

**REPORT ON THE INVESTIGATION OF THE EFFECTS OF
DEREGULATION ON THE MAIZE INDUSTRY**

**NATIONAL AGRICULTURAL MARKETING COUNCIL
(NAMC)**

AUGUST 2003

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ABBREVIATIONS

Animal Feed Manufacturers' Association	AFMA
Agricultural Research Council	ARC
Board on Tariffs and Trade	BTT
Commercial Grain Silo Owners	CGO
Department of Trade and Industry	DTI
Food and Allied Workers Union	FAWU
Grain South Africa	GSA
Grain Silo Industry	GSI
Maize Advisory Committee	MAC
National Farmers' Union	NAFU
National Agricultural Marketing Council	NAMC
National Association of Maize Millers	NAMM
National Department of Agriculture	NDA
Provincial Department of Agriculture	PDA
South African Cereal and Oilseeds Tr Association	SACOTA
	SADC
Southern African Development Community	SAFEX

SECTION 7 COMMITTEE EVALUATING THE DEREGULATION PROCESS:
THE MAIZE INDUSTRY

South African Futures Exchange	SAGIS
South African Grain Information Service	SAGOS
South African Grain and Oilseeds Contract	SANCU
	SANSOR
South African National Consumers' Union	SAPA
South African National Seed Organisation	
South African Poultry Association	

1. INTRODUCTION

One of the NAMC's most important tasks is to monitor the deregulation process in the agricultural sector and its effect on the different industries.

The NAMC appointed a Section 7 Committee to investigate the effect of deregulation on the maize industry, focusing particularly on problems experienced, and to recommend actions to solve these problems. All the directly affected groups registered for maize have on various occasions had the opportunity to make contributions to this Report, and were given ample time to do so.

Once all the directly affected groups had been invited to nominate persons to serve on this Committee, the following individuals were appointed to the Section 7 Committee:

Mr John Gordon (Chairperson)	(NAMC and from Jan 2001 SACOTA)
Mr Willem Stander	(AFMA)
Mr Leon le Roux	(AFMA)
Mr Thomson Ramanala	(FAWU)
Mr Nick Tselentis	(GMA)
Mr Bully Bothma	(GSA)
Dr Kit le Clus	(GSA)
Mr Piet Louw	(GSI)
Mr Ronald Ramabulana	(NAFU)
Ms Lungile Bengu Baloyi	(NAMC)
Ms Lilibeth Moolman	(NAMC as from Jan 2001)
Ms Lizette Mellet	(NAMC)
Mr Jannie de Villiers	(NAMM)
Mr Rod Blondin	(SAFEX)
Prof Tobie van Rhyh	(SANCU)
Mr Walter Loubser	(SANSOR)
Mr Willie Weideman	(SPOORNET)
Mr Zack Coetzee	(SAPA)

2. BACKGROUND

Maize is South Africa's most important agricultural commodity. It is the staple food of the bulk of the population, more particularly of the poor. The industry has strong linkages throughout the economy, both upstream to the input industries and downstream into milling, animal products and food processing industries.

The average quantity of maize milled in South Africa is approximately 3,5 million tons for food and 2,6 million tons for feed. Millers use about 80% of the installed maize milling capacity and employ more than 5 000 people. The feed industry consumes mostly yellow maize in the manufacture of animal feed. Feed production in South Africa is estimated at more than 6 million tons per annum, and maize represents about 46% of the total feed produced annually. The poultry industry is the largest consumer of feed produced locally. Between 3% and 5% of the feed produced in South Africa is exported to the Southern African Development Community (SADC) region. Starch and glucose manufacturing industries consume more than 500 000 tons of maize per annum.

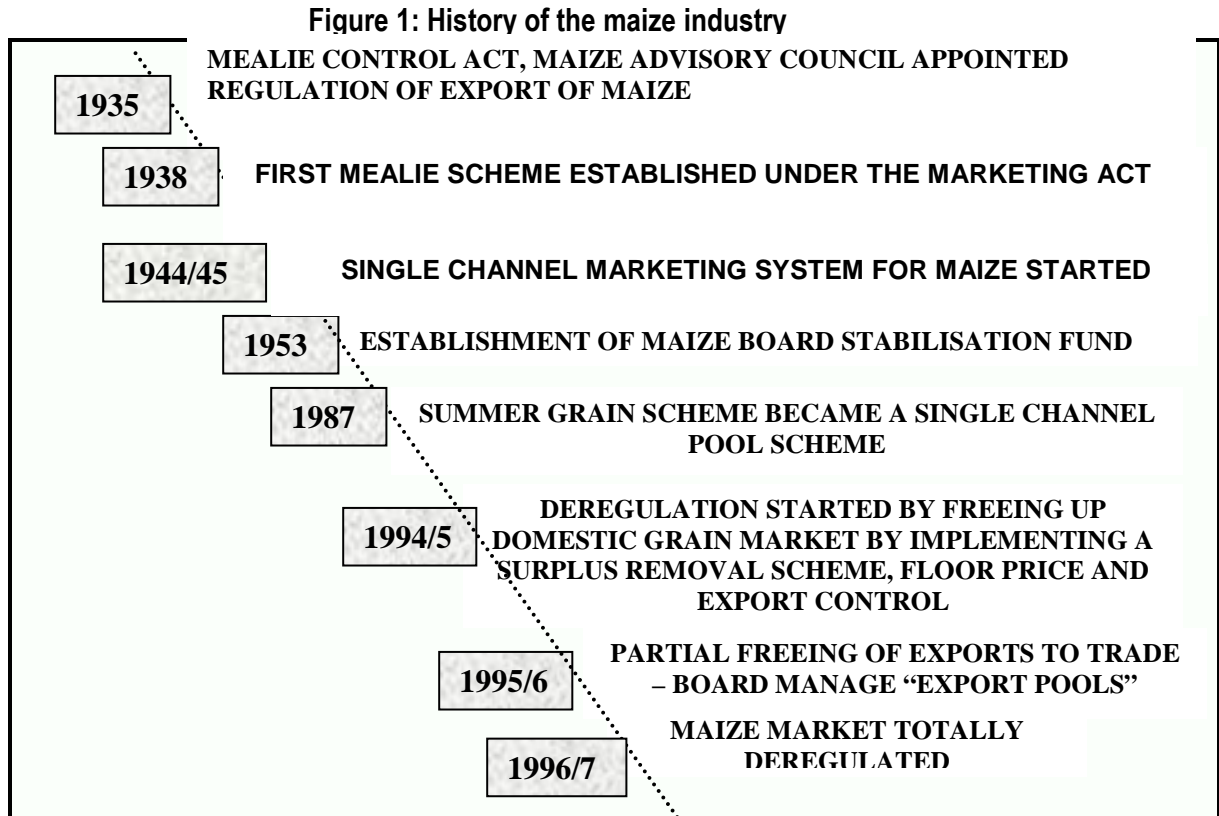
3. IMPORTANCE OF THE VALUE CHAIN

The maize industry plays a very important role in the economy. It is the largest locally-produced field crop and the most important source of carbohydrates in the South African Customs Union (SACU) for human and animal consumption. South Africa is the main maize producer in SACU, with an average production of approximately 9 million tons per annum over the past ten years. It is estimated that more than 9 000 producers are responsible for the bulk of the South African crop, while the rest is produced by many thousands of small-scale producers.

The grain milling industry is classified under “*manufacturing*”, which currently makes the largest contribution (18,2%) to South Africa’s gross domestic product. (The agricultural, fishing and forestry category contributes 4% to GDP.) Within the manufacturing sector, “food and food products” makes the biggest contribution (13,6%) of which grain milling accounts for 2,8% (Statistics SA, 2001).

4. EFFECTS OF DEREGULATION

The history of control and subsequent deregulation in the maize industry is illustrated in the following diagram:



The rest of this section reports back on the inputs made by the different sectors represented on the Section 7 Committee that investigated the effects of deregulation on the maize industry.

4.1 EFFECTS ON THE MAIZE PRODUCERS

The following inputs were received from GSA on behalf of the maize producers.

Deregulation basically started in 1987 when the Maize Marketing Scheme was changed from a single channel, fixed price system to a single channel, pool price system. This introduced a degree of fluctuation in producer prices, albeit only annual. The Maize Board then also introduced direct transactions between producers and domestic consumers, and the concomitant restrictions were gradually relaxed during the following few years. These deregulations allowed for some minor price differentials between localities. They also sent early warning signals to producers to start planning for the inevitable, and the effect of the final deregulations was therefore rather less dramatic than might have been the case.

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The next step in the deregulation process was taken in May 1995 when the domestic market was deregulated (except for the institution of export levies) and single channel export pools were introduced. In May 1996 the single channel regulations on the export pools were relaxed, allowing international traders to export directly. During 1995, too, the Maize Advisory Committee (MAC) was instituted as a policy-making body for the Maize Board, and although the discussions in the MAC created serious acrimony among interest groups in the industry, the body did enable producers to prepare themselves and the market environment for the final deregulation. Unfortunately, the intense acrimony and suspicion among the interest groups prevented some of the producers' recommendations from being properly accepted, but in the end the producers, as a group, were probably better prepared for the final deregulation than the other subsectors of the industry. Notwithstanding this, the final deregulation still had a dramatic impact on producers.

For the producers, the deregulated market, which finally came into effect in May 1997, manifested itself in wildly fluctuating prices, a serious lack of market information and virtually non-transparent local markets. There was a relatively rapid decrease in the area planted to maize (especially yellow maize) and regional shifts in the area planted to maize (notably of white maize into the eastern regions). This caused the demise of many producers, but created better opportunities for others (those who learned to manage price risks and opportunities). It stimulated a greater willingness to take the risk of further diversifying and encouraged better production and labour efficiencies. Together with the introduction of draconian labour legislation, the deregulation induced rapid lay-offs of farm workers. In the final analysis, the deregulation allowed significantly higher domestic maize prices than the government would have been prepared to set under the previous regulated regime.

In 2000, producers were still experiencing the following problems:

- **Adjusting to fluctuating prices**

Prices not only fluctuate in concert with world prices and the rand/dollar exchange rate, but also between domestic import and export parity levels due to domestic production surpluses and deficits. The creation of SAFEX (South African Futures Exchange) provided a useful instrument for managing price risks and opportunities, but very few producers have so far learned how to use it. Most of the training courses on price management are inadequate, and many producers are still not prepared to attend training courses. Producers are, however, diversifying their production structures in order to decrease their risk profiles, but for this they need better guidance on crop rotational programmes than is currently available.

- **Lack of support from commercial banks in price management**

Many of the commercial banks' managers do not understand SAFEX-based price management strategies, and instead of encouraging producers to manage price risks and financing SAFEX's margin requirements in separate accounts, too

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many of them follow an approach of not being willing to finance producers to “gamble on SAFEX”.

- **Lack of market information**

SAGIS (South African Grain Information Service) was initially set up to report on the ownership of maize rather than on the movement of maize. It was also tasked with reporting year-to-date information and not with doing full-year projections. The National Crop Estimates Committee’s (NCEC) performance was far below par. SAGIS’s performance recently improved significantly, but the NCEC’s performance is still suspect.

- **Lack of information dissemination**

Most producers do not have internet access, and therefore do not have access to real time market information.

- **Lack of local market transparency**

Domestic consumers act in a way that is typical of consumers in other emergent free markets. By trying to hide the prices they pay, they give “mandates” to only a few selected agents who, in turn, make bids to individual producers on a one-on-one basis. The result is a distinct lack of competitive bids and offers for both consumers and producers.

- **Disintegration of export premiums**

The Maize Board used to select super grades of white and yellow maize for export, thereby building a quality premium in the export markets. As the only exporter of South African maize, it also extracted locality premiums in nearby markets. The deregulation eroded both these premiums.

- **Poor intra-industry relations:**

The acrimony of the MAC days is still largely present and sours the ability of the maize industry to grow into maturity.

- **Immature trading environment**

The fact that maize is mostly forward contracted via agents places a strong emphasis on fully negotiable warehouse receipts, the proper clearing of receipts, standardised grain contracts and an efficient arbitration mechanism. The development of these instruments is currently too slow a process.

- **Deteriorating transport capacity**

The deregulated free market shows no discipline with regard to the utilisation of transport capacity, which is a serious concern to producers.

- **Adjustment of grading standards**

The new environment calls for the adjustment of grading standards but leaves unanswered the question of exactly what the new standards should be. Acrimony and distrust are causing role players to revert to the old ways of petitioning government, instead of sitting down together and evolving new standards.

- **Funding and support of research**

Producers are concerned about the long-term plan of government as regards the funding and support of research. Producers should be assisted to become more competitive by applying the best cultivation practices with the best cultivars. Government research and extension services should cooperate in a partnership with the private sector to supply the most efficient services and relevant, high-quality products.

- **Lack of understanding of mature free markets**

Many role players still do not properly understand how and why free markets operate, and confront producers with various strange schemes. Producers perceive many of these as attempts to manipulate the market against them, and this leads to poor intra-industry cooperation.

4.2 EFFECT OF DEREGULATION ON THE COMMERCIAL GRAIN SILO INDUSTRY

The following inputs were received from the grain silo industry (GSI) on behalf of commercial grain silo owners (CGOs).

Since deregulation in the maize industry the throughput at commercial grain silos and the income basis of CGOs have been under pressure. Factors that have contributed to the above are the following:

4.2.1 Throughput

The following developments and factors influence the throughput at commercial grain silos:

- On-farm storage facilities have increased.
- Permanent grazing has been established on land previously planted with maize.
- Producers deliver direct from farms to processors.
- Market forces (local and international) influence maize prices, which could lead to lower production patterns.
- Import control was lifted irrespective of local production, which could lead to lower production patterns in the long run.
- Grain silos were not built as throughput silos and therefore have limited capacity to simultaneously receive and outload by road.

- Maize has to be stored over longer periods of time, placing silos under pressure when receiving a new crop and/or other grain crops.
- Different quality specifications of buyers/processors necessitate more compartmentalisation, which puts pressure on the available storage capacity.
- Quality (cultivars) preferences of buyers and location differentials result in some CGOs having a lower throughput than others.

4.2.2 Administration

The following developments in the maize industry mean CGOs have had to adopt more sophisticated, costly administration methods:

- The number of traders/processors has increased dramatically.
- Marketing instruments and mechanisms have increased
- The various traders/processors all have different administrative and logistical needs.
- Spoornet's infrastructure has deteriorated and this has brought about an increase in road transport.

4.2.3 Income basis

The following developments in the industry have brought the income basis and therefore the margins of CGOs under pressure:

- Grain silo service costs can only be recovered on throughput over time.
- CGOs operate in competition with processors, on-farm storage and each other.
- The risk of quality and quantity is borne by the silo owner.
- CGOs have been compelled to upgrade their road handling facilities - roads, weigh bridges and outload ducts – at great cost.
- Additional administrative needs and the increase in outloading by road have increased CGOs' costs.
- More varieties have resulted in increased handling requirements at CGOs.
- CGOs are expected to render services to finance stocks and silo costs, and to manage stocks and credit on behalf of buyers.
- Lower throughput occurs from time to time in different regions.

4.2.4 General

Since deregulation the following general developments have taken place:

- The free market has led to better communication between producers, silo owners, traders, processors and government.
- New marketing instruments and mechanisms have been developed.
- SAGIS was established as an information centre.
- The producers and CGOs have to perform in a competitive environment.
- The market is serviced predominantly by a few big traders/processors.
- A considerable shift has taken place from rail to road transport.

- Government funds for research and development have decreased substantially.
- Employment in the maize industry has decreased.

4.3 EFFECT OF DEREGULATION ON TRANSPORT LOGISTICS

Spoornet tabled the following changes in transport logistics.

4.3.1 Domestic market

- In the regulated era, only a few role players (Marketing Boards) operated in the market. In the deregulated market there are as many role players as opportunities, which creates additional demand for transport capacity.
- In the past a few role players coordinated transport to ensure that service could be delivered to customers as promised within a framework that took the total industry into account. In the deregulated market there are too many role players with their own objectives and personal views, and the utilisation of available transport capacity is no longer coordinated.
- Communication of commitments and transport requests to various role players is not adequate. Role players do not all synchronise their demands and requests for transport. Instructions for loading and receiving goods are not executed according to a single operational plan. Each role player acts according to his or her own objectives and preferences.
- Because a deregulated market is driven by profit, market forces determine the demand for transport. High peaks and valleys are created in the supply of capacity in general. More lucrative value chains are over-exploited and other available infrastructure is under-utilised.
- Deregulated market transport requests are more complicated to fulfil, as each and every role player sources products independently, to his or her best advantage, thereby creating an exceptionally diversified transport demand. Optimisation of resources is therefore not possible, as it becomes necessary to fragment the resource capacity in order to meet all the different demands.
- Due to fragmentation in the industry and short notice demands on resources, proper planning of transport capacity in terms of distribution patterns is not possible. There is not always sufficient time in which to respond to all the different needs, thus delivery is not always executed as requested.
- Deregulation has opened the doors to the large international role players. These role players dominate the market by opting to control certain value chains, leaving smaller role players out in the cold or forcing them to make use of less lucrative options. With the large volumes they control they can exercise considerable influence over the market at will, making it difficult for smaller role players to succeed.
- The deregulated market does not take into account the production volumes of grain in specific areas. As infrastructure for storage can come under pressure when yields improve, these crops have to be transferred, creating more

pressure on transport capacity, whereas in a regulated market, the Wheat Board coordinated and controlled storage end movement of grains.

- The deregulated market is driven by commodity prices. Although the product is available in South Africa, when international prices drop imports may take place. This creates alternative distribution patterns that affect the productivity of the transport industry, as the product is not imported in consumer parcel sizes.

4.3.2 Imports

- Consignments of import traffic are not in a parcel size that can be handled by receiving customers.
- In the deregulated market the different import agents do not coordinate the goods. This results in too high a demand for transport capacity.
- Importers of other grains, such as wheat, do not take account of domestic demand on transport capacity. They react only to commodity prices and make no effort to spread the demand for transportation over a time period.
- Importers do not take cognisance of the seasonal demand for transport.
- Imports are taken in by harbours acting as trans-shipment facilities and not as buffer storage facilities, thus creating excess demand for a short period on a specific distribution channel. This demand is not constant but fluctuates as grain is imported, or between different ports.

4.3.3 Exports

- In the deregulated market there is no coordination between different export agents. In the regulated market one body addressed all restrictions and utilisation of capacity and facilities from a global point of view, and coordinated all exports.
- The trade does not utilise unit train capacities as export products are not available at specific loading points that are capable of loading large quantities in a short period.
- Export grain has a specific identity for a specific agent. Export facilities cannot be used to the full extent as was the case in the regulated market, where one party coordinated the surplus removal in the interest of the industry as a whole. Individual interest is making it difficult for the logistical chain to operate to maximum potential.
- Surplus removal does not take place from the locations at which the product exceeds the capacity of the handling facilities (storage), but from the locations at which the trading agent bought the product. Extra transport capacity is needed to relieve storage facilities when they are overflowing with products.
- In the deregulated market, exports are driven by market demand and commodity prices. When an opportunity arises, the free market will push to do whatever business is available, without taking into account the available infrastructure. Transporters are blamed if they do not have the capacity to handle the exports. When the market turns bearish exporters will not trade as their profits are in jeopardy, and there is no incentive for them to utilise infrastructure to its optimal potential for a given agricultural season.

- Based on commodity prices the free market will import and export maize at the same time, thereby making it difficult for the infrastructure to cope.

4.3.4 General

In general, Spoornet is in favour of a deregulated free market. It is, however, seriously concerned that the free market has no discipline regarding the utilisation of infrastructure, transport capacity or business processes. The industry should adopt a policy of blacklisting or otherwise penalising role players who default on their performance regarding communication to all parties, failure to support business processes, not supporting industry strategies, poor administration of documents (financing and silo certificates) and misuse of capacity in the value chain. A role player such as Spoornet cannot execute this regulatory function as it also operates in the free market under competitive conditions.

4.4 EFFECT OF DEREGULATION ON MILLING INDUSTRY

The following inputs were received from the National Association of Maize Millers (NAMM) on behalf of the dry milling industry:

4.4.1 Transport of grain

- The industry is experiencing problems with regard to the national carrier and service provider of rail transport.
- Truck turn-round time is slow, as trucks are sometimes used for storage purposes. Trucks also take too long in returning from neighbouring countries.
- The reallocation of trucks at grain silos is problematic.
- Theft from grain trucks has become a problem.
- There is no information available on the location of trucks, thus millers do not, for example, know when trucks will arrive at the mill.
- There is a general trend to quote grain prices on a mill door basis.
- There is an infrastructure limitation at mills, especially the older ones that cannot receive grain by road.
- Diesel price increases make a significant impact on transport costs in general.
- The overloading of trucks creates problems for our road networks. Truck drivers who are guilty of this practice are connected by radio and warn each other of any police roadblocks for checking on overloaded vehicles.

4.4.2 Production

- There is a lack of information on the quality properties of South African cultivars.
- The grading regulations do not reflect market demands.
- Research is focused on yield and not on quality.
- New mechanisms implemented since deregulation, e.g. SAFEX and SAGOS (South African Grain and Oilseeds Contract), are working well.

- The accuracy of crop estimates is questionable.
- The future of genetically modified organisms is uncertain.
- Relationships between industry and the Agricultural Research Council on the future financing of research need to be strengthened.

4.4.3 Grain storage

- Infrastructure must be developed for bulk generic handling.
- There is a lack of flexibility to store products separately.
- More could be done to add value, e.g. the cleaning and separate storage of grains.

4.4.4 Harbour facilities

Big grain traders use the harbour facilities by booking certain slots which are sometimes misused to reallocate rail trucks.

4.4.5 Milling industry (dry milling)

- There is increasing general awareness in the industry regarding quality.
- The ease with which the small millers can get in and out of the market causes major disruptions for the more established market players.
- Small miller practices that can be problematic include the following: In years when there is a shortage of white maize and high maize prices, small millers tend to withdraw from the market. They buy in from the bigger companies that have bought forward supplies in order to protect their trademarks. Once the price drops, the small millers utilise the cash market to undercut the bigger role players. In a surplus season the bigger role players normally have to protect their trademarks by securing enough white maize via pre-season contracts and thus cannot benefit from low prices to the same extent as the smaller role players. This has a major impact on the profitability of the large role players in South Africa, and might also have an impact on household food security.
- Food safety is coming more and more to the fore and research and monitoring are being carried out in the free market environment to ensure safe food in South Africa.
- As regards labour, the number of people employed in the industry is constantly decreasing.
- There is also a general trend to privatise certain services in the milling industry, e.g. cleaning services. People are laid off and form their own private cleaning organisations with a reduced number of staff.
- Theft of maize meal products remains a problem in the industry.
- Theft at country depots remains a major problem in the industry.

- Approximately 70% of the maize meal is distributed via the wholesale chain stores. This causes some concentration in the value chain.
- There are distributing companies to distribute maize meal to the spaza shops in the townships.
- Poor management by some municipalities has resulted in electricity cuts by Eskom. These cuts affect the mills, irrespective of whether they have paid their accounts. This could ultimately cause a major food security risk by affecting the availability of products in South Africa.
- The profitability of the maize milling industry is currently deteriorating. In 1998/99 the profit on turnover was 5,3% (before tax and interest). In 1999/2000 it decreased to 0,7%. This return does not attract any new investment and is a cause for concern.
- From interviews with milling executives, it would seem as if some of the chain stores get a 13-day turn-around of maize meal products but are only liable for payment after 90 days.
- Small millers do not have the capital and storage infrastructure to ensure a constant raw material supply in years of drought and high prices. Their inability to import also limits their ability to keep their customers constantly supplied.

4.4.6 Trade policy

- The trade policy of the South African government determines the future markets of the maize milling industry and the number of competitors.
- The conclusion of the SADC Agreement will enable all SADC countries to enter the South African market. However, the South African milling industry will only have free access to other SADC markets between 2009 and 2012. This creates a very uneven playing field. In the meantime government is also considering entering a free trade agreement with Mercosur (Brazil, Argentina, Uruguay, Paraguay), which is a large exporter of maize and maize meal.
- For the medium term it seems as if trade policy will only bring about increased competition within the South African milling industry, with no improved access to other markets. Government's current choice of trade partners is a threat to the future existence of a currently viable industry that supplies a staple food to the nation.

4.4.7 Quality of white maize

Newly-developed varieties with a very short growing season produce a softer kernel, which is smaller than the normal kernel size of South African white maize. These varieties (smaller and softer) cause tremendous problems in the milling process, which ultimately lead to a poor extraction rate. The softer kernels also tend to be subject to bigger percentages of breakages during the handling process. This increases the number of screenings and unusable materials and results in financial losses to both the storage and milling sectors in the industry.

4.4.8 HIV/Aids

In the latest International Monetary Fund Report on HIV/Aids in Southern Africa, issued on 19 September 2000, the joint United National programme estimates

that approximately 36% of the adult population in Botswana, 25% in Zimbabwe, 25% in Swaziland, 20% in South Africa and 20% in Zambia are HIV/Aids infected. The United States Census Bureau predicts that life expectancy will fall from ± 60 to around 30 years in the worst affected countries. This will have a major impact on future overall consumption as well as on the per capita consumption of maize meal. It is also predicted that a generation of orphans – estimated at up to 10% of the population in some countries – may grow up without the support and guidance of adults. This change in the composition of a country's population will also have a major impact on the per capita consumption of a staple food like maize meal.

4.4.9 Tariff process

The following timetable indicates the lengthy process followed in order to implement a new tariff or to get an approved tariff changed in the maize industry:

•	<i>BTT</i>	<i>Application for review made to</i>	<i>2 July 1998</i>	
•	<i>comments</i>	<i>Government Gazette inviting</i>	<i>21 August 1998</i>	
•		<i>BTT final report</i>	<i>21 June 1999</i>	
•	<i>Council report</i>	<i>National Agricultural Marketing</i>	<i>14 July 1999</i>	
•		<i>Minister of Agriculture report</i>	<i>22 October 1999</i>	
•	<i>Gazette</i>	<i>Final publication in Government</i>	<i>24 March 2000</i>	<i>R107-00 per ton</i>
•		<i>International price triggered</i>	<i>25 April 2000</i>	<i>R67-00 per ton</i>
•	<i>information:</i>	<i>Suggested change to source of</i>	<i>29 June 2000</i>	
•		<i>New tariff implemented (old base)</i>	<i>30 June 2000</i>	<i>R67-00 per ton</i>
•	<i>base:</i>	<i>International price triggered (new</i>	<i>17 July 2000</i>	<i>R199-00 per ton</i>
•	<i>base)</i>	<i>International price triggered (new</i>	<i>11 Dec 2000</i>	<i>R137-00 per ton</i>

The industry role players acted strictly according to Report 3976 of the Board on Tariffs and Trade (BTT) to get the tariff on maize changed, but no change has been executed since June 2000.

Government should enquire urgently into the current situation and recommend satisfactory procedures for both making and monitoring tariff applications.

4.5 EFFECT OF DEREGULATION ON MAIZE TRADING

The following inputs were received from SACOTA (South African Cereal and Oilseeds Trade Association) on behalf of the traders in the maize industry.

During the 40 plus years of controlled marketing of maize, a logistical infrastructure was developed to suit the needs and requirements of a single channel marketing system. The single channel market had certain advantages and disadvantages. A major advantage was the implementation of strict discipline on quality and grading standards, which gained South African maize an excellent reputation for quality in the international market and guaranteed local consumers an acceptable and high quality of maize meal.

The single channel marketing system was not driven by market forces and many operations were designed to be convenient and risk free without any profit or cost saving element. This was particularly evident in the storage and movement of grain via the state rail system for both local and export markets.

The deregulated market is driven by the economic forces of supply and demand and in order to take full advantage of sales opportunities, the logistics chain must be more flexible, adaptable and customer driven – in short, more service orientated.

The following points are of concern.

4.5.1 Crop estimates

With only one supplier in a single channel market accurate crop statistics are for record purposes only. This is not so in a deregulated market. A further key element of the deregulated market is accurate, timeous and credible information on supply as indicated in crop estimates. This function cannot be allowed to fail and government must be made aware of the critical importance of this issue and encouraged to ensure that adequate funding is available from the budget of the NDA (National Department of Agriculture).

4.5.2 Grain logistics

The logistical infrastructure, including Spoornet, is a fundamental requirement of the marketing chain from farm gate to consumers both internally and externally. The efficient and cost-effective movement of grain is a vital element in the cost chain and currently amounts to some 25% to 30% of the value of maize. This is a fixed cost element and the lower the price of grain, the more important the “transport/storage” element becomes. Every effort must be made to maximise efficiency and reduce costs if we are to be competitive in international markets, and keep the price of maize meal as low as possible for domestic consumers.

The allocation and utilisation of the limited Spoornet capability and restricted silo capacity in the harbours, must be carefully maintained to ensure that:

- there is no monopoly of facilities by large international trading houses and the eliminating of fair competition

- allocations to smaller users are taken up and are not permitted to remain unused in an endeavour to provide access to all players, many of whom do not always have firm supply contracts but merely a desire to participate.

Some form of industry forum or body accredited but not controlled by government must be established.

4.5.3 Silo/SAFEX receipts: ownership/negotiation

Unlike the single seller in a controlled market, certificates of ownership which ensure the unhindered flow of grain through the marketing system is another fundamental requirement of the deregulated market, and should it be deemed necessary to have a new Warehouse Act, this must be fast-tracked into law by government.

4.5.4 Tariff policy applications

The chaotic bureaucracy that currently exists must be cleared up and a uniform, user-friendly system of applications must be established with a formal timetable and report back to the DTI (Department of Trade and Industry) and the BTT. The infrastructure to administer the tariff and charges must be in place.

4.5.5 Trade policy

A clear and transparent dialogue between all directly affected groups, including NDA and DTI (BTT), must be established via a Standing Committee convened by NDA or DTI to ensure the knock-on effect of bilateral agreements on all industries is appreciated before finalisation.

4.5.6 Grading regulations

South Africa has built up an enviable reputation for quality maize in the international markets over many years and this must not be allowed to be destroyed by any tampering with the grading system unless for long-term, sustainable improvements.

4.6 EFFECT OF DEREGULATION ON FEED MANUFACTURERS

The following inputs were submitted by AFMA (Animal Feed Manufacturers' Association).

AFMA supports the principles of the free market and regards it as the only system whereby it can survive in the long run. It is risky, as prices fluctuate much more than in the past, and it requires better planning by everyone, but every company is now in a position to decide on its own future and survival.

4.6.1 Tariffs

One of the big negatives in the system is the issue of tariffs. Although tariffs are necessary for the protection of the various industries, their implementation causes problems. Normally changes to tariffs take six to 24 months and no free market can accommodate that. Business decisions must be taken quickly and if it is uncertain whether the implementation of a new tariff will take six weeks or six months, industries can lose millions of rands.

4.6.2 Transport

Transport is needed for a range of raw materials for the production of feed. The major products, e.g. maize and oilcake, do not come from the same silos and deliveries are becoming a problem since Spoornet cannot supply the necessary rolling stock.

4.6.3 Roads

The deterioration of roads is not a direct effect of deregulation, but it is a factor that must be taken into account.

4.6.4 Free trade agreements

These agreements are not fully operational but could be detrimental to our industry when products start entering our markets. These products include feed as well as livestock products.

4.7 EFFECT OF DEREGULATION ON CONSUMERS

The following information was received from SANCU (South African National Consumers' Union) on behalf of consumers.

4.7.1 Consumer perspective

In the production chain of any commodity, including maize, consumers expect three things, namely:

- a regular and continuous supply
- of quality products
- at the lowest possible price.

Regarding the first two expectations there ought to be no conflict between producers and consumers. Regarding the third expectation, the possibility of conflict exists because it is natural for producers to endeavour to obtain the highest possible price.

The potential conflict is not insurmountable because responsible consumers are fully aware that producers should be paid a high enough price to enable them to keep on producing.

The following points regarding the deregulation process could be of concern to consumers.

4.7.2 Economic system

Consumers accept that the free market system is the best system yet devised, as long as it is realised that the free market system is not entirely without flaws. One of the main flaws of the system is that consumers more often than not experience price peaks and very seldom price valleys.

4.7.3 Competition

Consumers are concerned about concentration in certain sectors. Of special concern is the fact that retailers in at least some rural areas have little competition and may charge considerably higher prices than retailers elsewhere. The effect of this on the poorest of the poor may be devastating.

4.7.4 Food security

During the period of control the National Marketing Council, government and the Maize Board were jointly charged with the responsibility of ensuring that there was sufficient maize in the country to meet demand. Consumers are particularly concerned about the possibility of shortages because collective consumer anger and frustration can easily get out of control and the consequences cannot always be foreseen.

4.7.5 Tariffs and levies

Tariffs and levies are burdensome to consumers. It is obviously a contradiction in terms for government to express concern about high food prices and at the same time allow monies to accrue to the fiscus by way of tariffs, resulting in higher food prices for consumers. As consumers, we reluctantly accept tariffs and levies as inevitable, but only in so far as they are used to:

- protect local producers against unfair competition, such as the importation of subsidised products; and
- ensure that local production does not cease altogether, which would leave consumers to contend with the vagaries of the international market.

However, consumers are in a global market and generally expect to share in the benefit of low international prices of any commodity. As far as consumers are concerned, there should therefore be a ceiling to tariffs.

As far as levies are concerned, consumers are in favour of levies to fund research, provided that consumers do, at some stage, share in the benefits flowing from such research.

4.7.6 General

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With a few exceptions pertaining to particular commodities, consumers have always maintained that they were, in effect, the sole contributors to the assets of the various control boards of the past. The assets that were accumulated have been converted into trusts to be utilised for projects that will enhance the various industries. Consumers are, however, not represented on some of these Boards of Trustees and this is unacceptable.

5. CONCLUSIONS

Since the dissolution of the Maize Board, the Maize Forum and industry organisations like NAMPO (now Grain South Africa), NAMM, GSI, AFMA, SACOTA and others have engaged in a high level of participation and involvement in industry functions. Although deregulation in agriculture was very abrupt, the maize industry managed to develop mechanisms to improve its functioning, such as SAFEX, silo certificates, SAGIS, crop quality reports, development of smaller traders and brokers. In spite of this, **the following issues were identified by all role players as having arisen from deregulation, and are regarded as key elements that need to be addressed:**

5.1 General failure of the grain transportation system

Numerous difficulties are being experienced with Spoornet's ability, as the national carrier, to timeously move grains. No progress has been made in the past six months in improving the export of surplus grains and distributing grains needed by the processing sector, given the limited number of railway trucks and staff available to perform this function. Deregulation has changed the environment, and Spoornet has been unable to adapt to the market's increased service requirements.

It is felt that Spoornet's stated freight policy benefits larger participants more than it does the smaller members of the industry.

It is necessary to utilise infrastructure, transport capacity and business processes in a disciplined manner. The industry is satisfied that a system of fair default penalties should be followed. A role player such as Spoornet cannot, however, execute this regulatory function and also operate in the free market under competitive conditions.

The Transport Working Group of the Trade Environment Committee of the Maize Forum holds regular meetings with Spoornet's management, while Spoornet and its customers meet every Friday to attend to operational problems and issues. It is felt, nevertheless, that an independent regulator (a formal standing committee) should be appointed to address policy issues. Domestic food millers, wet millers and feed millers, international traders, grain silo industry and local traders should all be represented within the proposed regulator.

The Committee is of the opinion that Government should clearly define its future policy for Spoornet as a national carrier of bulk products.

5.2 Warehouse Act

The maize industry is currently investigating the need for a Warehouse Act. Should such legislation be deemed necessary the NAMC and NDA should fast-track the passage of the industry's recommendations into law.

5.3 Monitoring of consumer prices

Information regarding prices of maize meal is not readily available to all consumers. The Committee is of the opinion that consumer prices of maize meal should be monitored so that consumers may be advised and thus enabled to make informed decisions. At present, Stats SA monitors the retail prices of maize meal in the 14 metropolitan areas and in 39 smaller centres on a monthly basis. These prices are processed into a national average, but no information on prices per region is published. The NAMC should approach Stats SA to obtain the information per region per month.

Consideration should be given to applying for funding from the Maize Trust to publish maize meal prices via SAGIS. It is, however, important for the role players to agree on the type of product and packaging size that is the most popular and that should therefore be monitored. The various locations should also be considered and Stats SA could be used as the source to reduce the cost of obtaining this information.

5.4 Market information

SAGIS publishes information as prescribed by the grain and oilseeds industries. The information is not, however, easily accessible to all the small role-players. Although SAGIS was established to fulfil the information function, problems still exist in accessing information because of the inadequate electronic communication infrastructure available to small role players.

A further aspect is the dissemination of information to small role players, and the capacity of PDAs to fulfil this function is also questioned.

5.5 Tariff process

The Committee reiterated that government's inability to process tariff applications and implement the tariff mechanisms is of serious concern. Government should urgently investigate the current situation, and should establish satisfactory procedures for making and monitoring tariff applications.

5.6 Trade policy

The Minister of Agriculture appointed an Agricultural Trade Forum (ATF) to advise on trade matters related to agriculture and agro-processing. The ATF plays a vital role in bringing the private sector, labour and government together on agricultural trade policy formation. It is a core liaison mechanism in the deregulated environment. However, final decisions on all trade matters are taken at the DTI and communication between the DTI, the private sector and agri-business in the agricultural sector is not effective.

The International Trade Centre in Geneva, Switzerland, funded by the World Trade Organisation and the United Nations, possesses international trade data that will facilitate South African agri-businesses and the agricultural sector to

efficiently select products and markets for export drives. The absence of this information cripples the industry in its efforts to boost export earnings (see the aims of the Marketing Act). The NAMC should obtain this information and make it available to all role players.

It is essential for government to establish proper channels of communication, delineate areas of responsibility, develop procedures for consultation and build the capacity to drive trade policy. Information about export opportunities and developments in international trade should be made available to all role players.

5.7 Quality of white maize

Since deregulation, maize quality has deteriorated as a number of new cultivars were developed which did not conform to the standard handling and milling requirements. These cultivars were not necessarily developed to satisfy consumer preferences.

The main focus of research done on maize in South Africa is on production and the improvement of yield to the farmers. In recent years, greater capacity has been developed to identify maize cultivars most suited for the processing and milling industry.

Deregulation has enabled consumers to be more specific in their product demands for both white and yellow maize. However, the requirements differ between dry millers, wet millers and feed manufacturers. The industry should decide on norms, and the ARC (Grain Crop Institute) should adjust its cultivar trials to evaluate each cultivar per region in terms of these norms and to ascertain which cultivars are best suited to the industry's needs. Recommendations are still needed, as in the past, on what varieties to plant.

It is important to ensure that the government initiative to fortify maize meal does not negate all the progress that has been made in the recent years to improve the quality of maize meal. Maize meal consumers place a premium on the whiteness of maize meal. The statutory addition of vitamin A gives maize meal a yellowish colour, which is definitely not preferred by the majority of consumers of maize meal.

5.8 Grading regulations

Following the demise of the Maize Board, the industry agreed to maintain the maize grading regulations promulgated under the Agricultural Product Standards Act, administered by the NDA. A grading working group, chaired by the NDA and consisting of all role players in the industry, was formed to discuss amendments to these regulations. There is at present a difference of opinion regarding future amendments to these regulations, and there is no dispute procedure in place. A settlement procedure is being negotiated.

The NDA should develop a clear policy or a dispute settlement mechanism to deal with cases of disagreement amongst role-players in the Maize Grading Standards Committee.

5.9 Research on export opportunities

One of the main objectives of the Marketing of Agricultural Products Act is to boost South Africa's export earnings. Very little is currently being done to promote the export of primary and processed agricultural and agri-business products.. The private sector needs information about the international markets, which is presently locked up in government institutions and government-to-government international bodies.

Government should communicate through its trade representatives to develop a stronger focus on maize products rather than maize. The mere existence of an import duty on maize tends to increase the raw price of material to millers who participate in maize meal exports.

The NDA/DTI should have greater capacity in this regard. In addition, there should be a clear demarcation of responsibilities between the NDA and DTI.

5.10 Financing of crop estimates

The financing of the crop estimates process is regarded as a serious concern in the grain industry. Government should make a long-term commitment to finance basic market information.

5.11 Funding and support for research

The industry is concerned about government's long-term plan regarding the funding and support of research. Government research and extension services should cooperate in partnership with the private sector.

6. OTHER GENERAL ISSUES

Many of the changes that have occurred as a result of deregulation are still in the developmental stages and the full impact and responses still have to be experienced. Other unrelated influences have also interacted with the effects of deregulation, and it is not always easy to attribute developments to deregulation only.

The Committee would like to point out the following general aspects that affect the free marketing of maize that are, however, not directly linked to deregulation.

6.1 Consumer and emerging sector representation

The representation of consumers and small role players on industry structures is a concern. Consideration should be given to finding financial resources to enable these role players to attend meetings of the Maize Forum and other industry working groups so that they can give their inputs. These structures, for example the Maize Forum, are open fora and no role players are prevented from participating on a national industry level.

Consideration should be given by the NAMC to finding alternative resources and ways of building capacity, so that consumers and small role players can attend and participate in the meetings. Such representatives should, however, be identified by means of an appropriate system that will ensure that knowledgeable role players participate and represent the smaller constituencies.

6.2 HIV/Aids

There are a number of institutions that are forecasting the impact of AIDS on the total population as well as on the demographic composition of the South African population. However, whatever the forecasts used, HIV/Aids will undoubtedly have a major impact on the consumption of food, especially maize, in South Africa.

Because of its increasing negative effect on the consumption of maize and maize products, government should regularly publish credible, relevant statistics on HIV/Aids infection rates to enable the maize industry to make strategic adjustments.

6.3 Food security

The Committee felt that household food security should be measured and published. A study to determine the impact of agricultural marketing deregulation on food security is currently being carried out by the NAMC.

The increasing incidence of factory stoppages resulting from Spoornet's failure to deliver timeously will impact on household and regional food security, especially in the years of major imports.

Productivity problems resulting from Town Councils' failure to pay their electricity bills have been reported to the Committee. An example is the cutting of the electricity supply to a mill in Randfontein because of the local Town Council's failure to pay. This will have a negative impact on food security should it be repeated.

6.4 Competition

The degree of competition in the maize industry should be monitored. The Marketing of Agricultural Products Act, No. 47 of 1996, makes provision for any directly affected group to request an investigation in this regard.

6.5 Employment

The Committee noted that employment on farms has decreased from 1 worker/46ha to 1 worker/120-200ha on an average grain farm as a result of labour legislation. The number of people employed in the dry milling industry declined from 8 478 in 1999 to 7 272 in 2000.

6.6 Crime

Every sector in the maize value chain is negatively affected by the increasing crime rate.

6.7 Road infrastructure

The lack of maintenance of the road infrastructure has a serious effect on the value chain. The overloading of trucks is not properly controlled as government has been unable to maintain order in the use of the road infrastructure.

6.8 Fuel price

The ongoing increase over the past year in the fuel price, especially of diesoline, significantly affected farmers' production costs. Transport costs have shown the highest increase of all agricultural inputs during the past two years.

7. RECOMMENDATIONS

The Committee recommends the following

7.1 Transport and grain logistics

- 7.1.1 That Spoornet be approached to formally recognise the Transport Working Group of the grain industry as a forum at which to discuss logistical problems.
- 7.1.2 That the Minister of Agriculture should recommend to the Minister of Transport that the transport of grain in trucks be policed at the point of delivery, i.e. at the processing plants.
- 7.1.3 That the NAMC monitor and report to the Maize Forum on the allocation and uptake of rail and export facilities in order to ensure fair competition.
- 7.1.4 That the NAMC's committees on Market Access and Food Security commence a study to investigate the effects of Spoornet's transport policy on the transport of agricultural products and inputs, in order to calculate the cost of government's regional and household food security and market access objectives and the discounting thereof.
- 7.1.5 That Spoornet expedite the establishment of a Standing Committee on grain logistics involving all role players and service providers (including silo owners).

7.2 Warehouse Act

That Government should fast-track the industry's recommendations (if any) in this regard.

7.3 Monitoring of consumer prices

- 7.3.1 That consideration be given to applying for funding to the Maize Trust to publish maize meal prices through SAGIS, so that consumers can readily access information.
- 7.3.2 That the NAMC negotiate with Stats SA to obtain maize meal price information per region per month, and to process and publish the results through SAGIS.

7.4 Market information

- 7.4.1 That the PDAs accept the primary responsibility for disseminating information to smaller role players.
- 7.4.2 That the private sector industry organisations accept primary responsibility for the dissemination of market information to their constituents.
- 7.4.3 That the Minister of Agriculture convey to the Minister of Public Enterprises the importance of electronic data transfer, such as direct satellite communication, for the dissemination of market information purposes, especially in the rural areas

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7.4.4 That international market information currently in the possession of the NDA be made available to all role players.

7.4.5 That the NDA provide continuous funding of a credible crop estimates process.

7.5 Tariff process

That the Minister of Agriculture request an interdepartmental committee to investigate the current tariff process and consider recommendations for a satisfactory application procedure as well as a monitoring procedure.

7.6 Trade policy

7.6.1 That the Minister of Agriculture maintain the ATF as a consultation mechanism between government, the private sector and labour on trade policy and trade issues.

7.6.2 That the Minister establish proper channels of communication, proper definition of responsibility and procedures for consultation, and proper capacity to drive the process of trade policy, between NDA, DTI and BTT.

7.7 Maize quality

That the industry decide on norms, and the ARC (Grain Crops Institute) adjust its cultivar trials to ascertain that the norms set by the industry are incorporated.

7.8 Grading regulations

That the NDA develop a clear policy or dispute settlement mechanism on how decisions on grading standards will be made should there be disagreement among role players in the Maize Grading Standards Committee.

7.9 Research on export opportunities

7.9.1 That the NDA/DTI build capacity in this regard, and establish a clear demarcation of responsibilities between the NDA and DTI.

7.9.2 That the NAMC ensure free access to international market information.

7.10 Research

That the ARC establish a forum at which government and the private sector of the maize industry can discuss priorities and plan future research and funding.

7.11 Competition

7.11.1 That the NAMC monitor the degree of competition in the maize industry.

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7.11.2 That market forces be allowed to take their normal course and that no direct government intervention be made at this stage.

7.12 General

That the NAMC be responsible for monitoring and reporting on the execution of the above recommendations, if approved by the Minister of Agriculture.

Signed on this day, 8 May 2001 in Pretoria

MR JH GORDON (Chairperson)

MR JF DE VILLIERS

DR CF LE CLUS

MR PG LOUW

MS LE MELLET

MS SE MOOLMAN

MR W STANDER

PROF TAR VAN RHYN

NOTE: THIS REPORT HAS BEEN SIGNED BY ALL THOSE WHO MADE INPUTS TO THE DOCUMENT
AND REGULARLY ATTENDED THE SECTION 7 COMMITTEE MEETINGS

REPORT ON THE EFFECT OF DEREGULATION ON THE MAIZE INDUSTRY

Additional analysis

1. Quantifying the effect of deregulation on the maize industry

The previous section of the report highlighted the effect of deregulation on the maize industry as perceived and experienced by the various role players in the industry. In order to put these conclusions in perspective it is important to provide some analytical results to show the effect of deregulation on the industry. This section of the report was requested by the NAMC and Prof. J.F. Kirsten (council member responsible for research) was asked to lead the analysis.

This section will quantify the effect of deregulation on maize prices, area planted, profitability, competitiveness.

1.1 Maize prices

The data in Figure 1 show the influence of the Maize Board respectively on producer prices in the pre-deregulation period, and of external market factors in the post-deregulation period. The real price of maize (1995 prices) has been less stable than that of wheat over this time period. In real terms, the maize price even reached the level of the wheat price in 1987/88, while it fell to well below R500.00 in the mid-1990s. Nevertheless, the real maize price has been relatively stable around R500 per ton, and there has been no overt weakening of the price in the period since the formal abolition of the single channel scheme in 1995.

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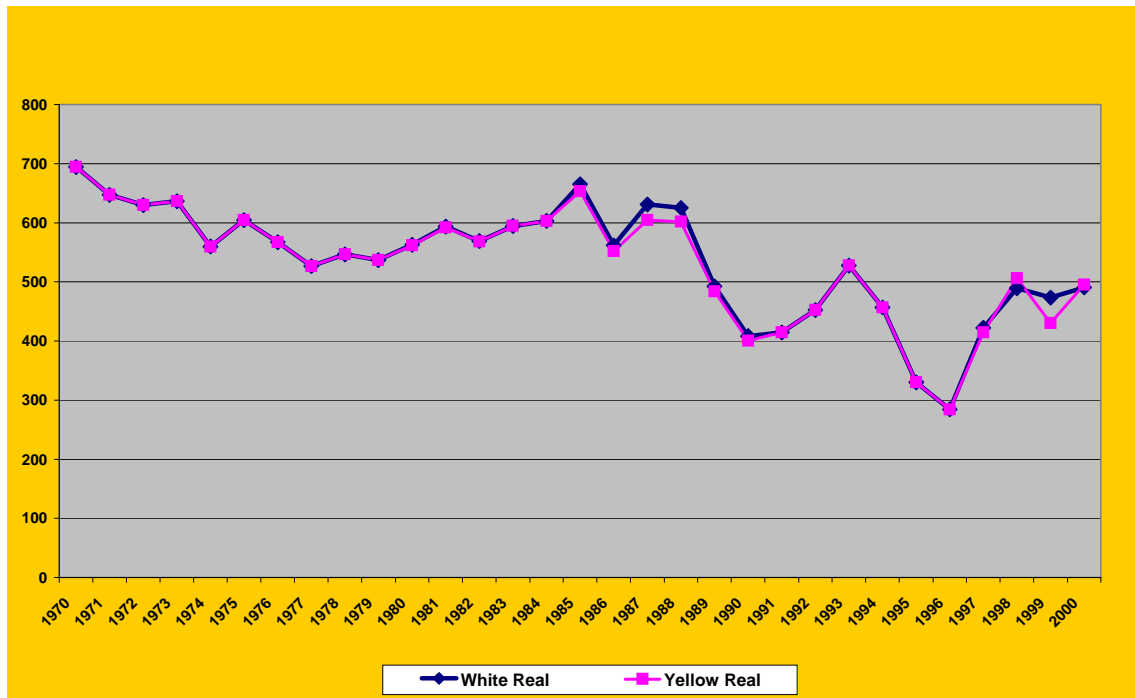


Figure 1: Real South African maize producer prices (1995 = 100)

It seems as if the deregulation of the maize industry has not resulted in lower farm gate prices for farmers. The current weighted prices of R867/t for yellow and R888/t for white maize and the fact that in some areas farmers are signing minimum price contracts for R900/t for the 2001/2002 season are further indications that prices are at least higher in nominal and real terms than in 1995/96.

Any evidence of higher consumer prices for products such as maize meal has to be ascribed to conditions elsewhere along the supply chain, as was argued by the Board on Trade and Tariffs in 1992 already¹. Figure 2 provides an indication of the real increase in prices for maize meal. It is interesting to note that the annual increase is at least relatively lower in the post deregulation years than before. During 1991/92 the prices increased by as much as 50% in real terms on a year on year basis. The biggest increase in the post 1997 years was last year (2000) when prices increased by 26% largely as a result of the increase in the import parity price of maize affected by the exchange rate and the world price.

¹ Board of Tariffs and Trade (1992). An investigation into the price mechanism in the food chain. Pretoria, Board on Tariffs and Trade.

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Figure 2: Real consumer prices for maize meal (1990 – 2000)

Due to increased price risk it was also interesting to see how farmers and buyers of maize have started to use risk-mitigating measures such as the futures market. It is estimated that the total tons traded on SAFEX is at least 5 times the annual maize crop.

1.2 Maize profits and Net farm Income

Since prices were not affected much by the deregulation process it is also worth analysing the impact of deregulation on maize profits and Net Farm Income. At first we consider the trends in the broader agricultural sector to contextualise the impact on the maize industry specifically.

Table 1 shows that the yields for the major field crops increased considerably since the middle of the 20th Century, and that this increasing trend continued in the period after liberalisation began. Thus, crop farmers adapted to the new riskier trading environment by changing their production methods. This resulted in an increase in the average yield because farmers plant only on their highest potential land (so-called 'cropping pattern effects').

Table 1: Average crop yields, 1950-1999

	1950/59	1960/69	1970/79	1980/89	1990/98
Maize	1.02	1.33	1.92	1.88	2.14
Wheat	0.60	0.64	0.93	1.24	1.68
Sorghum	1.02	0.84	1.72	1.68	2.08

The trend in crop yields was maintained despite a decline in the use of tractors and fertiliser in South African commercial agriculture. Farmers adapted to the changing circumstances by buying fewer new tractors. This was made possible by new technology (*inter alia* larger tractors), by increasing the average age of the tractor fleet and by improved productivity of the existing fleet. It is also evident that, by keeping tractors for longer, the cost of maintenance would increase. The absolute number of tractors in use in agriculture declined by roughly half, from around 200 000 units in 1983 to some 90 000 units in 1999. At the same time the number of harvesters and threshers in use in the sector peaked at almost 40 000 in the early 1980s², while there are only some 12 000 in use at present.

Trends in the use of intermediate goods can be illustrated with reference to the fertiliser subsector. Commercial farmers reacted to the cost-price squeeze on their profit margins by using less fertiliser. Figure 8 shows that the unit sales of fertiliser to South African farmers have decreased from a level of above 1m tons per annum in the early 1980s to below 800 000 tons per annum since 1993.

The net result of these changes has been both improved productivity and lower gross value of production but higher Net Farm Income. The evidence of increased productivity and lower input use is reflected in Figure 3 showing how total factor productivity (TFP) in South African agriculture has increased since 1995/96 with roughly 1% per annum on average

² This peak coincides with the bumper maize crop of 1981, and was not harmed by the tax regime which allowed farmers to write off capital purchases in the year of acquisition.

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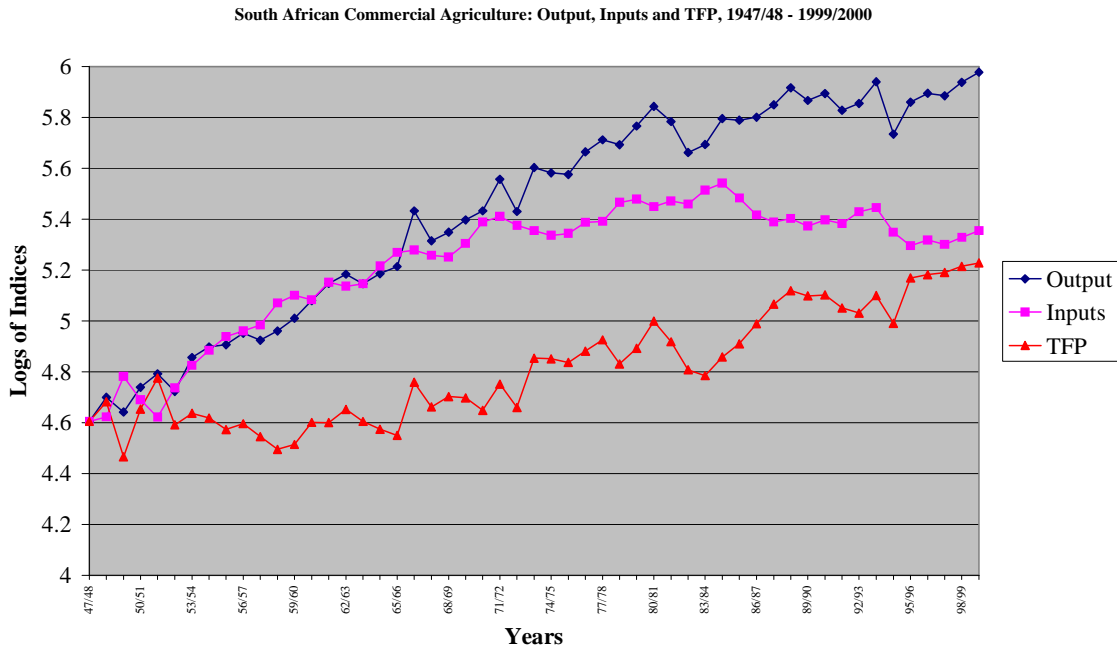


Figure 3: Total factor productivity growth for South African commercial agriculture (1947 – 2000)

The improved productivity has led to better net farm income situation in South African agriculture. Figure 4 shows that the trend in the ratio of real Net Farm Income to the real value of capital assets for agriculture as a whole has been increasing since the mid-1980s, following a sharp decline between 1980 and 1985. A large part of this effect can be ascribed to changes in field crop production, where farmers have managed the weakening terms of trade by reducing their use of intermediate goods (also shown in Figure 3), where the real value of capital assets, especially land, has declined over the past decade, and where farmers have diversified assets out of agriculture. The levels of this measure of the real return on assets, at between 10-12%, is considerably higher than the 4-6% return gained in the early 1980s.

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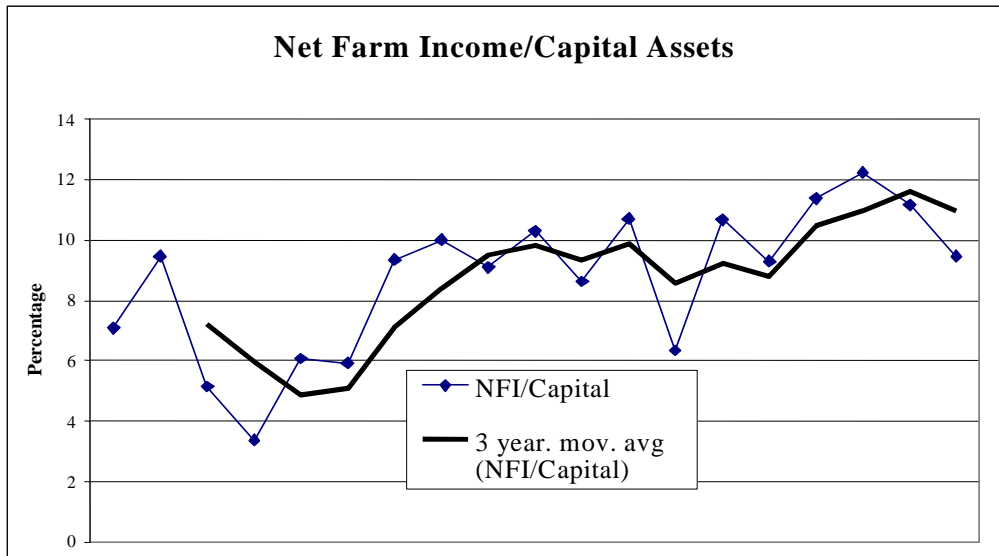


Figure 4: The ratio of real Net Farm Income to the real value of capital assets, 1980 –1999

Using information from a representative group of farmers in the North Western Free State we calculated the farm profit and Net Farm Income per hectare to illustrate the income effect of deregulation on the maize industry at farm level. The following 3 figures provide an interesting illustration how deregulation has actually been good for farm profits.

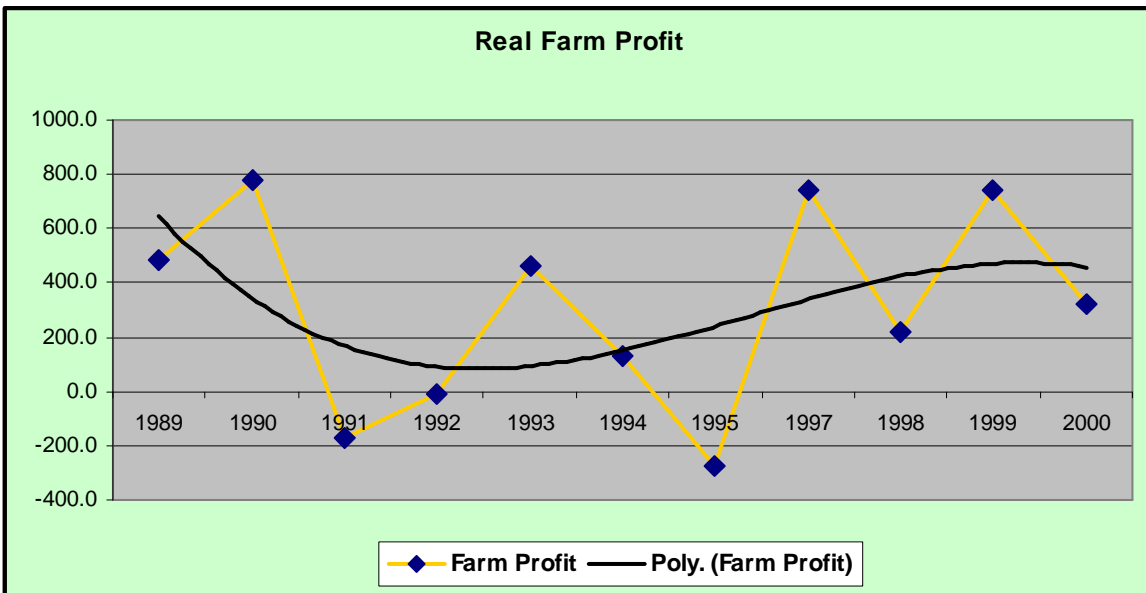


Figure 5: Real farm profit per ha for maize farmers in the North Western Free State

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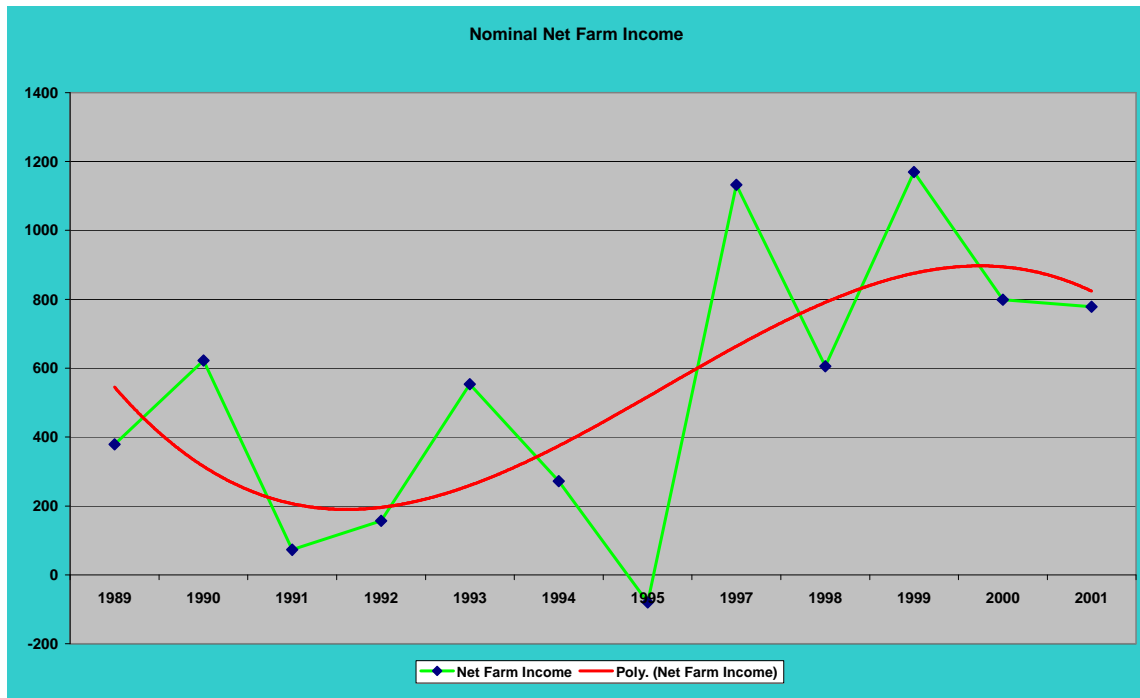


Figure 6: Nominal Net Farm Income per ha for maize farmers in the North Western Free State

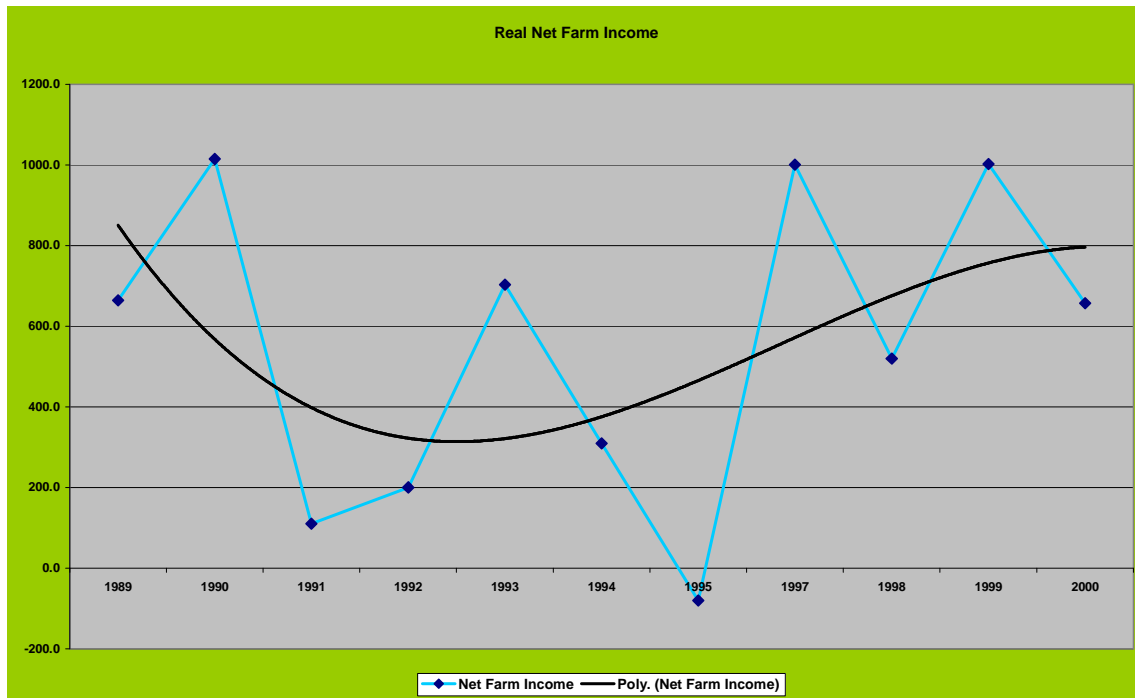


Figure 7: Real Net Farm Income per ha for maize farmers in the North Western Free State

1.3 Effect on area planted and production

It has been argued on page 3 of this report that deregulation has resulted in a rapid decrease in area planted to maize. Figure 8 illustrates that this has happened in the first year following deregulation but has picked up during 2000 – largely as a result of the better net farm income potential, better prices and favourable weather conditions. Figure 8 however shows that the drop in area planted would have been much more (the “estimated” line) if there was no reform. We developed a model of the maize industry based on actual data in the pre reform period up to 1996. The model was then used to forecast the area planted as well as total production assuming a regulated environment post 1996. This was then compared with the actual data for area planted (the “actual” line in figure 8). It seems as if total area under maize is now almost back to the same levels as in 1997. It is also substantially higher as the predicted values for 2000 if the old dispensation would have been in place. It is important to note that there was however a substantial drop in area under yellow maize in favour of white maize and in some areas a shift to sunflower and wheat also took place.

When estimating the total maize production for the hypothetical post 1996 situation there was not much difference due to the fact that the model’s production equation adopts the actual yields in the post 1996 period resulting in the difference between the two scenarios only being reflected by the difference in area planted (See Figure 9)

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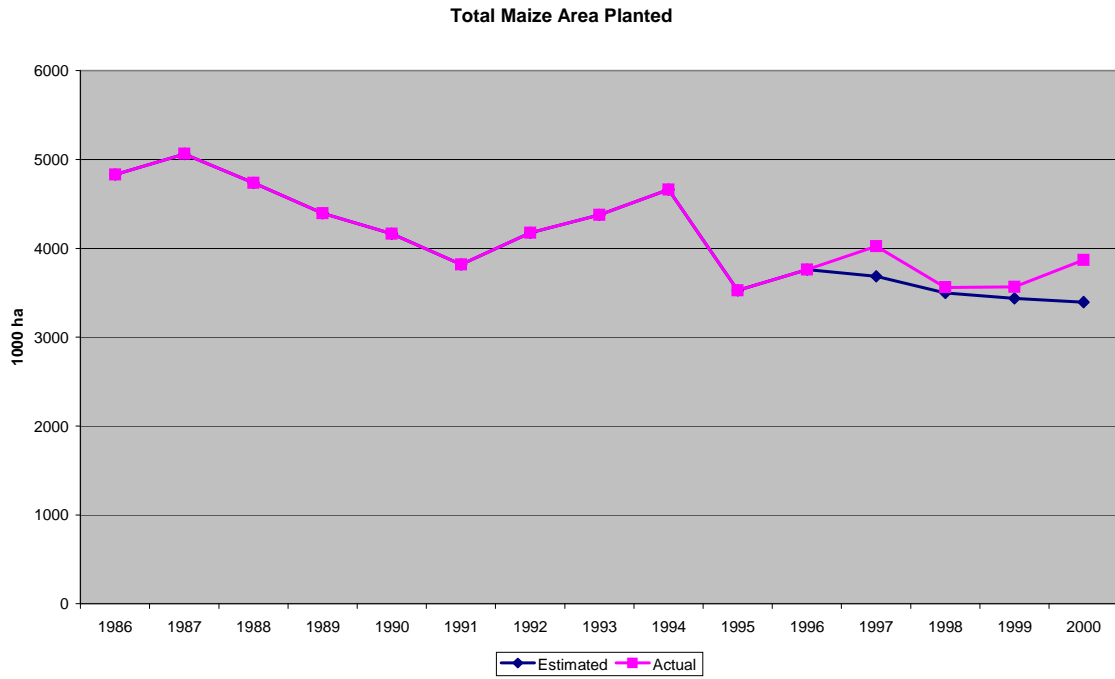


Figure 8: Total area planted to maize: 1986 – 2000.

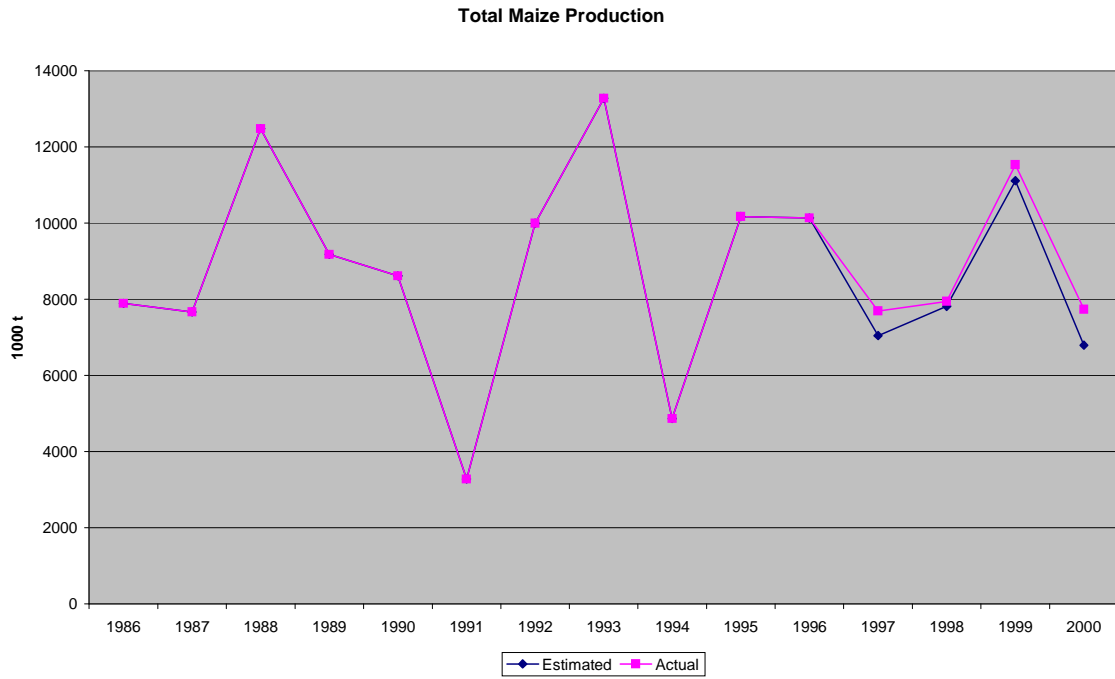


Figure 9: Total maize production: 1986 - 2000

1.4 *Effect on competitiveness*

The Agricultural Business Chamber recently analysed the competitiveness of various agricultural industries in South Africa. The formula to estimate competitiveness is based on the country's trade statistics and looks at the ability of the country to sell a specific product in the domestic and world market. Obviously this trend would be very erratic due to the variability in production, exports and imports of field crops such as maize. This is well illustrated by the long-term trend of competitiveness of the South African maize industry presented in Figure 10 below. The trend is not much different to that of other countries but shows at least a positive index for competitiveness for most of the years after 1961. The drought years of 1984 and 1991/92 had a dramatic effect on our ability to sell maize and the country had to rely on imports for its domestic needs.

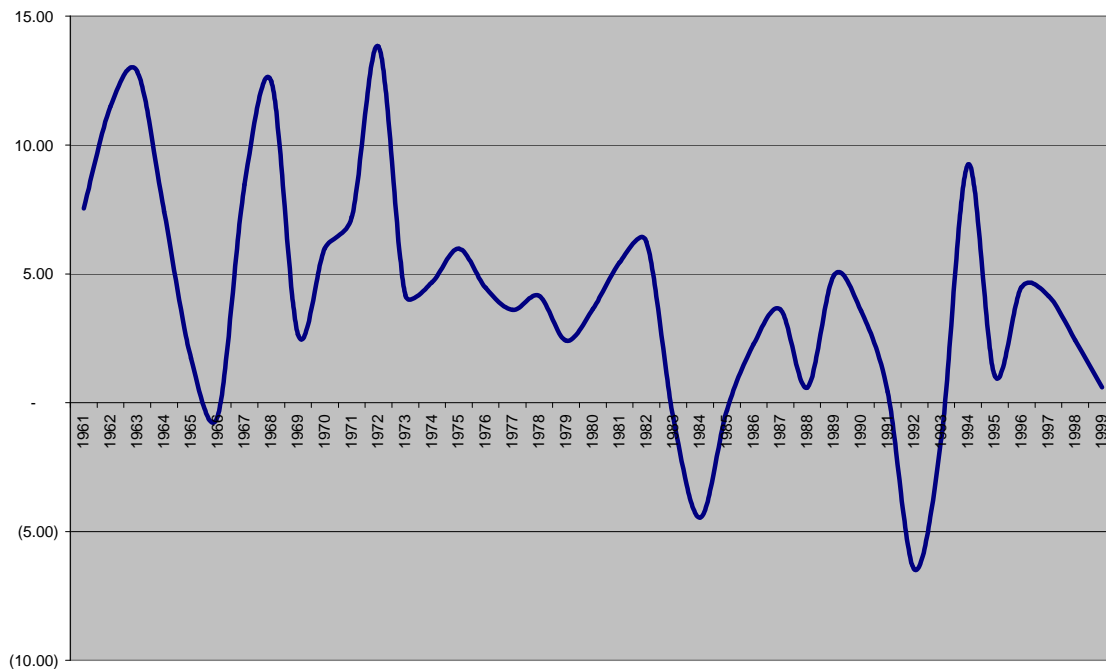


Figure 10: The competitiveness of the South African maize industry: 1961 - 1999

These competitiveness calculations do not tell us much about the social cost of producing maize i.e. the cost to society to ensure that we continuously export maize. We all know that the late eighties were characterised by huge export losses as a result of the fixed prices in South Africa and low prices in the world market. So although the information contained in Figure 10 might look impressive it happened at tremendous costs to society. The graph nevertheless show that the same competitiveness trend in the post deregulation years with a possible

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increase in 2001 as a result of substantial exports being reported. What is however more interesting is the increase in the competitiveness of maize meal following the post deregulation years (Figure 11). This can partly be explained by the increase of maize meal exports to countries in Africa.

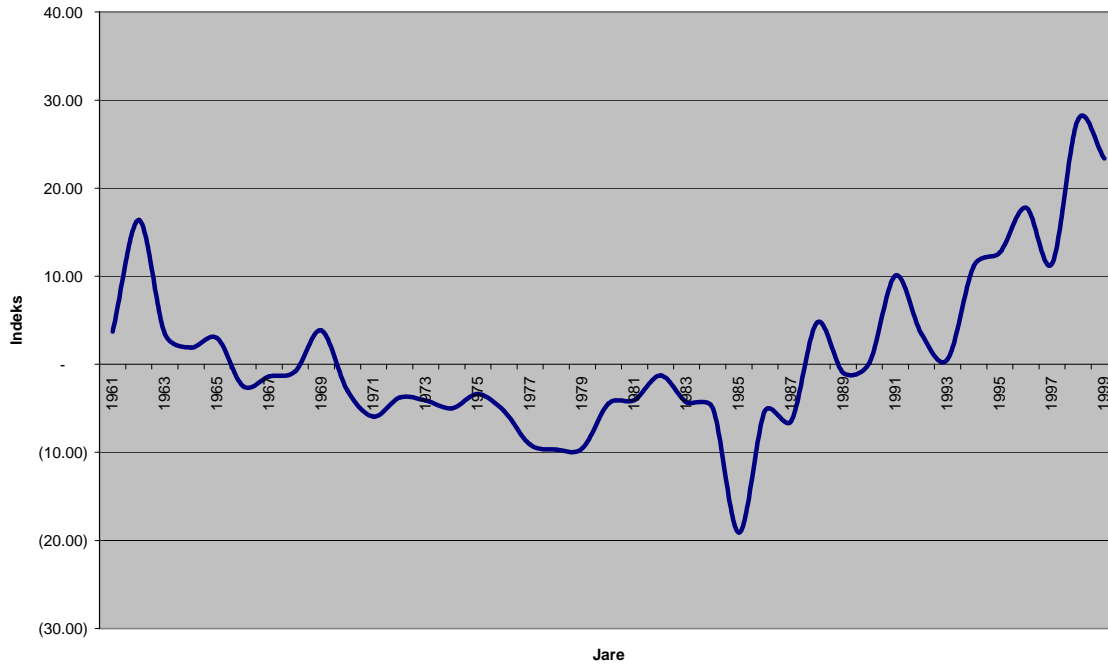


Figure 11: Competitiveness of the maize meal industry

The trends of maize imports and exports are illustrated in Figure 12 below. The trend in exports could be attributed to the series of price reforms introduced by the Maize Board post-1994 and then ultimately the deregulation in 1997, which resulted in market forces bringing production more in line with domestic use. The decline in exports since 1997 could partly be explained by these events. Some imports for re-exports to neighbouring countries took place in 1999. Exports picked up again in 2000 and are reported to be around 1 million tons for the 2001/2002 marketing season. The extent of maize exports is now to a large extent influenced by local production conditions and obviously the export realisation driven by the exchange rate.

SECTION 7 COMMITTEE EVALUATING THE DEREGULATION PROCESS:
THE MAIZE INDUSTRY

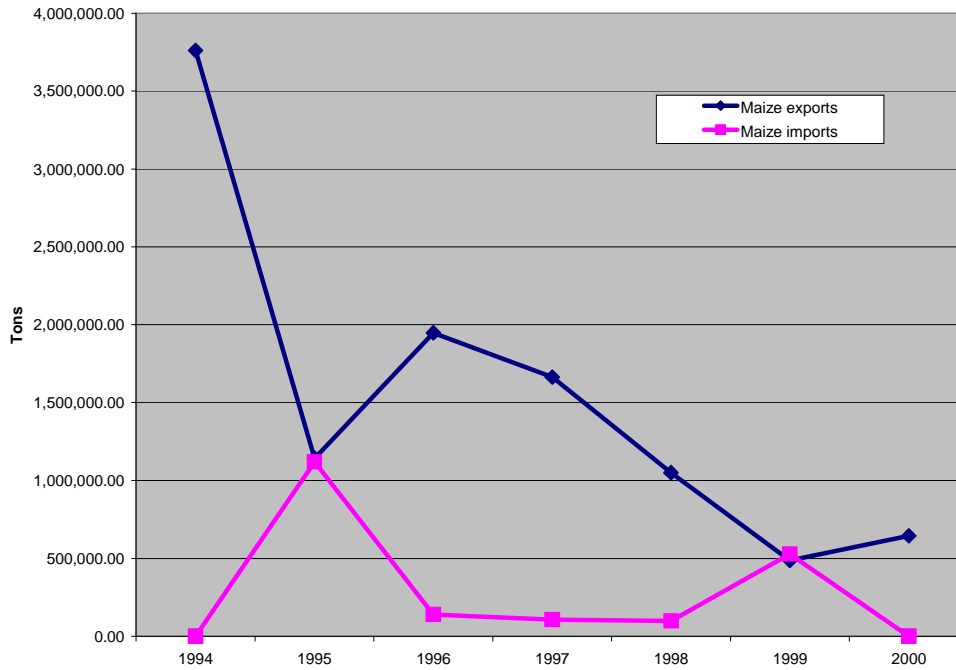


Figure 12: Imports and exports of maize: 1994 – 2000

1.5 Summary

This section of the report provided a snapshot of trends in the maize industry following the process of deregulation. Another NAMC study will shortly also give an indication of the effect of deregulation on food security, which is the other part of the picture, not illustrated here. This section nevertheless provided readers with a broad perspective of trends in the industry which show that there are certain benefits that accrued to producers and that the deregulation generally forced producers to be more efficient leading to a substantial increase in productivity. It is however, acknowledged that the deregulation brought about more risk and probably also more restrictive marketing conditions for smaller producers.