

## SA's agriculture: Immediate, short, to medium-term view

South Africa's agricultural sector is continuously influenced by global and local demand and supply conditions, weather patterns and exchange rate fluctuations. This season, weather conditions are once again playing a bigger role with the drought in the Western Cape and the delayed onset of rainfall in Free State and North-West provinces which affected production negatively. Meanwhile, the weak US dollar – which translates into rand strength – offset the impacts of farm input costs (most of which are imported, such as fuel, fertilizers and chemicals) on the one hand, while making the commodity exports less competitive on the international markets, on the other. In net terms, unfavourable weather implies a decline in yields (and in turn, production) while exchange volatility points to shifts in profitability. Considering the collective impact of these variables, we make a succinct reflection on weather, local market conditions and trade in the agricultural sector for the current planting season.

### Shifts in weather patterns make planning difficult

Climate change is one critical mega-trend that is affecting global agriculture in general and South Africa's agro-industry in particular. There are two fundamental aspects that underpin the weather factor in South Africa's agricultural sector.

- First, is the “inter-seasonal variation” in rainfall. The country now receives average annual rainfall that is comparatively lower than past trends. South Africa received an average of 526 mm of rainfall per year over the past 60 years. However, the recent past has seen a progressive decline in annual average rainfall, with the post-2010 average being 7% lower than the previous three decades (1970-2010).
- Secondly, is the “intra-seasonal variation” in which the geographic and temporal distribution of rainfall seems to have shifted over time. Anecdotal evidence suggests a delay in the onset of the summer season. For example, the peak rainfall period in South Africa fell around early October in the eastern regions and from November in the western regions each year. Recent rainfall patterns have seen a three- to six-week delay, which translates to a shift in optimal planting dates for summer crops such as maize and soybean.

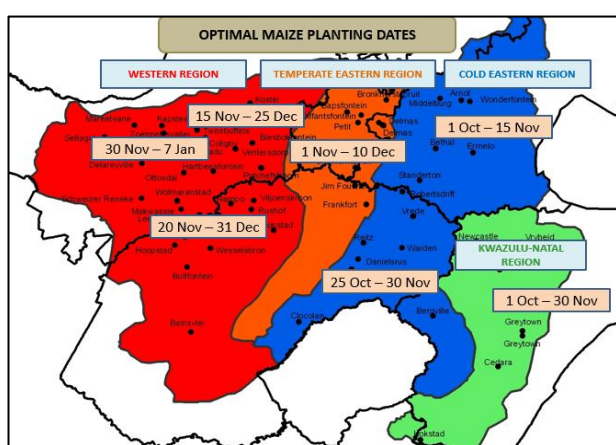
As such, the farming sector has had to continuously adapt to this shift in order to ensure that planting coincides with peak rainfall patterns in order for crops to receive sufficient moisture for seed germination and crop development. However, the farming sector has struggled not only due to the uncertainty in the onset of the seasonal peak (intra-seasonal variation), but also because of erratic and progressively lower rainfall (inter-seasonal variation). Therefore, the changes in the rainfall patterns mean that farmers will also need to adjust the planting dates. The weather has been a major risk factor in the past few seasons, as rainfall patterns did not only change, but were erratic, making it difficult for farmers to plan the planting schedules properly.

## Weather outlook

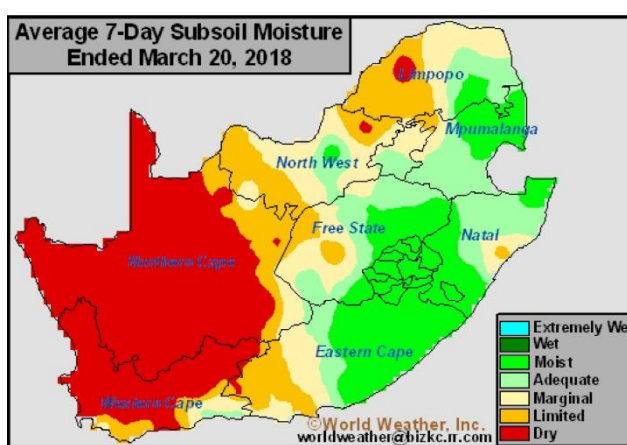
While the 2016/17 production season was an exception, the two seasons before that, as well as the 2017/18 production seasons experienced inconsistent rainfall patterns. In the current summer crop production season, rainfall in the eastern regions of the country was delayed, which subsequently affected the planting activity. To be more precise, the delays in rainfall led to a 5% year on year decline in area planted to summer grains and oilseeds (yellow maize, white maize, sunflower seed, soybeans, groundnuts, sorghum and dry beans) to 3.8 million hectares.

However, the delayed rainfall proved to be effective. Chart 1 shows that sub-soil moisture has improved significantly across the summer crop growing areas. The crops are generally in good shape in all the areas that managed to plant on time.

Chart 1: Maize optimal planting dates and soil moisture



Source: Grain SA, Agbiz Research



Source: World Weather Inc. (data as at March 2018)

## Production and Trade to show the impact of weather patterns

### Maize

The results of weather changes are also mirrored in crop production, particularly summer crops, such as maize. Between 2007 and 2013, South Africa's maize production averaged 12.3 million tonnes and the area planted was flat across this period (Chart 2).

While the rainfall patterns were already slightly changing as far back as 2007, in the 2013/14 production season, South Africa received late rainfall whose negative effects were averted by a better rainfall peak in February - a typical pollination period for the maize crop. This led to a bumper harvest of 14.3 million tonnes. The years after that experienced an El Niño induced drought, thus leading to a considerable reduction in area planted, and subsequently lower maize yields. The 2016/17 production season led to a massive rebound, leading to 16.8 million tonnes of maize, which is the biggest harvest in the history of South Africa.

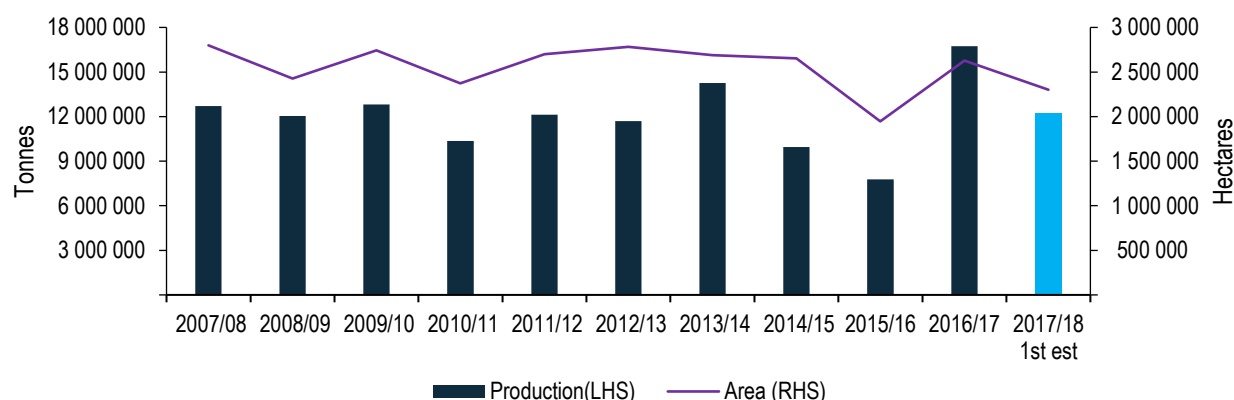
This was a welcome relief following two consecutive drought seasons in which white and yellow maize prices averaged R4 392 per tonne and R3 357 per tonne, respectively, in 2016 (which was a 50% y/y and 26% y/y increase). In 2017, white

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and yellow maize prices averaged R2 161 per tonne and R2 097 per tonne, respectively, down by 51% y/y and 38% y/y, thanks to the record harvest.

The current season started off on a negative footing with farmers reducing the area planted to total maize by 12% from the 2016/17 production season, as a result of lower maize prices. The unfavourable weather conditions at the start of the planting season exacerbated the situation, as farmers in the western parts of the country were unable to complete the planting process due to lower soil moisture. Fortunately, the conditions have improved significantly and South Africa is expected to produce 12.2 million tonnes of maize (Chart 2). While well below the previous season's harvest, this is higher than the annual maize consumption of 10.5 million tonnes.

Chart 2: SA maize production



Source: CEC and Agbiz Research

The expected large production, coupled with an expected large carryover stock of 4.2 million tonnes in the 2017/18 marketing year will boost South Africa's maize supplies in the 2018/19 marketing year which starts on 01 May 2018. This will keep maize prices at relatively lower levels for some time. In fact, by close of business on 23 March 2018, white and yellow maize spot prices settled at R1 891 and R1 961 per tonne, respectively, which is 4% and 6% lower than the corresponding period last year.

In terms of trade, maize exports peaked to 2.4 million tonnes in the 2017/18 season. The 2018/19 marketing year promises another robust export activity on the back of large domestic supplies. The 2018/19 total maize exports could reach 2.2 million tonnes. About 73% of this will most likely be yellow maize, with 23% being white maize. Most of South Africa's markets will be deep-sea destinations, particularly to the Far East.

### Soybeans

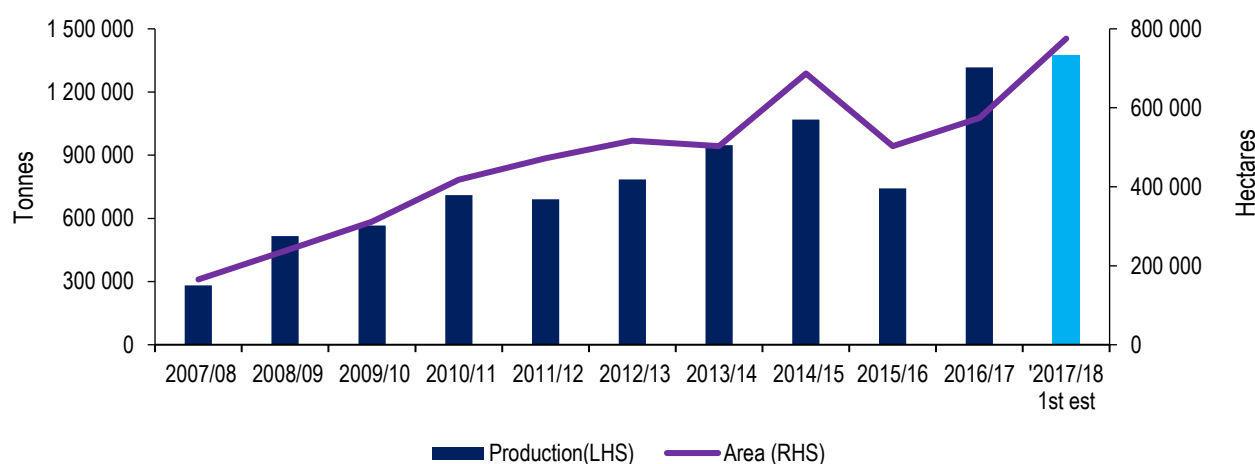
Unlike the maize market which has experienced a somewhat stagnant output between 2007 and 2013, soybean production trebled over the same period. The output declined in 2015/16 production season, but soon recovered to a record 1.3 million tonnes in the 2016/17 production season, which is 5-fold the volume seen in 2007/08 production year (Chart 3).

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One of the reasons for this notable uptick in production is an increase in area planted, which in turn, is driven by strong domestic demand on the back of the development of new soybean crushing plants. Moreover, soybean is mainly produced in the eastern parts of South Africa which typically get good rainfall and subsequently have higher soil moisture.

The 2017/18 soybean production is estimated at 1.4 million tonnes, up by 5% from the previous season owing to an increase in area planted, as well as expectations of higher yields. On 28 March 2018, the National Crop Estimate Committee will release an update of its soybean production estimate, but unlikely to change from the current estimate as weather conditions have been favourable since the last assessment.

Chart 3: SA soybean production



Source: CEC and Agbiz Research

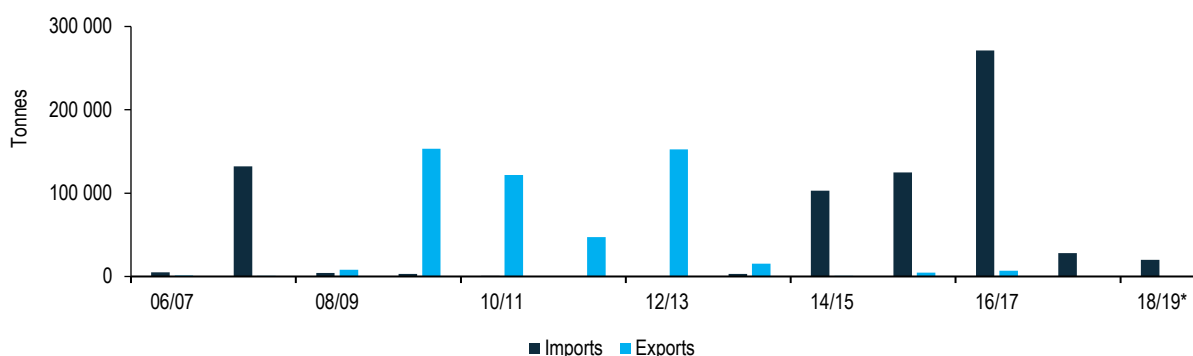
Against this backdrop, the soybean prices are under pressure. On 23 March 2018, soybean spot price settled at R4 471 per tonne, which is 9% lower than the corresponding period last year.

After receiving the largest soybean harvest, South Africa received minimal imports in the 2017/18 marketing season following peak imports of 271 098 tonnes in the previous season. The country imported 28 000 tonnes of soybean in the 2017/18 season. Meanwhile, the soybean exports were at 450 tonnes (Chart 4).

If soybean prices swing positively, more local oilcake production will be consumed by the domestic industry and less oilcake will be imported for feed. While local demand is expected to remain strong, there are marginal risks associated with the outbreak of Highly Pathogenic Avian Influenza (HPAI) that will be a key determinant of how much feed will be consumed by the poultry industry<sup>1</sup>.

<sup>1</sup> The poultry industry is a major source of animal feed demand and consumes an estimated 40%.

Chart 4: SA soybean imports and exports



Source: SASDE and Agbiz Research

## Wheat

Contrary to summer crop production trends, wheat production has been on a decline for some time in South Africa (Chart 5). This is partially driven by a decline in hectares planted in the Free State province due to lower profitability relative to other crops, as well as a decline in area planted in the Western Cape, a major winter wheat producing province with a share of 40% in total production. After having a good run in the 2016/17 production season, the 2017/18 production declined by 21% from the previous season at 1.52 million tonnes.

Almost all other provinces recorded an uptick in wheat production in the 2017/18 season with the exception of the Western and Eastern Cape provinces. The final harvest for the Western Cape province is 586 800 tonnes, down by 47% from the previous season due to a slight decline in area planted, as well as poor yields. The Eastern Cape province is not a major wheat producer, its final harvest was recorded at 9 500 tonnes, down by 14% from the previous season.

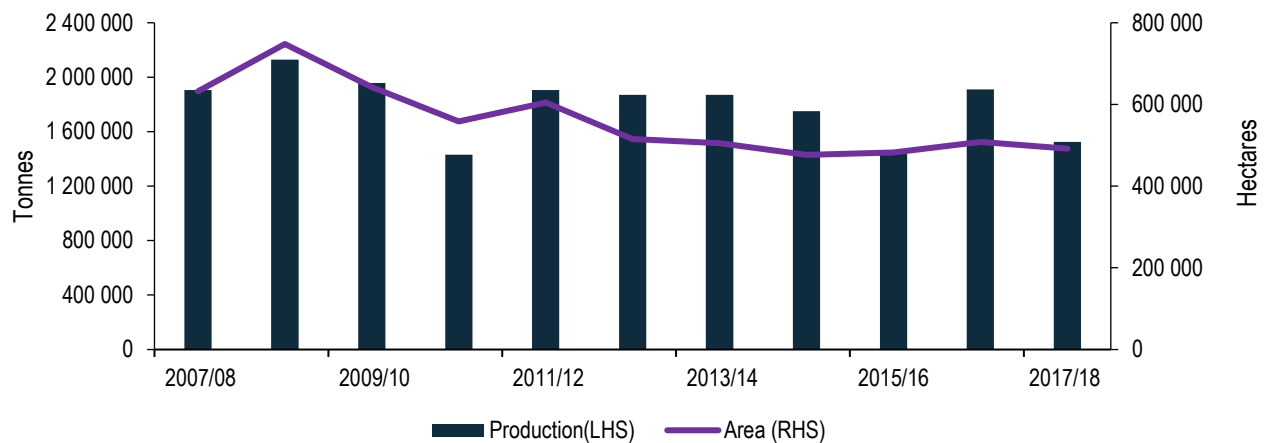
With that said, the impact on prices has been minimal as South Africa's wheat prices already trade along the import parity. The major determinant of the import parity price is the Chicago wheat price (HRW) and the Rand to the US Dollar exchange rate. Going forward, we expect a sideways movement in Chicago wheat prices due to large global production of 759 million tonnes, up by minimal 1% from the previous season. Therefore, domestic wheat prices should resemble the international trend going forward.

On 23 March 2018, the domestic wheat spot price settled at R3 780 per tonne, down by 6% from the corresponding period last year due to the stronger domestic currency and fairly lower global prices.

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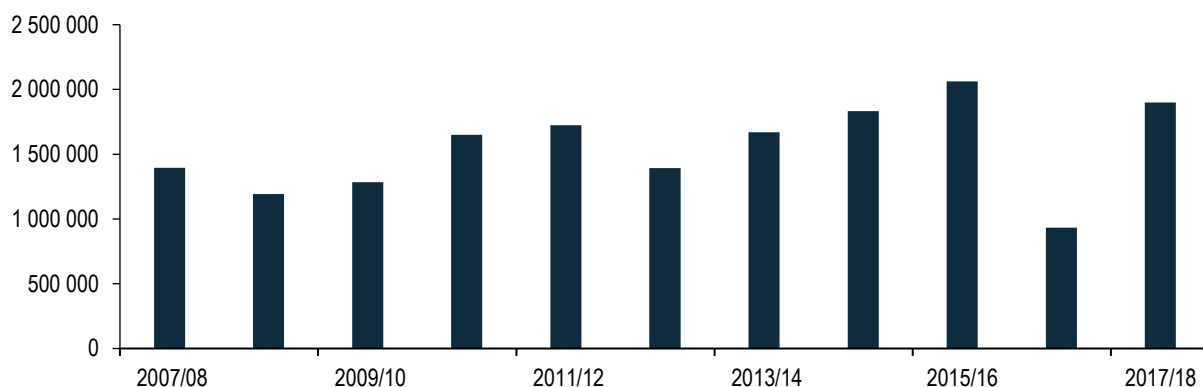
Chart 5: SA wheat production



Source: CEC and Agbiz Research

Declining wheat production in addition to relatively lower opening stocks<sup>2</sup> at the beginning of this season, (estimated at 341 424 tonnes) implies that South Africa's wheat imports could reach 1.9 million tonnes in the 2017/18 marketing year in order to meet the domestic needs. This is double the volume imported in 2016/17 marketing year and constitutes two-thirds of domestic consumption (Chart 6).

Chart 6: SA wheat imports

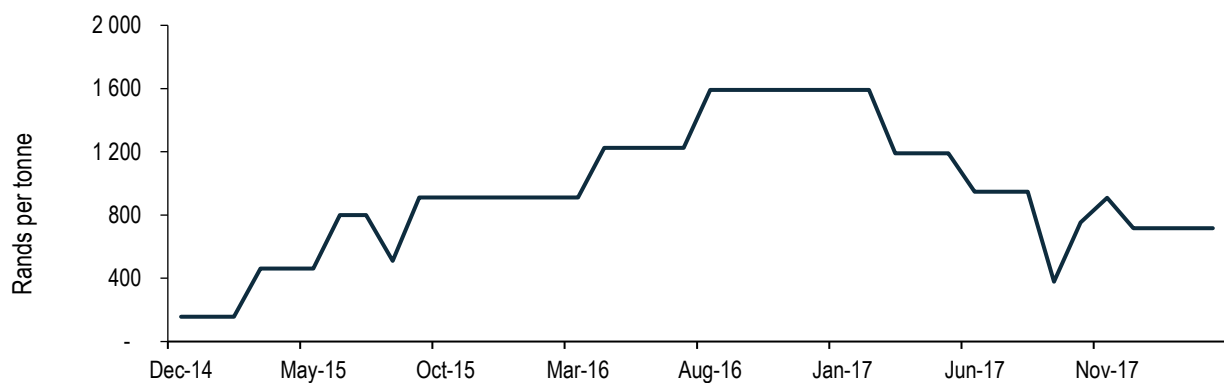


Source: SASDE and Agbiz Research

There hasn't been any new developments on the wheat import tariff since the calculations of the new rate on 13 February 2018. The newly calculated trigger rate is R394.84 per tonne, down by 45% from the current active level. This new rate will only be applicable after its publication in a government gazette. The timeframe for this process is unclear, but previous adjustments took more than three weeks. The active rate is R716.33 per tonne (Chart 7).

<sup>2</sup> The 2016/17 marketing year opening stocks were 827 232 tonnes.

Chart 7: SA wheat imports tariffs



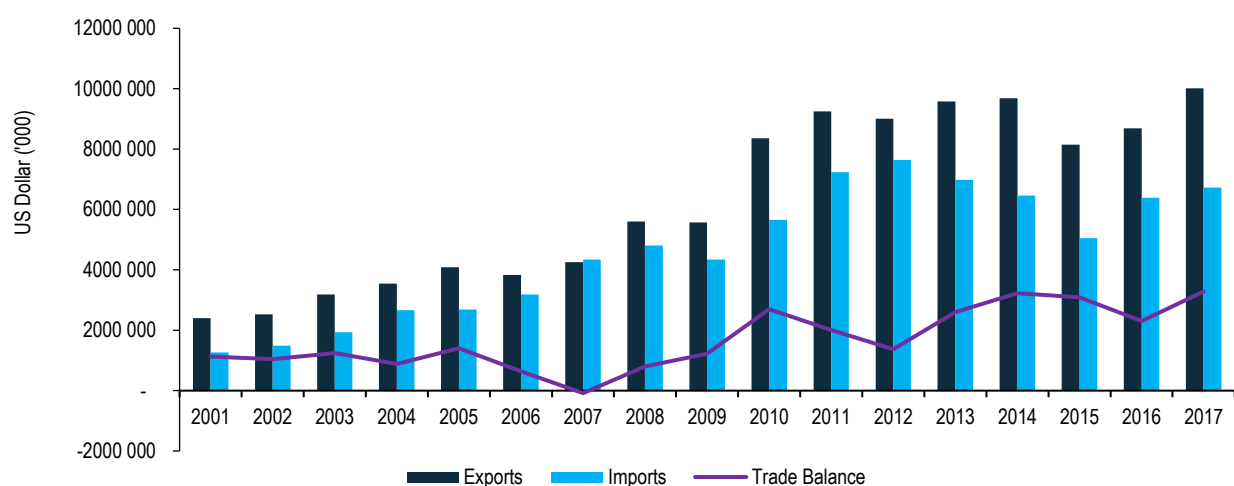
Source: SAGIS and Agbiz Research

## Agricultural Trade

South Africa is generally a net exporter of agricultural commodities and products (Chart 8). In 2017, South African agricultural exports grew past US\$10.0 billion for the first time, boosted by growth in exports of edible fruits, beverages, spirits, vegetables, grains and other agricultural products. This is a 15% increase from 2016 – a year that was characterised by an El Niño induced drought.

South Africa's agricultural sector recorded a positive trade balance of US\$3.3 billion in 2017, which is also a record level in a dataset starting from 2001. The impact of the severe drought in the Western Cape province will only transpire in the 2018 trade statistics, as table grapes and major vegetable products are set to decline by double-digit levels from the 2016/17 production season. At the time of writing, however, the scale of the potential decline in export activity was still unclear.

Chart 8: SA agricultural trade balance



Source: ITC and Agbiz Research

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## Conclusion

The overall picture of South Africa's agricultural sector can be described as mixed, at best. Adverse impacts on the wheat crop, and possibly on this season's summer crop are expected to lead to subdued production. However, the lower output is not expected to lead to any fundamental shifts in the market. First, because the sector is coming out of a season of historic output levels that will still provide some buffer stocks against severe price swings. A stronger exchange rate over the immediate to short-term will ensure that food inflation levels remain low and steady. Despite some of the policy uncertainties that have remained endemic to the agricultural sector, vis-à-vis land reform, the sector is generally being buoyed by a general wave of renewed optimism and agribusiness confidence, all of which are expected to shake off the adverse effects of policy and weather.

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