



ESSENTIAL FOOD PRICE MONITORING REPORT

MARCH 2023



Introduction

The Competition Commission (“Commission”) has been monitoring the price of essential foods since the onset of the COVID-19 pandemic in March 2020. While the effects of the pandemic on many markets have largely subsided, food prices continue to be elevated and vulnerable to supply shocks. A recent example is the disruption of the global grain value chain following the Eastern European conflict. Domestically, worsening loadshedding continues to affect the daily operations of businesses throughout the food value chain.

During the last few months of 2022, market indicators pointed to the risk of increases in the price of meat and particularly poultry products. Specific risk factors were high domestic and international feed costs, the spread of Avian influenza across Europe, the United States of America, and Mexico; import tariffs on poultry imports;

and the depreciation of the rand.¹ More generally, the Department of Trade, Industry and Competition’s (DTIC) Poultry Master Plan developed with input from various stakeholders identified several long-term challenges hampering the sector’s growth and performance. These are: i) the cost of feed; ii) the scale of production; iii) imports of certain chicken pieces; iv) the inability to export; and v) the slow pace of transformation throughout the value chain.

This edition of the EFPM begins with a review of price movements in essential food products before doing a deep dive into the poultry value chain.

Recent pricing development for essential foods

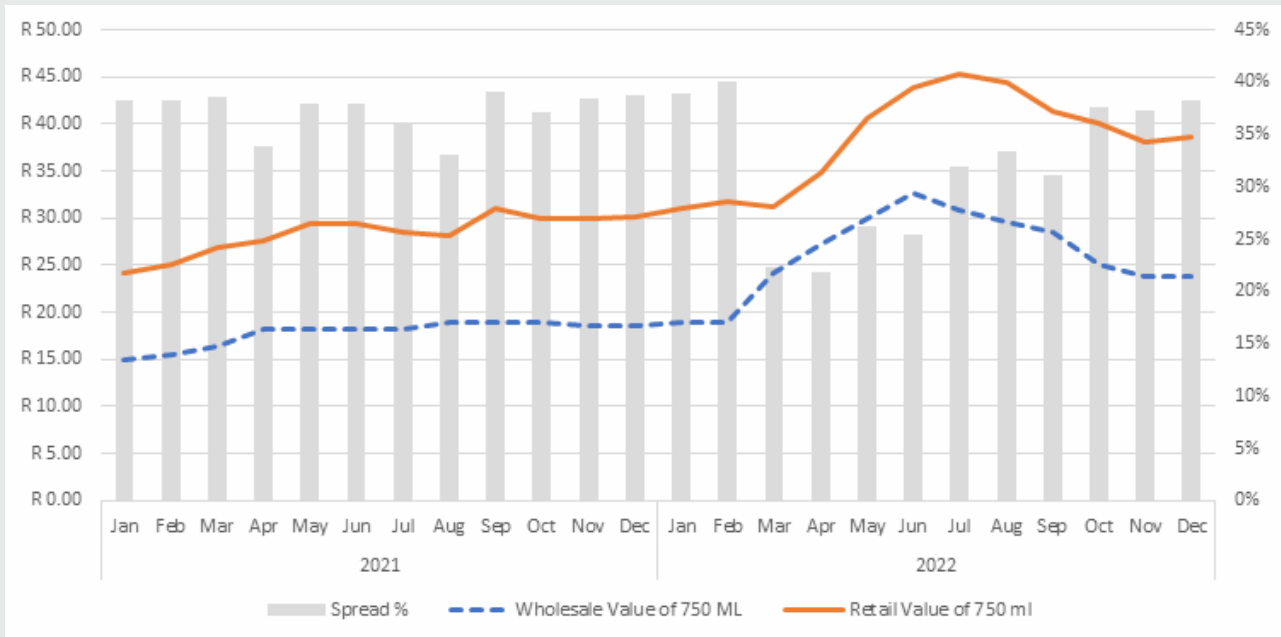
The Commission has continued to monitor the price of essential foods identified by the public and market commentary. These are sunflower oil, margarine, bread, and maize meal, and fruits and vegetables. We briefly track the price evolution of these products below.

Sunflower oil

The August 2022 edition of the EFPM Report focused on the price of sunflower oil in response to public concerns about steep price increases. Our analysis found that

¹ Business Tech. 2022. What to Expect from Meat Prices in South Africa Heading to December. Available online: <https://businesstech.co.za/news/lifestyle/641827/what-to-expect-from-meat-prices-in-south-africa-heading-to-december/>

Figure 1: Wholesale and retail prices of cooking oil



Source: Commission’s own calculation using StatsSA data

there had been a significant increase in the producer price of sunflower oil starting from March 2022. These increases were transmitted to retail prices. While these increases resulted in a widening of margins across the value chain, retailers appeared to have absorbed some of the increase resulting in lower retail margins from March 2022. Figure 1 presents the wholesale and retail prices of sunflower oil with the retail margin. From June to December 2022, the wholesale price of sunflower oil fell drastically from R32.72 to R23.88. The spotlight on conduct by processors of cooking oils in the August EFPM report likely contributed to this decline and those companies remain under investigation. Retail prices fell from R45.33 in July 2022 to R38.71 in December 2022. The steeper decline in wholesale prices relative to retail prices has resulted in the retail margin increasing to 38% in December 2022 from 22% in March 2022. The fact that retailers have been quick to increase percentage margins has meant that consumers have not seen the extent of relief that wholesale price drops would warrant. The percentage margins may be similar to 2021, but the higher wholesale price means that the retailers are taking more Rand margin than before which is unlikely to be justified. The net effect of processor and retailer conduct in 2022 is that consumers are still paying far more for cooking oil than in 2021. The Commission remains concerned about the cooking oil value chain pricing and is currently conducting a formal investigation.

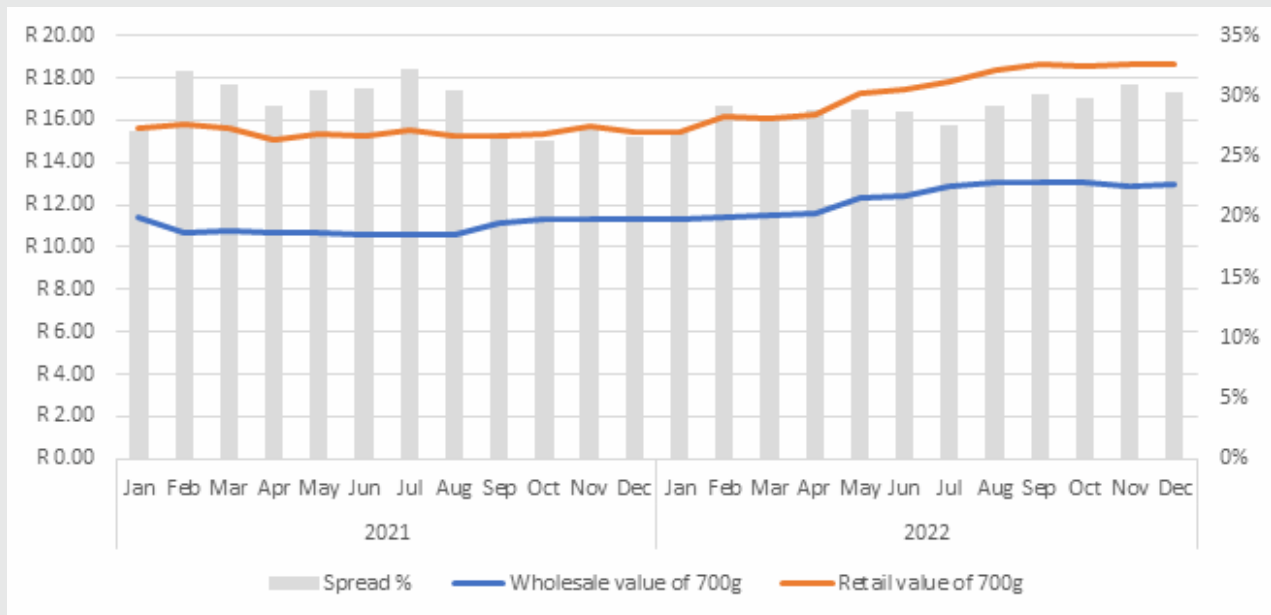
Bread

Figures 2 and 3 present the wholesale price and retail

prices of white bread and brown bread respectively. From January 2022 to December 2022, the retail price of white bread (figure 2) increased from R15.47 to R18.62, an increase of 20%. Over the same period, the wholesale price went from R11.31 to R12.97, a 15% increase. The retail spread percentage, therefore, went from 27% to 30% in percentage terms but in Rand terms from R4.16 to R5.65. As shown with cooking oil, applying the same margins on a higher cost base results in much higher Rand margins which is unlikely to be justified by actual shelf cost increases. However, the spread was volatile in 2022, often moving by 2 percentage points from month to month, which indicates delayed price transmission from wholesale to retail prices.

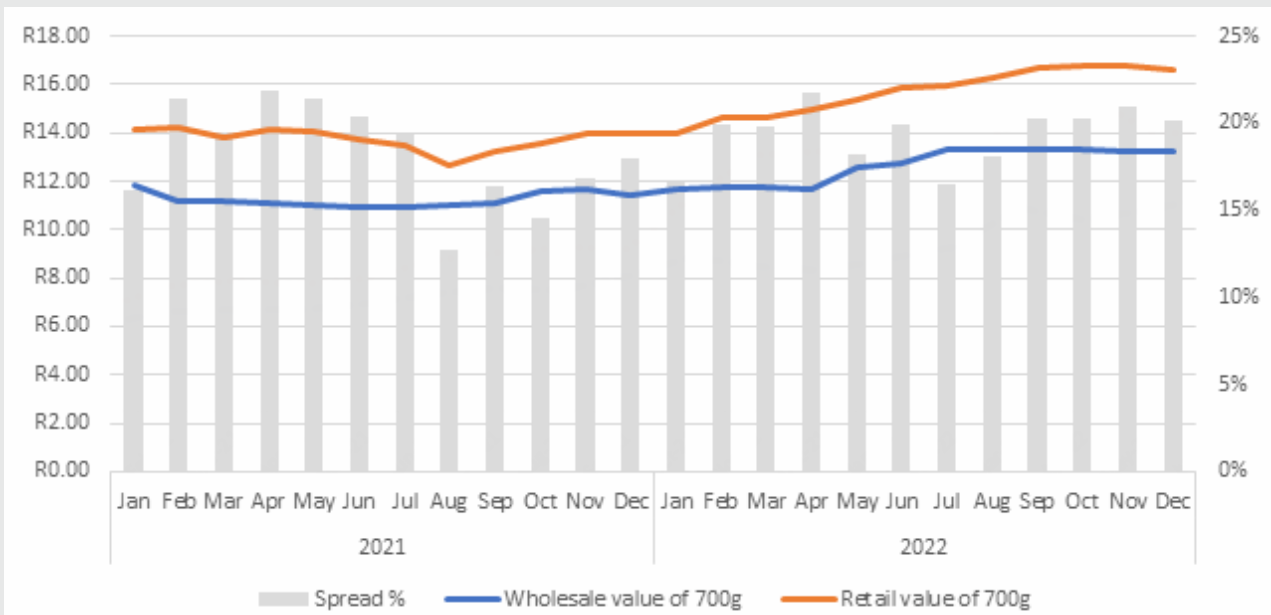
The retail price of brown bread in 2022 increased faster than the wholesale price from January to April resulting in a widening spread. In January 2022, the retail price was R13.99 and went to R14.93 by April 2022. Over the same time, the wholesale price remained stable at R11.67. The spread widened from 17% to 22% as a result. There was an increase in the wholesale price, which lowered the spread to 18% in May 2022. The retail spread then increased to 20% in September where it remained until the end of the year. Overall, the retail price of brown bread increased by 19% (R13.99 to R16.61) and the wholesale price by 14% (R11.67 to R13.26). The retail margin in Rands increased from R2.32 to R3.35 reflecting a similar trend to that of white bread where retailers have sought to take much more Rand margin on this staple.

Figure 2: Wholesale and retail value of white bread (700g)



Source: Commission’s own calculation using StatsSA data

Figure 3: Wholesale and retail value of brown bread (700g)



Source: Commission’s own calculation using StatSA data

Maize meal

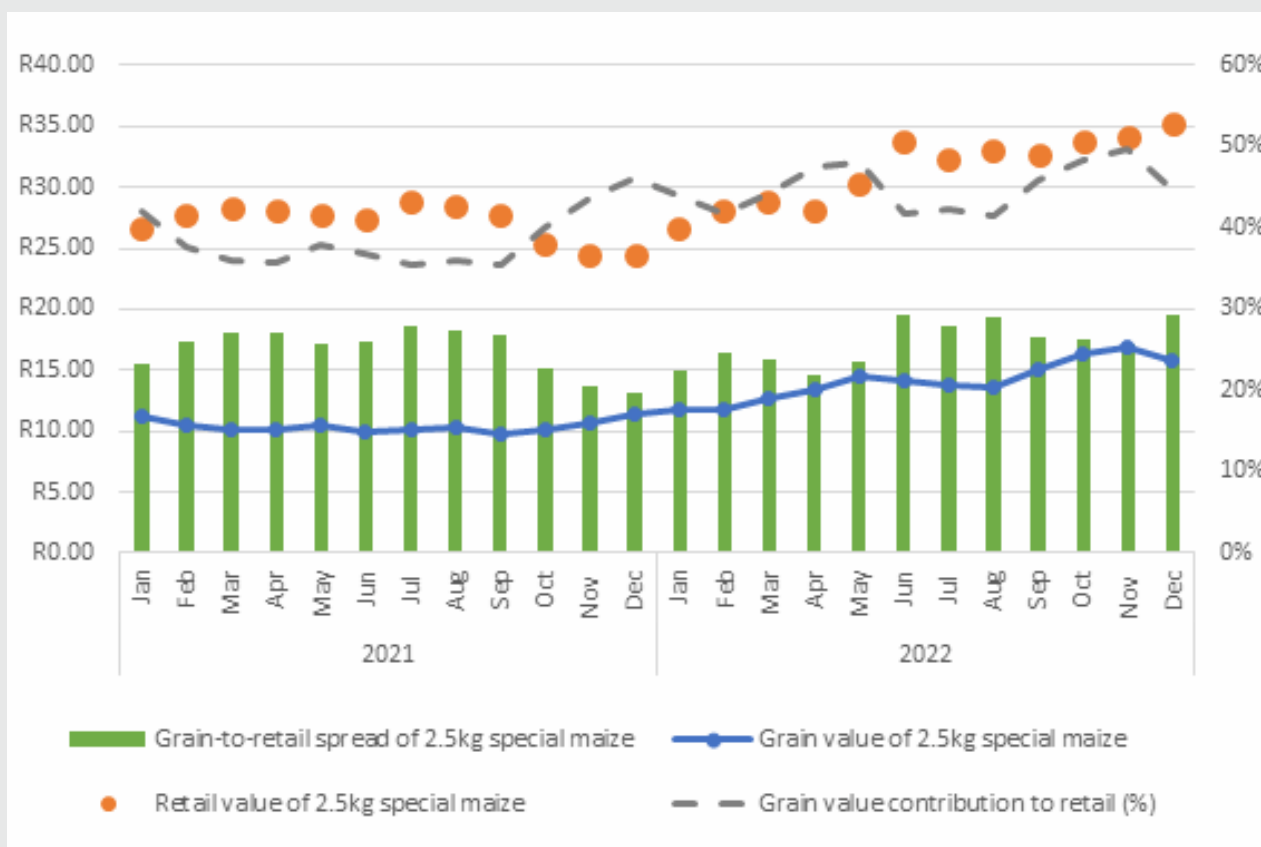
The price of maize meal increased steadily over 2022 following a period of declining prices in 2021. From January 2022 to December 2022, maize meal prices increased by 32% going from R26.62 to R35.19. The bulk of this increase took place in the second quarter of the

year when prices went from R28.01 to R33.61 from April to June 2022. Maize meal prices were volatile for the rest of the year through remained at a higher price point. The SAFEX price of white maize increased steadily over 2022 and only started at the end of the year. However, the maize meal price increased at a fast rate resulting in

a wider grain-to-retail spread and low grain contribution to the maize price for most of the year. Such decoupling is concerning and may indicate opportunistic behaviour throughout the value chain. The Commission will continue to monitor the extent and pace at which decreases are transmitted to consumer prices.

The large domestic surplus means that the pricing is being driven more by global export parity pricing than domestic cost pressures. This has resulted in some commentators questioning whether there is a need to delink the two to contain maize prices which will benefit lower-income households directly, but also indirectly through lower feed prices for essential protein sources (discussed later in this edition).²

Figure 4: Retail price of 2.5kg super maize meal



Source: Commission's own calculation using StatsSA data

Top five vegetables

Vegetables are largely insulated from global markets and reflect domestic market outcomes. Figure 5 shows the average price of the vegetables tracked by the Commission. Over the year 2022, the prices of carrots, potatoes, and cabbage were generally stable and in the case of carrots and potatoes declined during the middle of the year rising from September onwards. Tomato prices were volatile but declined during the first half of the year before increasing in the middle and falling between August and October. Onion prices increased steadily from January to August, however, prices shot up

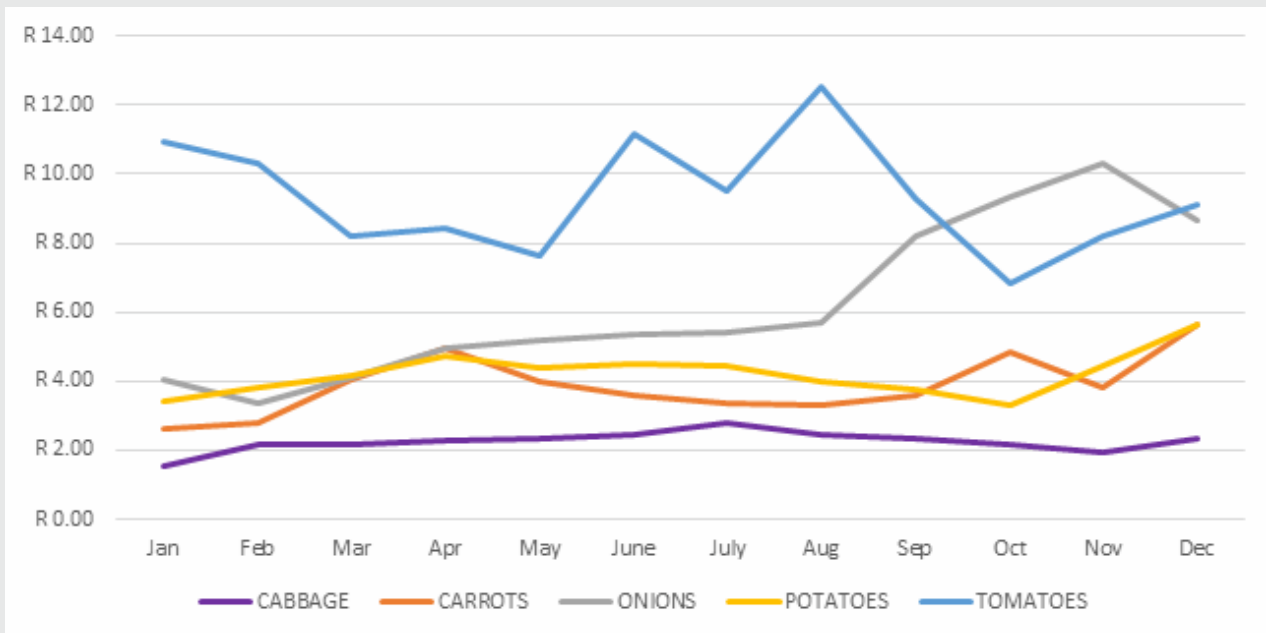
from August to November before coming down slightly in December. It is unclear what is driving the price of onions as these increases appear to be more than simply seasonal variations.

Top five fruits

Fruits too are driven mainly by domestic market outcomes, although the export of certain fruits does expose pricing to global markets to some extent. The price of the fruits tracked by the Commission fell over the course of 2022, with avocado falling the most followed by oranges. Most of the price declines occurred from

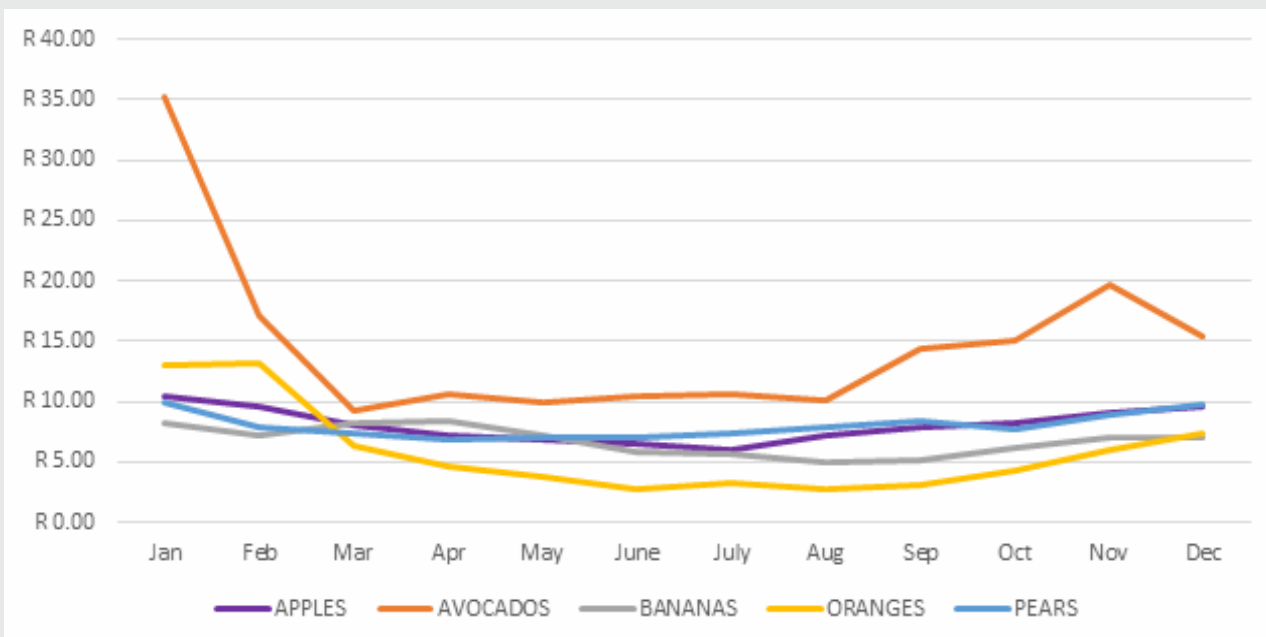
² Makgetla, N. 2023. Longer-term measures needed to reduce prices of staple foods. Available online: <https://www.businesslive.co.za/bd/opinion/columnists/2023-02-07-neva-makgetla-longer-term-measures-needed-to-reduce-prices-of-staple-foods/>

Figure 5: Top five vegetables tracked by the Commission (2022) per kilogram.



Source: Commission's own calculation using Johannesburg Municipal Market Data

Figure 6: Top five fruits tracked by the Commission (2022) per kilogram.



Source: Commission's own calculation using Johannesburg Municipal Market Data

January to July 2022, after which prices for all the fruits started to rise again. Avocados and oranges increased the most with avocados going from R10.16 per kg in August to R15.34 in December, an outcome of their

seasonality. Oranges increased from R2.71 in August to R7.29 per kg in December.

The Poultry Value Chain

Astral Foods Ltd (“Astral”), the largest vertically integrated poultry producer in South Africa, released a trading update on 25 January 2023, cautioning the market about deteriorating trading conditions affecting its feed and poultry divisions. The company identified “high feed costs” as among the leading challenges facing their operational profitability. In Astral Foods’ case, the effects of these adverse trading conditions have been most acutely felt by the poultry division through production cutbacks and backlogs in the broiler slaughter programme. Astral reports that the cost price for broilers is now R2.00 per kilogram lower than the selling price.³

Against this background, this edition of the Essential Food Price Monitoring Report examines the relationship between animal feed and poultry prices. In South Africa, the poultry sector is highly concentrated and dominated by vertically integrated firms. Such a market structure raises concerns that these firms could use their market power to achieve anti-competitive prices. Further, these firms also supply many of their rivals with feed and compete with rivals in the marketing of poultry. This supplier relationship can also be exploited to anti-competitive ends. Specifically, we use publicly available data to examine the extent to which rising feed costs, which make up more than two-thirds of poultry production costs, have affected the producer and retail prices of widely consumed chicken products and whether the increases in chicken product prices are justified given prevailing feed prices.

The South African poultry sector enjoys high levels of trade protection that include Most Favoured Nation tariffs, anti-dumping tariffs, and import quotas. This trade protection is intended to insulate the local industry from unfair trade competition while supporting the industry’s growth. However, imports play a role in constraining local prices. This report also considers the extent to which imports and recent trade protection decisions may have affected producer and retail prices of widely consumed chicken products.

Chicken is, without doubt, the most popular meat choice with an annual per capita consumption of 38 kg; beef is the second most popular with an annual per capita consumption of 16.9 kg. As chicken is a staple product, chicken price increases are highly regressive since the poorest 10% of households spend up to 7% of their total expenditure on chicken products, compared to the 1% spent by the wealthiest 10% of households.⁴ The importance of affordable chicken is further highlighted by consumer behaviour in the current economic climate; faced with increased red meat prices, consumers have substituted beef and lamb for chicken to ease budgetary constraints.⁵ Bone-in (brown) chicken cuts are the product of choice for South African consumers and account for 60% of total chicken meat demand. Consumers purchase them in 2 kg and 5 kg mixed packs of individually quick frozen (IQF) pieces. Fresh chicken meat makes up less than 10% of total chicken consumption and is regarded as a premium product relative to frozen and brined bone-in chicken pieces.

Raising chickens for human consumption is a knowledge and capital-intensive process involving several processes and inputs. However, the significant share of input costs is feed, which is 65 - 73% of broiler production costs.⁶ Astral estimates that feed costs make up 70% of the total cost of producing a live broiler ready for slaughter.⁷ The poultry industry is also the largest consumer of animal feed in the local market.⁸ Any shocks in the feed market, therefore, have a tangible and direct effect on broiler and chicken production costs and ultimately prices paid by consumers. Further upstream, the cost of feed manufacturing is largely driven by grains and oilseeds as raw materials make up 85% of feed manufacturing costs.⁹ The feed industry is among the largest grain product consumer. Shocks in those markets also cascade down to the prices that consumers pay for chicken. Considering the leading role that feed has in driving the sustainability of poultry production, the largest chicken manufacturers are vertically integrated into feed production. This feed is used for internal consumption with excess sold to non-integrated poultry farmers.

- 3 Astral Foods. 2023. Voluntary Trading Update. Available online : <https://www.astralfoods.com/assets/Documents/News/SENS/2023/SENS%20Announcement%20-%20Voluntary%20trading%20update%20-%2025%20January%202023.pdf>
- 4 Edwards, L. et al. 2022. The consumer price effects of specific trade policy restrictions in South Africa - South African Reserve Bank Working Paper Series WP/22/15.
- 5 Botha, L. 2022. Consumers switch to chicken as lamb and beef prices rise. Available online: <https://www.farmersweekly.co.za/agri-news/south-africa/consumers-switch-to-chicken-as-lamb-and-beef-prices-rise/>
- 6 South African Poultry Association. 2021. Industry Profile. Available online: <https://www.sapoultry.co.za/wp-content/uploads/2023/01/2021-Industry-Profile.pdf>
- 7 Astral Foods Ltd. 2022. Astral Integrated Report - 30 September 2022. Available online: <https://www.astralfoods.com/assets/Documents/Investor%20Centre/2022/IntegratedReport30September2022.pdf>
- 8 Pienaar, L., Meyer, F., Otterman, H & Davids, T., 2021. Deep-Dive of the Animal Feed Industry in South Africa: Strategic Analysis. Report Commissioned by the Animal Feed Manufacturers Association of South Africa. Pretoria: Bureau for Food and Agricultural Policy (BFAP).
- 9 Pienaar, L., Meyer, F., Otterman, H & Davids, T., 2021. Deep-Dive of the Animal Feed Industry in South Africa: Strategic Analysis. Report Commissioned by the Animal Feed Manufacturers Association of South Africa. Pretoria: Bureau for Food and Agricultural Policy (BFAP).



Vertical integration also provides these firms with a hedging mechanism against a range of adverse scenarios. Astral, for example, expects its feed division to achieve higher sales because slaughtering delays mean that chickens must be fed for longer.¹⁰ At the group level, this may compensate for losses experienced by the broiler business. However, unintegrated players do not have the same built-in risk management strategy and the profitability, competitiveness, and sustainability of their entire operation is determined by how they source and

manage feed for growing broilers. From a competition policy perspective, the unintegrated players are in a vertical supply relationship with the vertically integrated firms as well as a horizontal competitor relationship. This is a potential cause for concern since it grants the vertically integrated firms a degree of influence over their unintegrated rivals, which may be abused to the benefit of their downstream broiler and chicken product businesses.

Value chain and industry background

The local feed-to-poultry industry can be characterised as dualistic and highly concentrated; five producers account for nearly 70% of total chicken production.¹¹ Of these five, the top two producers: RCL Foods (“RCL”) and Astral make up 50% of the market. Small and medium enterprises and imports serve the remainder of the market.¹² Feed is produced by dedicated feed manufacturing firms, feedlots, and informal millers. Most dedicated feed manufacturing firms are members of the Animal Feed Manufacturers Association (AFMA); this includes the manufacturers of broiler feeds who account for nearly 40% of the feed manufactured by AFMA members.¹³ The top five producers of broiler feed are Nutri Feeds (part of Country Bird Holdings), Epol (part of RCL), Meadow Feeds (part of Astral), and Nova Feeds (part of Quantum Foods).

The feed-to-poultry value chain involves several activities, which are shown in Figure 7. The activities at each level of the value chain are explained below.

Animal feed is produced by feed mills that source and combine grains with vitamins, minerals, and salts to meet the animals’ nutritional needs. Feed mills purchase a range of inputs from i) farmers directly in raw form; ii) the agro-processing industry as by-products; and iii) imported from other countries. The inputs are combined to provide animals with energy, protein, and fibre source together with vitamins and minerals.¹⁴

- Maize is the most common energy source used in

animal feed; around 5.6 million tons of maize were used by the animal feed industry in 2020. Of this, approximately 80% was locally grown yellow maize and approximately 20% was white maize. A further 2.3 million tons of maize residues contribute towards the animal feed industry’s interaction with the maize value chain.¹⁵

- Oilcake, a by-product of oilseed crushing, provides the protein source. In 2020, the animal feed industry used 2 million tons of oilcake. Of this, soya oilcake accounted for 49% and sunflower oilcake for 17%. The balance was made up of other oil products and imports. A further 183,000 tons of fat was sourced directly from farms in the form of soya (82%) and cotton (11%).¹⁶
- Wheat bran and molasses are commonly used fibre sources in animal feeds. Adding a further interaction with the wheat and sugar milling sectors. In 2020, animal feed producers purchased 690 thousand tons of wheat bran and 702,000 tons of molasses.¹⁷
- Vitamins, minerals, and medicines are also added to animal feed to support animal growth and health. The industry purchased 815 tons of these in 2020.¹⁸

The above components are combined to form different formulations based on the nutritional requirements of different animals and their different uses. In the case of poultry, feeds are categorised according to the different growth stages of a bird. Starter feeds are formulated

10 Astral Foods. 2023. Voluntary Trading Update. Available online: <https://www.astralfoods.com/assets/Documents/News/SENS/2023/SENS%20Announcement%20-%20Voluntary%20trading%20update%20-%2025%20January%202023.pdf>

11 Competition Commission (2021) Measuring Concentration and Participation in the South African Economy: Level and Trends, table 102 & Edwards, L. et al. 2022. The consumer price effects of specific trade policy restrictions in South Africa - South African Reserve Bank Working Paper Series WP/22/15.

12 Ibid

13 Who Owns Whom. 2021. Manufacture of prepared animal feeds and pet food in South Africa.

14 Who Owns Whom. 2021. Manufacture of prepared animal feeds and pet food in South Africa.

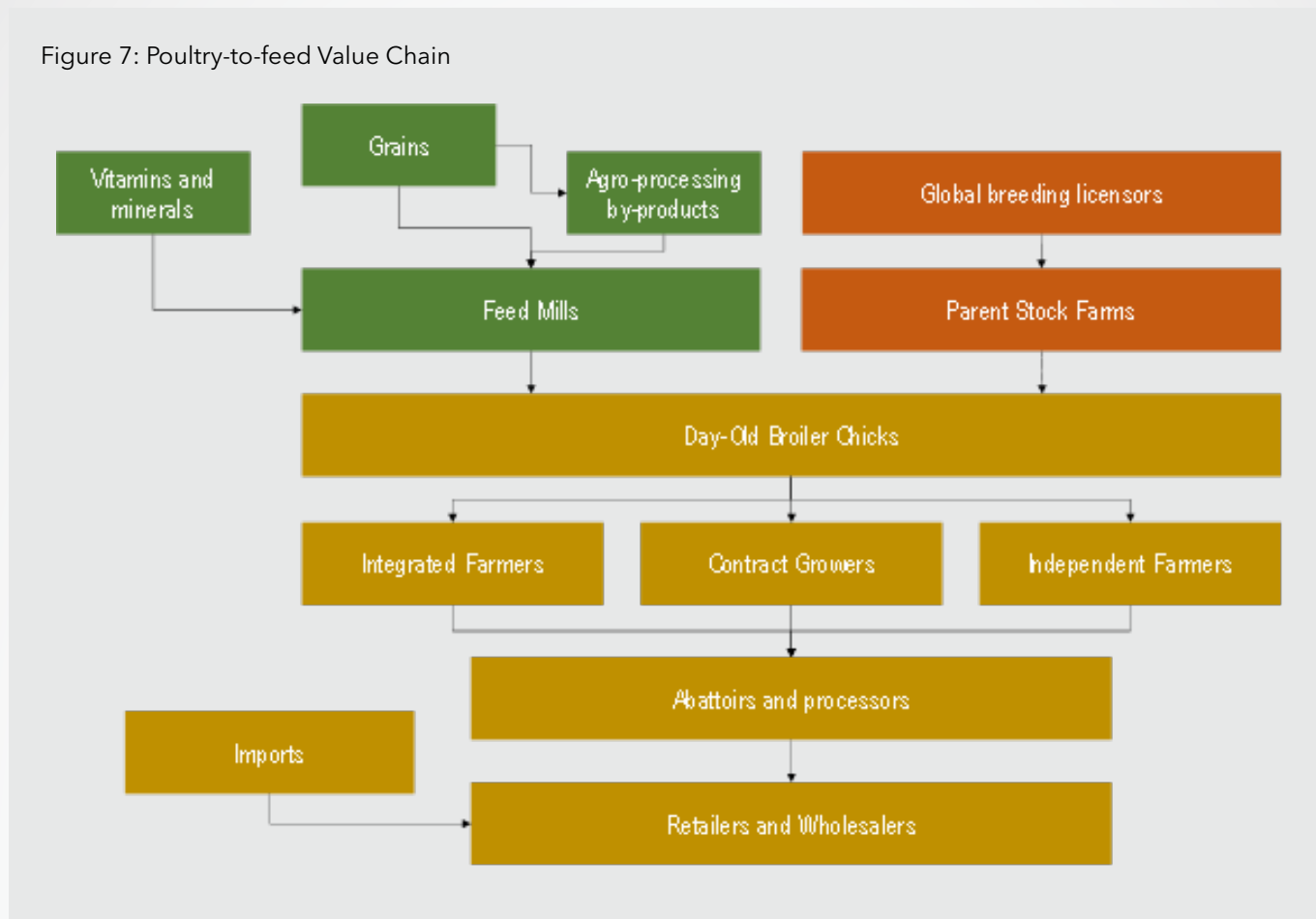
15 Pienaar, L., Meyer, F., Otterman, H & Davids, T., 2021. Deep-Dive of the Animal Feed Industry in South Africa: Strategic Analysis. Report Commissioned by the Animal Feed Manufacturers Association of South Africa. Pretoria: Bureau for Food and Agricultural Policy (BFAP).

16 Ibid

17 Ibid

18 Ibid

Figure 7: Poultry-to-feed Value Chain



Sources: Commission’s adaptation from the Southern African poultry value chain: Corporate strategies, investments, and agro-industrial policies

for day-old chicks to 16 days old; grower feeds are formulated for birds between the ages of 17 and 30 days old; and finisher feeds are for birds between the ages of 31 and 38 days old. Overall, broiler chickens consume about 3.4 million tons of the animal feed produced in South Africa followed by egg layers and breeders that consume 1.8 million tons.¹⁹

Globally, 90% of all broiler production is from breeds owned by Aviagen and Cobb-Vantress. These companies hold the intellectual property for breeding stock that is licensed to holders who have the rights to breed grandparents and to supply day-old parent stocks to the market. The predominant breeds of broilers in South Africa are Cobb 500 (owned by Cobb-Vantress), Ross 308, and Arbor Acres (owned by Aviagen).²⁰ Only four South African companies have distribution rights for these breeds in South Africa. Ross 308 is supplied by Astral; Cobb 500 is supplied by RCL Foods and

Quantum Foods; Arbor Acres is supplied by Country Bird Holdings.²¹

Local distributors supply parent stock to their own integrated breeding operations and to unintegrated companies. Specifically, parent birds are reared until they can produce fertilised eggs. These eggs are transferred to hatcheries where they are hatched to produce day-old broiler chicks, which are sold to independent farmers or continue to be reared by fully integrated companies. Rearing is done by contract farmers, the firm’s poultry farms, or independent farmers.

Once the chicks are fully grown, they are slaughtered at an abattoir and processed for sale in the retail market and fast-food restaurants. In the retail market, chickens are sold as individually quick frozen (IQF) or fresh pieces or whole chicken. Offal such as hearts, gizzards, necks, and livers are also sold by retailers. A small proportion of chickens are sold live in the informal sector. The most

19 Pienaar, L., Meyer, F., Otterman, H & Davids, T., 2021. Deep-Dive of the Animal Feed Industry in South Africa: Strategic Analysis. Report Commissioned by the Animal Feed Manufacturers Association of South Africa. Pretoria: Bureau for Food and Agricultural Policy (BFAP).

20 South African Poultry Association. 2021. Industry Profile. Available online: <https://www.sapoultry.co.za/wp-content/uploads/2023/01/2021-Industry-Profile.pdf>.

21 Ibid

prominent chicken brands in the South African market are owned by the vertically integrated, some of whom own multiple brands. This is summarised in figure 8 below.

Chicken consumption in South Africa exceeds local production requiring imports to fill the gap. The South African Poultry Association (SAPA) estimates that in 2021, chicken production was 1.9 million tonnes against the consumption of chicken meat of 2.3 million tonnes.²² In the same year, South African Revenue Services (SARS) data shows that 405 000 tonnes of chicken products were imported into South Africa:

- 181 000 tonnes (45%) of mechanically deboned meat, which is used to produce processed meat such as polony, was imported in 2021.
- 204 000 tons (50%) of imported chicken were frozen pieces and offal.
- 20 000 tons (5%) was of fresh and chilled pieces and offal.

In 2022, 359 000 tonnes of chicken products were imported as follows:

- 189 000 tons (53%) of mechanically deboned meat,
- 161 000 tons (45%) were frozen pieces and offal.
- 7 000 tons (2%) were fresh and chilled pieces and offal.

Chicken imports, particularly bone-in portions, have been the subject of trade disputes resulting in the imposition of trade tariffs and anti-dumping duties.

Imports compete directly with locally produced IQF, which as mentioned, is the backbone of the local market. In higher-income markets such as the United States of America (USA) and the European Union (EU) consumers prefer breast meat because it is perceived to be healthier than other cuts. The premium on breast meat, therefore, allows producers to sell bone-in portions at very low prices while maintaining a positive overall margin. This is known as ‘balancing the carcass’. Producers from these markets, accordingly, export products to South Africa at prices that domestic producers have often said that they cannot meet given the cost of local broiler production.

Chicken producers in Brazil and the United States also benefit from lower costs for inputs such as maize and soya beans on account of state subsidies to these industries. As these inputs contribute significantly to the share of production costs, subsidies in these industries increase the international competitiveness of their chicken industries. Brazil is the largest exporter to South Africa notwithstanding the provisional anti-dumping duties implemented between December 2021 and June 2022.²³ In response to cheaper imports, there has been an imposition of trade remedies to protect domestic businesses and jobs. These tariffs target frozen whole chicken and bone-in prices and have increased from 27% to 82% in the case of the former and 18% to 62% for the latter.²⁴

Figure 8: Value chain presence of major poultry players



22 South African Poultry Association. 2021. Industry Profile. Available online: <https://www.sapoultry.co.za/wp-content/uploads/2023/01/2021-Industry-Profile.pdf>.

23 Astral Integrated Report 30 September 2022

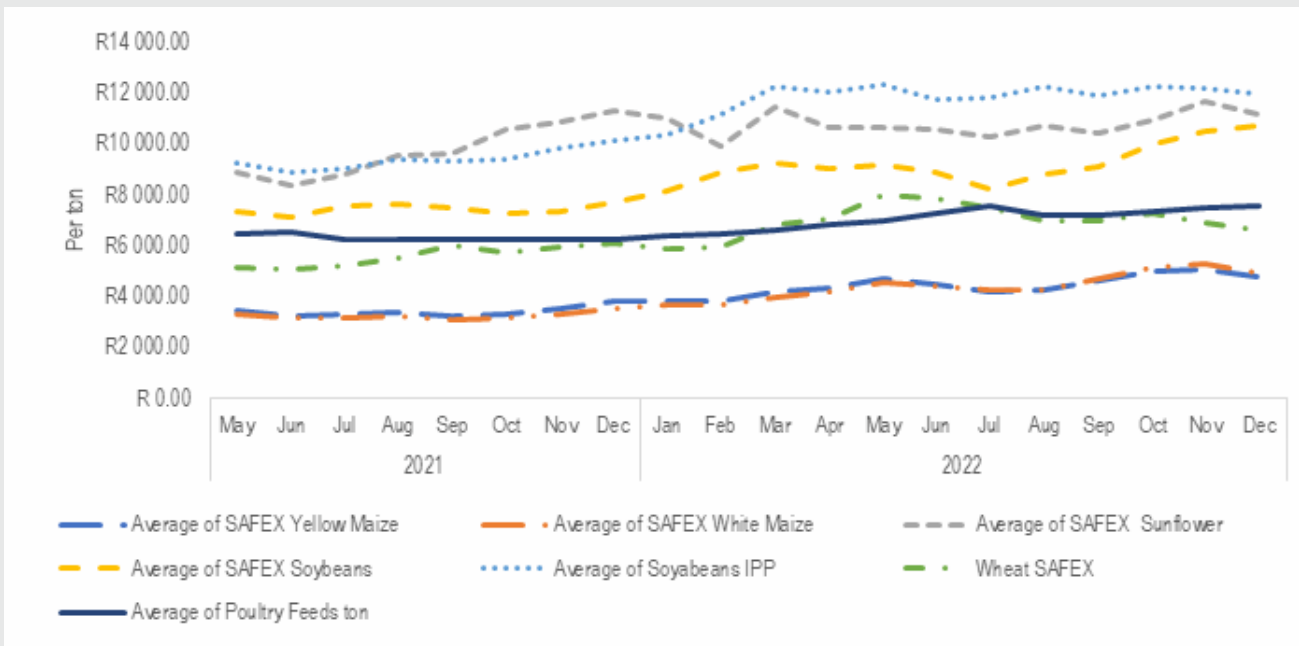
24 Edwards, L. et al. 2022. The consumer price effects of specific trade policy restrictions in South Africa - South African Reserve Bank Working Paper Series WP/22/15.

Feed Price Analysis

Figure 9 shows the average price of poultry feed against the SAFEX spot price of the grains and oilseeds which are used to produce feed.²⁵ These grains and oilseeds and their by-products account for 79% of the feed industry’s raw material consumption. Poultry feed prices (solid blue line) were relatively stable compared to the price of raw materials, which were considerably more volatile. The feed price trend does, however, follow the smoother price of maize. This relationship is unsurprising as maize accounts for the largest proportion of the raw materials used in feed production. Local soya bean

prices increased substantially in the second half of 2022 together with local sunflower seed prices. The price of wheat, however, steadily declined for most of 2022 following a large increase from January 2022 to May 2022. Poultry feed prices reached their highest level for the review period of R 7 614 per ton in July 2022; a 21% increase from July 2021. Overall, it appears that poultry feed producers have been operating in an environment characterised by volatile and rising raw material prices. The extent to which volatility has affected margins is unclear from this comparison alone.

Figure 9: Raw material against poultry feed prices from May 2021 to December 2022.



Source: SAFEX, StatsSA

To better identify the cost pressure from raw materials faced by poultry producers, we used the industry purchasing statistics to construct a weighted average raw material cost price for feed. Table 1 shows the relative proportions of the above raw materials purchased by

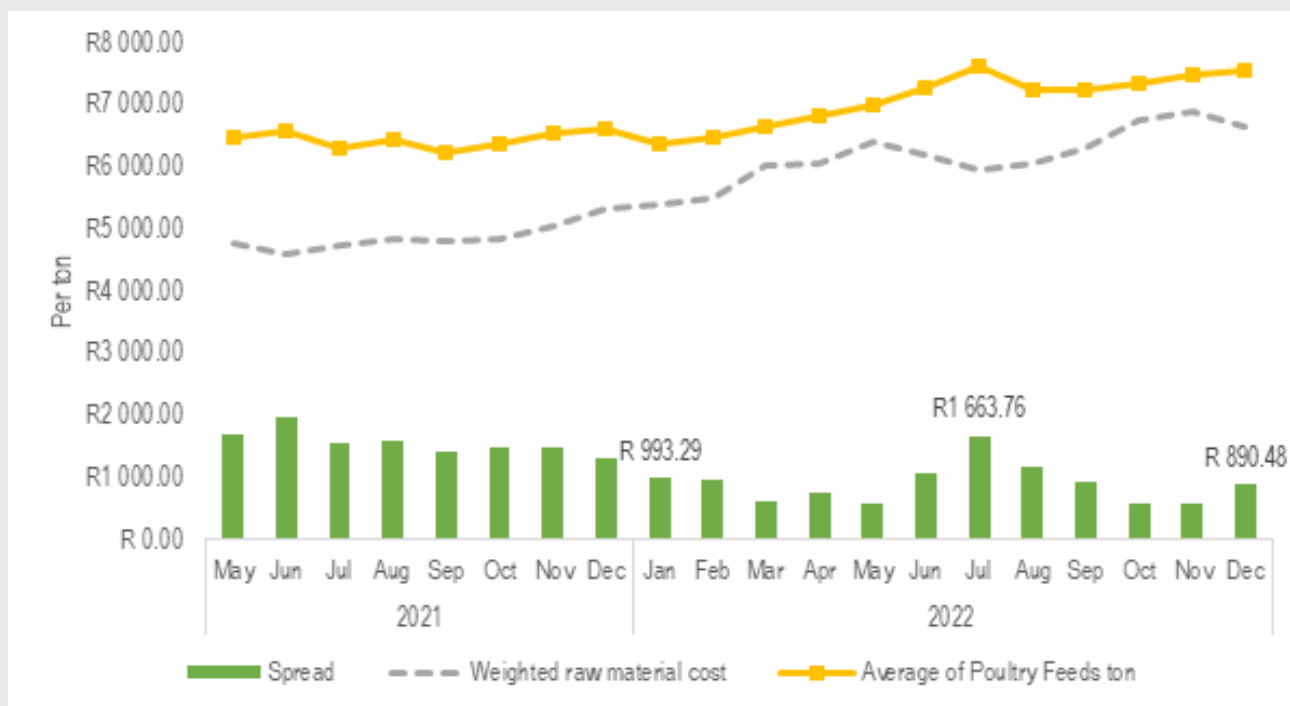
the industry (AFMA members) from April 2021 to March 2022. As mentioned, these are 79% of the industry’s purchases, therefore we increase their proportion by a factor of 1.264 to reach 100% to construct the weighted average raw material cost.

	Actual proportion	Proportion in weighted raw material cost
White Maize	24%	30%
Yellow Maize (and other maize products)	27%	35%
Local Soya Oilcake (and other soya products)	11%	14%
Imported Soya Oilcake	6%	8%
Wheat (all related products)	7%	9%
Sunflower (all related products)	3%	4%
Total	79%	100%

Sources: Animal Feed Manufacturers Association

²⁵ The data is shown from May 2021 due to data constraints for poultry feed prices.

Figure 10: Raw material costs compared to poultry feed from May 2021 to December 2022.



Sources: Commission’s own calculation using SAFEX, StatsSA data

As figure 10 shows, the weighted raw material cost of feed has increased at a faster rate than the actual price of poultry feed resulting in a narrower spread between cost and price. In May 2021, the weighted raw material cost was R 4 787 per ton and had increased to R 5 320 per ton by December 2021, an 11% increase. Despite some significant increases in the price of raw materials such as sunflower seed, the price of poultry feed in the second half of 2021 remained stable increasing by 2.2%. As a result, the raw material-to-feed spread fell by 22% from R 1 700 to R 1 309 which may indicate tighter margins in feed manufacturing. In the first half of 2022, the increase in the cost of raw materials continued at an average growth rate of 2.2% per month going from R 5 391 per ton in January 2022 to R 6 205 in June 2022. Over the same period, poultry feed prices increased by 14%. There may be a lagged relationship between raw materials and feed prices meaning that increases in raw materials prices observed in the latter half of 2021, were only transmitted over the first half of 2022. At the end of 2022, there was another sharp increase in the price of raw materials while feed prices did not increase as severely resulting in a narrowing spread. Overall, margins were under pressure in 2022. The raw material-to-feed spread declined steadily from January to May 2022 followed by a slight bump in June and July before declining to its lowest level of R580 in November 2022.

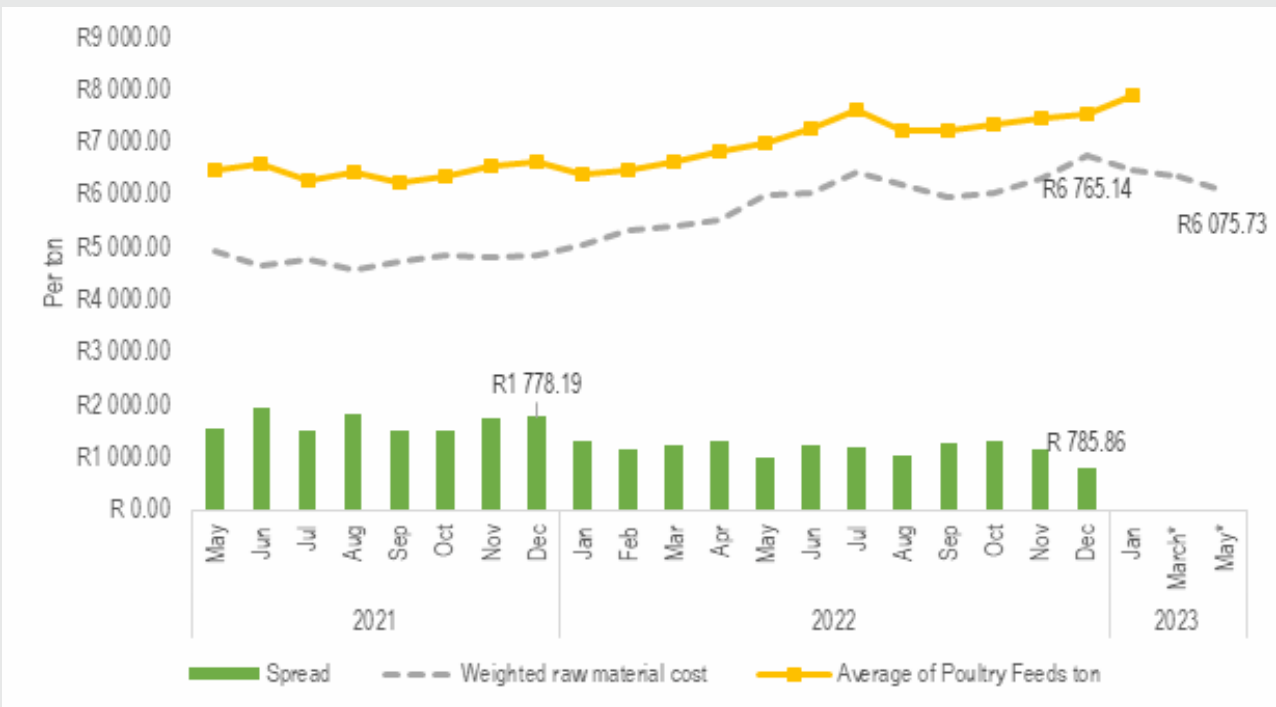
Large buyers of grains and oilseeds purchase their raw materials on a forward-looking basis. As such, there is a

delay in the transmission of the cost of raw materials to the price of grain and oilseed products. Equally, this is true of feed buyers. Whereas the weighted average raw material cost and feed price in figure 10 has a correlation coefficient of 0.86, using a two-month lag as in figure 11 yields a correlation coefficient of 0.95 confirming that the price of feed is better explained by the price of raw materials two months prior. While the same pattern and relationship hold with respect to the prices of raw materials and poultry feed when lagged, the changes in the spread are less pronounced on a lagged basis but indicate the cost pressure on feed manufacturers.

While the raw material-to-seed spread declined from R 1 570 to R 1 778 (13%) from May 2021 to December 2021, it sharply decreased in January 2022 to R 1 333 - a 24% drop from the previous month. The raw material-to-seed spread was volatile for much of 2022 shown by sharp month-to-month swings. The wider spreads in June and July may have allowed feed producers to recoup losses from the early months. However, the raw material-to-feed spread narrowed significantly in the last three months of 2022. At the same time, the feed prices and raw materials costs were both rising, an indication that feed producers struggled to pass on raw material cost increases from the previous months.

Given that raw material costs increased in November and December 2022, it is likely that feed prices for January and possibly February 2023 will come in higher than

Figure 11: Lagged raw material costs compared to poultry feed from May 2021 to December 2022.



Source: Commission own calculation using SAFEX, StatsSA data

December 2022. However, based on the January 2023 price of raw materials, there may be a decrease in the price from March 2023. Furthermore, the March 2023 and May 2023 grain contracts also indicate decreasing raw material prices, which may further reduce the price of animal feed.

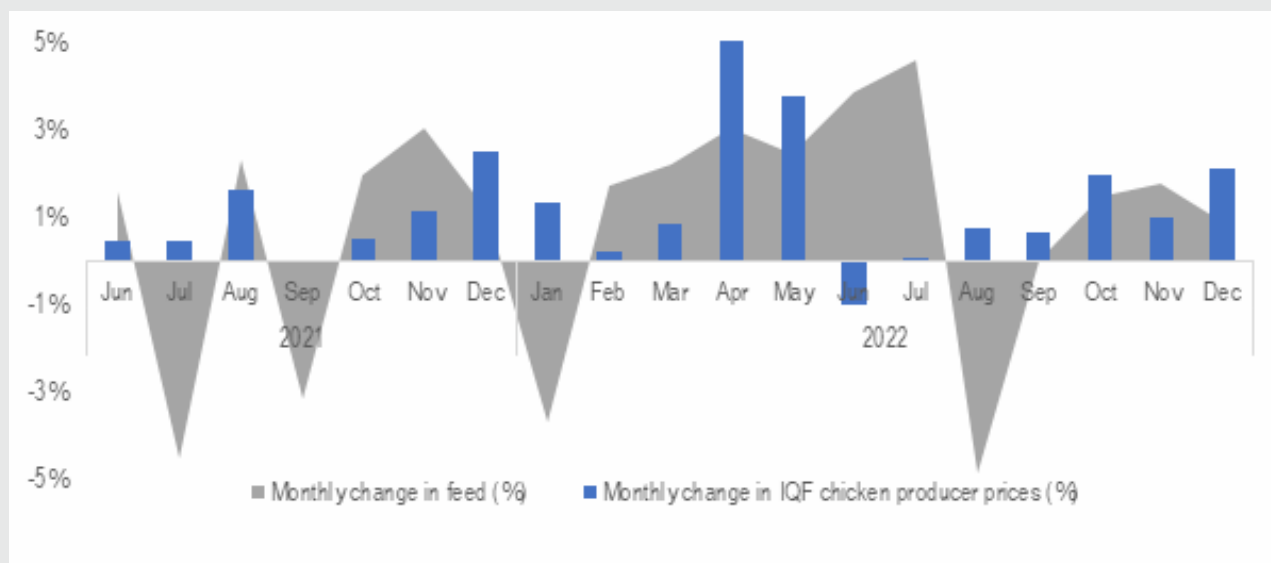
From the preceding analysis, the price of grains for producing animal feed has been a significant source of upward pricing pressure in the feed-to-poultry value chain. The shrinking spread also suggests that feed manufacturers may have absorbed the increase in raw materials instead of passing it through to their customers. As raw materials account for approximately 85% of the total cost of feed manufacturers, they are an important element of price formulation throughout the feed-to-poultry value chain. The observed increases are therefore concerning when considering that feed makes up nearly 70% of the cost of raising chickens for slaughter. The potential effect of feed costs on the end price of chicken may also be worsened by the degree of vertical integration throughout the value and market power held by firms operating upstream in the supply of day-old chicks and feed. While vertical integration may allow firms to realise certain efficiencies through improved coordination, it also means that large firms can exploit their upstream dominance to restrict competition in downstream markets.

The poultry sector compares the change in the cost of feed with the change in the broiler selling price to measure the margin performance of the sector. In the

absence of publicly available broiler selling prices, we use the producer price of IQF chicken as a proxy to conduct similar analysis. This is not a perfect comparator as IQF chicken is processed further than a broiler and feed is likely less important or determinative of IQF chicken prices than it is of broiler prices. Nonetheless, it is a non-negligible cost that feeds into the price formation of all chicken products.



Figure 12: Comparison of changes in feed prices and IQF chicken producer prices.



Sources: Commission own calculation using StatsSA data

Figure 12 shows the month-to-month price change of poultry feed and producer prices of IQF chicken. Poultry feed prices have increased at a faster rate than producer prices especially from February 2022 to July 2022 when prices increased constantly from month to month. The increase in IQF prices exceeded the increase in feed prices for only two of those five months, indicating a period of tight margins in the poultry sector.

The observations above (figure 12) are consistent with the results from major poultry producers. Both large firms report upward pressure from commodity prices and feed. However, Astral and RCL were able to improve the overall performance of their poultry business despite rising input costs. Both attribute the ability to recover cost increases through higher prices as a driver of their performance.

- Astral reported that broiler feed prices increased by 11.6% compared to the previous year due to higher raw material costs. In the same period, Astral's broiler

sales realisations (a measure of revenue) increased by 12.5% to "recover the significant increase in feed prices...as well as rapidly rising energy costs through the period under review." The operating profit for the poultry division increased by 419.9% and the operating profit margin improved to 4.8% due to record parent stock sales values, and improvements in average daily weight gain and feed conversion efficiency.²⁶

- RCL also reported that commodity prices were placing margin pressure on the animal feed businesses. Nonetheless, the chicken and feed division, Rainbow, improved profitability as operating profit increased to R90 million from a loss of R209 million in the previous financial year. The turnaround in performance is attributable to "improvements in pricing, agricultural results and procurement gains which partially countered higher commodity input costs."²⁷

Chicken Price Analysis

We now turn to trends in the price of IQF chicken. As mentioned, IQF is the cheapest and most widely consumed chicken product, therefore its pricing has the

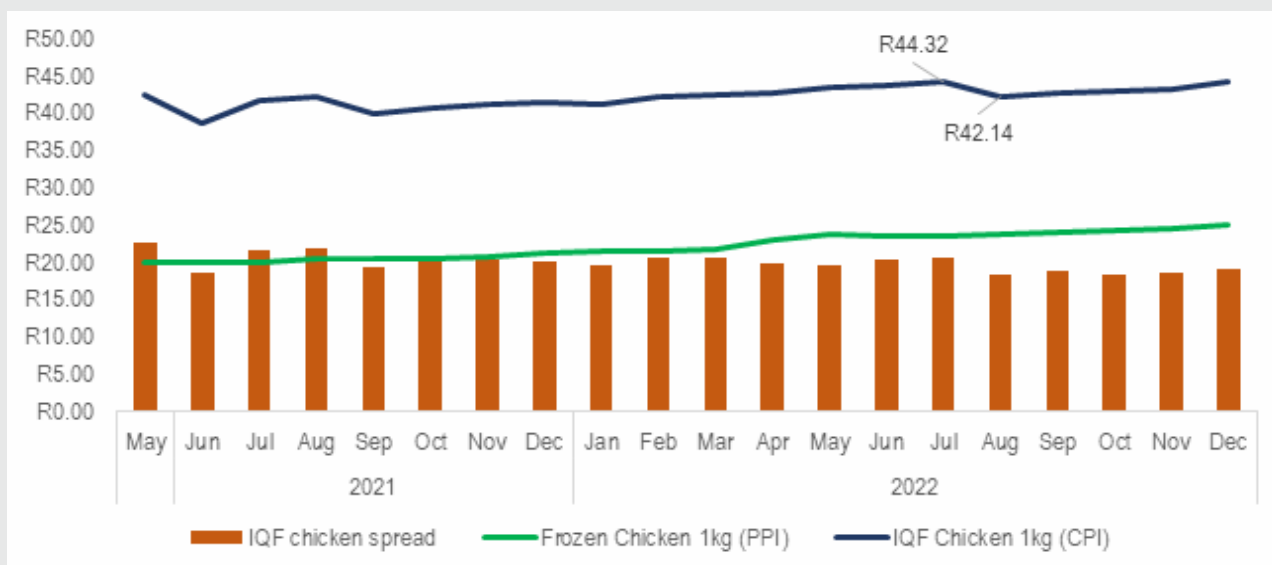
largest effect on household welfare. The producer price of frozen chicken²⁸ has been on a constant upward trajectory. Figure 13 shows that from May 2021 to December 2021,

26 Astral Foods Ltd. 2022. Astral Integrated Report - 30 September 2022. Available online: <https://www.astralfoods.com/assets/Documents/Investor%20Centre/2022/IntegratedReport30September2022.pdf>

27 RCL Foods. 2022. Abridged Integrated Annual Report. Available online: <https://rclfoods.com/investor-center/financial-results-and-investor-presentations/>

28 It is unclear from the naming convention whether this is IQF or another variant of frozen chicken. We proceed on the basis that it is IQF chicken.

Figure 13: Comparison of retail and wholesale IQF chicken prices.



Sources: Commission's own using StatsSA data

producer prices increased at an average monthly rate of 0.9% resulting in a cumulative increase of nearly 7%. In the first half of 2022, the rate at which prices rose accelerated to an average of 1.5% per month and a cumulative increase of 9.4% from January 2022 to June 2022. The increase resulted in producer prices reaching R23.58 per kg by June 2022. In the latter half of 2022, prices rose at a slower average rate of 1.1% a month and the producer price of frozen chicken reached R25.15 per kg in December 2022. The consumer or retail price of IQF frozen chicken increased at a slower pace than the producer price. In May 2021, a kilogram of IQF chicken retailed for R42.59 on average falling to R41.45 by December 2021. This is a cumulative decrease of 2.7% or an average of 0.4% per month. In the first half of 2022, IQF chicken went from R41.52 in January 2022 to R43.83 in June 2022. This is an average monthly growth rate of 1.1% and a cumulative increase of 6.6%. Prices from July 2022 to December 2022 were fairly stable going from R44.32 to R44.19 on average with their lowest point between R42.14 in July 2022.

These changes have resulted in a general narrowing of the spread between producer and retail prices. The spread

fell from R22.67 in May 2021 to R20.17 in December 2021. In January 2022, the spread was R19.56 and increased slightly to R20.26 by June 2022. The downward trend continued with the spread reaching R19.04. The lower spread indicates that the retail sector earns less to cover the costs of selling IQF chicken since the cost price has increased by more than what retailers can sell it for.

Overall, there appears to be evidence of margins in the chicken industry being under pressure, which may affect the long-term sustainability of small and emerging chicken producers. It is worthwhile to note that IQF chicken price increases have been relatively low compared to other essential foods. Several factors may explain this pattern. IQF chicken producers and retailers, aware of the price sensitivity of poor customers, may have absorbed cost pressures to maintain overall consumption and demand levels. It may also be the case that imports have constrained price increases by local producers or increased at a slower rate because of factors in the markets of origin. We explore this in the following section.

Chicken Imports

To understand the role of imports, we focus on bone-in pieces as they are closest to IQF chicken.²⁹ Over the period under review, South Africa's bone-in frozen chicken imports

largely came from Brazil, Argentina, the United States, and Spain. With exception of Spain, all these sources of chicken are subject to tariff protection in the form of Most

²⁹ The imported pieces are frozen breasts (02071496), frozen drumsticks (02071498), frozen leg quarters (02071498), frozen others (02071499), frozen whole bird cut in half (02071491), frozen wings (02071495).

Favoured Nation (MFN) tariff and anti-dumping tariffs. Spain is exempt from the MFN tariff because it is part of the European Union (EU). As of March 2020, the MFN tariff levied on chicken products was 62%. The Southern African Customs Union (SACU) also imposed a safeguard tariff on bone-in chicken imports from the EU. Safeguard tariffs are intended to protect domestic industries from temporary import surges. The initial tariff was set at 35.3% in 2018 falling to 30% and 25% in 2019 and 2020 respectively. In March 2020, the safeguard was reduced to 15%.

From May 2021 to December 2022, each of these countries was, however, subject to anti-dumping duties and/or quotas.

- As of April 2021, imports from the United States are subject to a quota of 71 290 tons, this is in addition to an anti-dumping tariff of 940c/kg in place since April 2012.
- In December 2021, the International Trade Administration Commission (ITAC) imposed provisional anti-dumping duties on selected bone-in chicken products from Brazil (up to 265.1%), Denmark (up to 67.4%), Ireland (158.42%), and Spain (up to 26%). The Minister of Trade, Industry and Competition suspended these tariffs for 12 months as of August 2022 citing consumer pressure.
- In March 2022, imports of chicken from the EU were banned in response to the avian flu outbreak in the Northern Hemisphere. In effect, this ban means that the suspension of anti-dumping tariffs only applied to Brazil.

The import pattern by source country in Figure 14 shows that Brazil and the United States were the leading sources of bone-in chicken pieces coming into South Africa followed by Argentina and Spain. There is a cyclicity in the amount of chicken coming from Brazil, which peaks in the middle of the year and tapers towards the end. Similarly, imports from the United States are highest in the first half of the year and taper across the second. Following the ban on chicken products from the EU in March 2022, imports from Brazil increased despite the anti-dumping tariff.

Tariff protection has resulted in import prices of frozen bone-in pieces being raised above local producer prices of IQF chicken. Figure 15 shows that the weighted average Free-On-Board price ("FOB") (exclusive of transport, duties, and other costs) of frozen bone-in pieces is below the producer price of IQF chicken, implying better cost-competitiveness. FOB prices were on a downward trajectory between May and October

2021. Over this period, imports from Brazil were declining while those from Spain increased. The result of the shifting import composition is evidenced in the post-duty import price which is calculated by adding all customs and anti-dumping tariffs to the FOB price. As imports shifted away from Brazil (which is subject to the 62% customs duty) to Spain (which has duty-free access) the weighted average post-duty import price fell more steeply than the FOB price.

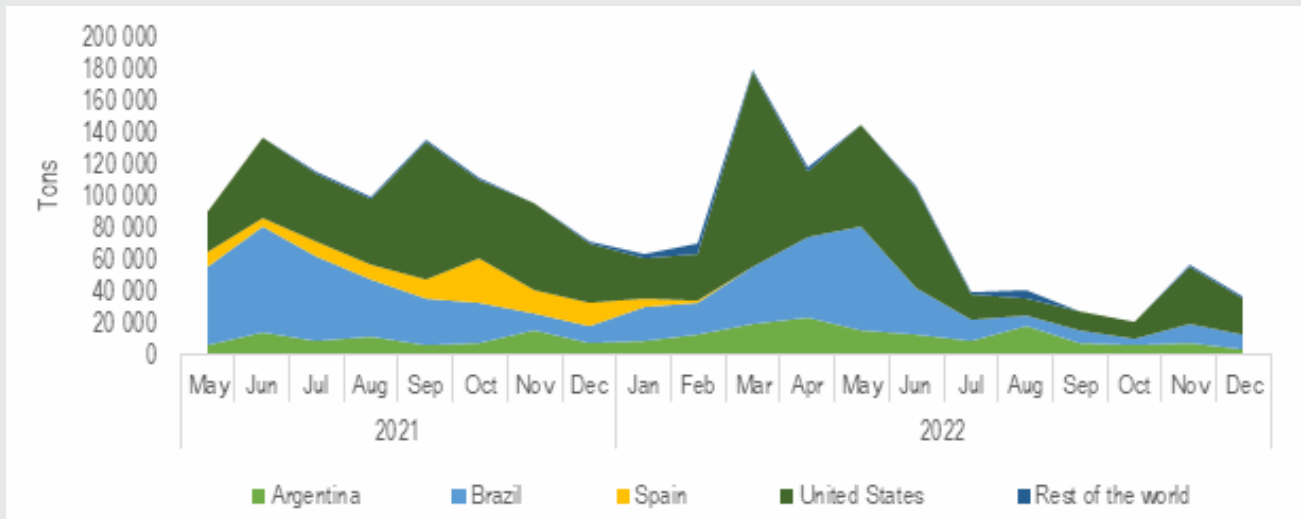
In December 2021, the set of provisional anti-dumping tariffs kicked in and the post-duty price increased dramatically to R34.39 in February 2022; an increase that coincided with falling FOB prices. However, in March 2022 chicken imports from the EU were suspended in response to the avian flu outbreak. The global supply constraint resulted in higher FOB chicken prices.³⁰ Following the ban, Brazil was the only source of chicken imports into South Africa. The post-duty price, therefore, surged from R30.81 per kg in February 2022 to R48.73 in May 2022. A 58% increase in 3 months resulted in post-duty prices that exceeded average consumer prices. Following the suspension of the anti-dumping tariffs, the post-duty price collapsed to the range where it had been before March 2022.

An indication of how firms behaved in response to these events can be gleaned by comparing price levels immediately before and after i) the imposition of the provisional tariffs; ii) the EU ban; and iii) the suspension of the provisional tariff. When the provisional tariff was imposed, the post-duty price increased by 31.1% while the FOB price fell by 6.1%. Producer prices and consumer prices increased by 2.5% and 0.5% respectively (see Table 2). The EU ban resulted in a surge in the FOB price of 9.4%, the expected result of global shortages as the avian flu outbreak continued to restrict international supply. Since EU volumes were already low relative to Brazilian imports, the weighted average post-duty price increased by only 0.9% after the ban. However, South African producer prices increased by 5.4%, and as South African producers do not export extensively, it is not immediately obvious why producer prices should increase with world prices.

The suspension of the tariff appears to have had an immediate impact on consumer prices which fell nearly 4.9% while the post-duty price fell by 26.5%. These simultaneous declines suggest that, as intended, the lower price of imports was passed through to consumers.

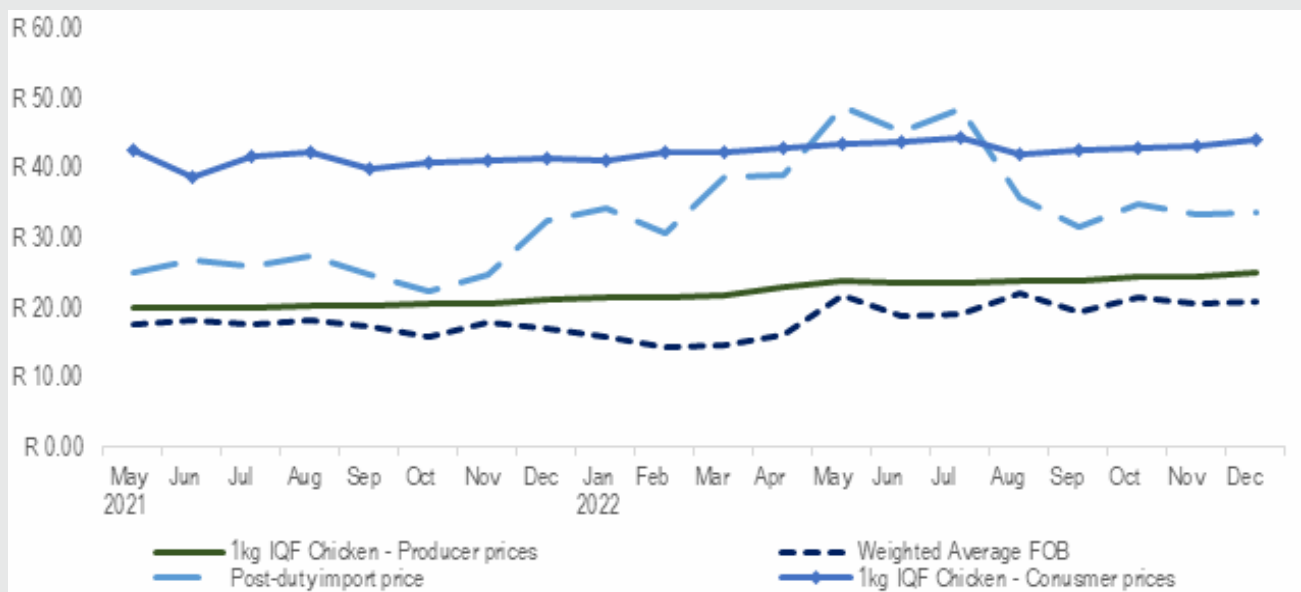
30 The anti-dumping tariff was not applied to all exporting firms in the offending countries. Since we cannot identify volumes from firms and apply the tariff accordingly, we applied the maximum tariff to all imports from countries covered by the provisional tariff of December 2021. This may explain the counter-intuitive result of import prices that exceed consumer prices.

Figure 14: Imports into SA of certain frozen bone-in chicken products by country



Source: Commission's own using SARS

Figure 15: Comparison of consumer prices and producer prices with import prices.



Source: Commission's own calculation using SARS, StatsSA data

Table 2: Price changes following key trade protection events.

	Provisional tariff period (December 2021 onwards)	EU Ban Period (March 2022 onwards)	Provisional tariff suspension (August 2022 onwards)
FOB	- 6.1%	9.4%	14.7%
Post-duty price	31.1%	0.9%	-26.5%
Producer prices	2.5%	5.4%	0.7%
Consumer prices	0.5%	1.1%	- 4.9%

Source: Commission's own calculation using SARS, StatsSA data

Conclusion

The Commission remains concerned about food inflation and more specifically whether the prices are justified by increasing costs. Opportunistic prices are possible especially if there is an expectation that costs will rise, and the Commission remains vigilant and currently utilising its investigative powers in instances where prices may not be justified by costs. In the previous edition of this report, the Commission highlighted opportunistic behaviour by cooking oil processors by exposing the growing margins relative to input costs. Whilst those have been reversed to a large extent, the concern arising in this edition is that retailers have used that opportunity to raise their margins in cooking oil, but also in bread staples. The common practice of retailers has been to operate based on certain percentage margins, maintaining these despite movements in the actual wholesale cost price. In periods of low food price inflation, the rise in absolute Rand margins, as a result, may correspond to their cost increases. However, in periods of high food price inflation, maintaining the same percentage margins results in substantial and unjustified increases in Rand margins. This was first highlighted in the EFPM edition on the large increase in ginger and garlic some two years ago, but we are seeing the same trend now on other staples. Retailers should be factoring this into their pricing decisions and behaving in a manner that does not unduly raise the prices of staples for low-income consumers. As pointed out previously, concentration and exclusionary exclusive leases have reduced the competitive pressure on retailers that allows such conduct. Aside from the ongoing investigations, the Commission will be conducting a market inquiry into fresh produce from March 2023 where some of the value chains will be explored in detail.

The poultry chain deep dive demonstrates that the price of agricultural commodities, such as maize, have substantial indirect effects on low-income consumers through feed costs. This value chain of grains, soya bean and sunflower crops from growing to processing and feed deserves considerable attention given its importance for so many food items. This includes the

debate on its relationship with global markets at a time when these are driven higher by factors other than domestic cost structures, but also the trade policy for final products in the context of these upstream cost pressures. High concentration should be part of that detailed assessment as it provides scope for firms to potentially exploit the global shocks when domestic costs do not justify similar increases. The August edition highlighted oil processors raising margins on cooking oils, but those same firms also provide oilcake to the feed industry and could influence a wider range of essential foods. These linkages highlight how anti-competitive behaviour in one value chain may affect other products where there are value chain linkages.

The structure of the poultry industry raises concerns about the exploitation of market power and supplier relationships. Based on the financial performance of the major chicken producer, Astral and RCL, it is evident that they have been able to raise prices to compensate for higher costs. However, we cannot tell from publicly available information whether they have done so by charging external customers more for feed than their internal broiler business. Since both firms report the feed business as part of the larger poultry business, the improved business profitability is likely to come from higher feed prices to downstream rivals as well as higher chicken product prices to consumers. The Commission is therefore concerned that unintegrated players may be subject to additional margin pressures through the pricing behaviour of large firms. The analysis above noted that when imports from the EU were banned in response to the avian flu outbreak, domestic producer prices increased at the same time despite the industry having negligible export exposure. This anomaly requires further interrogation, and the Commission will closely monitor the developments in the poultry sector to ensure that consumers are not subjected to unjustified price increases.

ECONOMIC RESEARCH BUREAU

