The Viability of the Grain Industry

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INTRODUCTION

The viability of the SA grain industry on farm level improved considerably during late 2001 and the first part of 2002, as a result of external factors and not as a result of domestic policy changes in agriculture. Deregulation of agricultural marketing during the first half of the1990s laid the foundation for some changes, especially on farm level and in the marketing and pricing system. The challenge is to improve the policy environment, to ensure continued competitiveness and profitability, while supplying in the country and the region's needs.

DEREGULATION OF AGRICULTURAL MARKETING

The replacement of the Marketing Act, 1968 (Act No. 59 of 1968) by the Marketing of Agricultural Products Act (Act No. 47 of 1996), which came into operation on 1 January 1997, introduced a new era in the marketing of agricultural products in South Africa.

In terms of the old Marketing Act, the Minister was obliged to introduce an intervention if it had the proven support of a specified majority of producers. The underlying philosophy was intervention by Government or Government Control Boards in the marketing of agricultural products in South Africa. The eventual results of this policy are well known, i.e. trying to stabilise prices against market forces, which resulted eventually in inefficiencies in the primary and secondary agricultural industries and reducing international competitiveness. Producers and buyers were not required to make pricing and marketing/ buying decisions.

The new Act determines that any directly affected group may request an intervention, however, only if it is not detrimental to food security, work opportunities and fair labour practises. The objectives are also clearly stated, i.e. improved market access, enhancement of the efficiency of the marketing of agricultural products, optimisation of export earnings and the strengthening of the viability of the agricultural sector. The underlying philosophy is minimum intervention in the marketing of agricultural products.

The result of this policy change could be called dramatic. It changed the way agriculture operated after 50 years of government intervention and price fixing. Grain producers were exposed to market forces and also had to take responsibility for the marketing and pricing of their products. Processors had to take charge of their procurement activities, including buying and pricing.

The successful establishment of the Agricultural Marketing division of SAFEX, introduced a price discovery mechanism and price hedging into the grain industry. It also introduced a daily reflection of market forces (domestic and international) on domestic prices.

Contrary to popular believe, the change in agricultural marketing policy during the mid 1990s resulted in more stable prices and the effects can be illustrated in the following two graphs **(Figure 1 and 2)**, compiled by the agricultural economists of the University of Pretoria.

The challenge will be to convince policy makers to continue with the current policy of a deregulated market and not to get side tracked, by the temporary higher inflation and food inflation. The current increase in food inflation is not a result of flaws in the deregulated agricultural market, but rather a reflection of supply and demand forces, with the exchange rate influencing price levels via import and export parity.

IMPORT DUTIES AND TRADE AGREEMENTS

The implementation of the GATT agreement in the early 1990s also contributed to a more efficient domestic grain industry. Import permits were replaced with import duties, which were also fixed lower than what the agreement allowed. The result was import competition and a free flow of trade in grains, resulting in domestic prices being driven by international market forces. We all remember the fact that domestic grain prices fluctuate between import parity (if local supply is inadequate) or to export parity if the local supply is in oversupply.

The signing of the regional free trade agreement in Southern Africa (SADC) will result in the phasing in of free trade in the region over the next number of years. This will reflect regional market forces in domestic grain prices and countries in the region will

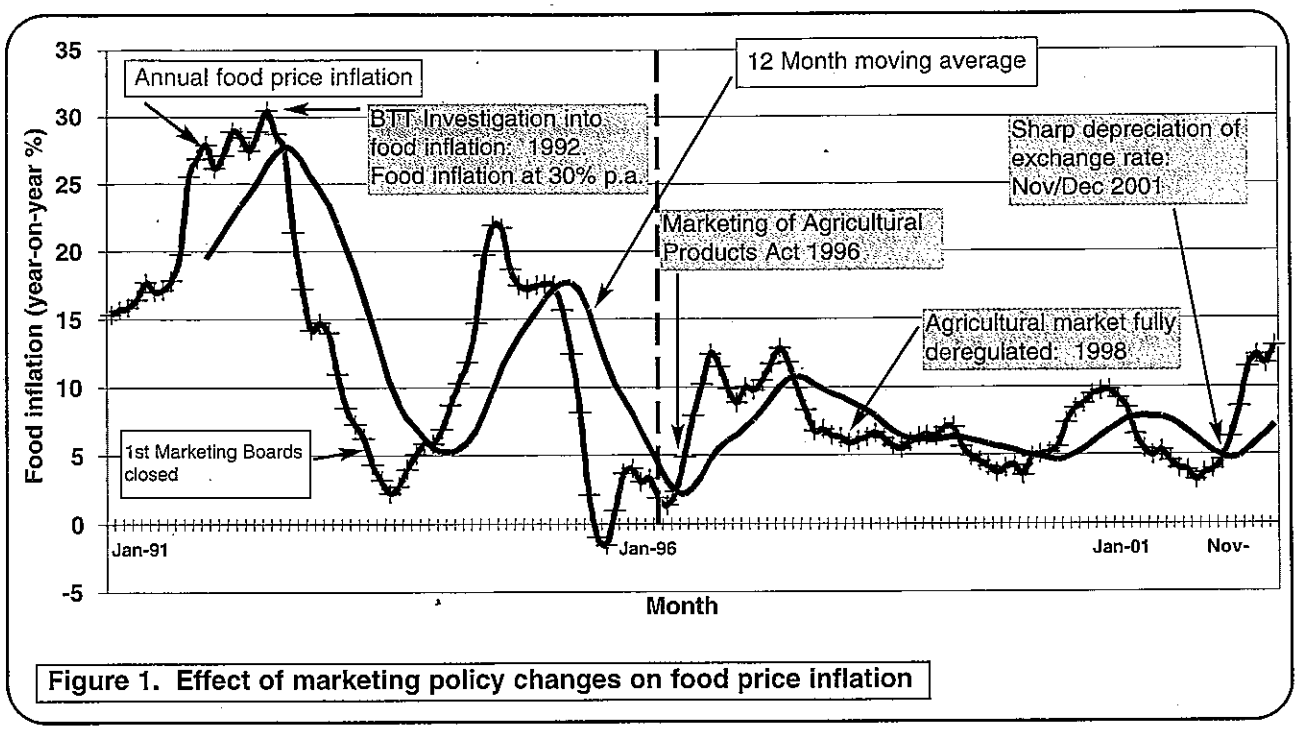

Figure 1. Effect of marketing policy changes on food price inflation

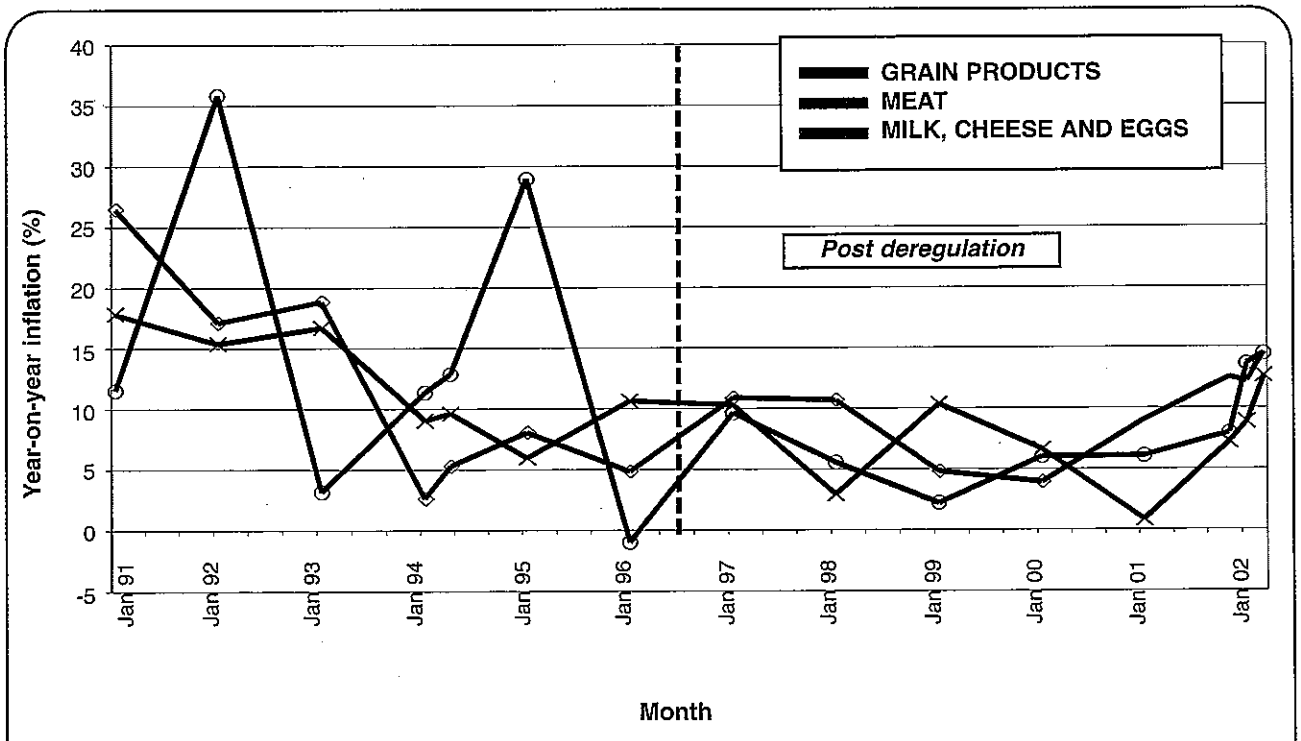

Figure 2. Effect of marketing policy changes on year-on-year inflation of selected commodities

be directly influenced. Regional agricultural policy, as an example Zimbabwe, will influence the whole region and will be a particular challenge.

DECLINING DOMESTIC GRAIN PLANTINGS

The implementation of a deregulated marketing and pricing policy and a free trade approach resulted in an increase in competition in the domestic grain industry and agricultural industry in general. In most industries this resulted in a decrease in domestic production, to avoid the low prices of exporting grain surpluses, especially with a strong rand and international grain subsidies to compete with and a very expensive domestic transport system.

The facts are well known, i.e. that maize plantings declined from over 4 million hectares in the early 1990s to below the current 3 million ha. In the case of wheat the hectares declined from 1.5 million ha to below 1 million ha (**Figure 3**). This trend was evident in a number of agricultural industries, as producers adapted to an increase in competition.

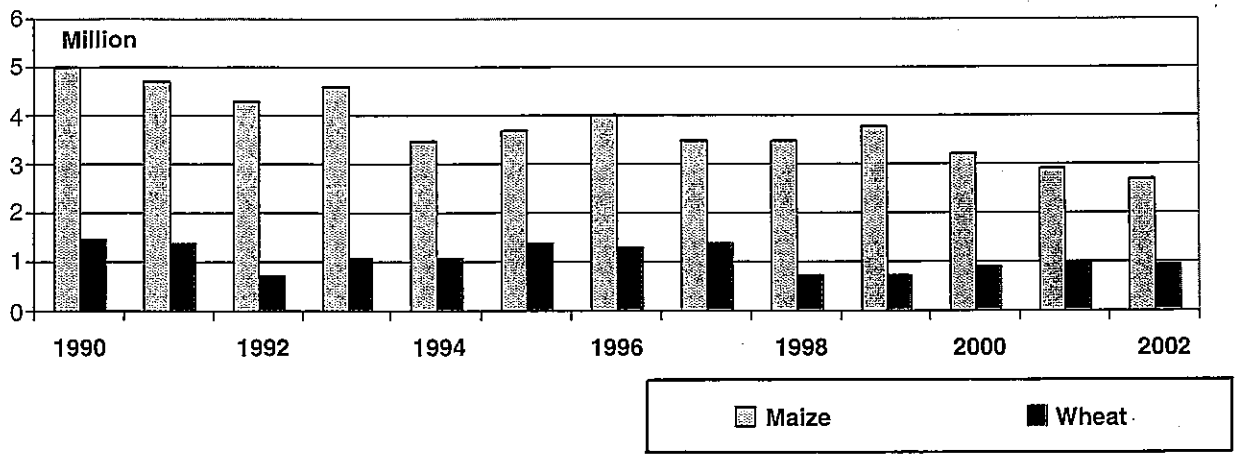

Figure 3. Grain hectares planted in South Africa

Domestic grain and agricultural supply declined, relative to population growth and growth in demand, as the following graph clearly shows (**Figure 4**).

REGIONAL SHORTAGES

Declining SA domestic grain production was not a problem up to two years ago, as the Southern African region was relatively self-sufficient in grain production. Regional agricultural and macro policies resulted in a sharp decline in regional grain production, especially Zimbabwe.

The SADC Regional Early Warning Unit in Harare reported that the SADC region faces a maize deficit of between 3.2 and 3.7 million tons for the 2002/03 marketing year. Maize opening stocks are down by 81% to only 584 kt, compared to last year's 3.03 million tons stock level. The projected maize surplus of South Africa will not be adequate to cover the import needs of the SADC and sourcing will have to be done from outside the region. The same situation applies to wheat and other grains in the region.

However, both the Early Warning Unit and the FAO warn of low import delivery, in which only 36% of planned regional imports have been received. Urgent food aid supply is required, according to the unit, to avoid mass starvation. Up to 10 million people could be facing serious starvation, according to the latest report of the FAO. Sharp increase in regional grain prices, up to 300%, was reported in some countries in the region. The FAO also points to inadequate infrastructure to handle grain transport in the region.

It is also known that local millers of grain are seriously worried about the ability of the rail and road system to do adequate supplies. Current estimates are that

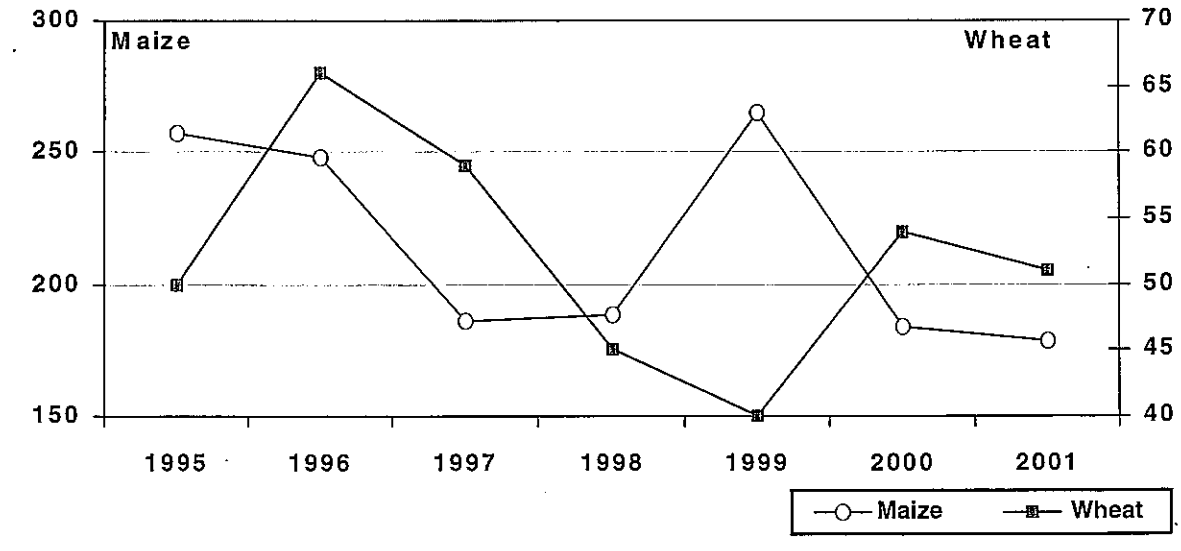

Figure 4. SA per capita grain production (kg/year)

South Africa alone will have imported more than 300 kt maize and 250 kt wheat in the first six months of this year, with more to come during the second half of the year.

The SA Weather Service also announced during May 2002 that El Nino is strengthening, which will affect the next production season negatively in Southern Africa.

The result is that South African white maize and wheat prices (SAFEX basis) were pushed above import parity at the coastal regions, complicating the situation further. The following graph (**Figure 5**) shows the trend.

Analysts are of the opinion that the regional shortage will continue up to at least 2004 and possibly beyond. This will be a particular challenge for regional agricultural policy in the next few years, which will also impact directly on the South African grain industry.

EXCHANGE RATE AND DOMESTIC PRICE LEVELS

The sharp deterioration in the exchange rate of the rand against the US dollar had an important effect on the domestic grain industry. Underlying regional shortages already started to move prices towards import parity during the third quarter of 2001. The subsequent 37% devaluation of the Rand/US dollar exchange rate, pushed import/export parity prices higher in direct relation, as most international prices are based on the Chicago Board of Trade prices or Kansas City Board of Trade prices.

Figure 6 illustrates the trend clearly.

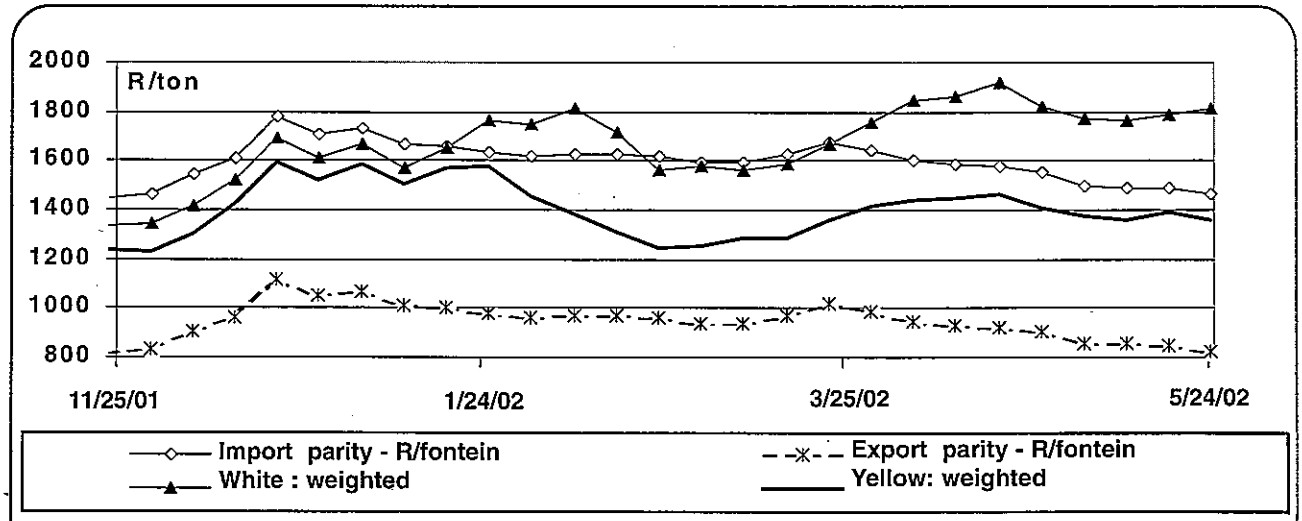

Figure 5. Maize prices: Randfontein

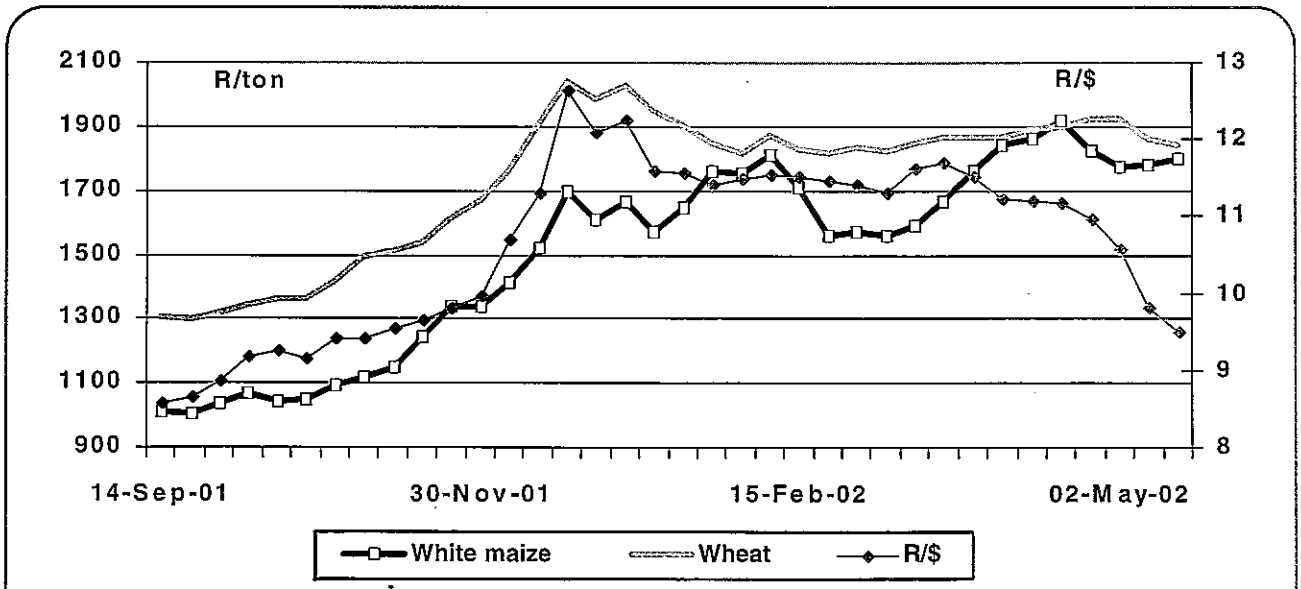

Figure 6. R/$ and grain prices

Domestic and regional grain price levels are directly influenced by the exchange rate, which has a very important effect on the domestic viability of the grain industry, especially on farm level, as will be shown. The strengthening in the Rand/US$ exchange rate during May 02 will also have an effect, which must still be discounted by market forces.

USA SUBSIDIES AND FARM POLICY

US Grain prices are the norm for world prices. In the case of South Africa, domestic prices will move in direct relation to the dollar price, via import and export parity prices. Given the free market approach of the SA government, as well as continuous efforts to reduce import duties, make the international dollar price (as well as the Rand/US$ exchange rate) very important for the Southern African grain industry. **Figure 7** shows the trend in US maize prices, on the CBOT.

It can thus be expected that the dollar price of grains in the US will decline further.

The result of this could be that dollar prices continue to decline, and depending on the exchange rate, it will impact directly on the SA grain industry, via product prices and input prices.

President Mbeki was reported to say in Parliament on 30 May 2002, that "huge subsidies for US farmers were unacceptable and SA would engage the US in multilateral forums, as well as bilaterally, on the blow which the subsidies represented to developing countries". However, policy analysts are not optimistic that the US will change its domestic agricultural policy, as the objective of the 2002 farm bill is to strengthen the production capabilities and to ensure further self-sufficiency in a perceived unstable world environment (following September 11, in 2001).

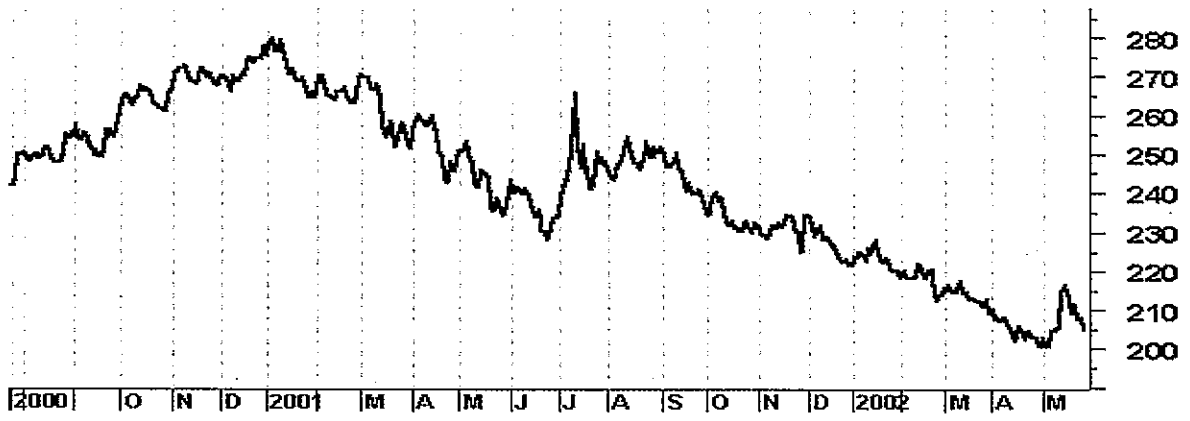

Figure 7. Chicago Board of Trade: Yellow maize price, July 2002 contact, c/b

The US federal support to farmers will increase from the US$100 billion in the 1996 Farm Bill, to an estimated US$ 190 billion in the 2002 farm bill (**Figure 8**). Policy analysts are of the opinion that this will influence world agricultural prices negatively, especially grain in the next decade.

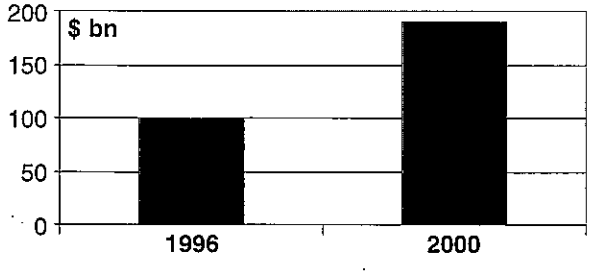

Figure 8. US federal support for farmers

Source: The Economist

It will be a particular challenge to SA grain and agricultural policy to balance the domestic free market approach, with the realities of world trade and US and EU farm policies.

RESEARCH AND POLICY ISSUES

The trends in the previous sections indicated clearly that Southern Africa is not in a position to produce sufficient food. Declining grain production in South Africa is the result of deregulation and producers adapting to the free market forces, while government reduced all farming support to commercial producers, including interest rate subsidies and virtually no drought aid and credit support or debt restructuring, as was the case during the pre-nineties. The policy of no support was clearly stated, although the so-called Mbeki strategic plan, to restructure agriculture, is currently under discussion, without clear practical outcomes to date.

It is clear that policies to stimulate investments and create confidence are required to increase grain production in South Africa, but also in regional context.

The decline in agricultural research capabilities of the Government sector is well documented. Problems in the management of the Agricultural Research Council (ARC) and diminishing capabilities and funding are well known. Also the relative high return on investment on agricultural research is well documented and will not be repeated. **Figure 9** illustrates the problem clearly, with the decline in the budget from central government to the ARC, and the increase budgeted for in the medium term budget framework.

Research capacity to keep the domestic and regional grain production competitive is a pre-requisite. It will require a major policy shift in the very near future, to increase the capacity in South Africa. It is not sufficient to rely only on research of private companies, to keep the local industry competitive and to produce sufficient quantities.

PRODUCTIVITY GAINS

The declining spending on Government's research capabilities did not prevent the industry to improve efficiency, as is evident from the regional data (as an example), compiled by Properboer (Pty) Ltd, a private consulting firm, from data on maize and wheat in the central Free State.

Figure 10 shows the actual yield in the region, as well as the break-even yield (taking costs and income into account). It shows that yield increased up to 1998, with a declining trend since then and a closer movement to break-even yield. Indicating an increase in the risk of not breaking even and a decline in productivity - research? The gap widened in 2002 and is projected to close somewhat in 2003.

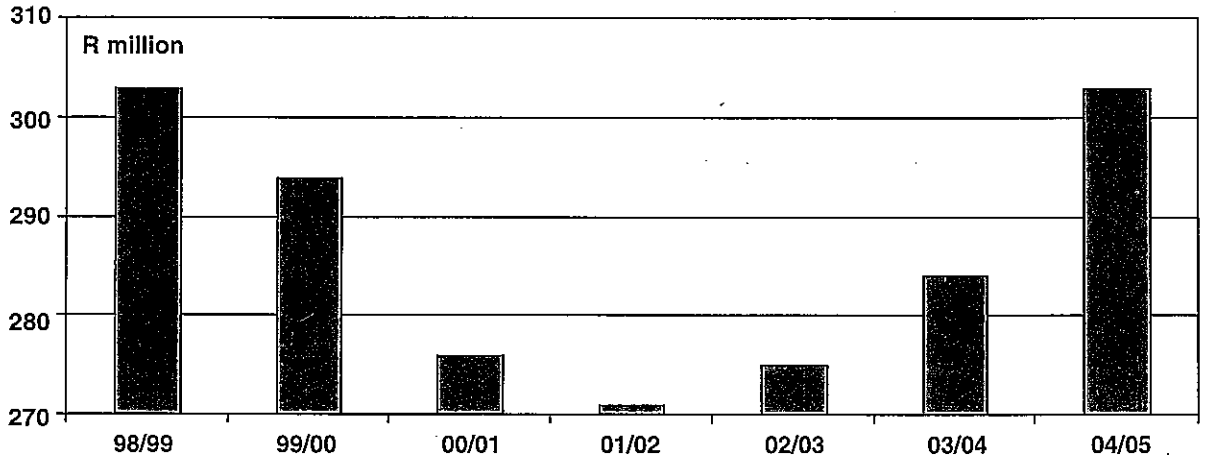

Figure 9. Agricultural Research Council (budget allocations)

Source: Department of Finance

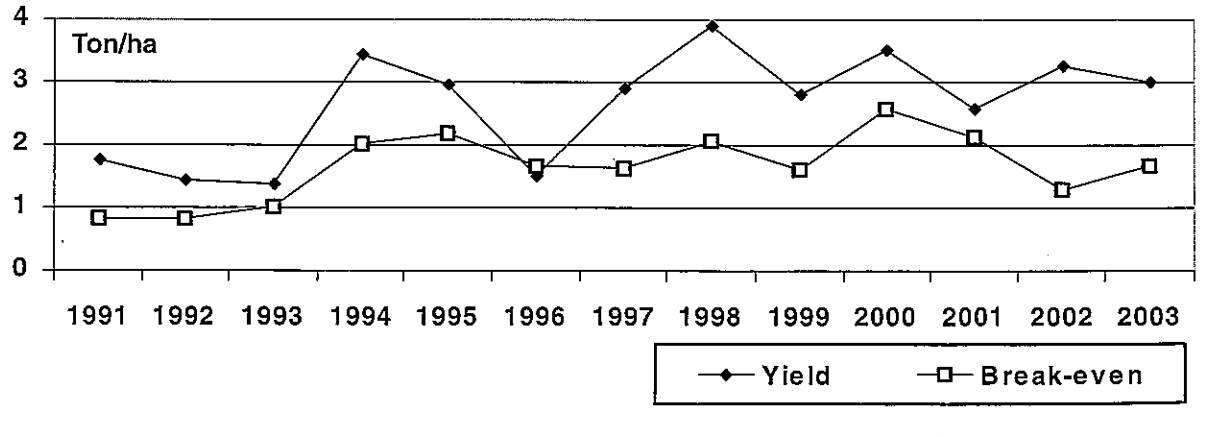

Figure 10. White maize: yield and break-even yield

The increase in yield in wheat is evident from **Figure 11** (increase in productivity), but also the increasing trend in break-even yield, indicating an increase in the risk of not breaking even.

TRENDS IN GRAIN PRODUCTION FINANCIALS

Gross value and costs

The following two graphs **(Figure 12 and 13)** illustrate the **decline in gross margins** in the period 1998 to 2001, as **direct costs increased faster** than income, also explaining the decline in the hectares planted.

The sharp increase in the income projected for the current harvesting season, is a result of input cost made before the rand devaluation, while crops are sold later, reflecting the benefit of the high prices (import parity and more rands per dollar).

Gross margins are expected to drop again in the next planting season, as the higher input prices work through much higher input costs, increasing the risk of not attaining break-even yields in the next year. The sharp increase in production cost for the next year is clear, which is a challenge that needs to be addressed.

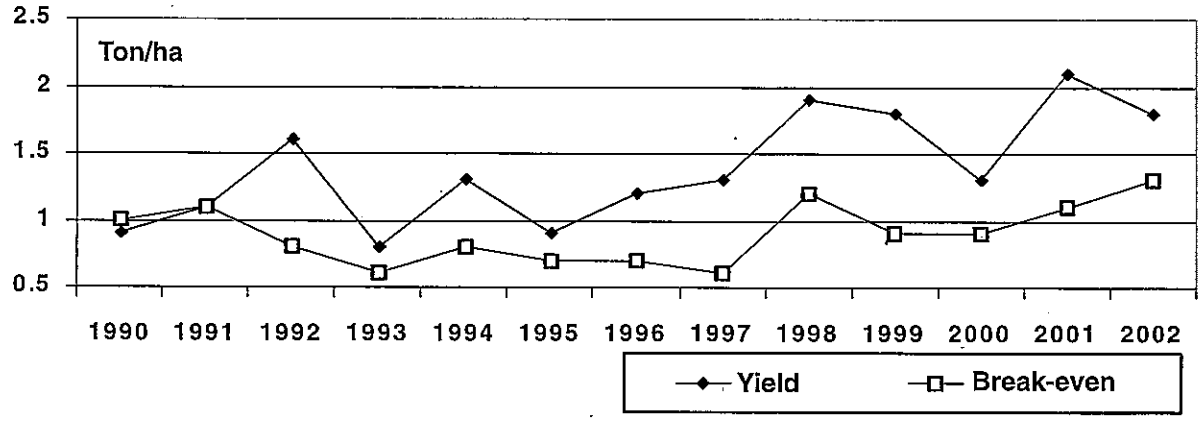

Figure 11. Wheat: yield and break-even yield

Source: Central Free State, E. Prinsloo, Properboer

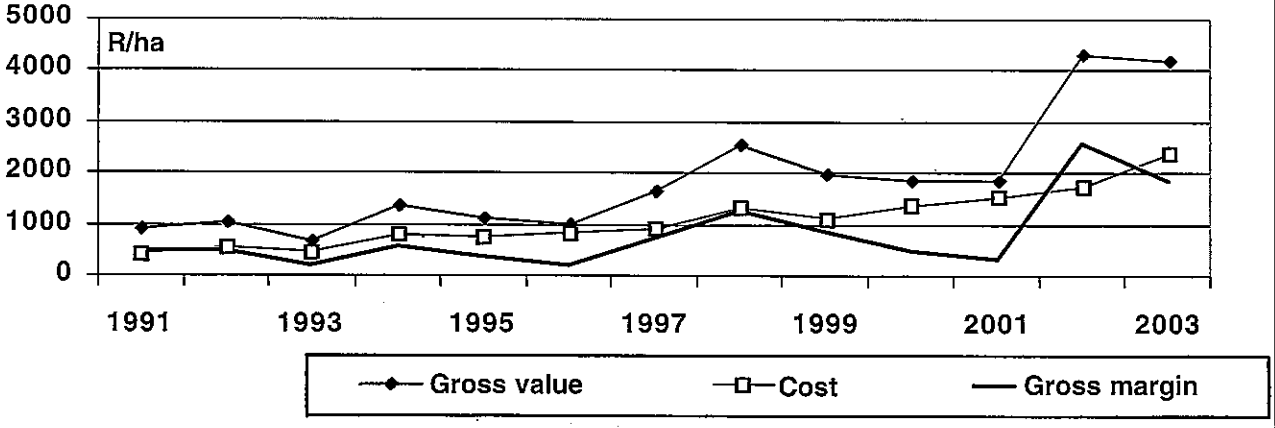

Figure 12. White maize: Gross value, cost and gross margin

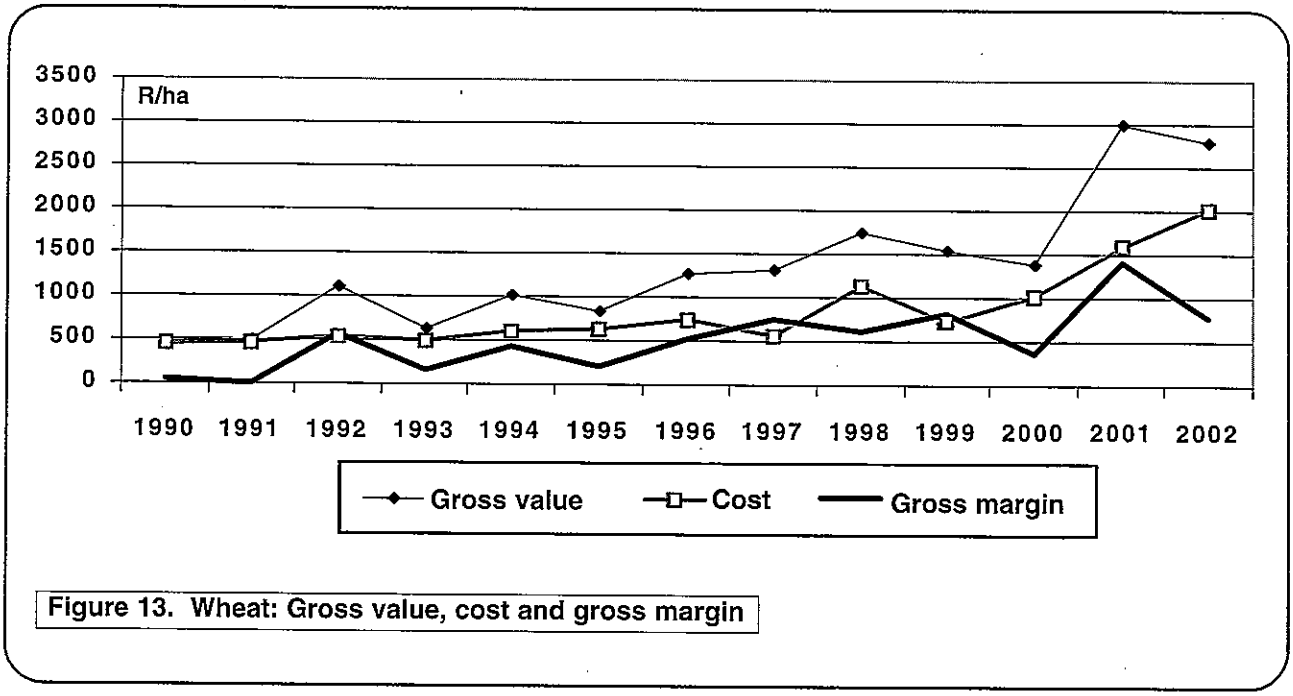

Figure 13. Wheat: Gross value, cost and gross margin

Source: Central Free State, E. Prinsloo, Properboer

Profitability and trends

The following two graphs (**Figure 14 and 15**) indicate the actual yield as percentage of break-even yield and direct cost as percentage of gross value. The higher the yield percentage, the less risk of not breaking even (above 100%). The closer the cost percentage is to 100%, the smaller the gross margin.

Maize yield percentage dropped and cost percentage also increased up to 1996 (negative trend), with deregulation the trends changed more positive. However, a decline during 1998, 1999, 2000 and 2001 is clearly evident as pressure starts to build up again. Profitability declined and yields got closer to break-even. The sharp deviation in 2002 and projected in 2003, is purely the result of the sharp increase in prices, brought by the devaluation of the rand and the regional shortages. We should not be fooled by the underlying trend still being in place and an expected negative trend already emerging again.

On the same basis, wheat showed an improving trend up to 1997, when wheat marketing deregulation took place. Since then, the trends turned negative as yield percentage got closer to 100% and cost percentage was also increasing.

Table 1 illustrates the relative profitability of the different crops, as projected for the new planting season, based on normal yields and making use of

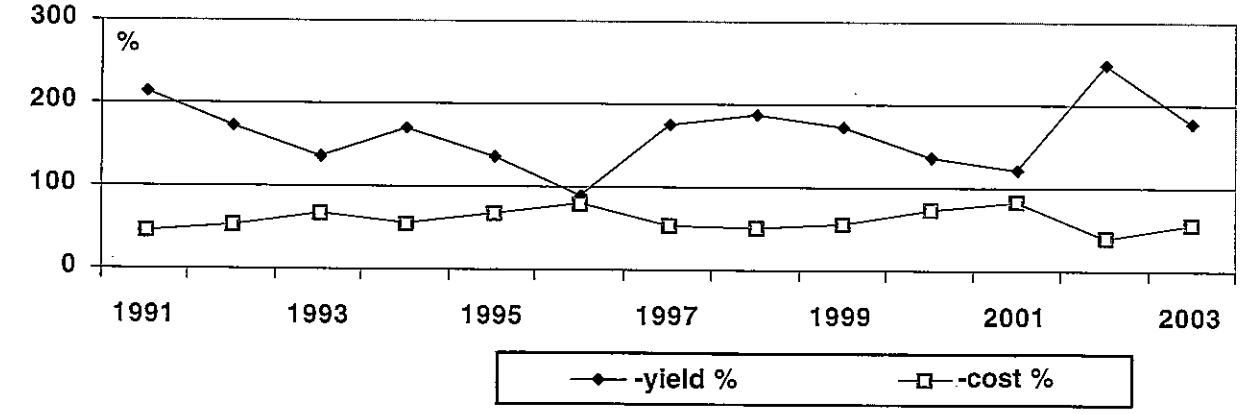

Figure 14. White maize: Yield as percentage of break-even and cost as percentage of gross value

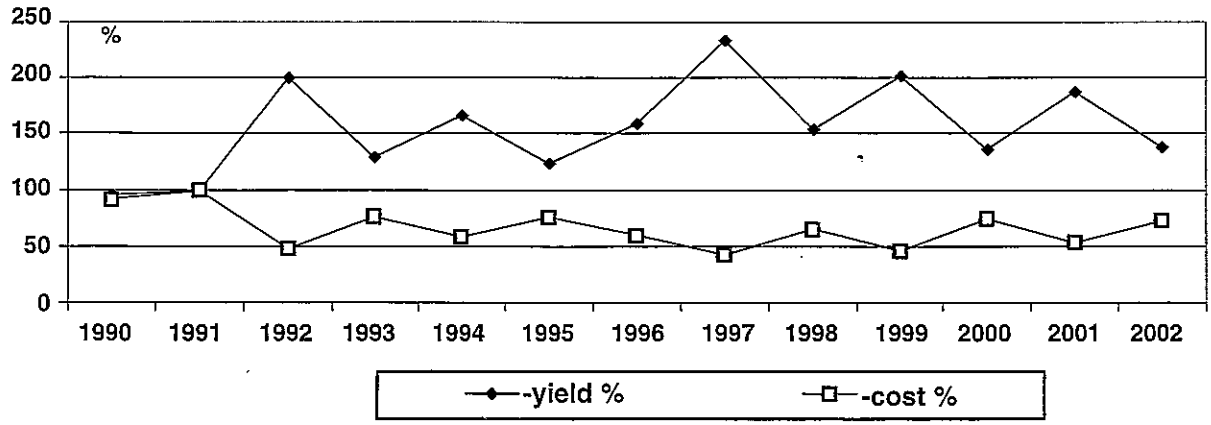

Figure 15. Wheat: Yield as percentage of break-even and cost as percentage of gross value

Source: Central Free State, E. Prinsloo, Properboer

Table 1. Profitability of crops as projected for the new planting season

R/ha	Groundnuts	White maize	Sunflower	Wheat
Gross income	4 894	4 200	3 139	2 790
Direct cost	2 704	2 370	2 047	2 016
Gross profit	2 190	1 830	1 092	774
Gross % of cost	81	77	53	38

Source: Central Free State, E. Prinsloo, Properboer

price hedging possibilities on SAFEX on current price levels (end May 2002).

SUMMARY

- Deregulation of agricultural marketing resulted in domestic, regional and international market forces being reflected in domestic prices - while forcing the grain industry to become more competitive.
- The result was lower food inflation in the post-deregulation period, where trade liberalisation also played a role.
- The SA grain industry is directly affected by trade agreements and regional shortages, which will remain a challenge.
- Domestic grain plantings declined as a result of market forces, dictating smaller volumes to avoid low export prices. SA grain production per capita shows a declining trend.
- Regional grain shortages increased sharply, as a result of poor macro-economic and agricultural policies in the region, linked to unstable politics. Mass starvation and regional movement of large numbers of people - will be a particular challenge. The result is domestic grain prices trading above import parity, as regional infrastructure cannot cope, forcing prices even higher than import parity.
- The sharp decline in the Rand/US$ exchange rate, increased domestic grain prices directly, as most products already traded on import parity, as imports were required.
- US farm support in the grain industry continues to increase, with US grain prices in a declining trend and it will be a particular challenge to balance domestic free market approach, with the

realities of US and EU farm policies.

- Domestic research abilities in SA and the region, are a prerequisite to remain competitive and produce sufficient quantities of grain, for the SA and the region.

- On farming level, producers were forced to become more competitive, but underlying negative forces, continue to increase the break-even yields of most grains, indicating an increasing risk factor. Gross margins declined, while sharp increases in input cost trends continue. The devaluation of the rand and regional food shortages, resulted in a temporarily relieve to producers, but the trend continues. Relative profitability is also changing between industries, which will result in more changes in the next few years, especially with a drier period being forecast.

- Local and regional grain production will have to be supported by a policy that will keep grain production profitable and available in commercial quantities, while ensuring international competitiveness. The current large regional shortages and starvation of a reported 10 million people in the region, is a wake up call for politicians. Their response in the next months and years ahead will be critically important for the future of the grain industry in SA and the region.