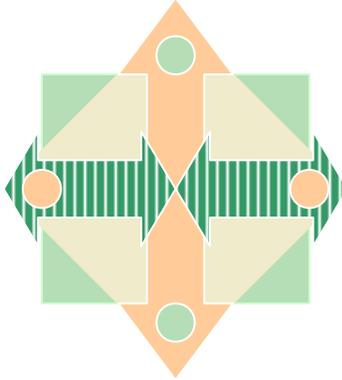


**SECTION 7 COMMITTEE EVALUATING
THE DEREGULATION PROCESS**



THE WHEAT TO BREAD VALUE CHAIN

DECEMBER 1999

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ABBREVIATIONS:

| | |
|---|-------|
| Commercial grainsilo owners | CGO |
| Grain Producers' Organisation | GPO |
| Grain Silo Industry | GSI |
| National Agricultural Marketing Council | NAMC |
| National Marketing Council | NMC |
| National Chamber of Milling | NCM |
| National Department of Agriculture | NDA |
| South African Chamber of Baking | SACB |
| South African Futures Exchange | SAFEX |
| South African Grain Information Service | SAGIS |

1. INTRODUCTION:

One of the NAMC's most important tasks is to monitor the deregulation process and the effect thereof on the different industries. The first commodity to be investigated is wheat.

Various concerns were expressed regarding the shift in shares in the retail price of bread since the deregulation of the wheat industry. The NAMC took note of concerns expressed in the media, and decided to appoint a Working Group to investigate the shift in shares and reasons therefore. The following role-players were represented at the meeting of this Working Group: the NCM, SACB, GSI, the GPO and the NAMC.

At its meeting of 10 May 1999, the Working Group decided that its purpose was to evaluate the impact of the deregulation process on the wheat to bread chain, with specific reference to the shift in share of each role-player in the final retail price of the bread.

The investigation was envisaged as a joint venture between all the relevant role-players concerned, including the retail sector. In order to give a more formal status to the investigation, it was decided to appoint a Section 7 Committee to monitor deregulation.

The following persons were appointed to the Section 7 Committee:

| | |
|-------------------------------|-------------|
| DR EUGENE BROCK (Chairperson) | (NAMC) |
| MR NICO HAWKINS | (GPO) |
| MR PIET LOUW | (GSI) |
| MS LUNGILE BENGU-BALOYI | (NAMC) |
| MS INGRID DU TOIT | (NAMC) |
| MR COLLIN KEKANA | (NAMC) |
| MS LIZETTE MELLET | (NAMC) |
| MR WINSTON MVABAZA | (NAMC) |
| MR TREVOR SMITH | (NAMC) |
| MR JANNIE DE VILLIERS | (NCM) |
| MS HILLMARÉ SCHULZE | (NCM) |
| MR TONY ERACLEOUS | (PCA) |
| MR ANTHONY BROWN | (PICK& PAY) |
| MR PETER COWNIE | (SACB) |

Mr T Eracleous attended one of the meetings and tendered apologies for the rest.

Ms L Bengu- Baloyi attended two of the meetings and tendered apologies for the rest.

Other representatives from the retail sector were invited to attend meetings, and were sent notices of meetings.

STRUCTURE OF THE REPORT

The first part of the investigation (Chapter 2) sets out the various findings of previous investigations into the winter cereal value chain. The value chain's importance to the economy is set out, after which experiences in other countries are mentioned. The history of the wheat industry is then summarised.

The results of the investigation into the effect of deregulation in the different sectors, with specific reference to the shift in the shares in the retail price of bread are set out in Chapter 3.

The conclusions are set out in Chapter 4 and recommendations in Chapter 5.

The annexures to the report include the calculations of the shares in the retail price of bread before and after deregulation.

2. BACKGROUND

Wheat is the second most important fieldcrop in the RSA after maize. Wheat is of economic importance for the following reasons:

- ?? It contributes significantly towards the total gross value of agricultural production;
- ?? Wheat is the second most important staple food in SA;
- ?? There is no substitute for wheat with the same essential qualities for the baking of bread; and
- ?? The wheat industry and its secondary industries provide a large number of job opportunities on farms and in related industries.

2.1 LITERATURE REVIEW OF PREVIOUS INVESTIGATIONS THAT IMPACTED ON, OR REFERRED TO, THE WHEAT TO BREAD VALUE CHAIN

Over time, several studies and investigations were commissioned to evaluate the Marketing Act of 1968 and the marketing schemes in general, as well as the wheat industry in particular. Although there were earlier reports, the 1976 Wentzel Commission Report, following an investigation into the Marketing Act, is used as a point of departure for this report. This was followed by numerous other reports of which the major relevant findings are listed. The final document listed is the Business Plan of the Wheat Board in which the Board and all control in terms of the previous marketing dispensation were effectively removed.

2.1.1. The Commission of Enquiry into the Marketing Act (The Wentzel Commission) – 1976

This Select Committee was appointed by Parliament and later changed to a Commission of Enquiry to report and make recommendations regarding the structure of controlled marketing with specific emphasis on how the NMC was constituted and its powers and functions; how controlled marketing had evolved over time; aspects of the application of the marketing schemes and the functions of the control boards.

In general this Commission found that there was need for some degree of state control over the marketing of agricultural products. They further felt that the control board system had been systematically developed and that it was making an important contribution towards the healthy and balanced development of agriculture. Several recommendations were made, some of which (in their opinion) required immediate attention. One such recommendation was the "modification of the process of price formation". In reference to the Winter Cereals Scheme and wheat industry, they made the following recommendations (which were all implemented over time):

-
-
- ?? The control of imports and exports of agricultural products should rest with the Government in the first instance and the Minister must decide on overall quantities for import and export;
 - ?? The Wheat Board must retain the power to register mills and to refuse such registrations;
 - ?? The system of restrictive registration by the Wheat Board be replaced by formal registration in the case of confectioners;
 - ?? The system of restrictive registration by the Wheat Board be retained in respect of bread bakers;
 - ?? The subsidising of the bread price should be systematically reduced;
 - ?? The Act should be amended to afford the Minister the power to fix prices and margins following recommendation by the Boards and in consultation with the NMC.

2.1.2. The Working Committee re the economic position of the farmer and agricultural financing in general (Jacobs Committee) – 1978

This Committee was appointed with the following terms of reference: to investigate, report and make recommendations regarding the economic position of the farmer and agricultural financing in general. Special reference was to be made to the ever increasing production costs, increasing debt position of farmers, capital returns, the extent to which existing finance sources fulfil the farmers' needs for short, medium and long term credit and the role of agricultural co-operatives in supplying credit to farmers.

The recommendations by this Committee of relevance to this report are:

- ?? They agreed with the principle that actual costs of production and current producer prices should determine production patterns, but were not in favour of subsidies to agricultural producers in order to counter increasing production costs;
- ?? They were of the opinion that the agricultural sector should not only be able to feed the rapidly growing population of SA, but should also produce for the export market;
- ?? They indicated that there are valid reasons to rethink measures to enhance the financial position of farmers in order to restore agriculture on a sound and viable basis;
- ?? They further recommended that the strategic importance of agriculture in reaching especially the objective of self-sufficiency should receive greater prominence and that Government's objectives in this regard must be clearly stated.

2.1.3. The Interdepartmental Committee regarding the establishment of bakeries (Brand Committee) – 1978

This Committee was tasked to investigate and report on the implications for the SA Government in the establishment of bakeries and delivery of bread in certain self governing and independent states in Southern Africa. The principles

contained in the existing customs union agreements had to be borne in mind in the study.

They made several recommendations of which the relevant ones are (these were subsequently applied):

- ?? When considering the location of a bakery and delivery of bread in or near the self governing or independent states, their balanced economic development must be a priority. This should be done bearing in mind that current bakery interests should not be negatively affected, while the utilisation of scarce capital to duplicate production capacity should also be guarded against.
- ?? The Wheat Board must stick to its declared policy that it will not allow the establishment of new bakeries or the expansion of existing bakeries in “white” areas which are aimed at the bread market in the “self governing” or “independent states”;
- ?? The Government should enter into discussions with “self governing” and “independent states” regarding the establishment of bakeries and delivery of bread. The Governments of the “self governing” and “independent states” should be made aware of the prescriptions in terms of the customs union agreements and the consequences if they do not adhere to the prescriptions.

2.1.4. The BEPA Report regarding the costs, advantages and financing of protection in SA – 1983

The Bureau for Economic Policy and Analysis undertook an investigation into the cost of secondary industry protection in the course of 1982. Following this study, many questions were asked regarding the cost effects of control in the agricultural sector and this eventually led to the study being expanded to include agriculture. In the agricultural investigation, the issue was not the extent of protection but who actually pays for this and if it is fair. Although the lions share of the report was allocated to the position in the maize industry, other commodities were also looked at and compared.

The Committee found that local production costs increased at an exceptionally high rate between 1970 and 1983. Only a part of this increase could be ascribed to protection of enterprises that supply inputs to agriculture. The major part was as a result of inflation in SA. This was not corrected by the effective exchange rate in all the industries. A shift in comparative advantages in favour of the mining industry and at the expense of other industries was also primarily to blame for the predicament agriculture found itself in. To keep farmers farming under these circumstances, producer prices were fixed to match local production costs. The output side was thus far more protected than the input side of agriculture. The enterprises that basically serviced the domestic market could be artificially carried by this policy. The export-orientated industries could not and the possibility of subsidies arose.

In conclusion, BEPA found that, while the cost of protection for agriculture could be ascribed to government measures, the decline in comparative advantages compared to especially the mining sector as well as the evolution of overseas prices represented elements of structural changes for which the SA Government could not be held responsible.

2.1.5. The Commission of Investigation into the Government Subsidy on Bread (Davin Commission) – 1985

This Commission was appointed to investigate the justification and continuation of the bread subsidy. They were specifically asked to pay attention to the extent of the subsidies, sources of finance and the application of the subsidy to maximise the advantages thereof for underprivileged consumers. The members of the Commission were not unanimous in all of their recommendations. They did, however, agree that the Wheat Board should continue fixing producer prices. Although the recommendation was made that price control on flour and standard bread and restrictive registration of millers and standard bread bakers must be removed immediately, the minority view was that this should be phased out over time. This was to happen eventually, but based on another investigation following a cabinet decision.

2.1.6. The Competition Board investigation into the milling and baking industry – 1985

The Minister of Trade and Industry tasked the Competition Board to investigate all aspects of economic competition in the milling and baking industries.

This report outlined the historical developments in the milling and baking industry, especially the appearance of the Wheat Board in 1935 together with the different Wheat and Winter Cereal Schemes, which were put in place over time. The second chapter was devoted to the situation in the industry at the time of writing the report, i.e. the primary and secondary industries, the degree of concentration, consumption trends, etc.

An entire chapter was devoted to subsidies and the effect thereof on the industry as well as cross subsidising within the industry.

The Competition Board was of opinion that the bread subsidy could not be continued in its existing format. The recommendations of the Davin Commission were thus supported. They further found that the practices of market sharing, uniform prices, standards and credit conditions were not in the public interest. These practices were subsequently declared illegal in terms of the Competition Act. The milling and baking industries, however, obtained approval to continue with these practices until the bread subsidy was eventually repealed.

It was also recommended that the system of restrictive registration of millers and bakers be replaced by formal registration and that price control be repealed on millers' and bakers' products.

2.1.7. The National Marketing Council Investigation into the operation of the Winter Cereal Scheme – 1986

As part of a request by the Minister of Agriculture to investigate the application of the different schemes, the NMC also investigated the Winter Cereal Scheme. Some of the aspects that had to be looked into included whether the existing scheme and prohibitions should be continued, the justification for the continuation of the scheme, the possibility of merging with the administrations of other schemes and the justification for the continuation of all measures in terms of the scheme.

In short, the NMC recommended the following (all subsequently implemented):

- ?? The Winter Cereal Scheme should be suitably amended to do away with restrictive registration of millers in favour of formal registration;
- ?? The Winter Cereal Scheme should be suitably amended to make provision that all manufacturers of wheat products who do not produce standard classes of bread only have to register formally (not restrictive registration);
- ?? The Wheat Board should continue its policy of restrictive registration of bakers who produce standard classes of bread. Should the bread subsidy, however, be repealed, this should be revisited.
- ?? The Wheat Board must continue its lenient policy with regard to bakeries producing standard bread in “non-white” areas.

2.1.8. Investigation into control over and support to the wheat and wheat processing enterprises abroad: a comparative study by Prof IJ Lambrechts, Mr NF Alberts, Mr JF de Villiers and Mr LH van Staden – 1989

The report started by referring to previous studies done in the industry and the outcome of these. An explanation was also given of the countries visited and how this was decided on. In essence the authors looked at control and support in the wheat and wheat processing industries in a number of countries – some of which were visited and some others for which information was obtained.

One of the findings of the report was that South Africa can not be directly compared to any of the countries visited. This is because of differences with regard to aspects such as degree of urbanisation, inflation rate, per capita income, the degree of vertical integration, prices, subsidies, etc.

What was clear to the authors was that South Africa’s single channel marketing system was not in line with developments in the rest of the world. All the countries visited had different systems in place with regard to aspects such as strategic stocks, subsidies and financial support to producers and processors of wheat.

A number of aspects were highlighted with regard to countries where control had been abolished. These included new entrants to the market, the prices of the different products, quality and vertical integration.

The final recommendation in the report was that a comprehensive investigation of the wheat value chain needed to be done before the Government finalised its decisions regarding the deregulation of the wheat industry in South Africa.

2.1.9. Report of the Committee of investigation into phasing out the Bread Subsidy (Blignaut Report) – 1990

During 1988, Cabinet decided in principle to phase out the bread subsidy gradually over three years. A Committee was appointed to formulate a strategy for phasing out the bread subsidy scheme and to make recommendations to Government with regard to the adjustments required in respect of those regulations applicable to the baking and milling industries which would be affected by the withdrawal of the subsidy as from 1 March 1991.

This entailed the termination of:

- ?? the bread subsidy;
- ?? price control on flour and standard bread;
- ?? restrictive registration of standard bread bakers; and
- ?? the market sharing arrangements operated by the baking industry in terms of an exemption under the Competition Act.

2.1.10. Reports by the BTT into the price mechanism in the food chain with recommendations for its improvement. – 1992

The BTT was asked to investigate the increasing gap between producer and consumer prices, and food price increases. The wheat chain was one of the food chains chosen for special investigation. In their preliminary report, the following general recommendations were made:

- ?? The BTT believed that increasing food prices were a symptom of an inflationary spiral which could only be broken by ensuring that adequate competition existed throughout the chain;
- ?? To do this, deregulation had to be applied on a broad front; greater competition from abroad fostered and statutory intervention terminated.

The final report found that there was a price divergence of five percentage points per year over the period 1980 to 1991 between the farmer and consumer food prices. This 5% could be broken down as follows:

| | |
|--------------------------------|------|
| Input cost inflation | 3,0% |
| Declining productivity | 1,0% |
| Price and supply stabilisation | 0,5% |
| Withdrawal of state subsidies | 0,3% |
| Lifting of price controls | 0,2% |

The sharp increase in food inflation in the post 1991 period was mainly due to the introduction of VAT.

The BTT could not identify a single cause over the long term for the price divergence in the food chain. They confirmed that they were of the opinion that increasing food prices were a symptom of an inflationary spiral, which could only be broken by ensuring that adequate competition existed throughout the chain, and that deregulation should be applied on a broad front. A major deviation from the first report was, however, their changed opinion that the control board system should not be terminated but that it should be made more efficient and that the different controls should be re-evaluated.

2.1.11. The Report of the Committee of Inquiry into the Marketing Act (Kassier Report) – 1992

This Committee was appointed by the Minister of Agriculture to conduct an in-depth inquiry into and report on the marketing of agricultural products under the abbreviated heading “Marketing Act 59 of 1968 *quo vadis*”.

The Committee indicated that they believed that the winter grain marketing scheme was not serving the best interest of a large number of producers, millers, processors, bakers and consumers. The basic objectives of the scheme, namely to stabilise the industry to enable efficient production, to reduce marketing margins and to preserve the natural resource base had also not been achieved. They indicated that they took note of the deregulation, which had taken place in the industry, but were of the opinion that the manner in which it was done left much to be desired. Deregulation in the bread industry had created monopoly positions for certain individuals and organisations without the necessary statutory controls.

Some other more general recommendations included:

- ?? That the standards for the grading of maize, wheat and other grains be adapted to better reflect the nutritional and economic value of these commodities.
- ?? That the grain boards, given the fact of statutory protection and powers, become more consumer friendly in their pricing policies.
- ?? In the case where boards follow unitary pricing policies, that these be abolished immediately in favour of a pricing system, which better reflects comparative advantage, including locational and quality differentials.
- ?? That, with proper consideration, statutory single channel and price support marketing schemes be abolished and the present boards operate as private and voluntary organisations.

2.1.12. Reports titled A framework for a future agricultural marketing policy for the RSA and the implementation thereof (Basson Committee or AMPEC) – 1994

Two reports were tabled by this Committee appointed by the Minister of Agriculture to advise on a framework for and the implementation of a future agricultural marketing policy. In the first report, guidelines for the future dispensation were suggested. A few are listed below:

- ?? *“Guideline 3
Deregulation of agricultural marketing should form part of an integrated economic liberalisation programme for the whole economy, with the objective of improving sustainable economic performance and growth through the promotion of fair competition.”*
- ?? *“Guideline 6
Agricultural product prices should reflect comparative and competitive advantages derived from factors such as transport, storage and quality. Price differentials and costs relating to these factors should be devolved to the functionaries where they originate, which implies that pooling of income and costs should be limited or avoided and constantly scrutinised. Cross-subsidisation between products is highly undesirable.”*
- ?? *“Guideline 8
The location, capacity and competitiveness of grain storage facilities should be dictated by the market...”*
- ?? *“Guideline 20
In the application of agricultural policy, intervention must preferably take place at the exact point at which the underlying market imperfection occurs or the non-economic goal lies, and must be proportional to the degree of distortion.”*
- ?? *“Guideline 23
Supply stability measures must preferably be voluntary and applied in such a way that they do not interfere with the normal competitive position of the suppliers and buyers of such products.”*

In the second report, the different boards and schemes were evaluated. The comments of the Committee on the Wheat Board were as follows:

“The different approaches in the submissions received, indicate clearly that agreement is still to be reached on how the Board intends to manage the marketing of winter cereal. All interested parties, however, accept that changes will have to take place in the industry in order to assure a more market-orientated system.

According to the Wheat Board, the most significant motivations for maintaining a single channel marketing system are found in

controlling a balance between the distribution of the different qualities of wheat from different production areas to the milling industry and the minimising of transport costs.

Furthermore, in certain production areas (Rûens and Swartland) wheat is a primary crop and thus forms an important economic basis in the areas with no definite alternative. Production in these areas is relatively constant but they are also normal 'export' areas of wheat (Western Cape). This results in that, as a result of the introduction of tariffs, transport costs cannot be simply diverted to the buyers and can possibly result in a financial disruption of certain areas in the Western Cape. Therefore, a modification to the current system can be disruptive and statutory measures are thus still considered necessary.

AMPEC agrees with the opinion expressed by the largest section of the processing industry as well as the producers that the winter cereal industry requires time to move to a market-orientated system. Although consensus could as yet not be reached about a time schedule, AMPEC is of the opinion that it should be phased in over a longer period than one year.

Problematic issues such as the fixed price system have already been identified as aspects for which urgent solutions must be found. It has already been accepted that the industry will have to apply tariffs before the beginning of the 1994/95 season, accompanied by adjustments to the current marketing systems. The 'Wheat Forum' was established on which interested parties in the industry are represented in order to discuss relevant subjects. The 'Wheat Forum' has also indicated May 1994 as its target date for the finalisation of certain aspects in view of submitting a tariff application.

AMPEC welcomes the fact that the Wheat Board and the processing industry are involved in negotiations on important issues regarding the future marketing of wheat.

AMPEC supports the proposed move to a system of pools on condition that it provides efficient comparative advantages and disadvantages.

AMPEC has taken cognisance of the specific adjustment problems experienced in the industry and the importance of the wheat industry as a provider of food and job opportunities. Concern within the wheat industry regarding the possible negative impact of the importation of low cost, heavily subsidised wheat in the strive for food security has been noted. It could possibly have an adverse effect on the production, processing and marketing of local wheat, especially in the light of the important role that the wheat industry plays in certain production areas."

2.1.13. Business Plan of the Wheat Board - 1996

The final stage in phasing out the provisions of the 1968 Marketing Act and the schemes was the submission of business plans by all the control boards. In these documents, the boards were required to indicate how they would be phasing out their activities, dealing with the final disposal of their assets etc. The Wheat Board's business plan was approved by the Minister of Agriculture on 2 September 1997. The following decisions were *inter alia* approved:

- * That the existing legislation on winter cereal and winter cereal products be repealed, namely the regulation on Levies and Special Levies (31 August 1997), and Registration of certain persons (31 October 1997), but that the regulation on Records and Returns only be repealed on 31 December 1997;
- * That the current functions of the Wheat Board be phased-out as planned;
- * That the laboratory function be continued by the to be established SA Grain Laboratory, which has already been approved in principle by the Minister;
- * That the existing information services be incorporated into the SA Grain Information Services;
- * The establishment of two Trusts, namely a Winter Cereal General Trust and a Winter Cereal Research Trust.¹

2.1.14. WHEAT, MILLING AND BAKING CLUSTER ATLAS - 1997

The Wheat, Milling and Baking Cluster initiative was officially launched in June 1997, after considerable consensus-building and preliminary work, with the aim of proactively preparing all stakeholders in the industry for the upcoming changes of deregulation and globalisation.

Key themes used throughout the drafting of the Atlas, were as follows:

The cluster has historically been characterised by a low focus on understanding of demand conditions, due to the effects of the single channel system;

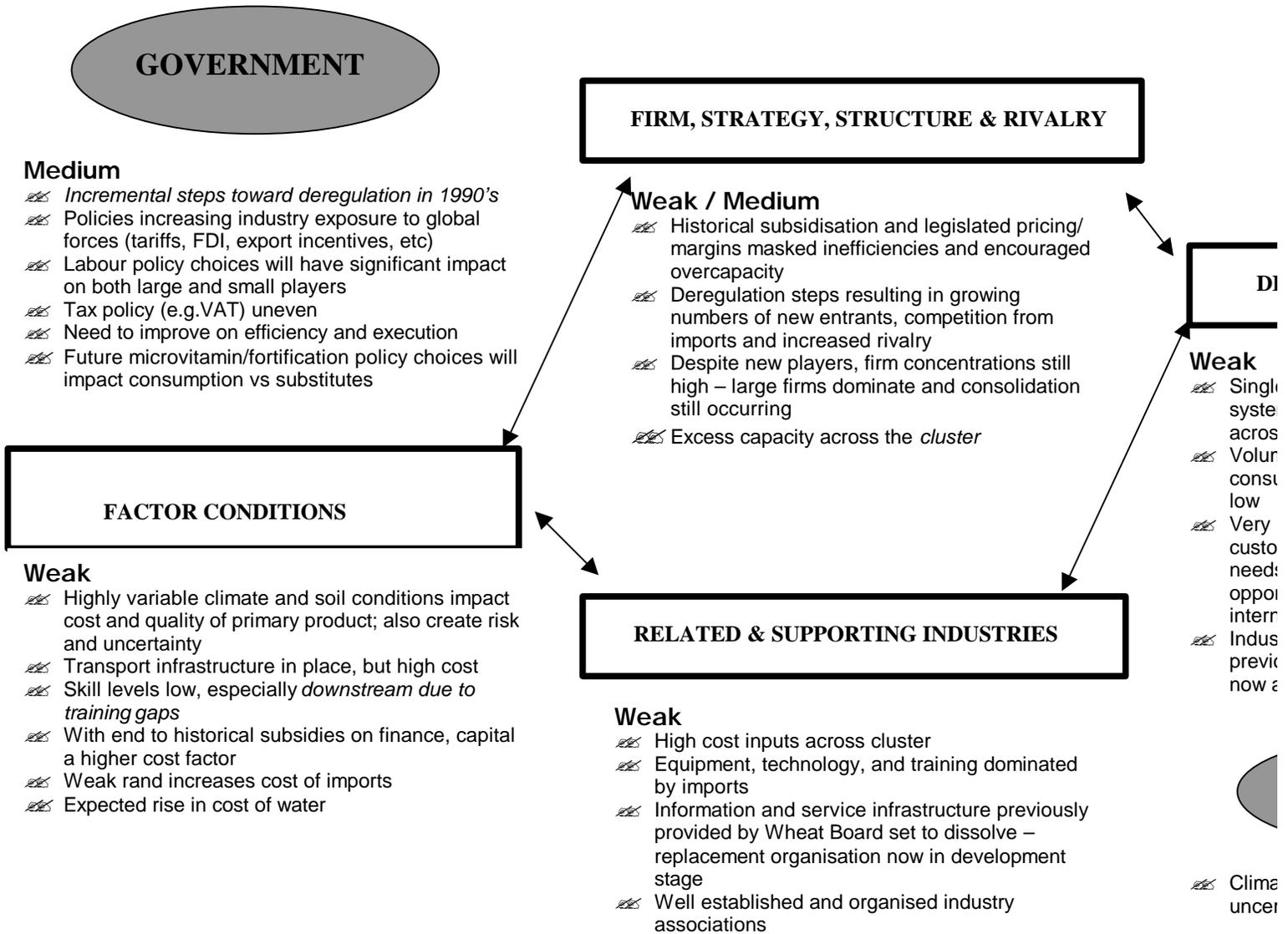
¹ These two Trust are, at time of writing, in the process of being combined into a unified Winter Cereal Trust.

- Strong demand conditions – customers and channels demanding world class products and services – play an important role in creating competitive tension within the cluster, encouraging rivalry, and motivating firms to innovate;*
- In South Africa new industry entrants and new strategies are emerging in response to customer and channel needs: However, these strategies are often slow, reactive and resisted:
 - Response to demand for differentiated products and services*
 - Response to changing buyer requirements.**
- Demand for bread and manufactured wheat products is driven by factors including urbanisation and income growth: based on economic forecasts, consumption of a range of wheat products is expected to increase significantly in SA as well as SADC offering an opportunity for the cluster.*
- The cluster is currently only partly geared to meet these demand challenges, evidenced in SA by the rapid growth in imports of some value added manufactured products – missed opportunities for the cluster.*
- Additionally, while changing demand patterns mean increased volumes, they also will result in a “replacement effect” for uncompetitive producers, as consumers and channels have more switching power.*
- The end to passive demand conditions and “captive markets” should be regarded by the cluster as an opportunity to innovate, rather than a threat; success will depend on understanding and targeting consumer and channel needs, areas where information is currently highly insufficient.”*

The “National Diamond” of the Wheat, Milling and Baking Industry is set out as follows:

SECTION 7 COMMITTEE EVALUATING THE DEREGULATION PROCESS:
THE WHEAT TO BREAD VALUE CHAIN

Wheat, Milling and Baking Cluster “National Diamond”



2.2 VALUE CHAIN'S IMPORTANCE TO THE ECONOMY

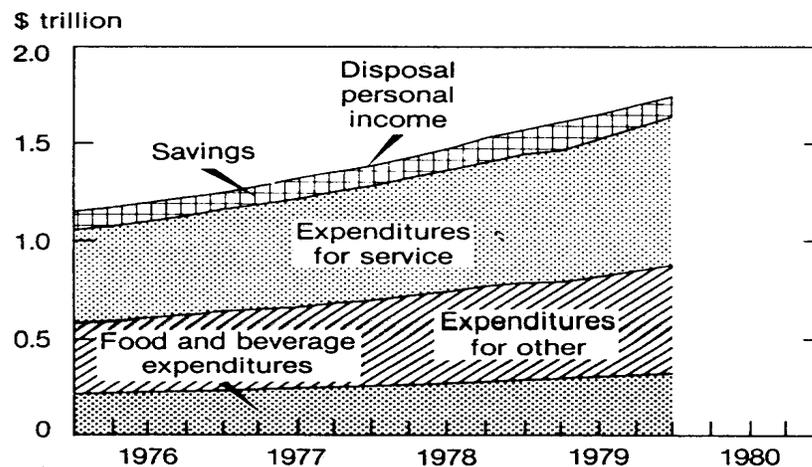
The grain milling industry is classified under 'manufacturing' within the broad economy. Manufacturing contributes 18,2% of South Africa's Gross Domestic Product (GDP) today, whereas agricultural, fishing and forestry contributes 4%. Manufacturing is the largest contributor towards GDP. In analysing the manufacturing sector, "food and food products" is the biggest single contributor within this sector with 13,6 percentage points of which grain milling is 2,8 percentage points (Statistics South Africa).

The area that currently attracts the most investment in the wheat to bread value chain is in the trading of wheat, small milling units, road transport and small bakeries. The main areas of disinvestment are in farming, big milling units and plant bakeries.

2.3 EXPERIENCES IN OTHER COUNTRIES

The following graph illustrates the disposable personal income and expenditures of consumers, according to the USDA. Although more recent figures could not be obtained, this graph shows that as disposable income increases, expenditure on food does not increase at the same rate.

Figure 1:
Disposable income and expenditures of consumers, USA



Source: USDA

The USDA illustrates the farmer's share of retail food prices as follows:

Table 1:
U.S. farm to retail prices spread

| Farm value as a percentage of retail price for domestically produced foods, 1987 and 1997 | | |
|---|-------------------|------|
| Items | 1987 | 1997 |
| | Percentage | |
| Livestock products: | | |
| Meat | 47 | 37 |
| Dairy | 42 | 32 |
| Poultry | 45 | 41 |
| Eggs | 54 | 46 |
| Crop products | | |
| Cereal and bakery | 8 | 7 |
| Fresh fruits | 26 | 18 |
| Fresh vegetables | 31 | 21 |
| Processed fruits and vegetables | 24 | 19 |
| Fats and oils | 18 | 21 |

Source: USDA

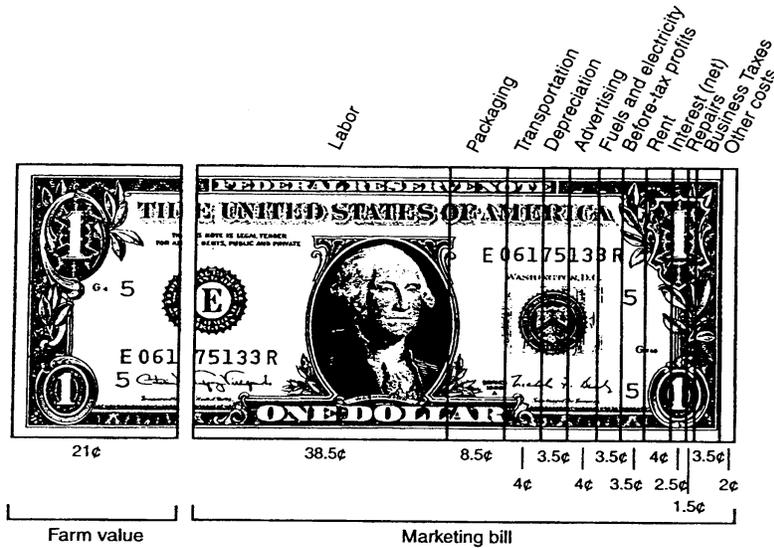
“Food prices include payment for both the raw farm product and marketing services. In 1997, the farm value, or payment for the raw product, averaged 23 percent of the retail cost of a market basket of U.S. farm food sold in food stores. The other 77 percent, the farm-retail price spread, consisted of all processing, transportation, wholesaling, and retailing charges incurred after farm products leave the farm. Farm-retail spreads have increased every year for the past 30 years, largely reflecting rising costs of labour, packaging, and other processing and marketing inputs. In 1997, farm to retail spreads rose on average by 4,7 per cent and farmers received 4,4 per cent less for the food they produced.

The farm value as a percentage of retail prices was slightly lower in 1997 than in 1996. Meanwhile, retail food prices rose by 2,4 per cent. Widening farm to retail spreads continued to push up food costs in 1997. The percentage of the retail price accounted for by the farm value varies widely among foods. Generally, it is larger for animal products than for crop-based foods, and smaller for foods that require considerable processing increases. For example the farm value of meat was 37 per cent in 1997, while cereal and bakery products had a farm value of 7 per cent. The additional manufacturing processes required for cereal and bakery products lower the farm value relative to the retail cost. Other factors that influence the farm value percentage include transportation costs, perishability of a product and retailing costs.

The components of the farm to consumer Marketing Bill is as follows:

Figure 2:

What a dollar spent for food paid for in 1997



Source: USDA

Total food expenditure in the USA, which includes imports, fishery products, and domestically grown food, reached \$709,2 billion in 1997, an increase of 2.6 percent from 1996. Away-from-home meals and snacks captured 40 per cent of the US food dollar in 1997, up from 38 per cent in 1977 and 44 per cent in 1987. The percentage of disposable personal income (income after taxes) that US consumers spend on food continues to decline. In 1996, US consumers spent 10,7 per cent of their disposable personal income on food, compared to 11,6 per cent in 1990, 13,4 per cent in 1980 and 13,8 per cent in 1970. In the United States, retail food prices (including meals served in restaurants) rose by 36,6 per cent over the last 10 years (1987 to 1997). Prices of food eaten away from home increased 34,2 per cent, while retail food store prices increased 41,3 per cent. In comparison, prices of all goods and services, excluding food, in the Consumer Price Index climbed by 41,8 per cent over the same 10 years.”

According to Knutson, Penn and Boehm (1983), a free market consist of many buyers and sellers. In every sub-sector in the wheat to bread value chain, the number of buyers and sellers differs. The structure of the world agricultural economies of many farmers and few processors is also found in the South African agricultural industry. In a study of nine different wheat systems in 1989, the following became evident:

Table 2:
Study of nine different wheat systems

| Country | Number of wheat millers | Number of Bakeries | Mill concentration | Mill integration (vertical) | Sophisticated consumers |
|-------------|-------------------------|--------------------|--------------------|-----------------------------|-------------------------|
| Australia | 47 | (2= 63%) | 4 = 80% | Yes | Yes |
| Brazil | 180 | 45 000 | None | No | No |
| Chili | 323 | 5 250 | 20 =60% | No | No |
| Greece | 300 | 7 155 | 10 = 65% | No | Yes |
| Ireland | 9 | 220 | 2 = 90% | Yes | Yes |
| Israel | 20 | 60 | None | No | No |
| New Zealand | 18 | 90 | 3 = 82% | Yes | Yes |
| Austria | 250 | 2 845 | None | No | Yes |
| UK | 91 | 6 000 | 3 = 75% | Yes | Yes |
| SA (1999) | 109 | 6 000 | 4=97% | Yes | No |

Source: Investigation to control over and support to the wheat and wheat processing enterprises abroad: a comparative study by Prof IJ Lambrechts, Mr NF Alberts, Mr JF de Villiers and Mr LH van Staden – 1989

The degree of integration and concentration is not necessarily an indication of efficiency of a value chain.

It is important to note that neither economic theory nor practical experience give any clear indication as to whether or not a vertically integrated wheat to bread value chain produces the best results in a free market system.

It is important to note that well informed consumers have a substantial influence on how the market allocates resources in a free market system.

Government measures such as supply side measures can also impact on market performance, structure and efficiency.

2.4 HISTORY OF THE VALUE CHAIN

2.4.1 Wheat production

Wheat cultivation is one of the oldest branches of agriculture in SA and wheat milling one of the oldest industries. As the Cape was the first European settlement, wheat production initially commenced in the winter rainfall area. The local market was limited and exports were difficult. In the 19th century, the wheat industry expanded more rapidly, in pace with the increase in population, aided by the introduction of improved farming equipment and import duties on wheat and flour imposed in 1826.

The sudden increase in the number of consumers occasioned by the discovery of the diamond and gold fields gave a considerable stimulus to wheat cultivation. The development of railways, in conjunction with reduced freight charges,

actually had the result that wheat cultivation was gradually confined to those areas where natural conditions were most suitable, while shortages were imported from overseas. This coincided with an enormous expansion in wheat growing in the younger agricultural countries such as Canada, Australia and Argentina at reduced production costs due to the application of modern production methods. During that period, the local customs duty on imported wheat was low.

After the establishment of the Union in 1910, attention was focussed on the wheat industry, and several bodies submitted reports on wheat growing, which expressed the opinion that cheap food supplies were essential for the development of SA and that the import duty should be doubled and production be expanded. SA entered the period of the Great War (1914) with a normal wheat production of about 50% of the country's requirements. Scarcity of shipping space increased domestic prices for wheat and production increased in response to these higher prices.

The wheat supply situation was investigated during 1917, and it was recommended that wheat production should be encouraged, and that seed should be issued at cost price and measures taken to make greater quantities of fertiliser and kraal manure available. It was also concluded that wheat growing in the Western Cape was counter productive. Originally the low prices of land and an adequate supply of cheap labour counterbalanced the low yield of the poor soils in that area. The supply of labour became scarcer, while the productivity of the soil gradually decreased as a result of the monoculture of wheat. Several changes were advocated, the most important of which were greater concentration on animal husbandry and more guidance to farmers. It was impossible for the wheat farmer to compete with the leading wheat growing countries without the protection afforded by the cost of importation, import duties or preferential railage rates.

Due to a crop failure and high overseas prices, the import duty on wheat was temporarily suspended from February 1920 to June 1921. The preferential railage rate on SA Wheat was abolished. After 1920, there was a decline in world wheat prices and a reduction in local freight charges. Local producers were subject to keener competition from imported wheat, which could be landed, and transported inland at lower cost than previously. From then onwards an agitation arose for higher protective duties.

Between 1921 and 1926, a dumping duty was imposed on Australian wheat, but was superseded in 1926 by a tariff increase. SA prices were therefore maintained at a level which made wheat production in SA profitable. In 1930 and 1931 a further reduction in world prices took place while SA wheat prices declined below import parity at the beginning of the season. This led to an increase in the import duty while imports of flour and meal were placed under permit. Special customs duties on a sliding scale were also imposed to raise the minimum import price of wheat, flour and meal.

Although the control of imports and the high protective tariffs were instrumental in maintaining the local price level, prices were forced down at the commencement of the season by over supply of the market. Efforts were made by co-operative

organisations to regulate the supply to the market and carry over surpluses for use in years of shortages. The costs and risks attached to these efforts had to be borne by the limited group of co-operative producers. Consequently a Wheat Industry Control Board was established in 1935 and empowered, by section 19 of Act No 58 of 1935, to control the flow of wheat to the market by paying storage compensation in respect of wheat stored by co-operative societies and producers. During the first two years of existence the Wheat Board had a difficult task as a bumper crop was reaped in 1935/36 and there was a surplus on hand in 1936/37. By utilising its levy revenue on wheat milled in the country and with the aid of Government, the Wheat Board succeeded in preventing a price collapse, although a decline in prices did take place.

Wheat growing was the most profitable branch of farming during the depression years. The psychological effect of a minimum import price in conjunction with other factors led to the expansion of wheat production throughout the country.

The Wheat Control Scheme was promulgated in 1937 under the Marketing Act, vesting in the Wheat Board the sole right to sell wheat and empowering it, subject to ministerial approval, to fix prices from producer to consumer and to rationalise the milling and baking industries. Co-operatives and other agents were engaged at a commission, to receive, grade and finance the wheat, and store and deliver it to millers on the instruction of the Wheat Board. The Wheat Control Scheme was changed to a Winter Cereal Scheme in September 1949 to include control over barley, oats and rye.

At the outbreak of the war, the Wheat Board paid a subsidy on grade A wheat for increased production costs during the 1939/40 season. A subsidy was paid by the Government during the 1940/41 season, of which the Wheat Board contributed 50%. In order to keep the price of bread as low as possible, a subsidy was also paid to millers and bakers on wheat milled for the baking of bread. Subsidies to producers were continued until the end of the 1956/57 season. Since 1957/58, a subsidy was paid on breadflour, and since May 1977, the Government paid a subsidy only on flour intended for the baking of standard bread. This subsidy was paid to the baker with the objective of keeping the price of bread to the consumer as low as possible.

Since 1991, the Wheat Board no longer regulated the prices and marketing of products derived from the processing of winter cereals as these were left to market forces.

2.4.2 Wheat handling

Following the report of the Clark Committee in 1918, South African Railways and Harbours (SAR&H) built two coastal silos, and thirty-five inland silos with a total capacity of 100 950 tons. These silos received, graded, weighed, cleaned and stored grain. They issued silo receipts, which were traded actively, but did not trade in grain themselves. In 1930 the Agricultural Warehouse Act was promulgated (repealed in 1975), which provided a legal framework for trading grain against warehouse or silo receipts.

In 1952, the Minister of Agriculture announced a loan scheme to be operated by the Land Bank, to encourage the building of silos by the agents of the Maize and Wheat Boards. The programme only took off in the mid 1960's. In 1962 the Minister appointed an advisory committee (the Grain Silo Committee) to regulate the building of silos.

The Grain Silo Committee consisted of representatives from the Department of Agricultural Economics, the Maize Board, Wheat Board, Oilseeds Board and Sorghum Board. The Government and grain boards decided jointly on the establishment of grain silos and the capacity thereof based on presentations made by cooperatives on behalf of producers. Before the Land Bank would consider approving a loan for the construction of a silo, the applicants needed a permit from the Committee. Within the set guidelines of the Grain Silo Committee, cooperatives built silos with a total capacity of 15 465 432 tons (maize equivalent) of which 14 492 576 tons was established at 220 depots in the north (mainly on the highveld) and 972 856 tons at 46 depots in the south (Western Cape) to handle and store white maize, yellow maize, winter cereals, sunflower seed, soya beans, sorghum and some other grains.

During 1984 the regulated silo building programme was suspended, and in 1990 it was terminated. There is currently 16,9 million tons of bulk storage capacity in South Africa, 85 % of which is owned by a small number of large silo owners (grain cooperatives and cooperatives that have since been converted into companies). Silo owners are organised on the basis of geographical areas, and own the majority of silos in their area.

Silo owners, as agents of the various boards had to grade, handle, store and fumigate grain. They also had to keep accurate records and submit regular reports per depot, per grain, per grade received, consigned and in stock. They further had to make payments on behalf of the grain boards to producers in respect of delivery prices, interim payments, final payments and supplementary payments when necessary. Transport arrangements also had to be made for consignments. Differences in the quantity and quality of grain between receipt and consignment were for their account.

Grain silo owners were remunerated by the users (boards) of grain silos for the capital costs of silos and the operational costs thereof, on an average basis. The capital cost was calculated on a 35 year amortisation method based on the interest rates of the Land Bank. Grain silos were constructed by co-operatives and other agents within this remuneration framework to the benefit of grain boards, processors and producers.

2.4.3 Wheat milling

There was a considerable increase in the consumption of wheat in the Union, since the economic revival in 1933. "Standard" meal and a standard loaf were introduced in May 1941 and in this way a milling extraction of 95% was made compulsory. The use of sifted meal and flour was restricted.

After an investigation during 1939, the Board on Trade and Industry recommended that the Wheat Board implement restrictive registration on all millers and bakers. Throughout subsequent years, the registration policy was amended according to developments in the industry and changing circumstances. The Commission of Enquiry into the Marketing Act (1976) also recommended that the Wheat Board keep its authority to register millers, control entrance to the baking industry, and that the system of restrictive registration of bakers be changed to a system of formal registration. (Restrictive registration of millers and bakers was abolished on 1 March 1991). Millers' margins of flour prices and credit control measures were set by Government until 1991.

2.4.4 Baking

From 1947, the subsidy paid on standard white and brown bread was differentiated. Subsidies were paid on both types of bread with a larger increase in subsidy on brown bread. From February 1984 no subsidy was paid on white bread. Payment of subsidies on standard bread was abolished on 1 March 1991.

The main objectives of the various control measures in the baking industry were to ensure stability, to promote efficiency through economies of scale and optimal capacity utilisation, and to keep the price of bread affordable.

During the 1980's pressure to open the industry to new entrants forced the authorities to grant more licenses to produce the subsidised standard loaf. The number of bakeries licensed with the Wheat Board to produce the subsidised standard loaf rose from 338 in October 1985 to 370 in February 1991, having previously fallen from 430 since the early 1970's. These figures include both plant and confectionery bakeries.

Restrictions on confectionery licenses were lifted in 1977, and the rules governing the type of products that confectioners could bake were progressively relaxed. The numbers of confectioners increased from 800 to 1000 during the 1970's and accelerated rapidly to 1665 in 1985 and 2 583 in 1991.

From 1985/86 all confectioners were permitted to produce super bread, a pan loaf weighing 100 g less than the subsidised 850 g standard loaf. The similarity of the two products enabled in-store bakeries to sell super bread at the standard bread price while reaping the benefit of lower input costs. It did occur that some bakers switched from the subsidised standard bread to super bread.

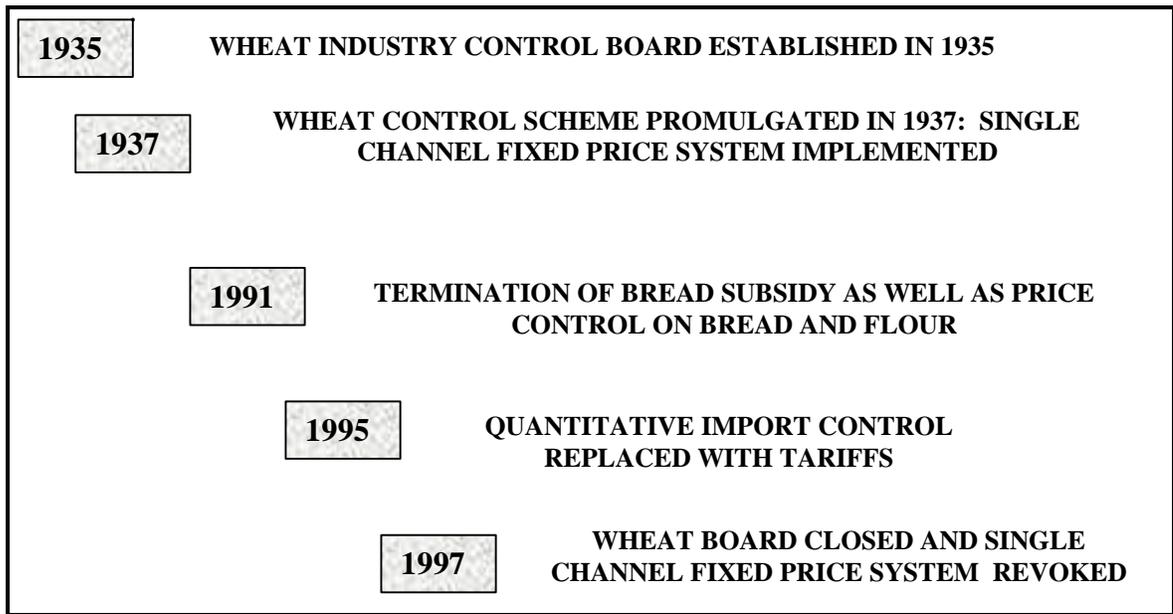
The regulations applicable to winter cereal products were scaled down on 1 March 1991, in order to allow the market to function according to free market principles. Wheaten bread was re-classified so that all bread fell into one of three classes, namely white, brown and whole-wheat bread, instead of the previous seven classes. Likewise, wheaten flour and meal were also subdivided into three classes, namely white wheaten flour, brown wheaten meal and whole-wheat meal instead of the previous seven classes. The previous three classes of wheaten bran were also consolidated into one class.

3. INVESTIGATION INTO THE WHEAT TO BREAD VALUE CHAIN

3.1 INTRODUCTION

The history and deregulation of the wheat to bread value chain can be illustrated in the following diagram:

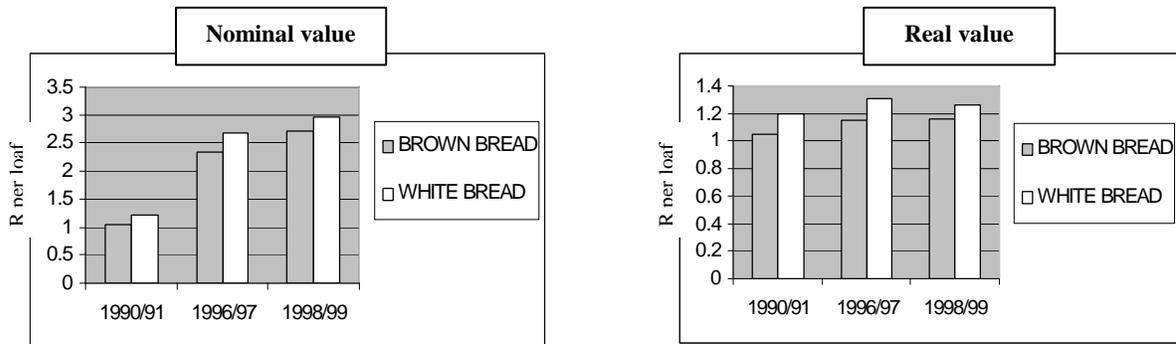
Figure 3:
History of the wheat to bread value chain



3.2 CHANGE IN SHARES OF DIFFERENT SECTORS IN THE VALUE CHAIN

The shift in the retail prices of white and brown bread are shown in the following graphs:

Figure 4:
Nominal and real values: the retail prices of bread



The following illustrates the change in the different shares in the retail prices of white and brown bread, before and after deregulation:

Figure 5:
SHIFT IN % SHARES OF THE VARIOUS ROLE PLAYERS IN THE RETAIL PRICE OF WHITE BREAD

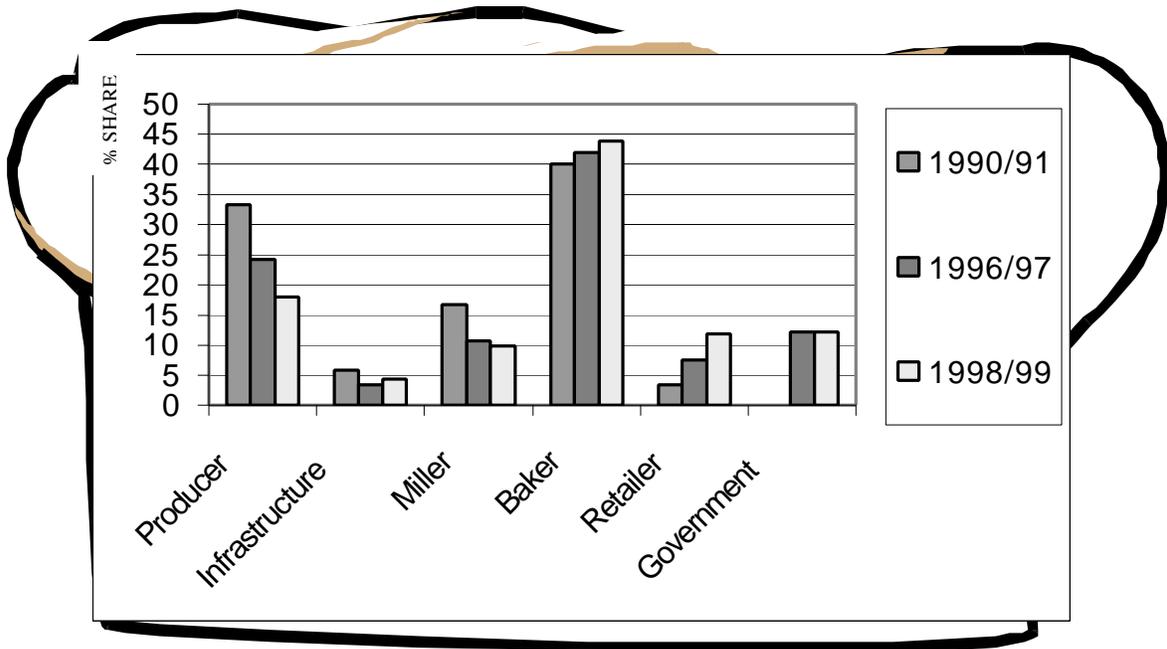
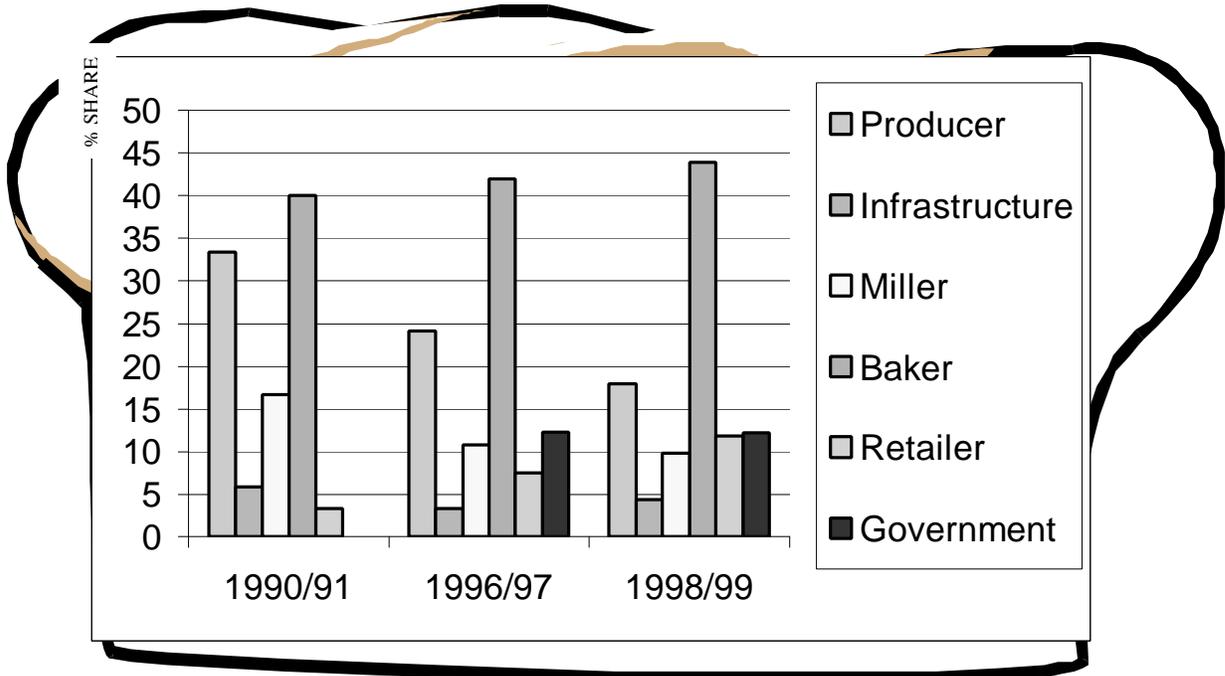


Figure 6:
SHIFT IN % SHARES OF THE VARIOUS ROLE PLAYERS IN THE RETAIL PRICE OF BROWN BREAD

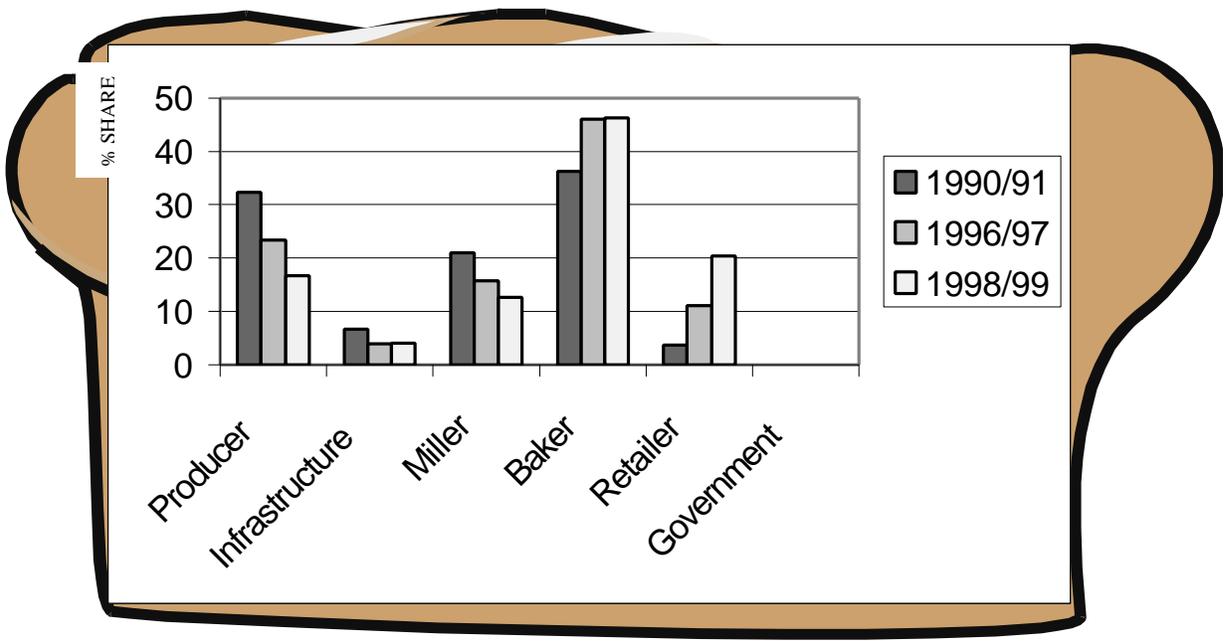
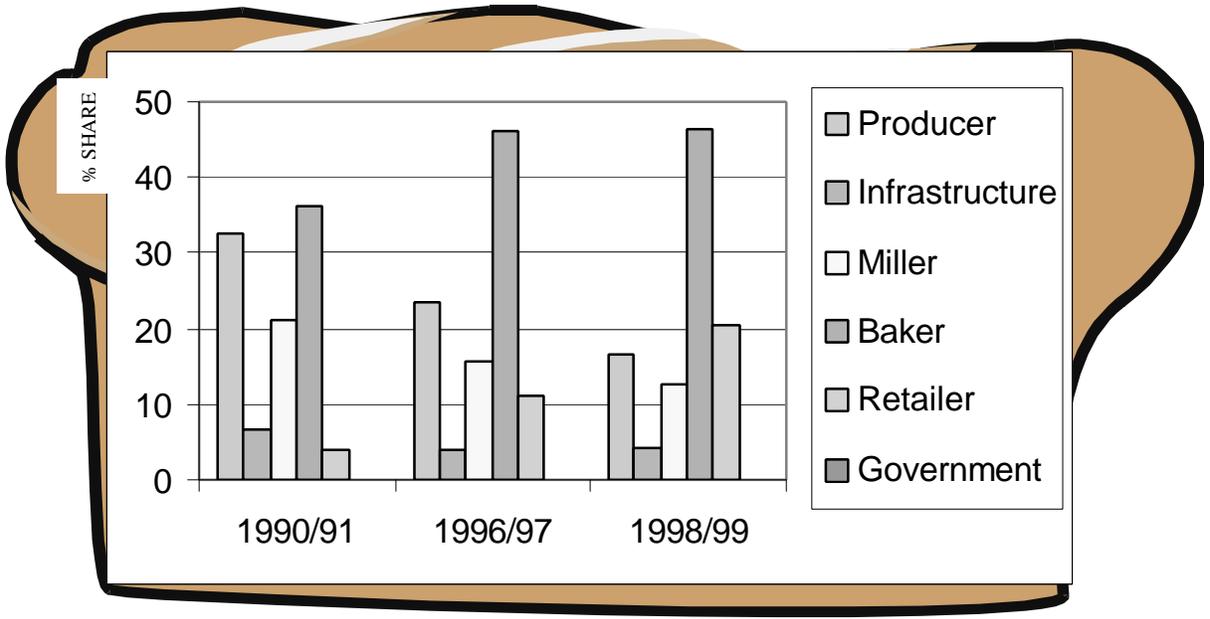


Table 3:
Percentage share in the retail price of white bread

| ROLEPLAYER | 1990/91 | 1996/97 | 1998/99 |
|-----------------------|----------------|----------------|----------------|
| <i>Producer</i> | 33.3 | 24.2 | 17.9 |
| <i>Infrastructure</i> | 6.7 | 3.3 | 4.4 |
| <i>Miller</i> | 16.7 | 10.8 | 9.8 |
| <i>Baker</i> | 40.0 | 42.0 | 43.9 |
| <i>Retailer</i> | 3.3 | 7.4 | 11.8 |
| <i>Government</i> | 0 | 12.3 | 12.2 |
| Total | 100 | 100 | 100 |

Table 4:
Percentage share in the retail price of brown bread

| ROLEPLAYER | 1990/91 | 1996/97 | 1998/99 |
|-----------------------|----------------|----------------|----------------|
| <i>Producer</i> | 32.4 | 23.4 | 16.7 |
| <i>Infrastructure</i> | 6.7 | 3.8 | 4.1 |
| <i>Miller</i> | 20.9 | 15.7 | 12.6 |
| <i>Baker</i> | 36.2 | 46.0 | 46.3 |
| <i>Retailer</i> | 3.8 | 11.1 | 20.3 |
| <i>Government</i> | 0 | 0 | 0 |
| Total | 100 | 100 | 100 |

As can be seen in the above diagrams and tables, the percentage share of the retail price of bread as set out and calculated in Annexure 1, can be described as follows:

✂✂ The **wheat producer's share** of the retail price of white bread has reduced from 33,33% in 1991 to 17,91% in 1998, while that of brown bread reduced from 32,38% to 16,68% for the same period.

Almost 60% of this decrease occurred in the first deregulation period (i.e. 1990/91 to 1996/97).

✂✂ **Infrastructural share** has also moved downwards from 5,83% in 1991 to 4,39% in 1998/99 and 6,67% to 4,07% for that period for white and brown bread respectively.

✂✂ The **milling sector's share** of the retail price of white bread decreased from 16,67% in 1991 to 9,8% in 1998/99 and 20,95% to 12,59% for brown bread for that period.

For white bread more than 80% of this decrease occurred during the first period of deregulation (i.e. 1991 to 1996/97) while for brown bread the loss was more evenly spread.

✍✍ The **baking industry's** share increased from 40,0% in 1991 to 43,9% in 1998/99 for white bread and from 36,2% to 46,3% for brown bread for the same period.

Most of the increase (96,9%) in the brown bread share came during the first period while that of white bread was evenly spread.

✍✍ Since the termination of price control after 1990/91, the **retail sector's share** has grown from 3,33% to 11,82% in 1998/99 for white bread and 3,81% to 20,37% for brown bread for the same period.

The main increase obviously came after the 1991 deregulation of prices.

✍✍ The **Government's share** rose from 0 to 12,16% for white bread from 1990/91 to 1998/99 while brown bread is VAT exempt.

3.3 DEREGULATION IN THE DIFFERENT SECTORS

The deregulation process of the wheat, milling and baking industries started in 1991, focussing on the milling and baking industries. In 1997, the single channel fixed price marketing system was abolished and the Wheat Board closed its doors, leading to a free market era.

Since 1997, the South African market has probably been one of the freest grain markets operating in the world economy today. The market forces have not found equilibrium since the deregulation and a number of areas are experiencing an extreme over reaction in adjusting from the regulated past 60 years of intervention.

Deregulation has led to a substantial shift in the value and supply chain management of the industry. **Prior to 1997** supply chain management was inwardly focussed and heavily influenced by regulations and government control. **After 1997** the value chain's interaction increased with higher levels of communication up- and downstream.

Deregulation is not unique to South Africa. The dismantling of statutory marketing systems is occurring globally, leading to production and processing decisions based on market signals, not government programmes.

Regulation, as well as deregulation, leads to unique problems within an industry. There are definite advantages and disadvantages to intervention. Key indicators external and internal to the value chain changed substantially from a regulated to a deregulated environment. Advanced planning, action and endogenous control prior to 1997 were stable, easy and predictable. A deregulated environment is marked by global impact, market signals and various unpredictable indicators.

3.3.1 KEY INDICATORS

The following key indicators are applicable to the entire value chain:

Government

| Regulated prior to 1997 | Deregulated |
|---|---|
| ?? Government administered wheat, milling and baking sector. | ?? Government influences - Policy - No administration and operations. |
| ?? Important decision making department – National Department of Agriculture. | ?? Shift in important decision making to Department of Trade and Industry. |
| ?? Quantitative restrictions on imports of wheat | ?? Tariffs on wheat and flour. |
| ?? Price risks borne largely by Government. | ?? Government carries no price risk. |

?? South Africa's policy environment was constrained by its move into the global trading arena with the signing of the General Agreement on Tariffs and Trade.

?? Prior to deregulation border controls and inspections tended to be more effective.

Information

| Regulated prior to 1997 | Deregulated |
|---|--|
| ?? Information function the responsibility of Government. | ?? The industry took over some responsibility for the supply of information. |
| ?? Information dissemination slow. | ?? Information dissemination fast as to enable market to react. |
| ?? Information public domain. | ?? Information competitive advantage. |
| ?? Focus only on domestic information. | ?? Focus also on global information. |

?? Access to and utilisation of information on production, markets and prices is one of the key elements to survival in a deregulated agricultural environment.

?? The aim of the role-players in setting up structures such as the South African Grain Information Service (SAGIS) was to contribute towards the functioning of the market.

Transport

| Regulated prior to 1997 | Deregulated |
|--|--|
| ?? Low levels of competition. | ?? Low levels of competition in the rail sector. |
| ?? Spoornet had only one logistics controller – the Wheat Board. | ?? Spoornet, various clients – milling companies, different demands. |
| ?? Very little road transport capacity. | ?? Significant increase in road transport capacity. |

- ?? Rail transport is still an uncompetitive sector.
- ?? Transport in South Africa will have to benchmark against global players.

Quality

| Regulated prior to 1997 | Deregulated |
|--|--|
| ?? Focus more on quantity than on quality. | ?? Focus on quality of wheat produced and flour processed. |
| ?? Little to no client focus. | ?? Improved client focus. |
| ?? Government focused on logistics and even disbursement of wheat. | ?? Can import any quantity and any quality. |
| ?? Grading favoured producers. | ?? Grading favours consumers. |

- ?? Wheat is now selected based on its suitability for specific products.
- ?? Grading rules and regulations were initiated to enhance the tradability of wheat.
- ?? Wheat is no longer a commodity, it is a customised product developed to suit the customers needs.

Consumers

| Regulated prior to 1997 | Deregulated |
|--|--|
| ?? Service and quality were secondary factors. | ?? Higher levels of service and quality. |
| ?? Value chain started at the producer. | ?? Value chain shift to start at the consumer. |

- ?? Consumers are exposed to the global consumer product market, as the range of products broadened.

3.3.2 THE WHEAT PRODUCING INDUSTRY

Production

| Regulated prior to 1997 | Deregulated |
|---|---|
| <p>?? The expected statutory price (normally expected to be higher than the previous year) removed price risk. Weather was the biggest risk factor.</p> <p>?? Production patterns in summer rainfall areas did not change much between seasons.</p> <p>?? Relatively high prices and cross subsidising kept production relatively constant in the winter rainfall areas.</p> <p>?? All bread quality wheat had to be taken up. Choice of cultivar not so important.</p> | <p>?? Price risk is at least as big a factor as the weather in terms of production decisions.</p> <p>?? Production in summer rainfall areas declined as relative prices encouraged the planting of alternative crops.</p> <p>?? Production in the winter rainfall areas did not decline as expected as a result of a lack of production alternatives.</p> <p>?? The uptake of certain cultivars and grades is no longer prescribed - the choice of cultivar is much more difficult.</p> |

Grading

| Regulated prior to 1997 | Deregulated |
|--|---|
| <p>?? Standards determined and applied by the Wheat Board.</p> <p>?? Grading more rigid and producer orientated.</p> | <p>?? Standards are regulated after consultation with entire industry.</p> <p>?? Grading more flexible and consumer orientated.</p> |

Research

| Regulated prior to 1997 | Deregulated |
|---|--|
| <p>?? The gathering and distribution of research funding easy with statutory levies and Wheat Board systems.</p> <p>?? Research decisions producer dominated.</p> | <p>?? Process of implementing statutory levies longer and more consultative.</p> <p>?? Research decisions made by entire industry.</p> |

Marketing

| Regulated prior to 1997 | Deregulated |
|---|---|
| <p>?? Single channel fixed price marketing system.</p> <p>?? The Wheat Board was the sole buyer and seller of wheat. Producers had a guaranteed market for their product.</p> <p>?? Prices were fixed and approved by the Minister. Selling prices based on free on rail ex silo prices were fixed after provision had been made for certain levies.</p> <p>?? Same price nationally.</p> <p>?? Co-ops acted as agents of the Wheat Board, and were remunerated on a prescribed basis for services, and agents could not participate for their own account in the marketing process.</p> <p>?? Price differential between classes and grades fixed.</p> <p>?? Import of wheat only by Government.</p> | <p>?? Producers use a number of marketing options to market their wheat.</p> <p>?? Sales are no longer guaranteed for producers.</p> <p>?? Prices are usually derived from international prices for the same quality plus the protection of the import tariff.</p> <p>?? Prices vary with locality and time.</p> <p>?? Responsibility of cost for storing, handling, transport cost and financing is considered in the agreement for the account of the owner.</p> <p>?? Price differential floating.</p> <p>?? Imports by market subject to tariffs.</p> |

- ?? Deregulation of the single channel fixed price marketing system left producers with opportunities but also risks.
- ?? Co-operatives, private companies and marketing agents deliver functions such as grading, handling and storing of grain, for the owner's account. This led to more business initiatives in this sector.
- ?? Prices are market related - import parity, location, quality and other factors influence local prices.

3.3.3 THE GRAIN SILO INDUSTRY

Throughput at silos

| Regulated prior to 1997 | Deregulated |
|--|---|
| ?? Single channel (fixed price) marketing system - acceptable throughput over time. | ?? The storage of wheat on farms and the direct delivery of wheat to processors have had a negative effect on the throughput at silos. |
| ?? Wheat prices stimulated local production and imports were minimized because of the Wheat Board's actions. | ?? Market forces influence prices and this can lead to a decrease in the production of wheat and a consequent decline in the throughput at silos. |
| ?? Import control. | ?? Import control was lifted (irrespective of local production) which lead to a decline in the demand for local wheat, lower production and a decline in the throughput at silos. |
| ?? The Wheat Board ensured that buyers took up wheat proportionately and also made the necessary transport arrangements. | ?? Decline in throughput and unused capacity at times. Stocks have to be stored over longer periods of time - placing silos under risks as far as quality and quantity are concerned. |
| ?? Prices and margins were set by the Wheat Board. | ?? Prices and margins a matter of competition resulting in greater risk exposure. |
| ?? As agents of the Wheat Board, only they could handle and store wheat. | ?? Producers also store wheat. |

- ?? The free market led to better communication between silo owners and traders, processors, producers and Government.
- ?? Other marketing mechanisms became effective – silo owners have to participate in a competitive market, and service is more important.

Quality and grading

| Regulated prior to 1997 | Deregulated |
|--|--|
| ?? The grading regulations administered by the Wheat Board were uniform and changed very little over time. | ?? Preferences of buyers in connection with quality (cultivars) and price differences (that take the location of production into account) resulted in some CGOs having a lower throughput than others. |
| ?? The Wheat Board carried out quality inspections at the premises of the CGOs on a regular basis. | ?? Buyers continuously demand new grading regulations and set different quality specifications, which place producers and CGOs under greater |

| | |
|--|--|
| <p>?? The CGOs were held responsible for quantity and quality risks.</p> <p>?? The remuneration paid by the Wheat Board to the CGOs was based on cost and paid out on silo capacity.</p> | <p>pressure.</p> <p>?? New grading regulations forced CGOs to buy expensive sophisticated equipment.</p> <p>?? CGOs can only recover grain silo service costs on throughput over time.</p> <p>?? The storing of grain on farms, direct delivery from farms to processors and competition from other CGOs put the grain silo service tariff under pressure.</p> |
|--|--|

Transport

| Regulated prior to 1997 | Deregulated |
|--|---|
| <p>?? The Wheat Board arranged wheat to be taken up proportionately by buyers from CGOs.</p> <p>?? Transport arrangements were coordinated with CGOs and rail transport (for which silo's were designed) was mainly made use of.</p> | <p>?? Transport arrangements are uncontrolled and puts pressure on the outloading capacity of silos.</p> <p>?? Transport by road has increased dramatically and this leads to out loading problems as silos were constructed to primarily dispatch by rail.</p> |

Administration:

| Regulated prior to 1997 | Deregulated |
|--|---|
| <p>?? Administration and distribution arrangements were done by the Wheat Board.</p> | <p>?? Multiple owners of stored wheat and diversity of information required from silo owners means more sophisticated and costly administration by silo owners.</p> |

3.3.4 THE MILLING INDUSTRY

Number of mills

| Regulated prior to 1997 | Deregulated |
|---|---|
| <p>?? In 1996/97 there were 137 mills.</p> <p>?? Industry expansion.</p> <p>?? Big six milling companies.</p> | <p>?? In 1998/99 there were 109 mills.</p> <p>?? Industry rationalisation.</p> <p>?? Merger of big milling companies now four big companies</p> |

- ?? Merger of groups in a deregulated environment so as to enable the sharing of non-core activities to ensure increased competitiveness.
- ?? Deregulation has created niche markets, which in turn lead to the entrance of new entrepreneurial small millers.
- ?? However, small mills find it difficult to compete when it comes to procurement and economies of scale.

Capacity

| Regulated prior to 1997 | Deregulated |
|---|--|
| ?? Built in capacity in 1996 was 423 tons per hour. | ?? Built in capacity in 1998 is 402 tons per hour. |
| ?? Capacity utilisation was 92%. | ?? Capacity utilisation was 78%. |

- ?? The capacity of production defines the industry's competitive boundaries.
- ?? The industry has always followed a capacity leading strategy due to a certain long term prospective created by a regulated environment.
- ?? This over capacity could lead to low utilisation and therefore higher cost and continued rationalisation and concentration.

Employment

| Regulated prior to 1997 | Deregulated |
|--|--|
| ?? Employment stable due to regulated environment. | ?? Employment on a steady decrease since the start of deregulation |
| ?? Closed economy. | ?? Globalised economy. |
| ?? High levels of protection. | ?? Rapid decrease of protectionism. |

- ?? From 1992 to 1998 employment has decreased by 25% in the milling industry, as a result of technology, increased global competition, poor domestic economic growth, and labour legislation.
- ?? Deregulation has resulted in efficiency improvement in the industry, which has contributed to the employment losses.
- ?? New entrepreneurial entrants into the market are creating new employment opportunities.

Exports of flour

| Regulated prior to 1997 | Deregulated |
|---|--|
| ?? Flour priced at wheat import parity, excluding tariffs. | ?? Flour priced at wheat import parity, including tariff. |
| ?? Exports peaked at 150 000 tons in 1997 (wheat equivalent). | ?? Exports declined to ± 50 000 tons per annum (wheat equivalent). |
| ?? European Union exported 269 000 tons | ?? South Africa exports 38 000 tons of |

| | |
|---|---|
| <p>of flour to Southern African Development Community (subsidised) in 1997.</p> <p>?? No tariffs on imported wheat.</p> | <p>flour to the Southern African Development Community (not subsidised).</p> <p>?? Very difficult and cumbersome claim back procedure of duties contributes to uncompetitiveness in the Southern African Development Community.</p> |
|---|---|

- ?? The procedures to claim back the import duties on wheat paid on proof of flour exported is a long-drawn process via three different Government Departments: the Department of Trade and Industry; the South African Revenue Services (Finances); and Customs and Excise.
- ?? The Southern African Development Community is a natural market for South Africa and the surplus milling capacity could easily be used to replace the subsidised European Union flour exports to the Southern African Development Community.

Procurement

| Regulated prior to 1997 | Deregulated |
|---|---|
| <p>?? Risk averse.</p> <p>?? Government carries the risk within the market.</p> | <p>?? Risk disbursement from producer to processor.</p> <p>?? Employment of expert staff to handle procurement.</p> <p>?? Development of silo certificates.</p> <p>?? Development of futures market: SAFEX.</p> |

- ?? Procurement plays an important role within a deregulated environment as this will determine the future price for the farmer as well as 70% of the input cost of the milling industry.
- ?? Natural groupings are developing especially within the smaller participants group to collectively deal with procurement.

Products

| Regulated prior to 1997 | Deregulated |
|--|---|
| <p>?? Regulated bread mass 800 g.</p> <p>?? Limited range of flour based products.</p> <p>?? Low levels of knowledge of markets.</p> | <p>?? Absence of the application of current regulations.</p> <p>?? Wider variety of flour based products.</p> <p>?? Increased product range.</p> <p>?? Segmentation of markets.</p> |

- ?? Lower bread mass has lead to lower levels of throughput for the milling industry.

- ?? Customers demand a wider variety of flour based products. These products normally have a lower flour content than traditional products.

3.3.5 THE BAKING INDUSTRY

BREAD PRICES

| Regulated | Deregulated |
|--|---|
| ?? Control of wholesale and retail bread price until 1991. | ?? No control on bread prices after 1991. |
| ?? Bread prices were subsidised by Government up to 1991. | ?? No subsidies on bread prices. |
| ?? Prior to 1991 no VAT on white bread. | ?? VAT on white bread. ?? Retail margins on brown bread higher because of VAT exemption. |

- ?? Widespread price-cutting has taken (and is still taking) place after deregulation caused by surplus baking capacity and a large number of bakeries competing for the same market.

BREAD MASS

| Regulated | Deregulated |
|-----------------------------------|--|
| ?? Regulated bread mass. | ?? Greater flexibility in bread mass regulation. |
| ?? Gradually decreased over time. | ?? Loaves marketed in multiples of 100 g from 400 g upwards. |

- ?? Official regulations are ignored in many cases.
 ?? Adherence to the new regulations has in general been limited and consequently the widespread under-scaling of bread masses has continued.
 ?? Consumers are not aware of the exact mass of bread.
 ?? Most outlets, particularly supermarkets, franchise and forecourt outlets have changed from unwrapped 800g loaves to 700g loaves, which are mostly sliced and wrapped.

EMPLOYMENT

| Regulated prior to 1997 | Deregulated |
|--|--|
| ?? Employment stable due to regulations. | ?? Employment in plant bakeries on a steady decrease since the start of deregulation |
| ?? High levels of protection. | ?? Independent bakeries are not unionised. |
| | ?? Increase in employment by small/over the counter bakeries. |
| ?? Higher average skill level. | ?? Lower average skill level. |

- ?? Deregulation has not necessarily been the only cause of a decline in employment. Many other factors have also played a role.
- ?? Deregulation has lead to streamlining in the plant bakeries which included employment.
- ?? However, the massive increase in smaller bakeries producing bread has led to an increase in employment.

MARKET SHARE OF PLANT BAKERIES

| Regulated prior to 1997 | Deregulated |
|--|---|
| ?? Market share in 1991 was 92% of the total bread market. | ?? Drop in market share to approximately 60% of the total bread market. |
| ?? Number of plant bakeries decreased since 1991 to 147 in 1997. | ?? Number of plant bakeries has dropped further to 106 in 1999. |
| ?? Restrictive registration of standard bread bakers until 1991. | ?? Amalgamation – four major plant bakery groups. |

- ?? The smaller bakeries have lower delivery costs, if any, compared to plant bakeries.
- ?? Small bakeries also obtain the benefit of the retail margin where it sells directly to the public. It is also able to compete for flour prices, which compares favourably to prices paid by plant bakeries linked to mills.
- ?? Smaller bakeries generally pay lower wages.
- ?? The plant bakery sector has, however, not collapsed in the face of challenges from the over the counter/retail baking sector. It also has competitive advantages:
 - ?? Plant bakers experience an economy of scale advantage in the production process compared to the smaller bakeries.
 - ?? Technological expertise enables plant bakeries to adapt and improve its production processes and the product/packaging it offers.

- ?? Size of the various operations is large enough to provide a springboard for technological innovation.
- ?? Strong customer base.

?? Empowerment groups often see bakeries as a logical point of entry into business for operators of small, medium and micro businesses.

PRODUCT RANGE

| Regulated prior to 1997 | Deregulated |
|--------------------------|---|
| ?? Standard products. | ?? Far greater variety of flour based products offered. |
| ?? Regulated bread mass. | ?? Various bread masses. |

?? Bakeries have added substantial value to flour-based products after deregulation such as wrapped, shrink-wrapped, high fibre, high protein, speciality types, various mass loaves, etc.

3.3.6 THE RETAIL INDUSTRY

PRODUCT RANGE

| Regulated prior to 1997 | Deregulated |
|--|---|
| ?? Mostly only standard bread available. | ?? Increased range of different flour based products. |
| ?? Standard products. | ?? New look at bread with regard to beneficial products such as gluten free and chemical free products. |
| ?? Regulated bread mass. | ?? Various bread masses. |
| ?? Slow in innovation. | ?? Launching of new ideas from overseas. |

- ?? Retailers are able to supply consumers with a totally new look at bread.
- ?? New technology and new ideas from overseas can vastly grow the market with speciality breads.
- ?? Huge range of sour dough breads, chemical free breads, speciality breads, fruit breads, stoneground products and a variety of other signature products.
- ?? Deregulation led to retailers having the opportunity to take more realistic (higher than fixed 4c/loaf) margins on bread, with variation in prices from outlet to outlet.

CONSUMER NEEDS

| Regulated prior to 1997 | Deregulated |
|--|---|
| <p>?? Lack of health products- bread loaded with chemicals and unnatural products.</p> <p>?? Consumers were less informed about health products and regulations.</p> | <p>?? New lines and increasing product range to meet the health needs of consumers.</p> <p>?? Consumers are more sensitive and demand more information.</p> |

- ?? The range of products before deregulation was loaded with chemicals to increase shelf life that was needed for transport and other reasons.
- ?? Significant growth in business for natural products.

EMPLOYMENT

| Regulated prior to 1997 | Deregulated |
|---|--|
| <p>?? Standard products - no employment growth.</p> | <p>?? Far greater variety of flour based products offered - growth in employment.</p> <p>?? Need for education and training at in-house bakeries and other new small bakeries.</p> |

- ?? Increased employment in bakery division to keep up with the demand.
- ?? Need to educate people within the bakery division, which has been sorely lacking in the country for a long time.
- ?? Emphasis is placed on bakery training divisions that have been opened up in the major cities and are now operating on a full time basis training staff in all aspects of the baking industry.

RURAL CONSUMERS

| Regulated prior to 1997 | Deregulated |
|--|---|
| <p>?? Prices fixed for rural and urban areas</p> <p>?? Limited choice – only standard bread.</p> | <p>?? Higher prices in rural areas.</p> <p>?? Different prices from outlet to outlet.</p> <p>?? Still a limited choice – only standard bread.</p> |

- ?? Bread is in many cases wrapped, or consumers have the choice to self-wrap.
- ?? Rural consumers are price takers.

3.4 DISCUSSION

3.4.1 General

- ?? It is important to note that any role-player's share in the retail price of food has no direct correlation with the profits to be made in that particular sub-sector.
- ?? In the wheat to bread value chain the farmer, infrastructure and to some extent the milling industry, have very little potential to increase the value of the product, other than the normal functions performed currently. The baking and retail sections have a bigger opportunity of increasing the value of the product.
- ?? In the discussions below, it will be noted that as a product becomes more processed and has more value added to it, the smaller will be the share of the primary producer in the final retail price. This is only relevant to the discussions in so far as the data that has been used in the analysis does not remain homogenous through time. I.e. the data that are used may have captured some value adding to the product, which the study attempted to avoid in order to compare like products through time.
- ?? What is also captured in the results is not only the deregulation of the wheat to bread value chain but also the effects of other legislation and policies, e.g. increased regulation of the labour market.
- ?? In a deregulated market, the ability of any link in the value chain to recover its costs, is constrained, whereas in the regulated environment, all prices and margins were Gazetted (usually on a cost plus basis).

3.4.2 Producer

- ?? The wheat producer's share of the retail price of white bread has declined from 33,33% in 1991 to 17,91% in 1998, while that of brown bread reduced from 32,38% to 16,68%.
- ?? The producers' share in the final retail price of a loaf of bread which remained relatively constant through time, decreased as a result of, amongst others, a decline in the relative bargaining power of producers with respect to the rest of the value chain.
- ?? The relatively small opportunity of the farmer to add value to his product will, in general, result in him receiving a smaller and smaller share of the retail price of products containing wheat.
- ?? Any government policy or other factor which increases the price the producer receives for his product, that can not be passed on completely through the value chain, will result in the producer receiving a larger share of the retail price e.g. tariffs.
- ?? Producers still have a limited number of buyers with whom to negotiate.

3.4.3 Infrastructure

- ?? Infrastructure share has declined from 6,67% to 4,39% and 6,67% to 4,07% for white and brown bread respectively.

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- ?? The infrastructure cost includes the financing costs, which are a pure function of the interest rate and the value of the product. The wheat price did increase over the period under review and with the general fluctuations in interest rates, it would be unfair to judge the infrastructure cost in a loaf of bread without taking into account the changes in the cost of financing.
 - ?? The mere fact that rail transportation, which is a monopoly in the country, also forms part of the infrastructure results in some inefficiencies being locked into this link in the value chain.
 - ?? Infrastructure cost in a loaf of bread will remain a small part of the cost in the value chain in future.
 - ?? The concentration of silo ownership creates the potential for storage to be operated as a monopoly and may allow the silo operators to leverage a slightly larger share of the retail price of a loaf of bread, however, silo owners are under pressure due to on-farm storage, direct deliveries to processors, surplus capacity, freer imports, etc.

3.4.4 Milling

- ?? The milling sector's share of the retail price of white bread decreased from 16,67% to 9,8% and from 20,95% to 12,59% for brown bread.
- ?? The deregulation in the value chain that has taken place since 1991 has shifted the balance in bargaining power and ultimately resulted in market forces determining the miller's share in a loaf of bread.
- ?? The reduction in share shown by the numbers given above, would have been even greater had the numbers not captured some value adding to the product, such as increased product range, quality and technical support as well as capital and credit provision.
- ?? International experience confirms that deregulation puts the pressure on margins in the milling industry (as a result of their relative bargaining power in the chain), which obviously affects the share in the final retail price of bread.
- ?? Further mergers of the big milling companies occurred after deregulation resulting in only 4 big groups remaining.

3.4.5 Baking

- ?? The baking industry experienced a gain from 40,0% to 43,92% for white bread and from 36,19% to 46,30% for brown bread during the period of deregulation from 1990/91 to 1998/99.
- ?? The reasons for the increases can be attributed to production cost push factors and consumer pull factors, which are related to the change in the structure of the industry since deregulation.
- ?? The major production cost push factors related to deregulation are increased delivery costs for plant bakers and increased fixed costs arising from the dramatic increase in the numbers of bread bakers. Prior to deregulation the delivery process was rationalised through a system of

delivery routes and production quotas. This system no longer exists with a resultant increase in cross deliveries.

- ?? The growth in the number of bakeries has resulted in the creation of considerable surplus baking capacity. This on the one hand, has led to pressure for plant bakers to cut back their baking capacity. On the other hand, it has caused bakers to engage in fierce price wars in their efforts to increase throughput. The competitive situation has also led to cost increasing activities such as bread deliveries on Sundays and public holidays.
- ?? Consumer pull factors leading to increased costs include consumer demand for sliced bread, wrapped bread, wider product range and hot bread.
- ?? The change in the structure of the industry indicates that the increase in the bakers' margin is not directly related to the economic viability of all bakers. To illustrate this, the plant-baking sector has closed 41 bakeries between 1997 and 1998 out of a total of 147 in 1997, and reduced baking capacity by 8,3% between 1998 and 1999. On the other hand, small bakeries have grown rapidly in numbers since 1990/91. The smaller bakeries in most cases do not have any, or only limited delivery costs, pay lower wages and have a strong competitive position in purchasing flour as they have a choice of suppliers and are not linked to a particular milling company.

3.4.6 Retail

- ?? Since the 1990/91 period of price control, the retail sector's share has grown from 3,33% to 11,82% for white bread and 3,81% to 20,37% for brown bread. The main increase obviously came after the 1991 deregulation of prices.
- ?? This increase in share results from the retailer's relative bargaining power in the chain as well as the level of competition at retail level. The low price elasticity of bread has the effect that prices can vary without significantly affecting the demand.
- ?? Prior to deregulation the retailer had to buy its own bags and pack its own bread, while after deregulation the baking sector supplies sliced and wrapped bread.
- ?? In-store bakeries do supply their own packaging, but, in some instances, customers pack their own bread in the packaging provided.
- ?? Bread slicing equipment tends to be supplied by the milling companies.
- ?? The discriminatory application of VAT on white bread allows the retailer to take a higher margin on brown bread.

3.4.7 Consumer

- ?? Consumers have benefited from deregulation as follows:
Increased product range i.e. greater choice;
Improved quality and hygiene, e.g. wrapped bread; and
Greater availability of fresh hot bread.

- ?? Consumers negatively affected by the following:
 - Retail price tended to increase as control was removed, particularly in rural areas.
 - Retail prices vary from outlet to outlet.
 - Underscaling of bread mass worsened and poor inspection services.

3.4.8 Government

- ?? The Government's share rose from 0 to 12,16% for white bread for this period while brown bread is VAT exempted.
- ?? Bread was excluded from GST before 1991 but in 1991 VAT was imposed on white bread only.
- ?? Government policy creates the environment in which the wheat to bread value chain functions. Trade policy constitutes one of the major factors creating this environment. Other important factors include competitions policy, monetary policy, labour policy, fiscal policy and sectoral policy, such as those impacting on land, health and safety, and agriculture.
- ?? The Government determined each role players' share in the retail price of bread in a regulated environment. In a deregulated environment this is no longer the case.

4. CONCLUSIONS

The period studied (1990/91 – 1998/99) saw considerable deregulation actions in the wheat to bread value chain.

These included the removal of registration of bakeries, the bread subsidy, retail price control, fixed prices for the producer, miller and baker, state control of imports and exports, fixed price single channel marketing, Wheat Board Agency agreements for handling and storage, and Wheat Board determined quality standards.

While other factors not directly related to deregulation (e.g. low world prices, world economic down turn) have had some influence on the present position of the wheat to bread value chain, there is little doubt that liberalisation in this chain has had a significant effect, and has tended to make the value chain more responsive to market conditions.

The present study was based on the standard loaf of bread in order to be able to compare a similar product in the periods of consideration. If the specialty loaves of bread (including rolls) had been included, the farmers share would have been lower as these products sell at higher prices and in most cases have a lower flour content.

It must be noted that this study was conducted before an import tariff applied to wheat or wheat flour. The introduction of a wheat import tariff (currently R269/ton) has had the effect of increasing the wheat price substantially. This will have an impact on the shares of each role player. In particular, to the extent that this tariff does not get passed through the chain completely, it will increase the producer's and the Government's share of the retail price. This will obviously imply that the impact on the other role players will then be smaller. (The percentage share of the different role players in the retail price of bread is set out in Table 3 and 4 (Page 26)).

4.1 Producers

The biggest impact of deregulation was that producers have been exposed to the global market. They no longer have guaranteed prices and uptake of their wheat. They have to find their own buyers at prices derived from the international trading arena and supply and demand position within South Africa. Wheat is now produced to the buyer's requirements regarding cultivars and quality. An inevitable result of deregulation has been the reduced relative bargaining power of producers in the value chain.

A number of marketing options are available to producers to enable them to reduce their price risk and market their product. SAFEX contracts for wheat have not yet reached their potential with insufficient volumes being traded to be of any real value.

The result of the new free market environment was that hectares planted to wheat were significantly reduced. Following the introduction of the wheat tariff in late April 1999, there should be a recovery during the next season.

Deregulation was expected to shift production from the Western Cape regions to the summer rainfall regions of the country. This has not happened as yet and the introduction of the tariff may entrench the past production patterns for some time to come.

The shift in the producers share of retail price of bread is seen as a normal outcome given the removal of the measures applied during regulation.

Accurate, relevant and timeous information should be easily available to all role players in the chain. The free market cannot operate efficiently without such information flowing to all the role-players. Private organisations like SAGIS, are playing an important role in this regard and Government should give its full support to such organisations.

4.2 Infrastructure

The committee took note that concern had been expressed to the NAMC about the concentration in the grain silo storage sector. A small number of silo owners own about 85% of the grain storage capacity in South Africa. The most significant aspect is the geographical nature of the concentration.

A previous NAMC investigation (Annexure 2) into the grain storage situation concluded that there were four options to resolve the concentration issue (summarised).

- ? ? Do nothing and allow the market to resolve the position;
- ? ? Use new legislation to break up the regional concentration;
- ? ? Competition Board action;
- ? ? An agreed code of conduct between Government and the silo owners.

These concerns have been partly alleviated by the alternative storage options available to producers such as on farm storage facilities, new entrants to the storage sector, and direct deliveries to buyers. Silo owners are further under pressure due to lower capacity utilisation because imported wheat is transported directly to mills and not stored in commercial silos.

It was further brought to the attention of this investigation that commercial silo owners were also still finding their feet in the deregulated market. Immediately after deregulation, many of these operators also performed a trading function. Many have moved away from trading and only act as storers and handlers of grain in this regard, and also act as important service providers to facilitate trade.

The Committee has noted that concentration does not necessarily mean that there will be price fixing or no competition. Reports to this Committee show that

market forces are creating the necessary competition and that the first option at this early stage is the recommended path.

This investigation as well as the Wheat, Milling and Baking Cluster Study have identified rail transport costs in South Africa to be high compared to the rest of the world. Although some competition has developed from road transport, this Committee believes that there are still inefficiencies locked into the wheat to bread chain due to the state monopoly in rail transport.

4.3 Millers

The biggest change for the milling industry since deregulation has been the increase in procurement risk. During the regulated period procurement of wheat was a simple (almost risk-free) transaction for the miller. Procurement in the deregulated environment is complex and requires expert staff. The market has developed instruments like silo certificates, pre-season contracts and the South African Futures Exchange (SAFEX) to assist in managing the risk. Due to insufficient volumes being traded, SAFEX has not developed as an effective instrument for wheat.

Since deregulation the milling industry has seen increased competition from small entrants into the market. This has partly accounted for the decreased capacity utilisation from 92% to 78%, within the industry. This has led to higher costs per unit which has resulted in further concentration (reducing the number of big companies from 6 to 4) and rationalisation (decrease in milling units from 137 to 109).

The new small entrants into the market are creating new employment opportunities, but on a low basis and not sufficient to counter the negative impact of the losses in the large mills. Small mills also have difficulty in competing in a deregulated environment due to procurement, quality (inability to blend) and economies of scale.

4.4 Bakers

The deregulation has meant that growth in smaller and in-store bakeries has created surplus baking capacity. This, together with the removal of prescribed delivery zones/routes and production quotas has put pressure on plant bakery costs per unit. The fierce price per unit competition for capacity could see a further reduction in the number of plant bakeries in future.

The small and in-house bakeries could grow in number and spread to the outlying areas. These bakeries have no or low delivery costs, in many cases pay lower wages, can procure flour from the supplier of their choice and have the psychological advantage of the smell of fresh bread in the store.

The growth in the baker's share of retail bread price can mainly be attributed to this sector's ability to add value, e.g. wrapped and sliced bread. The percentage share of the baker would be somewhat higher if the whole flour based product market had been included in this study and it had not been limited to standard

bread. This role-player has the potential to add substantial value like high fibre, high protein and other specialty types and sell these at higher prices relative to standard loaves.

4.5 Retailers

The retail industry has been the major benefactor from deregulation when measured in terms of the share of retail price of bread.

There is, however, a great variation in the margin taken by the various retailers. Past studies of the Wheat Board between 1991 and 1997, show that the major supermarkets took lower margins while the general trade (especially in outlying areas) took bigger margins on standard bread. These studies, however, exclude the confidentials received by the bigger outlets. The margins of these stores also varied substantially as they did not have the negotiating power of the large retail outlets. The smaller stores tend to add convenience value to the standard loaf by trading longer hours and being closer to the consumer.

In the outlying areas, however, there is little competition between retail outlets resulting in very high bread prices.

It is of concern that the retail margin of brown bread is substantially higher than that of white bread. This indicates that the retailer is taking advantage of the absence of VAT on brown bread.

4.6 Consumers

Deregulation has introduced a greater variety and choice of products from the standard loaf to health breads, various ethnic bread types, a variety of rolls and other flour based products. However, this increased choice has come at a price. During the period of price control all consumers paid the same price for bread. In the deregulated environment, retailers in outlying areas have little competition and charge considerably higher prices than the urban retailer. The growth of the smaller/in-house bakeries may to some extent correct this situation. The non-compliance with the bread mass regulation leads to confusion among consumers and in some instances to exploitation.

4.7 Government

A major change in the division of shares in the retail price of bread has been due to the introduction of VAT. Government share of the white loaf rose from zero and has stayed stable at about 12,2%.

Government receives a further income from the tariff on the imported component of bread. Revenue is, however, not the purpose of the import tariff on wheat and flour, rather it is to protect South African producers and millers from unfair international competition.

The committee further noted that since deregulation, Government has reduced its contribution to wheat research and information services.

The industry regards the setting of standards for grading regulations and Sanitary and Phytosanitary regulations by Government as necessary and important.

The feeling in the industry is that the free trade agreements (FTA) related to this value chain that are presently being negotiated, delay their market access opportunities while competition will increase due to the SADC accelerated phase out of tariffs.

Note:

Throughout the report mention has been made of the impact of deregulation on employment. It is not possible to make any conclusions in this regard as changes in employment have been due to many other factors besides deregulation of the sector.

It can be noted from the above that the most important factors influencing the links in the wheat to bread value chain are the shift in who bears price risk and the changed bargaining powers between the various links.

It was also reported to the committee that the wheat tariff claim back procedure on flour exports (section 521 of the Customs and Excise Act, 1964) was not operating efficiently. This has a negative impact on the industry's endeavours to increase exports. The rebate system on wheat imports by SACU countries creates opportunities for such cheaper products to enter South Africa.

4.8 Industry Organisations

Besides its statutory role, the Wheat Board was also the source of information for the industry and Government and in many ways acted as an organisational arm.

Since the dissolution of the Wheat Board, the Wheat Forum and the industry organisation like the Wheat Producers Organisation (now GPO), the NCM, GSI and the SACB have taken over these functions. These organisations act as an important link with Government. In particular, they assist the smaller operators with information and guidance.

5. RECOMMENDATIONS

Many of the changes that have occurred as a result of deregulation are still in their early stages of development and the full impact and responses are still to be experienced. Furthermore, many other influences unrelated to deregulation have also interacted and it is therefore not always easy to attribute outcomes to deregulation only.

The Committee would like to make the following recommendations:

PRODUCERS

- 5.1 The Committee recommends that producers should be assisted to become more competitive by applying the best cultivation practices with the best cultivars. Government research and extension services should co-operate in a partnership with the private sector to supply the most efficient services and relevant high quality products.**
- 5.2 The Committee recommends that a forum be established where Government (ARC) and the private sector of the Wheat Industry can discuss priorities and plan future research and funding.**

INFRASTRUCTURE

- 5.3 The Committee recommends that, as inputs to this Committee suggest that silo owners are exposed to market pressures, the market forces be allowed to continue to take their normal course and that no direct government intervention should be taken at this stage with respect to concentration in this sector.**
- 5.4 The Committee further recommends that the management of the GSI and the NAMC meet twice a year to discuss developments in this sector as part of the NAMC's monitoring activities.**
- 5.5 The Committee recommends that the NAMC investigate the impact of transport of agricultural products on consumer prices.**

MILLERS

- 5.6 The Committee recommends that, with respect to concentration in this sector, market forces be allowed to continue to take their normal course and that no direct government intervention be taken at this stage.**

BAKERS

- 5.7** The Committee recommends that the reported underscaling of loaves be referred to the DTI's Task Team² with the recommendation that the Division of Trade Metrology of the SABS increase its inspection services or contract this operation out in order to address this problem.

RETAILERS

- 5.8** The Committee recommends that market forces be allowed to continue to take their normal course and that no direct government intervention be taken at this stage.

CONSUMERS

- 5.9** The Committee recommends that the DTI² together with the Consumer Committee of the Wheat Forum develop a joint strategy on consumer education and information distribution involving the consumer organisations, the baking industry and the SABS.

GOVERNMENT

- 5.10** The Committee recommends that every endeavour must be made to achieve the objectives of official, accurate, useful, credible and timeous crop estimates.
- 5.11** The Committee recommends that, as white bread is the only major carbohydrate food subject to VAT, which has been a major concern in the wheat industry for some years and also resulted in an increase in the retail margin for brown bread, the Government either removes the VAT on white bread or imposes VAT on brown bread as well, provided it is also imposed on all other carbohydrate foods.
- 5.12** The Committee recommends that the rebate system on import tariffs as it pertains to wheat and wheaten flour, should be streamlined to enhance South Africa's competitive position.
- 5.13** The Committee recommends that, given the disruptive effect and misuse of the rebate facility enjoyed by the SACU countries, this rebate facility be terminated by Government.

² A Task Team within the DTI was appointed by the Minister of Trade and Industry to investigate all facets of bread mass regulations.

- 5.14** The Committee recommends that within the process of reviewing the labour legislation, particular attention be given to primary agriculture and the agri-processing sectors.
- 5.15** The Committee recommends that the Wheat Forum establish a working group (together with DTI or/and NAMC and NDA) to determine what can be done to exploit the considerable surplus capacity available in the agri-processing sector.

GENERAL

- 5.16** The Committee recommends that the Maize Trust, Oilseeds Development Trust, Winter Cereal General Trust, and Sorghum Trust supplying SAGIS with the funding, be encouraged to develop a long term plan to provide this company with the necessary security to function efficiently. It is further recommended that the NAMC facilitate meetings between the Trusts and the directors of SAGIS to discuss this as well as other important matters.
- 5.17** The Committee recommends that the role-players in the wheat to bread value chain continue to benchmark their competitiveness against competitor countries, using comparable criteria, to encourage international competitiveness.
- 5.18** The Committee recommends that role-players in the industry should be educated to thoroughly understand the working and worth of SAFEX to enable them to minimise price risk. The industry organisations, SAFEX, regional governments, as well as trading organisations, can play an important role in this education and training process.
- 5.19** The Committee recommends that the industry establish a reliable source for pricing information on bread that can be used as an official reference acceptable to all parties requiring this information in future.

Signed on this day 9 December 1999 in Pretoria

DR E BROCK (Chairperson)

MS L BENGU-BALOYI

MR A BROWN

MR PJ COWNIE

MR J F DE VILLIERS

MS T DU TOIT

MR T ERACLEOUS

MR N J HAWKINS

MR C KEKANA

MR P G LOUW

MS L MELLET

MR V W MVABAZA

MS H SCHULZE

MR T SMITH

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ANNEXURE 1

**VARIOUS SECTOR'S SHARE OF THE
RETAIL PRICE OF BREAD**

WHITE BREAD

| <i>SECTOR'S SHARE OF RETAIL PRICE OF BREAD</i> | <i>1998/99</i> | | <i>1996/97</i> | | <i>1990/91</i> | |
|---|----------------|------------------------------|----------------|------------------------------|----------------|------------------------------|
| | <i>R</i> | <i>% of retail price</i> | <i>R</i> | <i>% of retail price</i> | <i>R</i> | <i>% of retail price</i> |
| Producer ¹ (raw material to wheat) | 0, 53 | 17,91 | 0, 65 | 24,16 | 0, 40 | 33,33 |
| Infrastructure (Wheat storage, financing and transport to mill) | 0, 13 | 4,39 | 0, 09 | 3,35 | 0, 08 | 6,67 |
| Delivered wheat price | 0, 66 | | 0, 74 | | 0, 48 | |
| Miller (conversion wheat to flour) | 0, 29 | 9,80 | 0, 29 | 10,78 | 0, 20 | 16,67 |
| Flour price | 0, 95 | | 1, 03 | | 0, 68 | |
| Baker (conversion flour to bread) | 1, 30 | 43,92 | 1, 13 | 42,00 | 0, 48 | 40,00 |
| Wholesale price of bread (excl VAT) ² | 2, 25 | | 2, 16 | | 1, 16 | |
| Retailer | 0, 35 | 11,82 | 0, 20 | 7,44 | 0, 04 | 3,33 |
| VAT | 0, 36 | 12,16 | 0, 33 | 12,27 | 0, 00 | 0 |
| Retail price (incl. VAT) ³ | 2, 96 | 100,0 | 2, 69 | 100,0 | 1, 20 | 100,0 |

¹ see explanations on page 56

² (SACB) 1998/99, Wheat Board previous years

³ Statistics SA

**VARIOUS SECTOR'S SHARE OF THE
RETAIL PRICE OF BREAD**

BROWN BREAD

| <i>SECTOR'S SHARE OF RETAIL PRICE OF BREAD</i> | <i>1998/99</i> | | <i>1996/97</i> | | <i>1990/91</i> | | | | |
|---|----------------|----------|------------------------------|----------|----------------|------------------------------|----------|----------|------------------------------|
| | <i>R</i> | <i>c</i> | <i>% of retail price</i> | <i>R</i> | <i>c</i> | <i>% of retail price</i> | <i>R</i> | <i>c</i> | <i>% of retail price</i> |
| Producer ¹ (raw material to wheat) | 0, | 45 | 16,67 | 0, | 55 | 23,40 | 0, | 34 | 32,38 |
| Infrastructure (Wheat storage, financing and transport to mill) | 0, | 11 | 4,07 | 0, | 09 | 3,83 | 0, | 07 | 6,67 |
| Delivered wheat price | 0, | 56 | | 0, | 64 | | 0, | 41 | |
| Miller (conversion or wheat to flour) | 0, | 34 | 12,59 | 0, | 37 | 15,75 | 0, | 22 | 20,95 |
| Flour price | 0, | 90 | | 1, | 01 | | 0, | 63 | |
| Baker (conversion or flour to bread) | 1, | 25 | 46,30 | 1, | 08 | 45,96 | 0, | 38 | 36,19 |
| Wholesale price of bread ² | 2, | 15 | | 2, | 09 | | 1, | 01 | |
| Retailer | 0, | 55 | 20,37 | 0, | 26 | 11,06 | 0, | 04 | 3,81 |
| VAT | 0, | 00 | 0 | 0, | 00 | 0 | 0, | 00 | 0 |
| Retail price ³ | 2, | 70 | 100,0 | 2, | 35 | 100,0 | 1, | 05 | 100,0 |

¹ See calculations on page56

² SACB for 1998/99, Wheat Board previous years

³ SSA

EXPLANATIONS OF CALCULATIONS:

(1) Farmer's share (Extraction rate of a tonne of wheat to flour is 76% in all years).

- (a) 1998/99: Producer price for wheat R850/t
Loaves (700g) produced from a tonne of flour = 2 102 tonnes.
Calculation: $R850 / (2102 \times 0,76) = R0,53$
- (b) 1996/97: Producer price for wheat R909,44/t
Loaf of bread 800g; therefore 1840 loaves per tonne of flour.
Calculation: $R909,44 / (1840 \times 0,76) = R0,65$
- (c) 1990/91: Producer price for wheat R508,71/t
Loaves (850g) produced from a tonne of flour = 16650 loaves.
Calculation: $R508,71 / (1665 \times 0,76) = R0,40$

(2) Wheaten flour

- (a) 1998/99: Millers selling price for a tonne of wheaten flour = R 2000/t and 2102 loaves (700g) produced from a tonne of wheaten flour.
Calculation: $R2000 / 2102 = R0,95$
- (b) 1996/97: Millers selling price for a tonne of wheaten flour = R1900/t and 1840 loaves (800g) produced from a tonne of flour.
Calculation: $R1900 / 1840 = R1,03$
- (c) 1990/91: Millers selling price for a tonne of wheaten flour = R1130/t and 1665 loaves (850g) produced from a tonne of flour.
Calculation: $R1130 / 1665 = R0,68$

WHEAT TO BREAD VALUE CHAIN:REAL SHARE OF THE RETAIL PRICE OF BREAD

BROWN BREAD

| SECTOR | 1998/99 | | 1996/97 | | 1990/91 | |
|--------------------------|---------|------|---------|------|---------|----------|
| | Nominal | Real | Nominal | Real | Nominal | Real |
| | R | R | R | R | R | R |
| Producer | 0.45 | 0.19 | 0.55 | 0.27 | 0.34 | 0.34 |
| Infrastructure | 0.11 | 0.05 | 0.09 | 0.04 | 0.07 | 0.07 |
| Delivered wheat price | 0.56 | 0.24 | 0.64 | 0.31 | 0.41 | 0.41 |
| Miller | 0.34 | 0.15 | 0.37 | 0.18 | 0.22 | 0.22 |
| Flour price | 0.90 | 0.39 | 1.01 | 0.49 | 0.63 | 0.63 |
| Baker | 1.25 | 0.54 | 1.08 | 0.53 | 0.38 | 0.38 |
| Wholesale price of bread | 2.15 | 0.93 | 2.09 | 1.02 | 1.01 | 1.01 |
| Retailer | 0.55 | 0.24 | 0.26 | 0.13 | 0.04 | 0.04 |
| VAT | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Retail price | 2.70 | 1.16 | 2.35 | 1.15 | 1.05 | 1.05 |
| CPI 1990/91 | | | | | | 100.00 |
| 1996/97 | | | | | | 204.7266 |
| 1998/99 | | | | | | 232.2521 |

WHEAT TO BREAD VALUE CHAIN:REAL SHARE OF THE RETAIL PRICE OF BREAD

WHITE BREAD

| SECTOR | 1998/99 | | 1996/97 | | 1990/91 | |
|--------------------------|---------|------|---------|------|---------|----------|
| | Nominal | Real | Nominal | Real | Nominal | Real |
| | R | R | R | R | R | R |
| Producer | 0.53 | 0.23 | 0.65 | 0.32 | 0.40 | 0.40 |
| Infrastructure | 0.13 | 0.06 | 0.09 | 0.04 | 0.07 | 0.07 |
| Delivered wheat price | 0.66 | 0.28 | 0.74 | 0.36 | 0.48 | 0.48 |
| Miller | 0.29 | 0.12 | 0.29 | 0.14 | 0.20 | 0.20 |
| Flour price | 0.95 | 0.41 | 1.03 | 0.50 | 0.68 | 0.68 |
| Baker | 1.30 | 0.56 | 1.13 | 0.55 | 0.48 | 0.48 |
| Wholesale price of bread | 2.25 | 0.97 | 2.16 | 1.06 | 1.16 | 1.16 |
| Retailer | 0.35 | 0.15 | 0.20 | 0.10 | 0.04 | 0.04 |
| VAT | 0.36 | 0.16 | 0.33 | 0.16 | 0.00 | 0.00 |
| Retail price | 2.96 | 1.27 | 2.69 | 1.31 | 1.20 | 1.20 |
| CPI 1990/91 | | | | | | 100.00 |
| 1996/97 | | | | | | 204.7266 |
| 1998/99 | | | | | | 232.2521 |