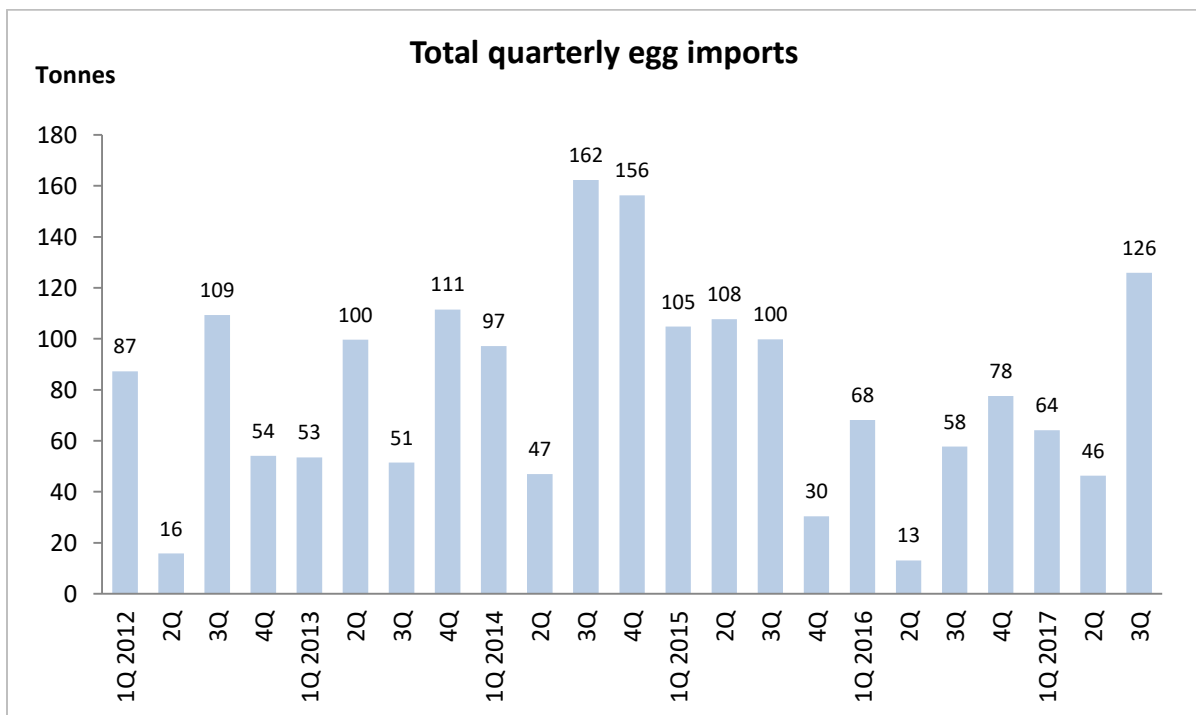


Figure 3: Total quarterly egg imports from 1Q 2012

Through 2016, egg imports into South Africa totalled 216.5 tonnes; down 37 % on 2015 levels (342.7 t). Egg imports were valued at R26.89 million (FOB) in 2016. Dried egg products (including albumins) accounted for 99.6 % of egg imports into South Africa in 2016. In 2017 YTD, egg imports into South Africa totalled 236.3 tonnes; up 114 % on imports in the same months of 2016 (110.4 tonnes). The FOB value of imports in 2017 YTD (September) was R18.2 million and 99.7 % of the imports consisted of dried egg products, on three tariff lines.

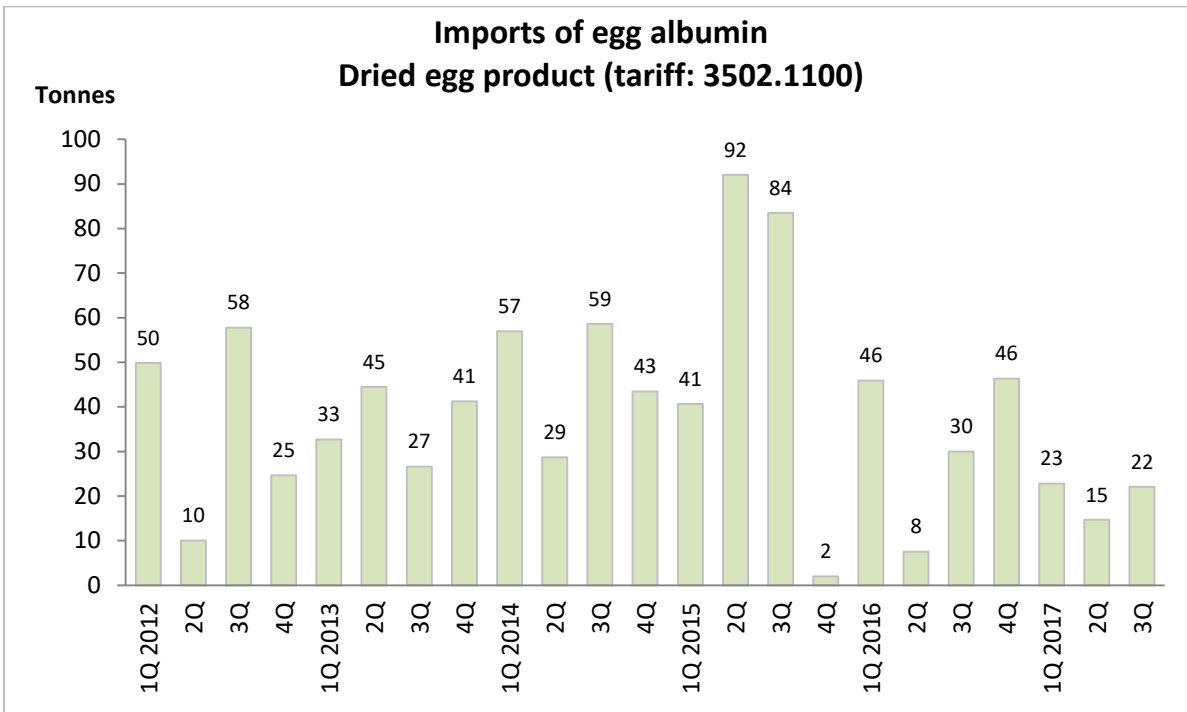


Figure 4: Quarterly imports of egg albumin from 1Q 2012

The percentage contribution by the major egg importers to total egg imports for 2017 YTD (September) is shown in Figure 5.

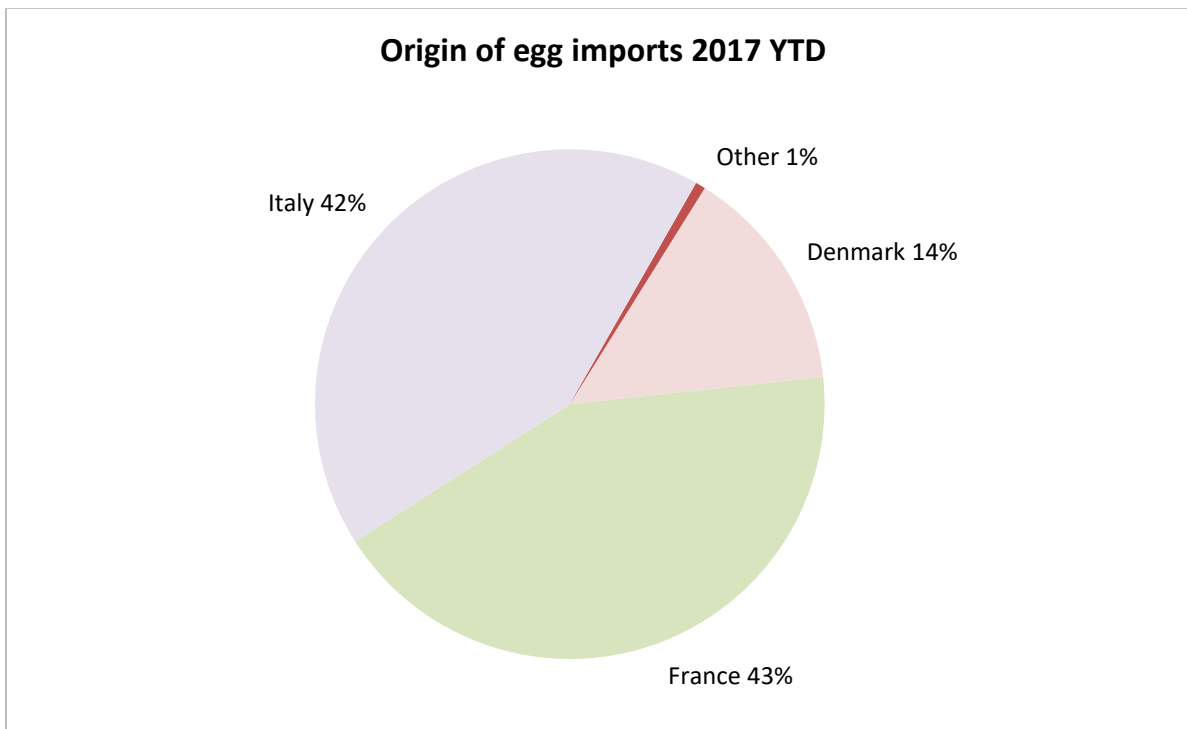


Figure 5: The main countries of origin for egg imports (2017 YTD; source: SARS).

2.3 Egg exports

During 3Q 2017, a total of 3 403 tonnes of eggs and egg products left South Africa, at a declared FOB value of R72.6 million. This tonnage decreased by 17.2 % compared to the 2Q 2017 (- 586 tonnes).

Of these total egg exports, fertile chicken eggs accounted for 822 t; 24.2 % of the total export tonnage. This is 156 t (- 15.9 %) less than in the previous quarter and 1 272 t (- 60.7 %) less than the same quarter in the previous year (3Q 2016). Fertile chicken eggs were exported under two tariff codes: 114 t and 708 t were exported under codes 0407.1110 and 0407.1190, respectively. The FOB value of fertile chicken egg exports in the 3Q 2017 was R32.8 million. In addition to fertile chicken eggs, SARS reports that 15.7 t of fertile eggs from ducks, geese or guinea fowl were imported. SAPA continues to query these non-chicken volumes; the bulk of which, this month, went to Swaziland, Mozambique, Lesotho, Botswana and Zimbabwe.

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

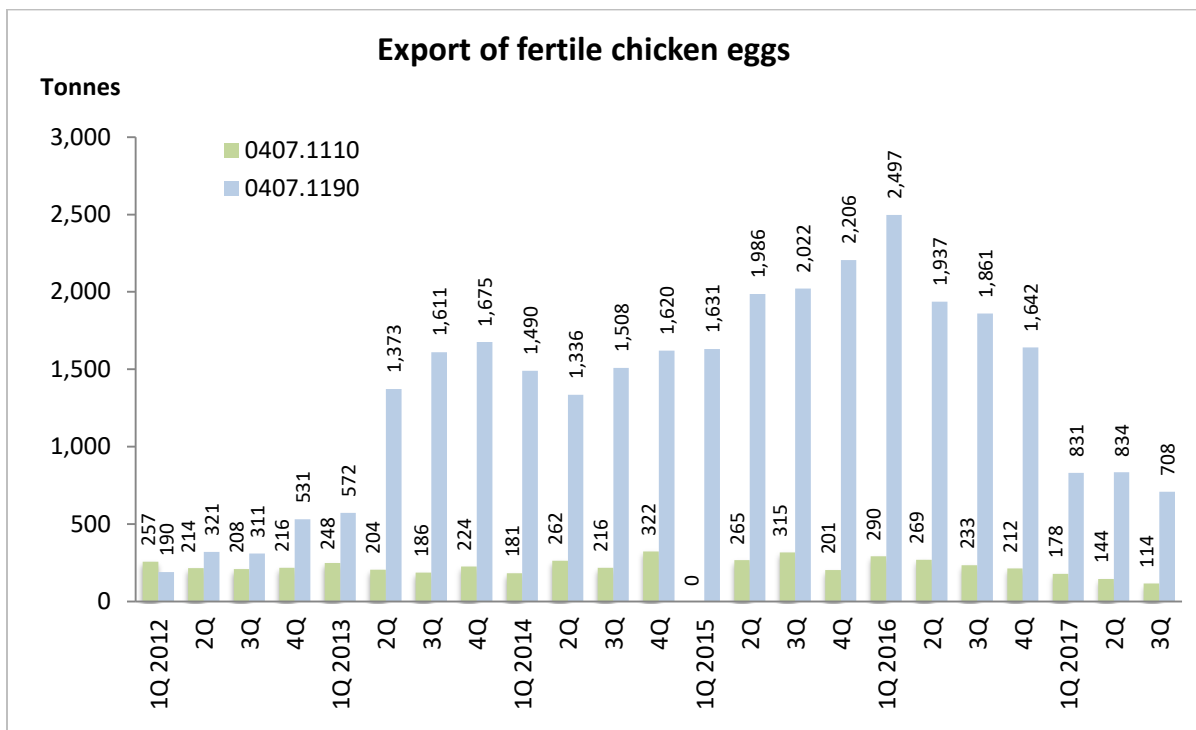


Figure 6: Quarterly export of fertile eggs

The amount of egg products exported during the 3Q 2017 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 3Q 2016.

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

	Tariff code	units	3Q 2016	2Q 2017	3Q 2017
Fertile eggs	0407.1110/1190	t	2 094	978	822
Fertile eggs (ostriches)	0407.1910	kg	0	0	0
Fertilised eggs (other: not chicken/ ostrich)	0407.1990	t	46.0	33.3	15.7
Shell eggs chicken (< 150 c)	0407.2110	t	8.5	14.4	8.8
Shell eggs chicken (>150 c)	0407.2190	t	200	679	482
Shell eggs (ostrich)	0407.2910	kg	0	0	0
Shell eggs (not chicken/ostrich)	0407.2990	t	79	115	65
Ostrich eggs	0407.9010	t	1.80	5.47	0.18
Shell eggs: chicken (fresh, preserved cooked)	0407.9020	t	632	1 234	1 343
Shell eggs: other (fresh preserved, cooked)	0407.9090	t	109	865	624
Dried egg yolks	0408.1100	kg	255	21	5 005
Liquid egg yolks	0408.1900	t	22.9	10.7	7.0
Dried egg product (not yolks)	0408.9100	t	326	51	28
Raw yolks/whites (chicken)	0408.9910	kg	400	288	603
Raw yolks/white (not chicken)	0408.9990	t	3.75	0.5	0.35
Dried egg albumin	3502.1100	kg	359	1 065	959
Liquid egg albumin	3502.1910	kg	0	733	500
Egg albumin, not dried but not liquid	3502.1990	kg	35	0	4

Besides fertile eggs, a total of 2 565 t of egg products (shell eggs, liquid and dried egg products included; *Figure 7*) were exported from South Africa in the 3Q 2017, at a declared FOB value of R 39.4 million. This is 407 tonnes less than in 2Q 2017 (13.7 % decrease); but 1 183 t more than in 3Q 2016 (85.6 % increase). Egg product exports during the 3Q 2017 comprised: 1.3 % dried egg product; 0.33 % liquid egg product; 95.8 % shell eggs from chicken (0407.2110; 2190; 9020; 9090); and 2.5 % shell eggs from other sources excluding ostrich (0.407.2990). The total tonnage and value of egg products above excludes 182 kg of ostrich eggs exported under tariff code 0407.9010 at an FOB value of R35 002.

In summary, total egg exports comprised 822 t of fertile chicken eggs, 46.0 t of fertile eggs (not chickens or ostriches), and 2 565 tonnes of egg products (including shell eggs and preserved ostrich eggs). In addition, 182 kg of ostrich eggs were exported in the 3Q 2017 under tariff code 0407.9010.

The main countries of destination for South African exports of eggs and egg products during 3Q 2017 were Mozambique (79.3 % of exports), Swaziland (11.3 %), Lesotho (7.4 %), Namibia (1.7 %), Nigeria (0.15 %), Botswana (0.07 %) and others (0.11 %; *Figure 8*). The main countries of destination during 2016 as a whole were Mozambique (68.3 % of exports), Swaziland (8.7 %), Zimbabwe (7.9 %), Lesotho (7.0 %), Côte d'Ivoire (2.2 %), Namibia (1.8 %) and Angola (1.3 %). In 2016, South Africa exported 8 941 t of fertile chicken eggs; 432 t of fertile eggs from other species; 1 409 t of fresh chicken eggs; 3 958 t of preserved/cooked chicken eggs; 931 t of dried egg products and 123 t of liquid egg products. Total egg exports (excluding ostriches) for 2016 amounted to 16 176 t, valued at R421 million. South Africa also exported 4 613 kg of ostrich eggs in 2016, which under tariff 0407.9010. Ostrich egg exports were valued at R0.264 million.

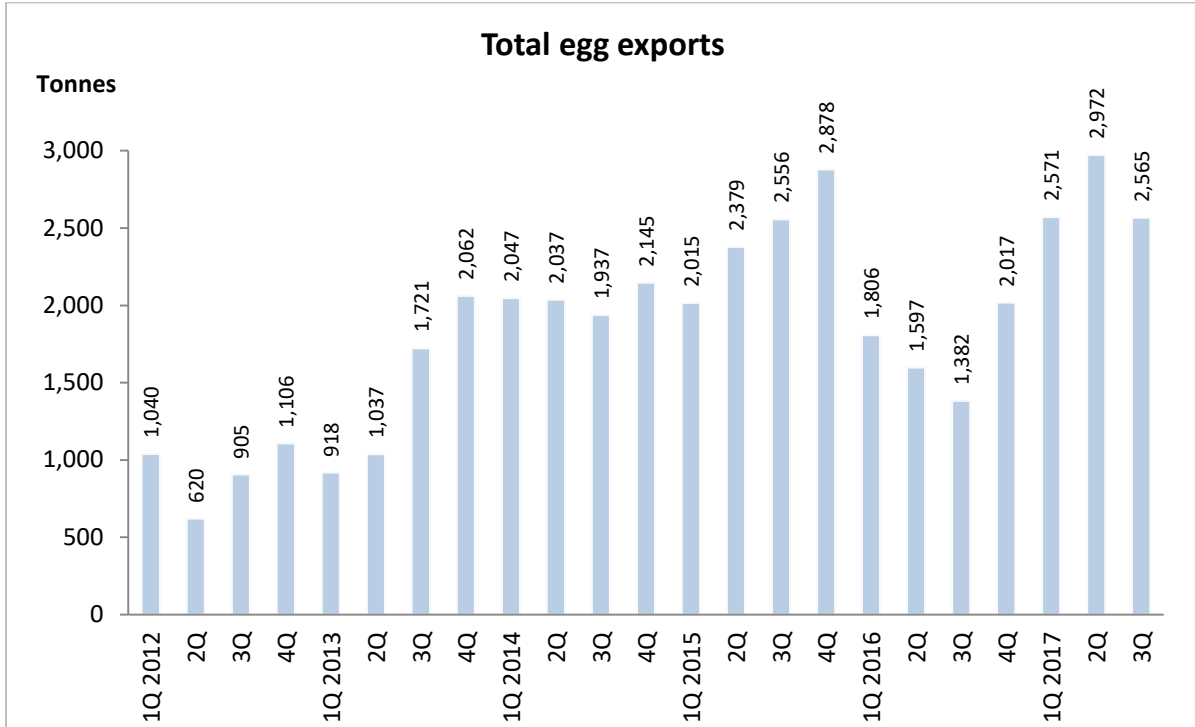


Figure 7: Quarterly total exports of shell eggs and egg product excluding fertile eggs and ostrich eggs (source: SARS)

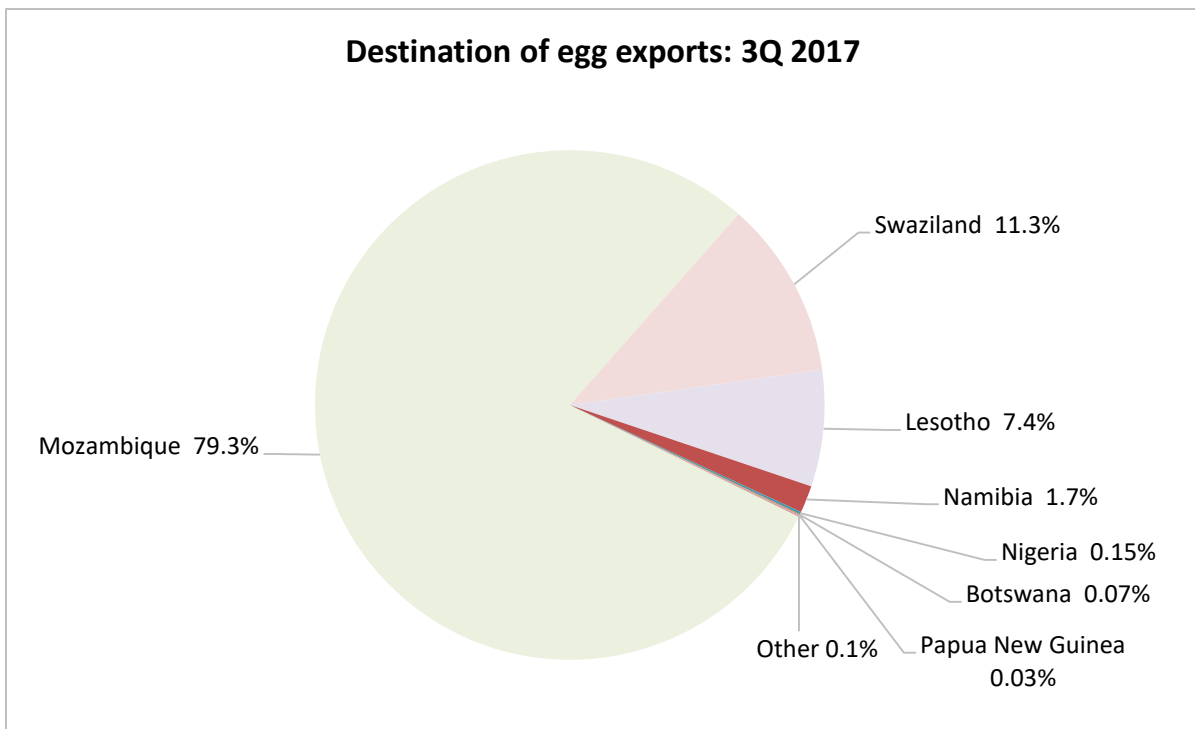


Figure 8: The main countries of destination for egg exports 3Q 2017

The main countries of destination during 2017 YTD (September) were Mozambique (76.4 % of exports), Swaziland (8.8 %), Lesotho (6.7 %), Zimbabwe (3.7 %), Namibia (2.5 %), Côte d'Ivoire (0.7 %) and Botswana (0.3 %). In 2017 YTD (September), South Africa exported 2 809 t of fertile chicken eggs; 78.5 t of fertile eggs from other species; 1 644 t of fresh chicken eggs; 592 t of preserved/cooked chicken eggs; 295 t of fresh shell eggs (not chicken or ostrich; if this can be believed); 215 t of dried egg products and 36.5 t of liquid egg products. Total egg exports (excluding ostriches) for 2017 YTD (September) amounted to 10 996 t, valued at R242 million. South Africa also exported 10 569 *kilogrammes* of ostrich eggs in 2017 YTD, which were exported under 0407.9010. Ostrich egg exports were valued at R0.255 million.

3. EGG PRICE TRENDS

3.1 Producer prices

The monthly average egg producer price for September 2017 was R15.37 per dozen (*Figure 9*; source: SAPA). Compared to August 2017, the egg price increased by 2.8 % and, on a year-on-year basis, it increased 17.3 %. The quarterly average egg producer price for 3Q 2017 was R15.00 per dozen; an increase of 5.3 % over 2Q 2017 prices and an increase of 12.3 % compared to the 3Q 2016.

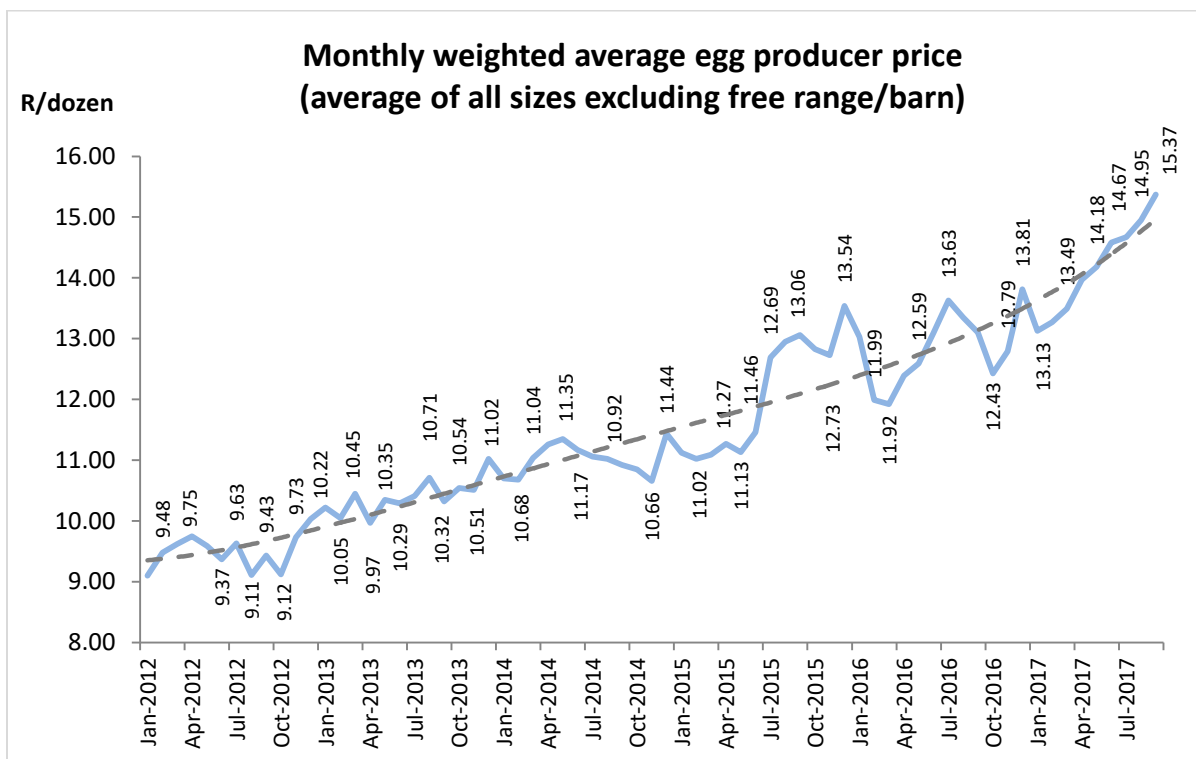


Figure 9: Monthly egg price from January 2012 to the end of the 3Q 2017

- Graded egg prices

During September 2017, the average egg price for *graded* eggs (excluding barn eggs and free range eggs) was R15.77 per dozen, an increase of 2.7 % in comparison with August 2017 and an increase of 11.1 % when compared to the same month in the previous year. The quarterly average egg producer price for *graded* eggs in 3Q 2017 was R15.48 per dozen; an increase of 4.5 % over 2Q 2017 prices.

- Ungraded egg prices

The average egg price for *ungraded* eggs was R14.23 per dozen in September 2017, a 3.5 % increase when compared to August 2017 and an increase of 26.9 % on September 2016 prices. The quarterly average egg producer price for *ungraded* eggs in 3Q 2017 was R13.78 per dozen; an increase of 7.1 % over 2Q 2017 prices.

The average egg price (weighted) for 2016 was R12.84 per dozen; an increase of 6.4 % over the average price for 2015 (R12.07); *Figure 10*. Graded eggs averaged R13.61 per dozen and ungraded eggs sold at R11.16 per dozen. During 2016, 70 % of eggs were sold graded and 30 % ungraded. In 2017 YTD (September), the average egg price (weighted) was R14.18 per dozen (graded eggs averaged R14.74 per dozen: ungraded eggs sold at R12.77 per dozen)

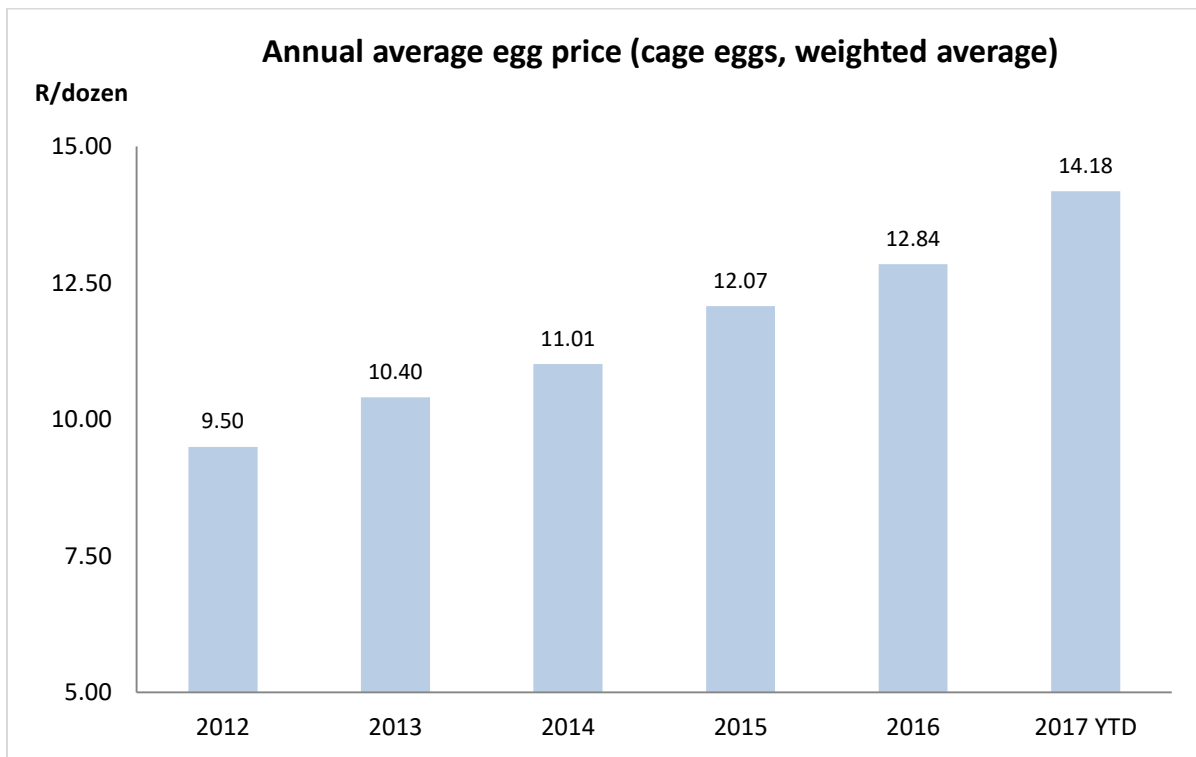


Figure 10: Average annual weighted egg producer price

Cull price

The average price for cull laying hens was R28.89 in September 2017, a 3.3 % increase when compared to August 2017 but a decrease of 3.3 % on September 2016 prices.

The average price for cull laying hens in the 3Q 2017 was R28.42 (*Figure 11*). This is a decrease of 4.2 % on 2Q 2017 prices (- R1.24 per hen).

The average cull price for 2016 was R27.84; an increase of 0.22 % over the average price for 2015 (R27.78). The average price for 1H 2017 was R27.44. The average cull price for 2017 YTD (September) is R27.77.

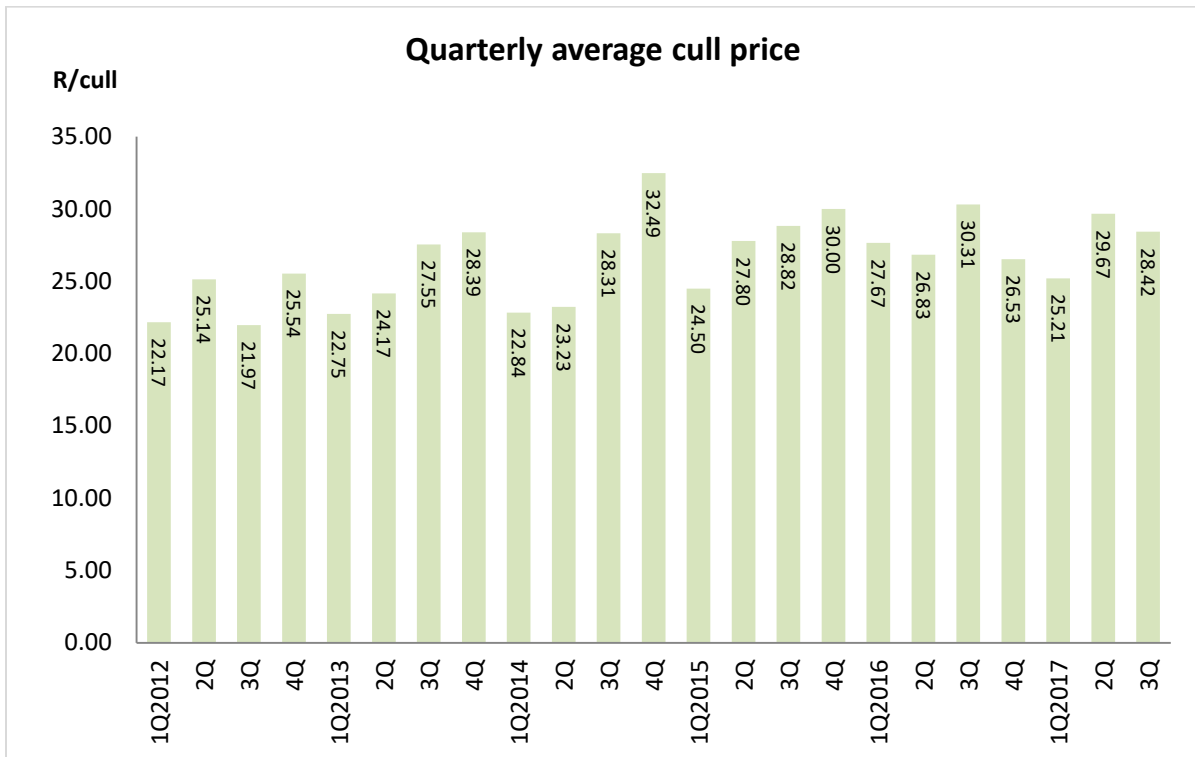


Figure 11: Average quarterly cull prices

3.2 Retail prices

During September 2017, the average retail price for eggs, size large, was R26.01 per dozen and the average producer price was R16.05 (*Figure 12; note, producer prices in this section from Stats SA*). The mark-up between producer and retailer was 62.0 %. The retail price increased by 5.1 % on a year-on-year basis, while the producer price increased by 7.9 %.

On a quarterly basis, the average retail price for eggs, size large, was R25.47 per dozen and the average producer price was R15.78 (Stats SA). The retail mark-up on producer prices was 61.4 %. The retail and producer price increased by 0.45 % and 3.1 % 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). In 2016, the average retail price was R24.60 and the average producer price was R14.59. The retail mark-up on producer prices was 64.6 % in 2015 and is 68.7 % in 2016. In 2016, the retail and producer price increased over 2015 prices by 6.5 % and 4.0 %, respectively. In 2017 YTD, the average retail price for large eggs was R25.29 and the average producer price was R15.29 (Source: Stats SA).

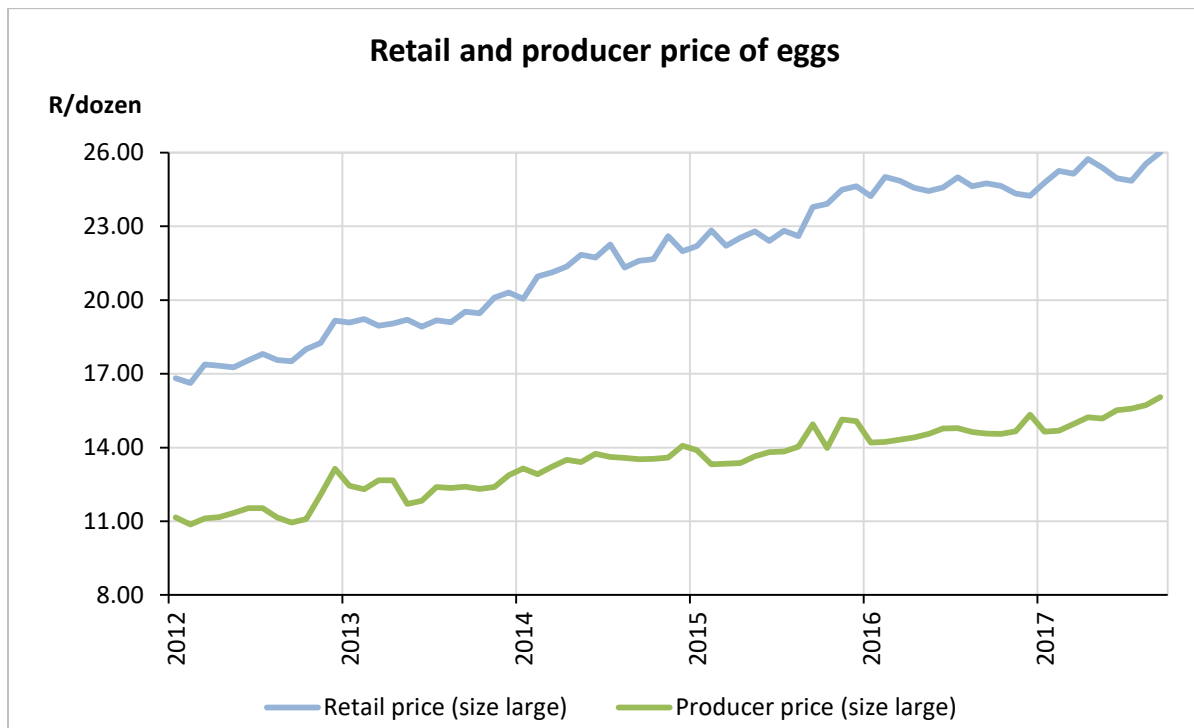


Figure 12: Production price and retail price of eggs (size: large; Stats SA)

The egg producer price index presented in *Figure 13* uses the average egg producer price in 2008 as the index base (= 100). The egg 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. 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 a sharp deflation in egg prices in contrast to the increase in general food price inflation. From March to July 2016, there was an equally sharp *inflation* in egg prices, steeper than the increase in the food and NAB index, but

this trend reversed again in August, September and October. During these three months, producer prices deflated, whereas food inflation continued to rise. In November and December 2016, egg price inflation again accelerated above that of general food price inflation, but there was a sharp downward correction in January 2017. Since then, egg producer price inflation has increased at a greater rate than food price inflation.

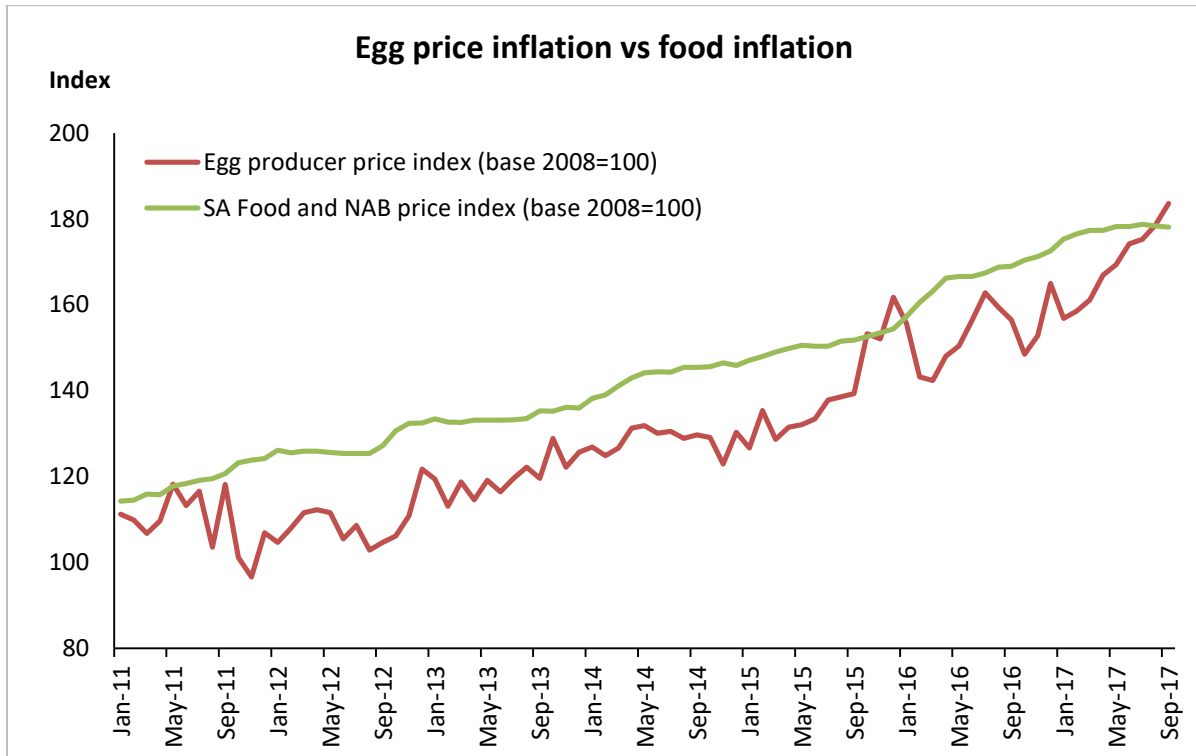


Figure 13: Production egg price index and food price inflation (base 2008 = 100)

3.3 Egg prices in comparison with chicken, beef and pork

In comparison with pork, beef and chicken: 2016

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; 58.3 g for 2015; 58.5 g for 2016 and 58.4 g for 2017.

The average egg producer price for 2016 was R18.29 per kg (R12.84 per dozen (SAPA; all sizes). In 2015, it was R16.65 per kg (y-on-y increase: 9.8 %). In September 2017, the egg producer price was R21.98 per kg (R15.37/dozen); an increase of 17.9 % on a yearly- and kilogramme-basis (*Figure 15*).

The average beef producer price at the abattoir (carcass price, excluding the fifth quarter) for 2015 was R34.17 per kg and for 2016 was R37.79 (+ 10.6 %). In September 2017, beef classes A2/A3 fetched R46.29 per kg; a year-on-year increase of 21.9 % (cf September 2016). The average producer price of class C2/C3 beef was R27.27 per kg in 2015 and R31.11 in 2016 (+14.1 %). In September 2017, class C2/C3 beef fetched R41.02 per kg; a year-on-year increase of 26.3 % (Source: SA Stats; SAPA).

The average pork price (all classes) was R22.83 kg in 2015. In 2016, it rose to R24.36 per kg (+ 6.7 %) and, in September 2017, pork fetched R27.88 per kg, a year-on-year increase of 17.0 %.

The average producer price for broilers (total realisation) for 2015 was R18.43 per kg and for 2016 was R18.92 per kg (+ 2.7 %). The broiler producer price for September is not available because an insufficient number of producers submitted data to SAPA (since May 2017). The producer price in April was R21.72.

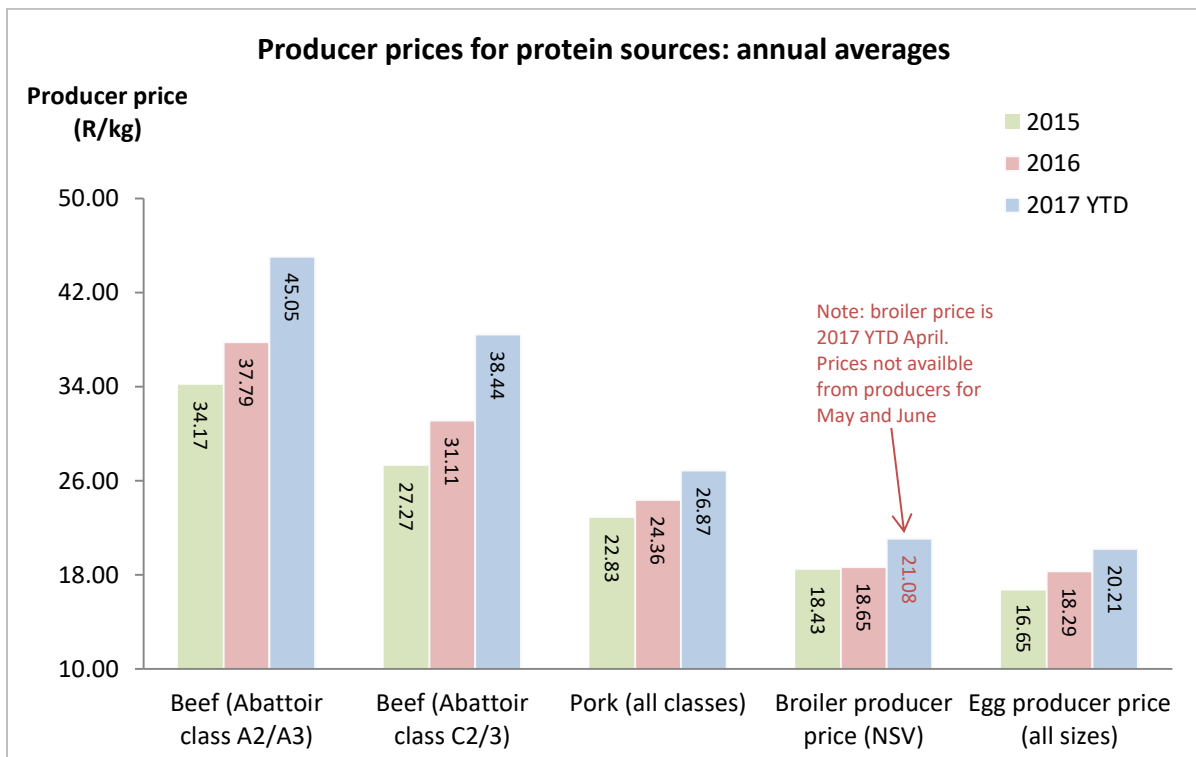


Figure 14: Comparison of annual producer prices of protein sources: 2015/2016/2017 YTD

In comparison with pork, beef and chicken during the 3Q 2017

The average egg producer price for 3Q 2017 was R21.42 per kg; a quarterly increase of 5.5 %, and an increase of 12.7 % on a year-on-year and kilogramme 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 3Q 2017 was R46.42 per kg; a 0.14 % increase on a quarterly basis and a 22.6 % increase on a year-on-year basis. The average producer price of class C2/C3 beef was R40.95 per kg for 3Q 2017; a 2.5 % increase on a quarterly basis and a 30.6 % increase on a year-on-year basis (SA Stats; SAPA).

The average price of pork (all classes) was R27.03 per kg in the 3rd quarter of 2017; a quarterly increase of 2.4 %, and a year-on-year increase of 13.9 %.

The average producer price for broilers (total realisation) for 1Q 2017 was R20.86 per kg. The 2Q and 3Q 2017 broiler producer prices are not available because an insufficient number of producers submitted data to SAPA from May through September.

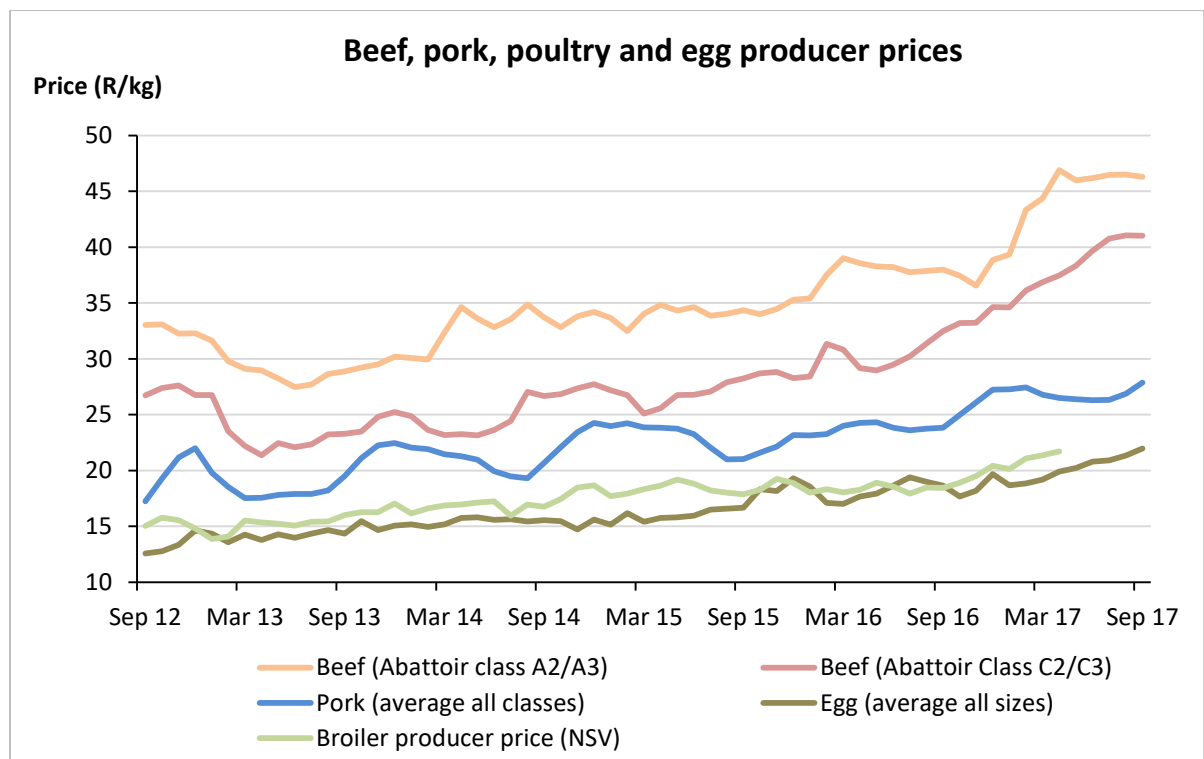


Figure 15: Monthly producer prices of protein sources

3.4 Feed price indicator

The weighted average feed price indicator includes distribution, excludes medication & additives and excludes VAT. Therefore, it should be treated as an indicator. The monthly average feed price indicator for September 2017 was R3 162 per tonne (*Figure 16*). It decreased by 0.75 % on a monthly basis and decreased by 22.9 % on a year-on-year basis.

The average layer feed price indicator for 3Q 2017 was R3 187 per tonne; a decrease of 10.7 % in comparison with the previous quarter and a decrease of 23.5 % in comparison with the same quarter in the previous year.

The average feed price indicator for 2017 YTD (September) was R3 575. The average feed price for 2016 was R4 069; an increase of 18.9 %. The average feed price for 2015 was R3 422; an increase of just 0.5 % over 2014 (*Figure 16*).

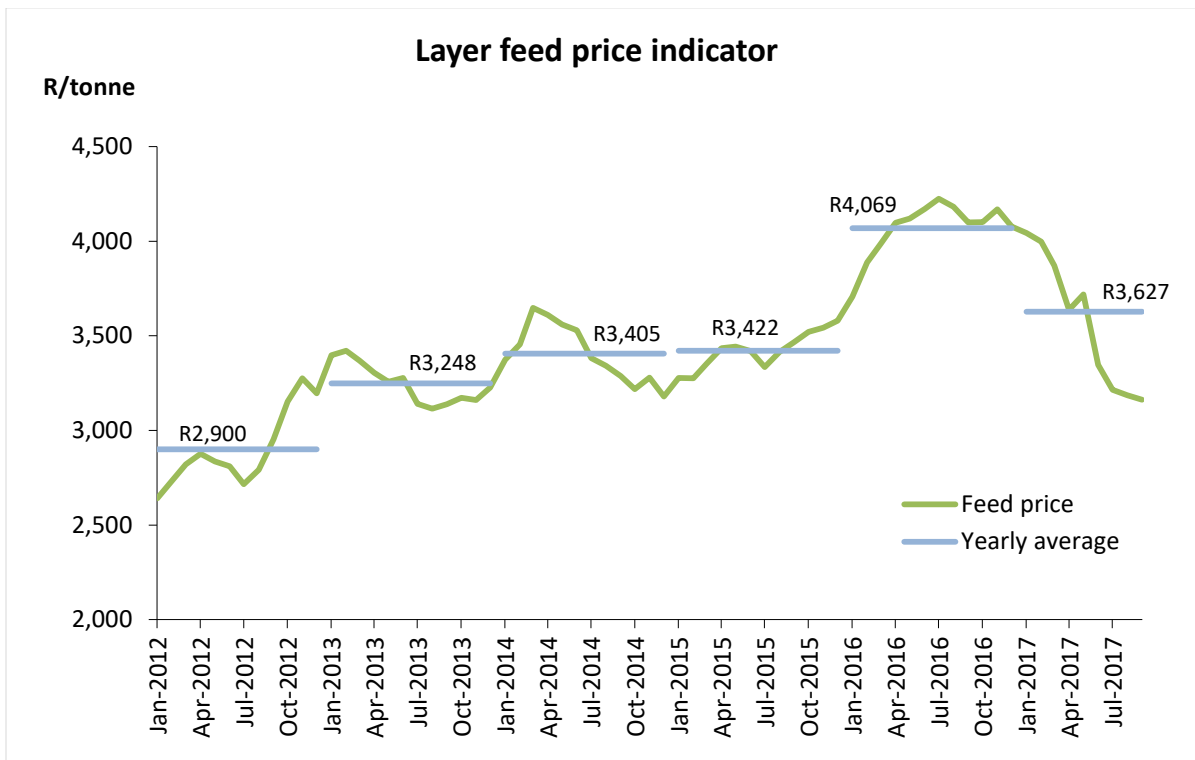


Figure 16: Monthly and yearly feed price indicator

4 ECONOMIC OVERVIEW

4.1 International economic outlook for the egg industry

Fipronil scandal

In the Netherlands, it was reported that as many as 144 of the 258 farms initially affected by contamination of their flocks with the banned insecticide, fipronil, remained under restrictions in October (farmingUK.com). The Dutch government has maintained that the private sector is to blame and farmers have not received any relief funding. Many face financial ruin: the Dutch parliament estimated average individual losses at between €120 000 (shutdown/forced-moulting) and €220 000 (shutdown/early slaughter). In Belgium, the government has been more supportive of those affected and has secured consent from the EU to compensate farmers. Belgian farmers have until 30 April to submit evidence to the compensation scheme, which has a pot of €21.8 million available for release. Frustrated Dutch farmers are now suing the national food safety agency (NVWA) for financial losses. They blame the agency for not reacting timeously to tip-offs of fipronil usage within the Netherlands and for causing a 25 % reduction in sales. Belgium Federal Food Safety Agency (FAVV) flagged the findings of an investigation into Fipronil contamination in egg products to other European countries through the European Alert System in July 2017 and produced evidence that suggests the Netherlands Food and Consumer Products Safety Authority (NVWA) was twice tipped off about the use of fipronil in egg production in November 2016. This information was neither fully investigated nor communicated to other EU countries at the time. Careless early statements by officials of the NVWA counselled the public to avoid eating eggs. Although, retracted, the damage to egg sales was already done. Over 2.5 million birds have been culled and millions more birds taken out of production and force-moulted. Moulting reduces fat reserves, where the pesticide is stored, and it was hoped this process would speed up detoxification of the flocks. Farmers are thus feeding non-productive birds - and the fipronil is proving harder than hoped to clear. If the force-moulting is ineffective in clearing the toxin from the flocks, further premature culling will increase losses further.

Two Dutch entrepreneurs have been arrested. Their pest control company, Chickfriend, held numerous contracts with egg farmers to control red mites on their farms. The product they used was marketed as a mixture of natural products but, in fact, also contained fipronil. EU officials put the initial damage to the industry at around €33 million. A Dutch farmers' federation has doubled that figure, citing on-going loss of production, sales and reputation. Losses of up to €150 million further up the retail chain were suggested back in August. Dutch egg exports were worth €347 million in 2016 and exporters will be anxious to regain market share once the flocks are declared fipronil-free. Suppliers have struggled to meet contractual obligations, particularly for processed eggs. See below for impact of the scandal on EU egg prices.

In Germany, the government has been accused by the media of covering up the extent to which fipronil has contaminated food products in that country (bakery products, liquors, processed egg, etc.). The EU has reportedly moved to ban the use of fipronil in agricultural production

anywhere in the Union from the end of September 2017 (greenpeace.org). In the UK, the British Egg Industry Council (BEIC) has drawn up a list of accepted pesticides. Producers marketing eggs under the British Lion brand will, in future, only be able to use pesticides included on this list (farminguk.com).

Avian influenza

Highly pathogenic avian influenza, HPAI H5N8, was confirmed in broiler breeders near Villiers in late June. A second outbreak in laying hens was then reported from Standerton. Since then, further outbreaks have occurred in farmed birds in Gauteng, Mpumalanga, the Western Cape, KwaZulu-Natal, North West, the Free State and the Eastern Cape. In addition, State Veterinarians have reported 43 “outbreaks” in wild birds and hobbyist birds in a second report to the OIE (15 December), which covers all cases listed to 31 October. A total of 474 deaths were recorded in these birds. The birds kept by hobbyists included Chinese geese and swans.

As per South Africa’s latest report to the World Organisation for Animal Health (OIE) on 15 December 2017, the outbreaks in the table below have been confirmed in domestic poultry (commercial operations, ostriches and backyard flocks). It is likely that the scale of the culling operations has been under-reported to the OIE since, in early November, the toll on commercial poultry operations stood as follows (SAPA):

Laying hens 4.4 million birds (out of total flock of 24 million):

2.6 million in Western Cape;
797 000 in Mpumalanga;
525 000 in Gauteng;
237 000 in KZN;
200 000 in the Free State.

Layer breeders: 31 000 in the North West

Broiler breeders: 360 000 broiler breeders between the northern and southern clusters.

In local media, the total birds reported dead or culled to early November was 4.76 million. However, state veterinarians had only reported 1 996 904 culled and 474 577 dead to the OIE.

	Date	Prov	District	Enterprise	Birds	Culled	Died
1	19 Jun	MP	Dipsaleng	Farm	Breeders	178 976	8211
2	20 Jun	MP	Dipsaleng	Farm	Layers	62 080	25 000
3	6 Jul	GT	Ekurhuleni	Farm	Layers		39
4	9 Jul	MP	Govan Mbeki	Farm	Layers		1 000
5	21 Jul	MP	Dipsaleng	Farm		85	50
6	24 Jul	MP	Dipsaleng	Farm		413	87
7	1 Aug	MP	Lekwa	Farm			301
8	4 Aug	GT	Ekurhuleni	Farm		29 965	1 774
9	4 Aug	GT	Mogale City	Farm		4 800	236
10	6 Aug	MP	S Tshwete	Farm		364 435	2 325
11	9 Aug	WC	Hessequa	Farm	Ostriches		

	Date	Prov	District	Enterprise	Birds	Culled	Died
12	9 Aug	WC	Hessequa	Farm	Ostriches		
13	11 Aug	MP		Backyard	Ducks/geese	135	81
14	15 Aug	WC	Saldanha Bay	Backyard	Geese/hens		42
15	15 Aug	WC	Hessequa	Farm	Ostriches		
16	17 Aug	KZN	Abaqulisi	Farm	Layers	50 000	12
17	18 Aug	WC	Hessequa	Farm	Ostriches		
18	18 Aug	WC	Cape Town	Farm	Ducks		25
19	21 Aug	WC	Hessequa	Farm	Ostriches		
20	21 Aug	WC	Cape Town	Farm	Layers	49 616	
21	21 Aug	WC	Beau. West	Farm	Ostriches		
22	21 Aug	WC	Hessequa	Farm	Ostriches		
23	23 Aug	WC	Cape Town	Farm	Layers	150 000	10 000
24	23 Aug	WC	Hessequa	Farm	Ostriches		
25	24 Aug	WC	Cape Town	Farm	Ducks		5 533
26	24 Aug	WC	Kannaland	Farm	Ostriches		5
27	25 Aug	WC	Hessequa	Farm	Ostriches		
28	28 Aug	WC	Hessequa	Farm	Ostriches		
29	30 Aug	WC	Drakenstein	Backyard		1	11
30	30 Aug	MP	Lekwa	Backyard		89	94
31	1 Sep	NW	Maq. Hills	Farm			
32	4 Sep	WC	Swartland	Farm		300 000	10 000
33	6 Sep	WC	Cape Town	Farm		100 000	60 000
34	6 Sep	WC	Theewaterskloof	Backyard		2	11
35	8 Sep	WC	Stellenbosch	Farm		200 000	
36	8 Sep	WC	Drakenstein	Farm		400 000	20 000
37	11 Sep	WC	Kannaland	Farm	Ostriches		
38	11 Sep	WC	Kannaland	Farm	Ostriches		
39	12 Sep	WC	Kannaland	Farm	Ostriches		
40	12 Sep	EC	N M Bay	Farm			4 214
41	13 Sep	WC	Kannaland	Farm	Ostriches		
42	13 Sep	WC	Oudtshoorn	Farm	Ostriches		
43	15 Sep	WC	Oudtshoorn	Farm	Ostriches		
44	15 Sep	WC	Kannaland	Farm	Ostriches		
45	16 Sep	WC	Stellenbosch	Farm		100 000	9 000
46	17 Sep	WC	Swartland	Farm		25 000	500
47	17 Sep	WC	Swartland	Farm			60
48	18 Sep	WC	Drakenstein	Farm		50 000	500
49	19 Sep	WC	Kannaland	Farm	Ostriches		
50	19 Sep	WC	Oudtshoorn	Farm	Ostriches		
51	22 Sep	WC	Cape Town	Farm		5 351	39
52	22 Sep	FS	Matjhabeng	Farm			35
53	23 Sep	FS	Matjhabeng	Farm		12 000	2 000
54	26 Sep	WC	Mossel Bay	Farm	Ostriches		
55	26 Sep	WC	Oudtshoorn	Farm	Ostriches		

	Date	Prov	District	Enterprise	Birds	Culled	Died
56	27 Sep	WC	Oudtshoorn	Farm	Ostriches		
57	1 Oct	WC	Theewaterskloof	Farm		19 412	452
58	2 Oct	WC	Drakenstein	Farm		20 000	
59	9 Oct	WC	Drakenstein	Farm		218 602	200
60	11 Oct	WC	Hessequa	Farm	Ostriches		
61	11 Oct	WC	Oudtshoorn	Farm	Ostriches		
62	18 Oct	WC	Drakenstein	Farm		1 973	200
63	20 Oct	WC	Oudtshoorn	Farm	Ostriches		
64	31 Oct	WC	Oudtshoorn	Farm	Ostriches		

No new outbreaks have been reported since late October in either the northern or southern clusters. Egg prices are expected to rise by 15 to 20 % as shortages affect the market. Fresh shell eggs have a short shelf-life and would have to be transported by air, making imports too expensive. Prices may remain elevated for some time if producers hold off on restocking until they are sure the spread of the disease is contained.

The Department of Agriculture, Forestry and Fisheries announced a ban on live bird sales from 26 June. In response to concern about livelihoods being affected in the informal sector, this policy was adjusted to allow the sale of live birds by traders registered with the Poultry Disease Management Agency (PDMA). Traders of any more than five live birds (for any purpose other than slaughter at a licensed abattoir) must be registered to sell birds; and may only trade in birds certified as healthy by a veterinarian or animal health technician. This includes commercial producers. Traders must keep records as required and sign an undertaking to agree to the terms of the registration. Registration forms are available from DAFF and the PDMA. Controlling the spread of avian influenza in countries which have widespread live-bird sales is difficult, especially where traders are not compensated for affected birds. In the US, such compensation is paid and acts as an incentive in encouraging traders to report sick birds quickly.

A Fertile Egg Importation Protocol has been agreed upon, under which DAFF will allow producers to apply to import fertile eggs to replace lost stock. Brazil, the Netherlands, the US and Ireland have all been contacted in this regard. Hatching eggs will either have to have been quarantined and certified at source, or quarantined upon arrival. In the Western Cape, state veterinarians are working with farmers to assess the feasibility of restocking. Use is being made of sentinel birds which are placed in disinfected houses and tested for the avian influenza virus. Restocking has to be done cautiously and with due attention to biosecurity and risk management. Farms which are still quarantined restock at their own risk with no hope of compensation should the new flock become infected. State veterinarians will only lift quarantine restrictions if sentinel birds or restocked birds remain AI-free six weeks after farm disinfection.

By mid-September, DAFF had only agreed to compensate farmers for uninfected birds culled as a result of measures to prevent the spread of an AI outbreak. Detailed guidelines on how compensation will be applied are still not available from the Department. It seems that compensation will not be paid for birds lost to the disease, recalled eggs, the cost of destocking and cleaning infected facilities, or for lost production during cleaning and surveillance periods.

An amount of R40 million had been released by Treasury to DAFF by October but, with the scale of the disaster now much clearer, Treasury will be approached for further relief. In addition, SAPA is investigating over avenues to source low-cost funding which will help farmers restock and reduce job losses in the sector. These measures include the Department of Labour's employee lay-off scheme (which helps businesses retain labour) and Land Bank relief funding.

At the farm level, producers are urged to keep poultry away from wild birds (use of housing/netting, etc.); to reduce any factors which might attract wild birds on to a site; to control and reduce movement of people and equipment into and between poultry houses and sites; to maintain/upgrade sanitation of housing/personnel/equipment; to avoid introducing birds of unknown health status into existing flocks; to report any illness/death of birds to State Veterinary services; and to dispose of manure/dead birds appropriately.

The South African Poultry Vets Group (SAVA), along with SAPA, has engaged DAFF on the subject of vaccinating birds against avian influenza. The Department insists that spent hens be slaughtered at the end of the production cycle (rather than sold live to traders), in order to prevent partially immune birds being widely distributed in rural communities. Producers are baulking at the costs associated with the need to slaughter vaccinated birds. If a globally acceptable monitoring system has to be in place to monitor vaccinated flocks, there will be additional costs for farmers which DAFF appears reluctant or unable to assist with. There remain differences in opinion between producers and DAFF with respect to preventative vaccination against HPAI and it is unlikely to be implemented as a control measure in the short-term.

Between 22 May and 7 July, Belgium reported at least eleven outbreaks of HPAI in domestic poultry in the provinces of Luxembourg, Hainut, West Vlaanderen, Liege and Namur (the southern provinces of Belgium, bordering France). The last reported case was on 7 July 2017 and a final report was submitted on 24 July. However, an additional event was reported to the OIE on the 24 July. This event currently totals 1 650 cases in West Vlaanderen. The last case in this event was recorded on 20 June. This is the first HPAI event in domestic poultry in Belgium in seven years. This event was declared resolved with the OIE on 29 September 2017.

After repeated outbreaks of highly pathogenic avian influenza in 2016, the French were due to regain HPAI-free status on 3 December 2016 but a fourth HPAI event was reported to the OIE, which expanded to 55 outbreaks (105 deaths in wild birds). The last positive case in this event was reported on March 10 but the French also had to report a further 485 outbreaks of H5N8 HPAI in a fifth event. Local producers estimate that some 3.2 million birds were lost to the disease or in pre-emptive culls. After a quieter spring period, the French suffered yet another outbreak of H5N8 on the Franco-Belgian border at the end of June, close to where outbreaks have been occurring in Belgium (follow-up report dated 5 July 2017). This event was also declared resolved with the OIE on the 18 October 2017.

On November 8 2016, the Netherlands reported H5N8 HPAI in wild birds; the beginning of an event which totalled 56 outbreaks (351 cases). The last outbreak was reported on 22 March

2017. On 28 November 2016, a second event totalling 3 658 cases occurred in Flevoland, Friesland, Overijssel, Gelderland and Zuid-Holland. Over 210 000 birds were culled. Final reports on both these events were submitted to the OIE on 17 May 2017 and the Dutch declared their avian-influenza free-status regained, under the terms of Article 10.4.3 of the OIE Terrestrial Animal Health Code (2016). On 9 December 2017, the Dutch reported two cases of H5N6 HPAI in mute swans from Gelderland.

From December 2016, Germany notified the OIE of 286 outbreaks of H5N8 HPAI in wild birds and commercial poultry. Over 340 000 birds were destroyed. Germany also reported three outbreaks of H5N5 HPAI in breeding and fattening turkeys beginning in January 2017. Over 1 950 birds died and a further 30 750 were destroyed. The last confirmed outbreak was on 9 May 2017. On 11 August 2017, the Germans submitted final reports on all their HPAI events to the OIE, announcing that all have been resolved.

From December 2016, Hungary reported 294 outbreaks (206 045 cases) of H5N8 HPAI in poultry operations housing fattening turkeys, geese and ducks. Only 135 of the cases were in wild birds. Almost 2 million birds were culled. The last case reported to the OIE was dated 18 April 2017. The Hungarians submitted final reports on their outbreak on 16 June 2016.

Between December 2016 and February 2017, the UK experienced countrywide outbreaks of H5N8 HPAI. The UK submitted a final report on this event to the OIE on 9 March 2017 (27 outbreaks; 5 880 cases). In May, there were further cases in Pembrokeshire, Lancashire and Norfolk. In late July, the UK reported H5N8 in a mute swan on the Norfolk Broads. Final reports on these latest events were issued to the OIE on 13 September 2017.

Outbreaks of highly pathogenic avian influenza in Poland, Denmark, Spain and the US in 2016/2017 are all considered resolved in terms of OIE directives. In 2017 to date, there have also been reported cases of highly pathogenic avian influenza (H5N8) in Austria, Bangladesh, Bulgaria, Bosnia and Herzegovina, Cameroon, China, Chinese Taipei, Croatia, Cyprus, Czech Republic, Democratic Republic of Congo, Egypt, Finland, Greece, India, Iran, Israel, Italy, Kazakhstan, Kuwait, Lithuania, Luxembourg, Nepal, Niger, Nigeria, Portugal, Romania, Republic of Korea, Russia, Saudi Arabia, Serbia, Slovakia, Slovenia, Switzerland, Sweden, Tunisia, Uganda, the Ukraine and Zimbabwe.

In addition, the following countries have reported the H5N1 strain: Bangladesh, Cameroon, Cambodia, China, Côte d'Ivoire, France, India, Iran, Laos, Libya, Malaysia, Myanmar, Nepal, Niger, Nigeria, Togo and Vietnam. China, Chinese Taipei and the US have reported H5N2.

There have been reports of H7N9 in China and the US. Chinese Taipei lays claim to H5N6, along with China, France, Greece, Hong Kong, Japan, Republic of Korea, Laos, Myanmar, the Netherlands, the Philippines and Vietnam.

The H5N5 strain has been reported in Croatia, Italy, Netherlands, Germany, Greece, Poland, Serbia and the Czech Republic in 2017. Mexico reported H7N3 in May. France has reported H5N9.

Hen welfare

The acceleration towards cage-free egg production may be slowing in the US, but animal welfare organisations continue to push for corporate cage-free pledges in other countries and continents around the world. The Humane Society of the United States (HSUS) claims that seventeen major Brazilian food companies have announced cage-free policies and Mexican corporate pledges are being led by Taco Bell (Mexico's second biggest restaurant chain) and Grupo Bimbo (a large global bakery company). Mexican restaurant chain "100% Natural" has also pledged to source only cage-free eggs by 2020. Global companies General Mills and Kraft Heinz have extended their cage-free pledges to include their African and Asian offerings by 2025 (bizcommunity.com). Kraft Heinz currently offer six products in South Africa, including their Miracle Whip mayonnaise. General Mills produce Cheerios and Häagen Dazs icecream. Animal rights organisations are now turning their sights on India, where over 220 million laying hens are farmed in conventional battery cages. A report by the National Environmental Engineering Research Institute (NEERI) has called for a phased withdrawal of battery cages in India, in support of similar statements made by the Law Commission of India. The NEERI report suggested tax rebates or subsidies be used to encourage farmers to make the transition to cage-free production. The Animal Welfare Board of India has stated that battery cages violate sections of the 1960 Prevention of Cruelty to Animals Act and has issued an advisory to state governments that they should be phased out (deccanchronicle.com).

In the UK, the Chief Veterinary Officer (CVO) has come under fire for questioning the cage-free revolution. All the major UK retailers have committed to cage-free production by 2025 and the CVO's comments, made at an egg producer's conference in Wales, were an attempt to draw attention to the conflict that may exist between trying to improve bird welfare and still maintaining a high level of biosecurity. Poorly managed barn, aviary and free range systems can have welfare and disease issues that may be more serious than those in well-managed enriched colony caged systems, which allow nesting, dust-bathing and perching behaviours. His comments referred especially to farms close to large open water sources, which he felt would be better protected from avian influenza outbreaks with birds housed in enriched cages or barns. His comments drew the ire of other veterinarians who felt that disease control can be achieved without reverting back to caged production and urged him to take a more progressive approach to welfare.

In California, egg markets are governed by Proposition 2 (2008) which moved all egg producing birds out of small cages into housing that allows them to stand up, lie down, turn around and extend limbs. Further, Bill AB-1437 (2010) forced producers in other states to abide by these conditions in order to sell eggs into California. Following on from Proposition 2, laws addressing hen welfare have been passed in Massachusetts, Washington, Oregon, Michigan, Rhode Island and Ohio. Twelve egg-producing states are currently challenging AB-1437 in the US Supreme Court, claiming it violates constitutional interstate commerce laws. Missouri, Alabama, Arkansas, Indiana, Iowa, Louisiana, Nebraska, Nevada, North Dakota, Oklahoma, Utah and Wisconsin are all named in the application. Massachusetts' 2016 ballot initiative was supported by 77 % of voters and will see cage-free production of all eggs produced and sold in Massachusetts from 2022. Thirteen states are also challenging this law in the US Supreme

Court; arguing, as in the Californian case, that Massachusetts is imposing an extraterritorial regulation on a commercial activity occurring in another state. In May 2017, the US Supreme Court of Appeal refused to hear an application by attorney generals and governors from six states petitioning to overturn California's AB-1437 on the grounds that it wasn't proved that the bill hurt anyone other than individual farmers. Further action against California's ban on the sale of force-fed foie gras products also failed, with the court ruling that California was within its rights to regulate activity within the state to avoid complicity in a practice deemed inhumane by a majority of voters. The states now challenging the Californian and Massachusetts' welfare legislation are hopeful that an economic analysis of what the regulations have cost the wider US consumer will swing the Court's opinion in their favour. The Humane Society of the United States (HSUS) has recently introduced a further ballot initiative in California, called The Prevention of Cruelty to Farm Animals Act. The proposed act would mean that all Californian egg production would be cage-free if accepted in the October 2018 ballot. The Humane Society is hopeful that a new federal bill before Congress (Egg Products Inspection Acts Amendments) will mandate national standards giving more room to laying hens – this federal law would supersede state law and remove interstate variation in welfare standards. With three quarters of the national flock needing to move to cage-free production to meet current pledges by multinational companies, all the above legal arguments around cage sizes may become moot.

Australia is in the process of revising its Animal Welfare Standards and Guidelines for Poultry, for the first time in 15 years. The standards will move welfare from a voluntary code of practice to federal legislation. Draft guidelines opened for public comment from November 27 2017 through to February 26 2018. However, the process, which is led by New South Wales, is once again mired in controversy. The Western Australia government is threatening to withdraw support for the guidelines if its concerns about possible collusion between the New South Wales Department of Primary industry and producers are not addressed. The Australian Broadcasting Corporation aired allegations of meetings between NSW bureaucrats and local producers which, it is alleged, were aimed at manipulating the drafting process to ensure that battery cages would not be banned. Instead of promoting debate, the NSW government team appears to have thwarted attempts to have recent and pertinent welfare research included in discussions. This is not the first time that a state government has expressed concerns about the writing process. In early 2017, the Victorian government commissioned its own enquiry into the scientific literature on poultry welfare because of concerns that the national review had failed to do this. The RSPCA had also threatened to withdraw from the process because the measures fail to even set a time-line for the phasing out of battery cages. There are fears that the new national welfare standards, designed to remove intra-state differences in welfare codes, will leave Australia trailing behind other developing nations in terms of their welfare legislation. Battery cages were phased out in the EU between 1999 and 2012; New Zealand and Canada are in the process of phasing out battery cages; and 75 % of US production is expected to be cage-free by 2025. Even in Australia, retailers are phasing out caged-eggs and as much as 49 % of Australian supermarket egg sales are now cage-free. The new welfare standards appear to pander to big business and ignore global shifts in egg production practices, published research and consumer sentiment and expectations. At the end of the consultation process, any

submissions will be considered and revised by an independent consultant and revised standards prepared for consideration by the Stakeholder Advisory Group (poultrymed.com).

Global production

Table egg production in the US was 6.4 % higher in 2016 (8.565 billion dozen) than in 2015 (8.053 billion dozen). Production for 2017 is estimated at 8.746 billion dozen (December estimate); the highest on record. Production in 2018 is currently forecast to increase to 8.935 billion dozen; up 2.2 % over 2017. Per capita consumption of eggs in the US is expected to increase from 273.7 eggs per person in 2017 to 279.1 in 2018 (+ 2 %). Egg production has rebalanced through 2017. After the 2015 avian influenza outbreaks, repopulation efforts led to an oversupply of eggs in a climate of depressed demand. Producers cut back on pullet placements through 2017 and the industry is normalising. The USDA is now reporting increased local and international demand (in response to AI outbreaks and the fipronil scandal) and predicts a 35 % increase in the price of Grade A eggs in 1Q 2018, over 1Q 2017 prices. However, even with this price increase, eggs will still be cheaper than the long-term 2010 - 2014 average. Volume buyers of Grade A eggs paid 85.7 c per dozen in New York in 2016 (USDA WASDE) and the predicted annual egg price for 2017 has firmed to 100.3 c/dozen (December estimate); in comparison with 2015 prices during the avian influenza epidemic (181.8 c/dozen average; USDA WASDE). The USDA estimates prices between 106 – 112 c/dozen in 1Q 2018 compared to 80 c/dozen in 1Q 2017. Prices in the 4Q 2017 have risen steeply to around 145 c/dozen from 102 c/dozen in the 3Q 2017. Urner Barry's prices for Midwest eggs averaged 91.3 c/dozen for 2016 and 103 c/dozen for 2017 YTD (to 6 December). Midwest prices averaged 142 c/dozen in 4Q 2017 (to December 6) and have peaked at 192 c/dozen in December. Until 2016, the annual average had not been below the \$1 mark since 2006.

Egg exports from the US dropped from 313.6 million dozen in 2015 to 279.2 million dozen in 2016 (USDA WASDE), but are estimated at 323 million dozen in 2017. Imports of eggs into the US reached 123.5 million dozen in 2015, up from the 34.7 million dozen imported in 2014 (USDA WASDE). Imports of 122.1 million eggs were received in 2016, but are expected to close at 34.4 million dozen for 2017 (December projection). Exports for 2018 are currently forecast at 320 million dozen and imports at 40 million dozen (USDA WASDE).

In the UK, the farm gate price averaged 70.9 and 70.0 p/dozen in the 1Q and 2Q 2017, respectively. In the 3Q 2017, the average price decreased to 69.4 p/dozen (-1 %, quarterly). Free range eggs commanded 81.4 p/dozen while eggs from enriched colonies fetched 53.2 p/dozen. The UK packed 7.6 million cases of eggs in 3Q 2017; up 0.8 % on 2Q 2017 production and up 4.8 % on 3Q 2016 levels. The UK is currently not experiencing the huge increases in egg prices being felt in the EU. The supply of shell eggs in the UK has not been affected by the European fipronil scandal and demand for local product has remained stable. Farmers are anticipating an increased demand for locally produced processed product, much of which currently still comes from the EU. Analysts are predicting prices will rise in the UK in 4Q 2017 as EU stocks become tight, but there is little evidence in EU databases to support this argument. In the 2016/2017, income for egg producers increased by an average of 9 %, with higher

production levels helping to improve profitability despite only small increases in the egg price (farmingUK.com).

The big story in the EU Commission's "*Market Situation for Eggs*" November 2017 report is the huge jump in egg prices across the Union. From a price of €115.6/100 kg in Week 28 (early July), the price of eggs in the EU had risen to €195/100 kg in Week 49 (early December). This is an average increase of 69 %. The increase is uneven: in the Netherlands, Belgium and Germany, prices are up by 111 %, 103 % and 92 %, respectively, whereas prices in the UK and Ireland have risen by only 0.5 % and 5 %, respectively, over the same period. Prices in Bulgaria are up an incredible 178 % on early July prices. The Week 49 EU price is 51 % higher than the same week in 2016, when prices were already elevated because avian influenza had hit a number of EU countries. The average EU egg price has been above the re-based average price for 2012 – 2016 since mid-August. This is the first period since September 2015 that prices have exceeded the long term average. Prices for egg products have increased in line with shell egg prices; with the price of dried egg yolks rising by approximately 135 % in five months since early July, and pasteurised liquid yolks by around 190 %.

In the EU, egg production (for consumption) in 2016 totalled 6.75 billion dozen (EC CIRCABC); 1.2 % higher than in 2015 (weight basis). There have been changes to the way the EU Commission presents data in its "*Market Situation for Eggs*" reports and dashboards. Production graphs (egg production, dozens) no longer show actual values and axes are inappropriately labelled. With no access to the relevant spreadsheet data sets, it takes a bit of guesswork to figure out what the EU thinks is happening with egg production in the Union. In the November report, tables of production have been added but these present only annual figures and are now in tonnes rather than in dozens. These tables suggest that production of eggs in the EU totalled 6.393 million tonnes in 2016 (excluding hatching eggs). Using the figures above, this would make the average egg size 78.95 g, which is not possible. Clearly the two data sets do not reconcile. Looking at just the egg production tonnages as given in the November report, the EU Commission calculates that egg production within the Union (for consumption; excluding Romania) will amount to 6.395 million tonnes in 2017; an annual increase of only 0.2 %.

The EU is a net exporter of eggs, with a trade balance of 246 947 tonnes of exports to 17 137 tonnes of imports in 2016 (egg equivalent; EU Commission); and 162 000 t exports to 14 000 t imports between January and September 2017. In 2016, EU egg exports to third parties decreased by 12 % and exports in the first nine months of this year are 11.2 % below exports in the same period in 2016. Increased exports to Japan (+ 24 %), Thailand (+ 72 %), South Korea (+72 %) and Turkey (+ 49 %) are countered by lower exports to Israel (- 23 %), the UAE (- 38 %) and Hong Kong (- 39 %). The value of exports for the period January to September 2017 is 22 % below that in the same period in 2016.

Imports of shell eggs into the European Union were up 42 % in 2015, to 19 304 tonnes (egg equivalent) but dropped by 11 % in 2016 to 17 137 tonnes (ec.europa.eu). In the first nine months of 2017, imports of eggs from India into the EU increased by over 550 % compared to the first nine months of 2016 (764 up to 4 986 tonnes). India has accounted for 34 % of EU egg imports in 2017 YTD (September). Imports from the US have increased by 81 % in the same

period, to 2 559 tonnes of egg equivalent (17 % of total imports). Argentinian imports have increased 45 % over the first nine months of 2016, to 2 549 tonnes (17.6 % of the total). The big loser in the face of Indian, US and Argentinian imports is the Ukraine (- 71%; 1 996 t *cf* 6 774 t in same period in 2016). In 2016, the Ukraine accounted for 46.9 % of total EU egg imports, benefiting from lower feed prices, less regulation and lower costs in terms of hen welfare than EU counterparts. However, only processed egg products were allowed into the EU from the Ukraine. From September 2017, one of Ukraine's biggest egg producers, Ovostar, has permission to export fresh shell eggs to the EU (open4business.com.au).

4.2 The South African economic outlook and egg market

South Africa ended 2017 with the rand buoyed by Ramaphosa's victory in the ANC's December presidential election and the hope that further credit rating downgrades can now be avoided. No new outbreaks of avian influenza have been reported since late October but the egg industry has been seriously affected by the disease and over 4 million birds have been culled, squeezing egg production and pushing up prices. Good rains in the maize-growing regions of the country supported a bumper harvest in the 2016/2017 season and global soybean prices have also moderated – so market conditions support a return to profitability and growth for farmers not affected by the AI culls. However, some businesses may never reopen and others face huge losses with little assistance from government coffers.

Local consumption of eggs (141 per person per year in 2016) remains disappointingly low. With per capita consumption in countries such as the US, Russia, Mexico, Japan and China exceeding 220 eggs per annum and, in some cases, approaching an egg a day, there remains considerable scope in the SADC region to increase local per capita consumption. With meat prices soaring as farmers restock and rebuild herds after years of drought, egg farmers might have enjoyed increased sales as the cheapest animal protein – but the avian influenza outbreak has resulted in egg shortages and pushed prices up by more than 20 %. Per capita consumption in 2017 may well fall short of the 2016 mark.

In the wider business environment, South Africa has been on a steady downward trajectory with the three major credit rating agencies. In 2016, South Africa's credit rating sat one notch above "junk status" (BBB-; below-investment grade; Standard & Poor's Global Ratings and Fitch Ratings). A third agency, Moody's, put South Africa one notch above the other two agencies. In March 2017, Standard and Poor's and Fitch's downgraded South Africa's sovereign credit rating to below-investment level ("junk status"; BB+). Moody's also cut South Africa's credit rating by one notch to BAA3 (one step above non-investment grade) and assigned a negative outlook. In November 2017, Fitch Ratings kept South Africa at just below investment grade (BB +; stable). This kindness was not extended by Standard and Poor's who moved to downgrade South Africa further to sub-investment grade BB (outlook stable). In the same month, Moody's put the country's BAA3 grading on review for a downgrade. Their decision on whether to downgrade South Africa to 'junk status' will only be announced after the February 2018 budget announcement, allowing the ANC elective conference to play out and fiscal policy adjustments to be made clear to investors. The recent credit rating downgrades and reviews follow Malusi Gigaba's medium-term budget presentation in late October, in which the new Finance Minister

was forced to reveal the dire fiscal and economic challenges facing the country. Government debt is set to surge to 60 % of GDP by 2020 (R3.4 trillion); with a budget deficit of R89.4 billion. With little growth in tax revenue over the next three years, government will be forced to borrow more money to fund its spending plans. Servicing debt will cost the country R223 billion by 2021; representing 11 % of the budget. In the current financial year alone, tax revenue has materially undershot forecasts to the tune of R50.8 billion. Minister Gigaba has launched an inquiry into the cause of this shortfall but himself attributed it to lower wage increases, fewer bonuses paid, retrenchments, lower VAT collections (as consumer spending tightens) and under-collection of corporate tax. Some analysts have also suggested a level of tax avoidance in response to government's wasteful expenditure and corruption. Because of the 2017 down-ratings, South Africa has already been dropped from the JP Morgan Emerging Market Bond Index and will no longer meet the inclusion criteria for the Barclays Group Index after Standard and Poor's November action against the country. The disinvestment impact of expulsion from this index is estimated at R39 billion. Any further downgrades would cause additional disinvestment in South Africa to the tune of R100 billion.

The rand's value at the end of 2016 was 22 % below its value on 1 January 2015 when it traded at R11.56 to the dollar. The rand strengthened going into 2017, finally breaking the R13-level in mid-February and moving on steadily towards the R12-level through March. The rand depreciated by 11.7 % between March 26 (R12.43 : \$1) and 10 April (R13.91 : \$1) following Zuma's unilateral decision to axe the Finance Minister and replace him with Malusi Gigaba. Much of the rand's recovery between April and August was attributable to a weak dollar, rather than to positive domestic catalysts. In between, there have been several troughs in response to the introduction of the Mining Charter; the Public Protector's suggestion of remedial action against the Reserve Bank; and Zuma's survival of an eighth parliamentary vote of no-confidence in his leadership. The US dollar depreciated by 6.4 %, year on year, in 1H 2017 as Europe's economy picked up steam but from September the dollar strengthened steadily, reaching R14.47 : \$1 on 14 November (+ 13 % over value on 6 September). Gigaba's mid-term budget presentation in October quickened the rand's slide over the ensuing month. The market seemingly found some comfort in Moody's November decision to place the country's credit rating under review instead of inflicting an immediate downgrade to junk status. The rand recovered to an extent through December reaching R13.47 : \$1 ahead of the ANC's elective conference. As Ramaphosa's victory in the ANC's presidential race was announced on December 18, the rand climbed back to R12.50 : \$1 on 27 December (+ 9.4 % from December's low of \$13.79) and regained almost all the ground lost since Gordhan's dismissal in March.

In December, the US Federal Reserve raised lending rates by 0.25 % to 1.5 %, following on from 0.25 % increases in March and June. The US Federal Reserve did not increase interest rates at its September meeting but it had long been held that there would be a third increase in 2017 and the Federal Reserve has indicated that there are likely to be three further increases through 2018.

In its October *World Economic Outlook*, the International Monetary Fund adjusted its growth estimate for the South African economy downwards from 1.0 % to 0.7 % for 2017. Despite a good year for agricultural production and more favourable export commodity prices, the IMF

sees political turmoil sapping business and consumer confidence and has adjusted its forecast for growth in 2018 down 0.5 % to 1.1 %. The Fund's report noted that GDP growth over the past 4 years has been less than the population growth. The Reserve Bank's initially optimistic outlook on annual growth settled at 0.7 % by November and its forecast for 2018 and 2019 is now 1.2 % and 1.5 %, respectively. There is some sentiment among analysts that actual growth in 2017 may claw up to the 1.0 % level, if positive performance in the primary sector continues. Higher than expected growth of 2.8 % (revised figure) pulled South Africa out of technical recession in 2Q 2017 and a 44 % resurgence in agriculture again supported 2 % growth in the 3Q 2017. Agricultural growth in the third quarter stems mostly from field crops and horticultural products. The mining sector also grew by 6.6 %; manufacturing by 4.3 %; and finance, real estate and business services by 1.2 %. Agriculture and mining account for just 3 % and 8 % of total GDP, respectively, so the country needs strong performance in other key sectors (notably financial services, trade, transport and communication and manufacturing) to produce a significant increase in overall economic growth. Transport and finance increased by 0.6 % and 1.2 %, respectively, in the 3Q but electricity, construction and trade shrank by 5.3 %, 1.1 and 0.4 %, respectively.

In October, the IMF adjusted its 2017 forecast for growth in the sub-Saharan region upwards by 0.1 % to 2.6 %; supported by easing of drought conditions in southern Africa and resumption of oil production in Nigeria. The IMF is concerned that many of the factors supporting growth this year are one-off occurrences and has highlighted an alarming increase in public debt (as a proportion of GDP) across the region. In 2013, over 24 African countries carried debt levels below 35 % of GDP; in 2016 this figure had reduced to only four countries. Conversely, in 2013 only seven countries carried debt at higher than 50 % of GDP. By 2016, this had increased to 18 countries; South Africa, Zimbabwe, Mozambique, Zambia, Malawi, Kenya and Angola included. This increase in debt has been caused by exchange rate depreciations, slower growth and large fiscal deficits. Political uncertainty in the two big economies of Nigeria and South Africa is weighing on investor confidence in the region. The report concluded that any further postponement of fiscal adjustments will increase public debt beyond sustainable levels. The IMF predicts growth of 3.4 % in the sub-Saharan region in 2018; with several countries likely to experience negative growth (Equatorial Guinea, Swaziland, South Sudan) and others achieving growth in excess of 7 % (Côte d'Ivoire, Ghana, Ethiopia; Senegal). Excluding Nigeria and South Africa, growth in sub-Saharan Africa is forecast to be 5.1 %.

After hitting an historic 23-year low in September 2016 (90.3 rebased index points), the South African Chamber of Commerce and Industry (SACCI) Business Confidence Index showed steady recovery, reaching 97.7 in January 2017. Since then, it has dipped as low as 89.6 in August (the lowest level since the mid-1980s) before recovering to 93.0 and 92.9 in September and October, respectively. The index in October is almost unchanged from October 2016 (93.0). This index measures prevailing business climate (in terms of indicators such as energy supply, inflation, financing costs, the exchange rate, etc.) rather than business sentiment. Subdued economic performance continues to limit business opportunities and the Chamber expressed concerns that South Africa is currently not in a position to take advantage of improving global economic conditions and restated its position that nurturing investors is the only way to generate growth.

The Merchantec CEO Confidence Index ended 2016 on 47.9 points. In the 1Q 2017, the index rose by 7.2 % to 51.4, slightly above the neutral level of 50 but, after the cabinet reshuffle in March, the index plunged by almost 25 % in 2Q 2017 to 38.7 points. Between the 2Q 2017 and 3Q 2017, the index gained 0.40 % to 38.9 points. The survey indicated that most CEO's feel the economy is stagnant and that investment decisions are essentially on hold, with little confidence that the economy can recover without change in the political leadership in the country. Most CEO's are pinning their hopes on the December ANC elective conference to bring clear and decisive policy direction. Financial CEO's remain highly pessimistic about the country's ability to secure debt and equity capital.

The FNB/BER Consumer Confidence Index ended 2016 on -10, pounded by soaring food prices and constrained consumer spending. It climbed to -5 in 1Q 2017, after good rains, easing food price inflation and a stronger rand; but nevertheless remained below the long term average of +4. After the cabinet reshuffle and axing of Pravin Gordhan and Mcebisi Jonas, this consumer confidence index slid back to -9 in 2Q 2017. The FNB/BER CCI is not available for the 3Q 2017 because of a lack of respondents but it is fair to say that consumer confidence remains low and this has been factored into recent Reserve Bank decisions.

The unemployment rate in the 3Q 2017 remains at the 27.7 % reached in 1Q and 2Q 2017. Unemployment is at the highest level since 2003. The expanded unemployment rate, which includes discouraged work-seekers, was slightly higher, q-on-q, at 36.8 %. The unemployment rate has not dropped below 21.5 % in the last 15 years. Economist Mike Schussler, presenting the 16th UASA South African Employment report, pointed out that South African unemployment levels are more severe than in several war-torn countries, including Iraq, Libya and the Yemen (timeslive.co.za).

Inflation averaged 4.6 % in 2015 and 6.4 % in 2016 (Stats SA). Inflation steadily dropped through 2017 as food prices eased and was recorded at 4.6, 4.8 %, 5.1 % and 4.8 %, respectively, in July, August, September and October. The Governor of the Reserve Bank reported a deterioration in the inflation forecast, but expects it to remain within the target range (below 6 %) for the forecast period (SARB). CPI inflation is still expected to average 5.3 % in 2017 but has been revised upwards to 5.2 % in 2018 (from 5.0 % previously) (SARB). The main drivers in the revised 2018 forecast are rising international oil prices, domestic wage growth and a weaker exchange rate.

Food price inflation rose from 5.9 % in December 2015 to 11.7 % in December 2016 (SARB). In October 2017, food price inflation was 5.3 %, compared to 11.4 % in January this year. In October, year-on-year price inflation for white bread was -4.0 %; brown bread -2.3 %; maize meal -21.4 %; fats and oils -1.5 %; milk +0.5 %; eggs +8.5 % and rice +1.1 %. October's inflation in the price of tomatoes was -10.9 % but cabbages were up 36 %, year on year. Beef mince was up 12.8 % from October 2016; whilst fresh chicken portions have risen 6.4 % in the same period.

The FAO Food Price Index ended 2016 at 170.3 (+ 14.1 % y-on-y); with an annual average of 161.5. The index has averaged 175.1 in 2017 YTD (November); 9.0 % higher than the same 11 months in 2016. In November, the index closed at 175.8. The meat price index averaged 156.1

in 2016 and has risen to 173.2 in November 2017. In this index, bovine price increases have countered drops in global ovine and porcine pricing, whilst poultry prices have remained stable in recent months. Cereal prices averaged 162.4 in 2015, dropped to 146.9 in 2016, and reached 153.1 in November 2017 (annual average YTD: 151.5). The FAO forecasts broadly stable food prices through the next decade.

The Reserve Bank steered away from increasing interest rates through 2H 2016 and 1H 2017, because the domestic growth outlook is constrained and consumers are under pressure. At the Monetary Policy Committee meetings in July 2017, the Committee cited the improved inflation outlook and sluggish growth as reasons to reduce the lending rate by 25 basis points to 6.75 %. At the September and November 2017 meetings, the Committee felt that risks to the currency (including the ANC's December elective conference), worrisome unemployment levels, decline in civil construction indices and rising oil prices all pointed to higher inflation going forward. The Committee elected to keep the interest rate unchanged at 6.75 %.

In a November 2016 deal, OPEC and non-OPEC oil producing nations pledged to reduce output by between 1.2 and 1.8 million barrels per day from January 2017, to bring down the glut in oil supply. A year on, the deal has now been extended through 2018 to allow global oil stocks to be reduced further to the five-year average. Oil prices reached a high of \$65 in mid-December, supported by the renewed OPEC deal and by news of an unplanned outage in the Forties pipeline in the North Sea oil fields, which is expected to last several weeks. In December, the International Energy Agency raised its price forecasts on World Trade Intermediate (WTI) and Brent Crude oil for 2017 and 2018. The agency forecasts WTI prices at \$50.56 a barrel this year and \$52.77 next year. For Brent Crude, the EIA forecast for 2017 is currently \$53.88 a barrel and for 2018 is \$57.26. In the US, drilling and well-completion have increased in response to firming prices, challenging some of the gains made by the OPEC deal. Analysts believe the market will balance by late 2018 but it remains unclear what exit strategy will be employed by the nations involved in the production-cutting deal and this uncertainty will play on the market as 2018 proceeds. Russia is seen as being keen to exit the arrangement as soon as possible but all the participating nations seek an exit strategy that does not threaten the gains made by the two-year intervention.

In South Africa, petrol prices reached an historical peak in December, with the 92 octane petrol price rising to R14.49/litre. This is the highest level since April 2014. Diesel is still below its March 2014 high. After six consecutive months of hikes, the petrol price in December 2017 is 15 % higher than in December 2016 and the diesel price is 17.5 % higher. As the international oil price continues to rise in response to OPEC-centred production curbs, South Africans can expect fuel prices to continue rising in 2018 unless the rand strengthens. If the rand takes a battering in 2018, domestic fuel prices will rise steeply.

The average wage increase was 2.2 and 1.0 % in 2015 and 2016 (respectively and in real terms (adjusted for inflation)). South Africans are expected to realise wage increases between 0 and 1.5 % in 2017 (in real terms; ECA International). The global average, in real terms, is forecast at 1.5 %. The national minimum wage for farm labourers in 2017 is 8 % higher than in 2016; but inflation ran at 6.4 % in 2016 and is expected to run at 5.3 % in 2017; eroding this increase

significantly if considered in real terms. The national minimum wage will be R20/hour from May 2018.

Eskom was granted a 2.2 % increase for the 2017/2018 year by the regulatory body, NERSA; effective 1 April 2017. This is lower than the 9.4 % tariff increase granted in 2016/2017. Eskom sought a 19.9 % tariff increase from NERSA for the 2018/2019 year but was granted an inflation-aligned 5.23 % by the regulator, effective April 2018.

On December 14, dam levels in the nine provinces were as follows: Western Cape 33 % (down from 51 % y-on-y); Eastern Cape (61 % cf 59 % a year ago); Free State 69 % (cf 50%); Gauteng 88 % (cf 82 %); KwaZulu-Natal 47 % (cf 41 %); Limpopo 66 % (cf 45 %); Mpumalanga 70 % (cf 54 %); North West 75 % (cf 57 %) and Northern Cape 79 % (cf 52 %). The Bloemfontein Supply System is at 33 % and the Vaal River System at 71 %. In Cape Town, “Day Zero” (the day the taps run dry; with dams at average of 13.5 %) is currently set to arrive in mid-May 2018. The Cape Town drought is now into its third consecutive year. There is evidence that much of the current shortfall in the Cape’s water supply system can be traced to the national Department of Water and Sanitation’s failure to introduce any restrictions on agricultural water usage in the 2015/2016 season, and to its erroneous over-allocation of water to agriculture in this period which depleted buffer reserves. Despite being asked for funding for water-sparing measures in 2015, and again for disaster funding during the drought years, Government had still not released funds by October 2017. Instead, the Auditor General reported wasteful and irregular expenditure of R110.8 million in the Department of Water and Sanitation. For a sobering analysis of national government’s failure to support provincial programmes to mitigate the Western Cape drought, see: <https://www.news24.com/Analysis/cape-towns-water-crisis-driven-by-politics-more-than-drought-20171214>. Level 6 water restrictions will come into force in Cape Town on January 1, which will restrict households to 10 500 litres per month and force non-residential users to cut consumption by 45 %. In its October 2017 *Seasonal Climate Watch* briefing, SAWS indicates the possibility of higher than average rainfall in the summer rainfall areas, associated with the El Niño Southern Oscillation (ENSO). This is expected to develop into a La Niña phase, albeit it a weak one, throughout the summer months to February. The higher number of rainfall days will be associated with lower than normal temperatures in the summer rainfall regions. The south-western Cape faces a long, hot summer with almost no rainfall days in the long term forecast.

South Africa is forecast to consume R10.47 million tonnes in the 2016/2017 season (AgBiz), whilst the harvest is currently expected to be a record 16.74 million tonnes; more than double the 2015/2016 crop of 7.778 million tonnes (Crops Estimate Committee). The white maize crop has been estimated at 9.89 m tonnes (+ 190 % over 2016 crop: 3.41 million tonnes) and the yellow maize crop at 6.85 million tonnes (+ 57 % over 2016 crop: 4.37 million tonnes). Maize plantings are expected to drop by 6 % in the 2017/2018 season because of depressed prices. A total of 2.2 million tonnes of maize were imported for use in South Africa between 30 April 2016 and 27 April 2017 (SAGIS); while exports totalled almost 928 000 tonnes. South Africa was a net importer of almost 1.33 million tonnes of maize in the 2016/2017 season. The National Agricultural Marketing Council (NAMC) estimates white maize available for export this season at 2.84 million tonnes at end of April 2018, and 2.38 million tonnes of yellow maize.

On 30 November, maize futures for December delivery of white and yellow maize were set at R1 882/t and R1 985/t, respectively. Maize futures for March 2018 delivery were set at R1 953/t and R2 045/t for white and yellow maize, respectively. Maize prices had peaked at around R5 300/t for white maize and R4 100/t for yellow maize in 2016. Soybean futures, for December and March delivery, have moderated to R4 842 and R 4 960/tonne respectively, as of 30 November. Soya prices had reached R 6 520/t back in mid-January 2017.