

# Reflections on SA's agriculture and food price inflation path in 2021

Wandile Sihlobo<sup>1</sup>

*Citi Bank (virtual session on food industry organized by Gina Schoeman and Kgosi Rahube)*

*04 March 2021*

## 1. Overview

We are in unusual times, and therefore a bit of historical perspective to preface our discussion might be useful. I will not provide a long historic perspective per se, but rather a broad view from the 2019/20 production season.

We finished 2019 on a constructive path in terms of food price inflation, which averaged 3,1% y/y (from 3,3 % y/y in 2018, and the periods before that were much higher rates on food price inflation). The distinct drivers of food price inflation from 2018 to today have primarily been meat and grains-related products (bread and cereals), as well as oils and fats. The drivers of prices each year have differed. For example, in 2017, the 2016/17 production season (which is to date the largest on record) kept grains-related product prices under downward pressure. In the two years that followed, the grains harvest was decent to meet the local needs, although not at record levels, and prices were roughly sideways.

It is also in 2018 and 2019 where the outbreak of foot and mouth disease also contributed to softening meat prices as South Africa was banned in export markets, and all products had to be consumed locally. From a volume perspective, roughly 5% of South Africa's red meat goes to export markets, but the sentiment around a ban on exports was sufficient to keep prices under pressure. In these years, slaughtering activity continued at an average pace across the country, and there was a notable supply of meat in the market. All these movements were roughly in line with what we have seen in the past and what we expected to understand the agricultural market's fundamentals.

### Exhibit 1: South Africa's consumer food price inflation



Source: Stats SA and Agbiz Research

<sup>1</sup> Agricultural Business Chamber of South Africa (Agbiz) and Wits School of Governance, University of the Witwatersrand

## 2. Agriculture during the covid-19 period

We started 2020, and the onset of covid-19, with food price inflation still on the subdued path. In the first three quarters of the year, South Africa's food price inflation averaged 4,4% y/y, which is up marginally from the previous year's rate of 3,1% y/y. It is mainly in the last quarter of the year where food price inflation accelerated notably, averaging 5,9% y/y. For 2020, South Africa's food price inflation averaged 4,8% y/y (from 3,1% in 2019, as previously stated). The products underpinning the acceleration in food price inflation were, again mainly, grains related (bread and cereals), meat, as well as oils and fats.

Ironically, this is when South Africa had its second-largest grains harvest on record and generally large agricultural output in the 2019/20 production season in all major crops and fruits. So, what happened?

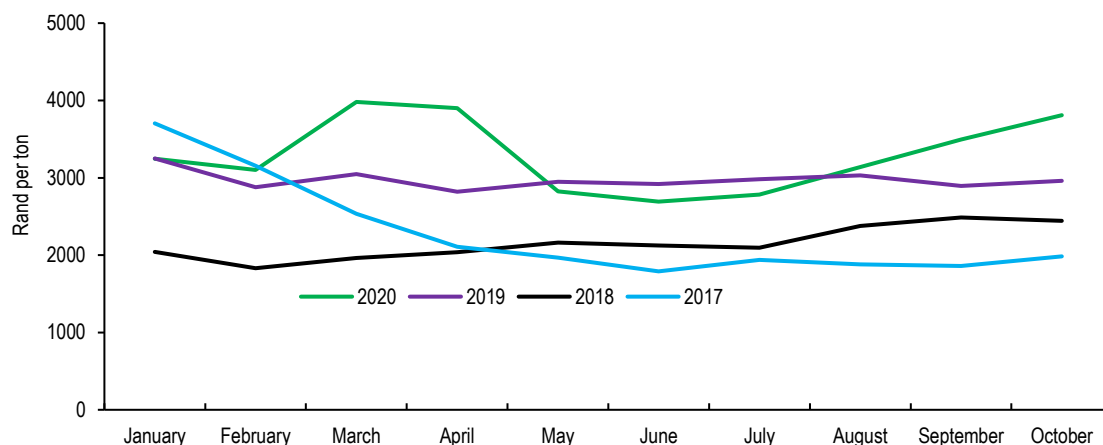
### Maize price dynamics

Starting with grains, South Africa had its second-largest maize harvest in history in the 2019/20 production season, estimated at 15.3 million tonnes. This is against an annual consumption of about 11.0 million tonnes. In seasons of large harvest like this one, where there is also a substantial surplus for export markets, maize prices are usually under pressure. Such a scenario was experienced in the 2016/17 production year, where South Africa recorded its largest maize harvest on record, about 17.6 million tonnes. Maize prices started declining in the first quarter of 2017, which was a year of a harvest of this crop, reaching levels below R2 100 per ton in the second quarter of 2017 from around R 3 357.

Interestingly, in 2020 South Africa's maize prices (white and yellow) remained elevated since February and have stayed at levels over R3 500 in the later months of the year.

Exhibit 2 shows different trends of monthly maize prices for the years 2017 – 2020. We use the maximum price reached in each month. We do this to capture all the spikes ever reached within a month over the years, which is one side of volatility, rather than using a simple average that will smoothen-out or undo a spike when a decline is recorded in the same month.

### Exhibit 2: Maize (white) prices generally higher in 2020, well above the recent years



Source: JSE, Bloomberg and Agbiz Research

These price increases are a combination of factors which include:

- Weaker domestic currency
- Increasing demand from Zimbabwe and the Far East
- Lower stocks at the earlier part of the year
- Higher international maize prices

*Rand:*

The movement in Rand maize market prices is closely related to the Rand/Dollar exchange rate. The correlation between Rand maize prices and the exchange rate over the past years is positive and around 70%. This means as the currency weakens, the Rand maize prices tend to rise.

*Rising Demand from Zimbabwe:*

South Africa recorded a 76% quarterly increase in maize exports in the first quarter of 2020, compared to the previous one. This was primarily underpinned by growing demand from Zimbabwe, which had had a poor harvest following the devastation from the 2018/19 drought, which was preceded by a cyclone. Zimbabwe's maize harvest halved to 800 000 tonnes, a level of output that is less than half of Zimbabwe's consumption needs of 2.0 million tonnes.

Therefore, Zimbabwe had to import roughly a million tonnes of maize to supplement the local supplies. The unique circumstances of Zimbabwe's food security situation forced the country's lawmakers to lift the ban on importing genetically modified maize imports on the 31<sup>st</sup> of January 2020, which opened doors for South Africa's maize exports to Zimbabwe. South Africa produces roughly 80% of genetically modified maize, which had been prohibited for importation into Zimbabwe for a long time.

What was perhaps less apparent was the pace at which Zimbabwe procured maize imports. A "fast lane" was established at the Beitbridge border post to facilitate urgent maize supplies from South Africa into Zimbabwe in February 2020. A drastic increase following maize exports to Zimbabwe followed after that.

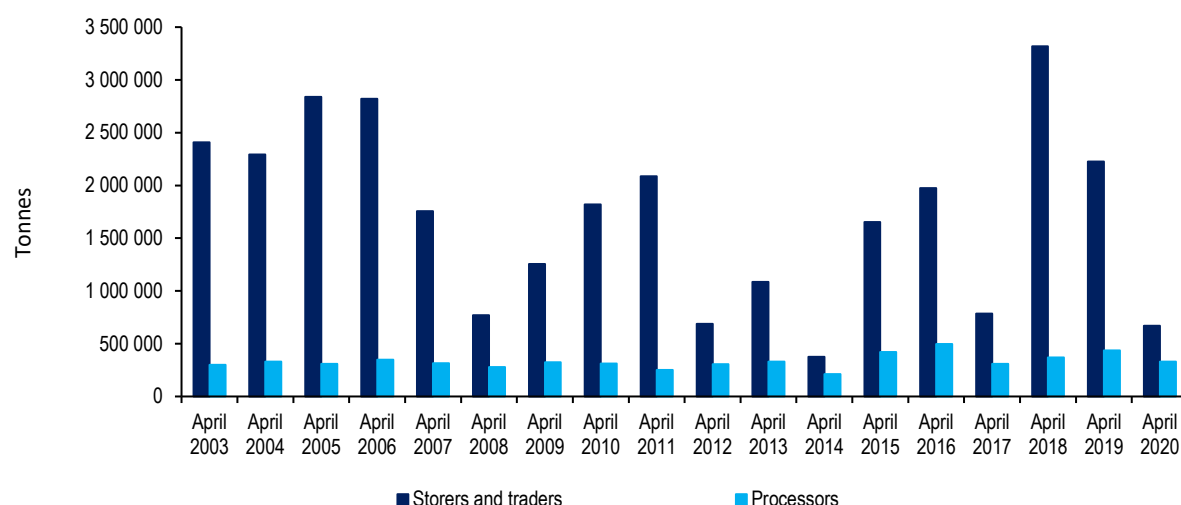
During this period, Botswana, Namibia and Mozambique were also amongst the vital maize importers from South Africa. This meant that by the end of South Africa's 2019/20 marketing season in April 2020, white maize exports amounted to 1.04 million tonnes. For yellow maize, the regional markets and, to a lesser extent, the Far East were the essential buyers of South Africa's maize

*Lower stocks at the earlier part of the year:*

As the demand for South Africa's maize increased in Zimbabwe and elsewhere, the country had lower stocks from the 2019/20 marketing year. The 2020/21 marketing year (this coincides with the 2019/20 production year), which had the second-largest maize harvest on record of 15.4 million tonnes, was delayed by roughly a month because of the late rains at the start of the planting season. The tighter stocks are in part one of the critical drivers of prices, especially the spike experienced in March 2020. Exhibit 4 illustrated the stock levels in South

Africa's maize market. April 2020, which was the end of the 2019/20 marketing year, was the lowest since 2014.

### Exhibit 3: South Africa's maize stocks



Source: Sagis and Agbiz Research

### International maize prices:

Internationally, maize prices have been rising in the past few months (see exhibit 4). The primary driver of global grain prices has been increasing demand from China, and weather concerns (dryness) in South America, specifically Argentina. The Chinese are rebuilding their pig herd, which was destroyed by the African swine fever in 2019, requiring an increased supply of maize and soybeans. In October 2020, the size of China's national pig herd was up by 27% year-on-year.

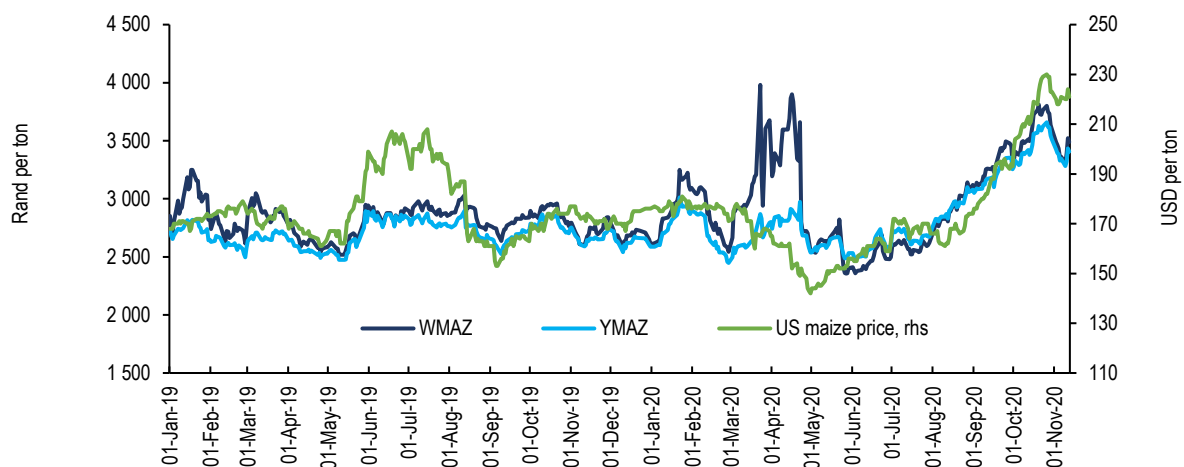
Although South Africa is a net exporter of maize, domestic price movements track international prices. This is because South Africa is one of the biggest maize producers globally; thus, roughly 16% of domestic supply is for exports. The global supply fears, therefore, put upward pressure on South Africa's maize prices. High-frequency data (daily with more than 300 observations) shows that the correlation between domestic and international maize prices this year is positive, 60% for white maize and 85% for yellow maize (see table 1). This means as the global maize markets face pressures, domestic maize prices tend to rise. To corroborate the view expressed in forgoing Table 1, here we further show that elevated international prices are partly to blame for the maize price upsurge (Exhibit 4).

**Table 1: Daily correlation (01/01/2020 to 12/11/2020)**

	USMAIZE	WMAIZE	YMAIZE
USMAIZE	1.0	0.6	0.9
WMAIZE	0.6	1.0	0.8
YMAIZE	0.9	0.8	1.0

Source: SAGIS and Agbiz Research

#### Exhibit 4: South Africa's maize prices continue to track movements in international maize prices closely



Source: Sagis and Agbiz Research

#### Meat, oils and fats price dynamics

Second, the decline in the slaughtering rate in red meat (aside from cattle), along with the recent increase in poultry import tariffs, are amongst the factors that have provided an increase in meat price inflation. Moreover, there is also an element of base effects as meat price inflation was somewhat subdued in 2019.

Lastly, the acceleration in oils and fats price inflation is partly influenced by the weaker domestic currency in the past few months. South Africa remains a net importer of vegetable oils and therefore exposed to exchange rate risks. Moreover, the global vegetable oil prices have generally been at higher levels in recent months, boosted, in part, by the growing demand from China. These dynamics influenced the price levels that we observed in the South African market.

### 3. Concluding remarks

This is all history, and many people are probably more interested in the outlook view for 2021. Here I am generally optimistic that South Africa's food price inflation might not exceed an average of 5% y/y in 2021.

The La Nina rains have boosted agricultural production – across all subsectors. For maize, which is essential and discussed extensively, we expect a harvest of 16,6 million tonnes (from 15,3 million tonnes in 2019/20), against an annual consumption of 11,4 million tonnes. This will be the second-largest harvest on record and well above the Crop Estimates Committee's estimate of 15,8 million tonnes.

The increase in area plantings and favourable weather conditions are the main drivers of the harvest. The recent excessive rains across Southern Africa, fortunately, didn't cause notable damage to crops. We spotted a few farms in western Free State and parts of the North West. Notably, most countries in the region are also expecting a massive harvest.

For example, Zambia's maize production could reach 3,4 million tonnes (up 69% y/y), while Malawi's maize harvest is estimated at 3,8 million tonnes (up 24% y/y). There is optimism about the crop in other countries, including Zimbabwe.

This means that the regional demand, which underpinned domestic prices in 2020, will most likely be curtailed this year. Moreover, the firmer domestic currency also adds downward pressure on domestic maize prices. Hence, we are of the view that South Africa's maize prices will most likely decelerate from their current levels of around R3 200 per tonne in the coming months, as more information about the potential harvest is confirmed. This ultimately bodes well for food price inflation.

Moreover, the strengthening domestic currency also bodes well for products the country imports, such as vegetable oils and fats, which in 2020, were amongst the products driving up food price inflation. For other agricultural products like fruit, vegetables, dairy products, and milk, we have a constructive view of generally sideways movement on prices. The output in almost all these products is set to be just as large as 2020; hence we don't expect any surprises on product price movements.

The only significant upside risk to food price inflation that one can perhaps keep an eye on is fuel. It's essential to always keep in mind that roughly 70% of South Africa's grains are transported by road and a large volume of other food products.