

## **CHAPTER SEVEN**

### **TRENDS IN THE DETERMINANTS OF COMPETITIVENESS OF THE AGRIBUSINESS SECTOR IN SOUTH AFRICA**

#### **7.1 INTRODUCTION**

National prosperity is created, not inherited. It merely develops from a country's natural endowments, its labour pool, or its interest rates, as classical economics insists. A nation's competitiveness also depends upon the capacity of its industries to innovate and upgrade. Companies gain advantage over the world's best competitors by experiencing pressure and challenges. Companies benefit from having strong domestic rivals, aggressive home-based suppliers and demanding local customers (Porter, 1998).

In this chapter, the trends in the determinants of the agribusiness sector in South Africa will be analysed. To analyse the way in which the determinants of competitiveness in the agribusiness sector of South Africa have changed over time, three research studies, based on the Porter-methodology, will be discussed. These three studies were done over a period of five years and include the following: An executive survey performed amongst agribusinesses operating in the agro-food and fibre complex of South Africa in 2000 (Esterhuizen, Van Rooyen & D' Haese, 2001); an executive survey performed in 2002 amongst agribusiness involved in exports (Poonyth, Esterhuizen, Ngqangweni & Kirsten, 2002; Esterhuizen & Van Rooyen, 2004); and the executive survey performed in 2004 amongst agribusinesses - as was described in Chapter seven.

#### **7.2 CONSTRAINTS AND ENHANCEMENTS**

In Table 7.1 and Table 7.2 the ten major enhancements and constraints to the competitiveness of the agribusiness sector in South Africa, as identified by the three studies, are shown. From the 2000 Executive Survey it was clear that the critical key

success factors to the competitiveness of the agribusiness sector in South Africa were the quality of the products, electricity supply and the adaptability and managerial capabilities of agribusinesses. Other determinants that had a positive impact on the competitiveness of the sector in 2000 were financial institutions, transport companies, suppliers of packaging material, the linkage with agricultural suppliers, the culture within agribusinesses as well as the structure, flexibility and pricing strategies of agribusinesses (Esterhuizen, Van Rooyen & D' Haese, 2001).

Factors that were weaknesses to the competitiveness of the agribusiness sector in South Africa in 2000 were the cost of production, skilled and unskilled labour, quality and availability of infrastructure, cost and availability of capital, knowledge, technology, market size, market growth and the lack of market information, the competitiveness and sustainability of agricultural suppliers, government policy, aids, crime and price stability.

Poonyth, Esterhuizen, Ngqangweni & Kirsten (2002) identified the strengths and weaknesses, as well as the critical strategic factors that influenced the competitiveness of agricultural export firms in 2002. According to this study, the major success factors in the competitiveness of the sector were: Intense competition in the local market, the devaluation of the Rand, stringent regulatory standards in the sector, efficient supporting industries, a very good macro economic policy in South Africa and the availability of internationally competitive local suppliers of primary inputs. The major factors that impacted negatively on the competitive success of the sector were crime, the cost and availability of capital, the developments in Zimbabwe, Aids, South Africa's labour policy, the growth and size of the local market, the events of 11 September 2001 in the United States of America, the tax system in South Africa and the cost of technology.

**Table 7.1: Major enhancements to the competitiveness success of agribusinesses in South Africa – 2000, 2002, 2004**

2000	2002	2004
1) Quality of products	1) Intense competition in the local market	1) Availability of unskilled labour
2) Managerial capabilities	2) Recent devaluation of the Rand	2) Production of affordable high quality products
3) Adaptability of companies	3) Stringent regulatory standards	3) Intense competition in the local market
4) Electricity supplies	4) Availability of local suppliers of primary inputs	4) Continuous innovation
5) Culture within the companies	5) Internet service providers	5) Investment in human resources
6) Flexibility of companies	6) Electricity suppliers	6) Unique products, services and processes
7) Structure of the companies	7) South Africa's macro economic policy	7) Bargaining power of customers
8) Linkage with agricultural suppliers	8) Availability of unskilled labour	8) Strategy to employ quality technology
9) Suppliers of packaging materials	9) Telecommunication firms	9) Internet service providers
10) Availability of unskilled labour	10) Internationally competitive local suppliers of primary inputs	10) Quality of technology in South Africa

**Source:** Esterhuizen, Van Rooyen & D' Haese (2001); Esterhuizen, Ngqangweni & Kirsten (2002); Esterhuizen & Van Rooyen (2004); Own calculations from 2004 Executive Survey

**Table 7.2: Major constraints to the competitiveness success of agribusinesses in South Africa – 2000, 2002, 2004**

2000	2002	2004
1) Crime	1) Crime	1) Cost of crime
2) Labour policy	2) Cost of capital	2) Competence of personnel in the public sector
3) Cost of production	3) Recent developments in Zimbabwe	3) Trust in the political system
4) Quality of unskilled labour	4) Aids	4) Strong Rand (R6/US\$)
5) Cost of capital	5) South Africa's labour policy	5) South Africa's labour policy
6) Admin cost associated with labour matters	6) Growth in the local market	6) Administrative regulations
7) Cost of technology	7) Availability of capital	7) Aids
8) Cost of unskilled labour	8) The events of 11 September in America	8) Difficulty to start a new business
9) Quality of physical infrastructure	9) Cost of technology	9) South Africa's Land reform policy
10) Land reform policy	10) The tax system	10) Availability of skilled labour

**Source:** Esterhuizen, Van Rooyen & D' Haese (2001); Esterhuizen, Ngqangweni & Kirsten (2002); Esterhuizen & Van Rooyen (2004); Own calculations from 2004 Executive Survey

From the 2004 Executive Survey, it was clear that the critical key success factors to the competitiveness of the agribusiness sector in South Africa were the availability of unskilled labour, intense competition in the local market, the production of affordable high quality products, continuous innovation, the quality of infrastructure in South Africa, the quality and availability of technology, sophisticated local buyers, the availability, quality and sustainability of local suppliers of primary products, electricity suppliers, internet service providers, specialised information technology services, regulatory standards in the sector, the flow of information from customers and primary suppliers to agribusinesses, the production of environmentally friendly products, investment in human resources and South Africa's macro economic policy.

Factors that were constraints to the competitiveness of the agribusiness sector in South Africa in 2004 were the quality of unskilled labour, the availability of skilled labour, the cost of technology, trust in the political system, South African BEE, labour and land reform policies, the tax system in South Africa, the cost of crime, Aids, developments in Zimbabwe and the strong Rand.

### **7.3 APPLICATION OF THE PORTER ANALYSIS**

In Table 7.3 to Table 7.8, the trends in the determinants of competitiveness of the agribusiness sector in South Africa are indicated. The trends in each of the determinants will be discussed individually.

#### **7.3.1 Factor conditions**

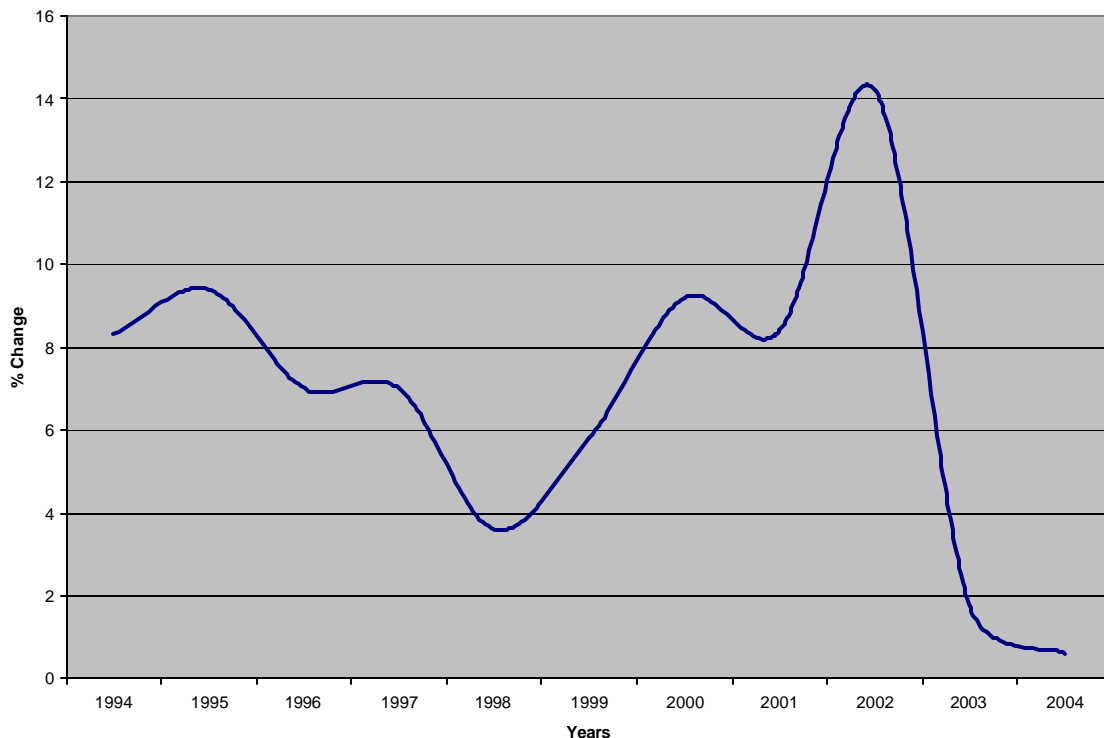
From Table 7.3 it is clear that there is a definite positive increase in the impact of factor conditions on the competitiveness of agribusinesses in South Africa. In the years 2000 and 2002 the modus score for factor conditions was between 1 and 2. In 2004 the modus score for factor conditions was 2. There were positive increases for nearly every production factor.

The overall cost of doing business in South Africa was rated to be a constraint to the competitiveness of agribusinesses in 2000. In 2002 its score was between 1 and 2. In 2004 the cost of doing business in South Africa had a moderate impact on the agribusiness sector's competitiveness. This trend can also be seen in the production price index (PPI) of South Africa (Stats South Africa, 2004).

**Table 7.3: Trends in the production factor conditions as determinants of competitiveness**

<i>Factor conditions</i>	<b>2000</b>	<b>2002</b>	<b>2004</b>
Cost of doing business in SA	1	1 – 2	2
Labour	(1 – 2)	(1 – 2)	(2)
- Cost of unskilled labour	1	1 – 2	2
- Quality of unskilled labour	1	2	1 – 2
- Availability of unskilled labour	2 – 3	2	3
- Cost of skilled labour	1	1 – 2	2
- Quality of skilled labour	1 – 2	1 – 2	2
- Availability of skilled labour	1 – 2	1 – 2	1 – 2
- Administration cost associated with labour matters	1		
- Productivity		2	
Natural resources	2		
Infrastructure	(1)	(2)	(2)
- Quality	1	2	2 – 3
- Cost		1 – 2	2
- Availability	1 – 2	2	
Location	1 – 2	1 – 2	
Capital	(1)	(1)	(2)
- Cost	1	1	2
- Availability	1 – 2	1 – 2	2 – 3
Technology	(1 – 2)	(2)	(2)
- Cost	1	1 – 2	2
- Quality	2	2	2 – 3
- Availability	1 – 2	2	2 – 3
Knowledge	(1 – 2)		
- Cost	1 – 2		
- Quality	2		
- Availability	2		
- Availability of water for industrial purposes			2 – 3
<b><i>Modus score for factor conditions</i></b>	<b><i>(1 – 2)</i></b>	<b><i>(1 – 2)</i></b>	<b><i>(2)</i></b>
1 = Constraint                      2 = Moderate                      3 = Enhancement                      ( ) = Modus			

**Source:** Own database



**Figure 7.1: Percentage change in the PPI**

**Source:** Stats South Africa, 2004

In the year 2000 there was a sharp increase in the PPI of 9.2%. In 2002 there was another sharp increase in the PPI of 14.2%. In 2003 and 2004 there were respectively only a 1.7% and 0.62% increase in the PPI of South Africa (see Figure 7.1).

The impact of labour on the competitiveness of agribusinesses in South Africa has also changed from having a constraining to a moderate impact. The cost of unskilled and skilled labour in South Africa was a huge constraint to the competitiveness of agribusinesses in 2000. However, in 2004, agribusinesses experienced the cost of unskilled and skilled labour to have a moderate impact on their competitiveness. There is also a positive increase in the quality of skilled labour.

However, the quality of unskilled labour has a constraining impact on the competitiveness of agribusinesses. There is also no change over the last five years on the constraining impact that the availability of skilled labour has on the competitiveness of the agribusiness sector in South Africa.

For the nine years 1994 to 2002 a total of 43 442 documented immigrants arrived in South Africa, while more than double this number (88 544) emigrated from South Africa. “Professionals” forms the largest single group of economically active people among emigrants (Stats South Africa, 2004). This number does not include, however, the thousands of professionals who did not emigrate, but are only working in countries outside South Africa.

There was a definite increase in the quality of infrastructure in South Africa. In 2000 the quality of infrastructure in South Africa constrained the competitiveness of agribusinesses. In 2004 the quality of infrastructure had an enhancing impact on the competitiveness of agribusinesses in South Africa. It seems like government’s decision to spend more on the infrastructure in South Africa has gained some positive fruit.

Government has increased its annual spending on economic infrastructure (roads, bridges, dams, electricity and water supply) by 23.13% from 2000 to 2003 at constant 2000 prices (Reserve Bank, 2004).

Interest rates in South Africa in 2004 were the lowest in real terms since the 1980’s. This has altered the impact of the cost of capital on the competitiveness of agribusinesses in South Africa from a negative impact to a moderate impact. Capital is also more available, which increases the competitiveness of the agribusiness sector in South Africa.

The strong Rand and low interest rates are favourable for the procurement of new and better technology. Agribusinesses in South Africa experienced the quality and availability of technology as being an enhancement to their competitiveness in 2004. In



2000, with the devaluation of the Rand, the cost and availability of technology had a constraining effect on the competitiveness of the agribusiness sector in South Africa.

### **7.3.2 Demand conditions**

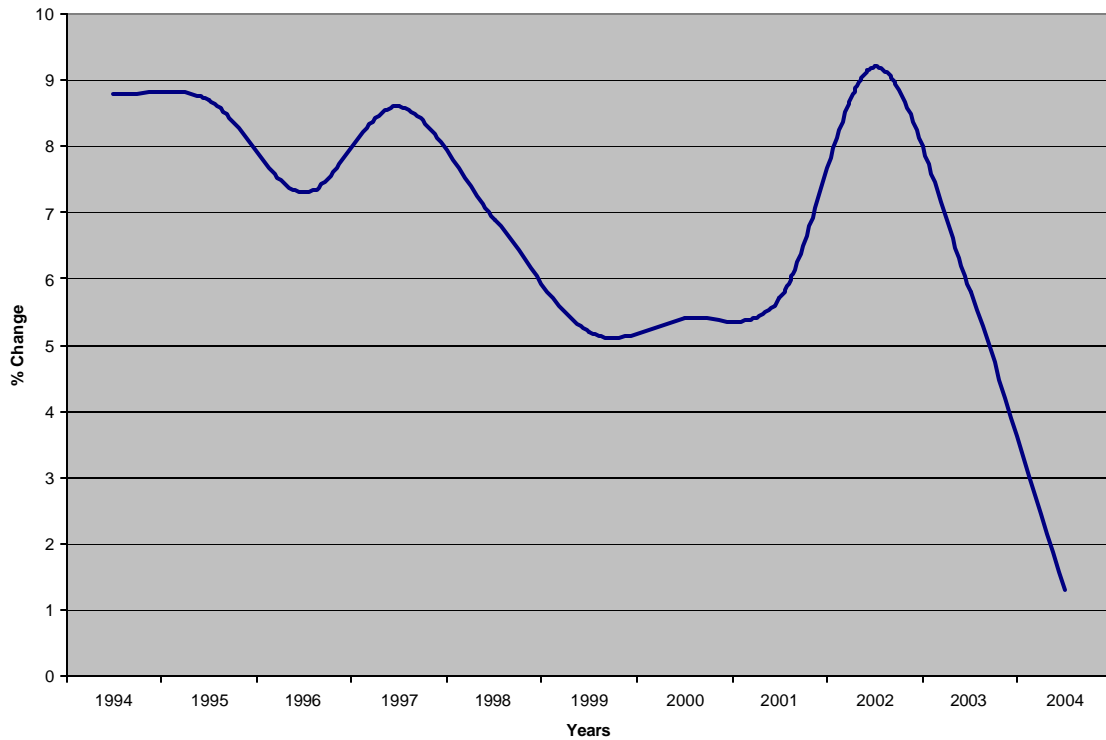
There is an increasing trend in the impact of demand conditions on the competitiveness of agribusinesses in South Africa (see Table 7.4). In the 2000 Executive Survey, demand conditions constrained the competitiveness of the agribusiness sector in South Africa. In 2002 and 2004 the impact was moderate.

There is a definite increase in the market size, as more people from previously disadvantaged groups become economically active and join the mainstream economy. Inflation in South Africa, as measured by the consumer prices index (CPI), also indicates a decreasing trend since 2000 (Stats South Africa, 2004). This means that products in South Africa are becoming more affordable to more people. The percentage change each year in the CPI is illustrated in Figure 7.2.

**Table 7.4: Trends in the demand conditions as determinants of competitiveness**

<b>Demand conditions</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>
Market size	1	1 – 2	2
Market growth	1 – 2	1 – 2	2
Local buyers:		(2)	(2)
- Knowledgeable and demanding and buy innovative products		2 – 3	2 – 3
- Actively seek out the latest products, technologies and processes		2	2
- In pace with rest of the world		2 – 3	2
- Concern over ethics and production methods			2 – 3
- Importance of environmentally friendly products			2
Market information	(1 – 2)		
- Quality	1 – 2		
- Availability	1 – 2		
- Cost	1 – 2		
<b><i>Modus score for demand conditions</i></b>	<b><i>(1 - 2)</i></b>	<b><i>(2)</i></b>	<b><i>(2)</i></b>
1 = Constraint	2 = Moderate	3 = Enhancement	( ) = Modus

**Source:** Own database



**Figure 7.2: The percentage change in CPI in South Africa**

**Source:** Stats South Africa, 2004

Local buyers in South Africa are also knowledgeable and they demand to buy innovative products. Local buyers are also in pace with the rest of the world by actively seeking out the latest products, technologies and processes. Local buyers have an enhancing impact on the competitiveness of the agribusiness sector in South Africa. Industries gain competitive advantage where the local demand gives their companies a clearer or earlier picture of emerging buyer needs, and where demanding buyers exercise pressure on companies to innovate faster and achieve more sophisticated competitive advantage over their foreign rivals.

### 7.3.3 Related and supporting industries

In all three surveys, related and supporting industries had enhancing impacts on the competitiveness of the agribusiness sector in South Africa. The major increases over the five years were the quality and sustainability of local suppliers of primary inputs. In 2000, the availability and sustainability of local suppliers of primary inputs had a constraining impact on the competitiveness of agribusinesses in South Africa. In 2004, local suppliers of primary inputs had a positive impact on the competitiveness of the agribusiness sector.

**Table 7.5: Trends in the impact of related and supporting industries as determinants of competitiveness**

Related and supporting industries	2000	2002	2004
Financial institutions	2 – 3	2	2
Internet service providers		2 – 3	2 – 3
Scientific research institutions	2 – 3	2	(2)
- Availability			2
- Collaboration Research institutions			2
Telecommunication firms		2 – 3	2
Suppliers of packaging material	2 – 3	2	
Electricity supplies	3	2 – 3	2 – 3
Transport companies	2 – 3	2	
Specialised information technology services			2 – 3
Local suppliers of primary inputs	(2)	(2 – 3)	(2 – 3)
- Availability	2 - 3	2 – 3	2 – 3
- Quality	1 – 2	2 – 3	2 – 3
- Sustainability	1 – 2	2	2 – 3
Related industries	2		
<b>Modus score for related and supporting industries</b>	<b>(2 – 3)</b>	<b>(2 - 3)</b>	<b>( 2 - 3)</b>
1 = Constraint	2 = Moderate	3 = Enhancement	( ) = Modus

**Source:** Own database

#### **7.3.4 Firm strategy, structure and rivalry**

The positive impact of firm strategy, the structure of the agribusiness sector in South Africa and rivalry on the competitiveness of agribusinesses in South Africa has remained constant over the five year period (see Table 7.6). With a modus score of between 2 and 3 across all three years, firm strategy, industry structure and rivalry have an enhancing impact on the competitiveness of the agribusiness sector in South Africa.

The most enhancing strategy to agribusinesses in South Africa is the production of affordable high quality products. In both 2000 and 2004 the respondents awarded a score of 3 to this strategy.

Agribusinesses in 2004 are more effective in their supply chain approach. As already mentioned, the “supply chain” interaction is viewed as one of the most important business phenomena in the food and agricultural industry for the future. Supply Chain Management is an integrated management approach for planning, controlling and optimising the flow of goods and information through a distribution channel between suppliers to end users in order to add value to the various role players, including farmers and agribusinesses. Generally, several independent firms are involved in the activities from production and manufacturing of the product to placing it in the hands of the end users. The networks that these firms use to pass goods and information simultaneously can be referred to as a supply chain.

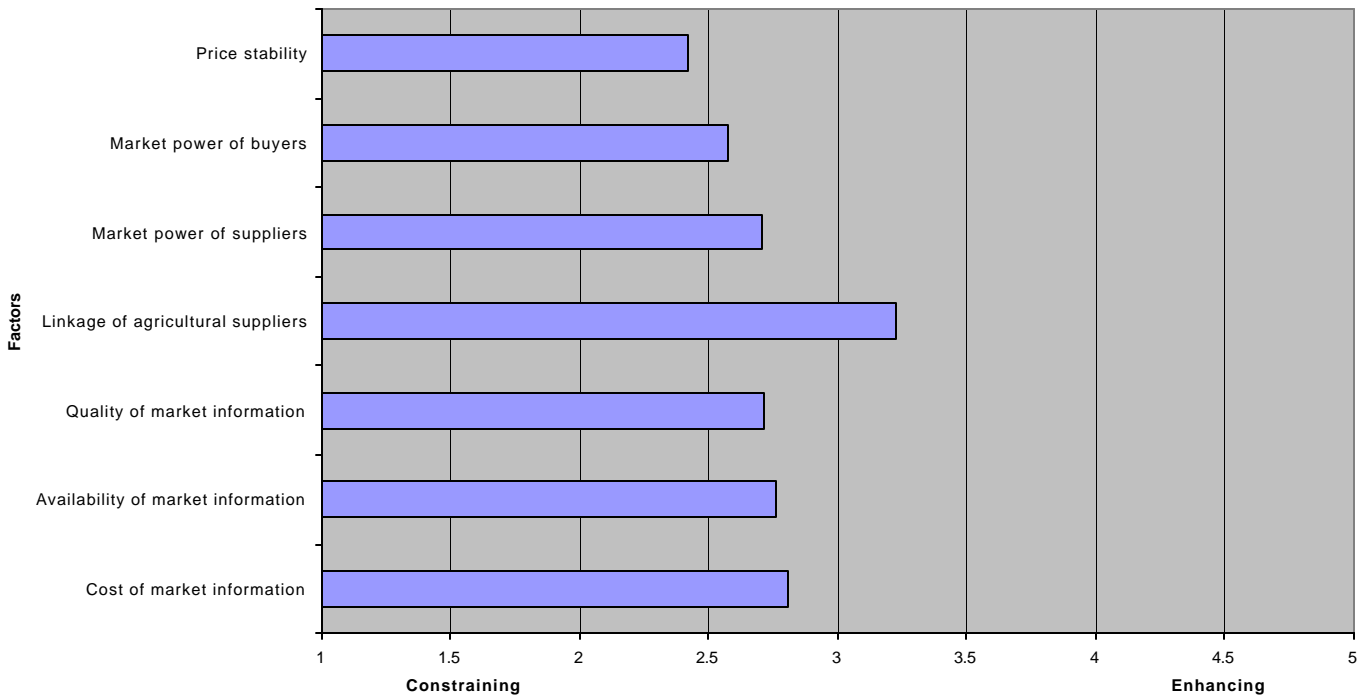
From Table 7.6 it is clear that the flow of information from the customer to the agribusinesses, supply chain collaboration in product and process development, the bargaining power of customers and the flow of information from the primary suppliers, all had an enhancing impact on the competitiveness of the agribusiness sector in South Africa in 2004. All these factors indicate an effective supply chain.

**Table 7.6: Trends in firm strategy, structure and rivalry as determinants of competitiveness**

<b>Firm strategy, structure and rivalry</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>
<b>Structure of the sector</b>			
- Regulatory standards in the sector		2 – 3	2 – 3
- Flow of information from customer to company		2 – 3	2 – 3
- Supply chain collaboration in product and process development			2
- Information flow from primary suppliers		2 – 3	2 – 3
- Bargaining power of customers	1 – 2		2 – 3
- Market power of suppliers	1 – 2		
<b>Rivalry</b>			
- Intense competition in the local market		3	3
- Source of competition in the local market			2 – 3
- Entry of new competitors	1 - 2	2 - 3	2 – 3
- Substitutes of products and services	1	2 – 3	2 – 3
- Difficulty to start a new business			1 – 2
<b>Firm strategy</b>			
- Unique products, services and processes			2 – 3
- Production of affordable high quality products	3		3
- Production of environmentally friendly products			2 – 3
- Strategy to employ quality technology			2 – 3
- Investment in human resources			2 – 3
- Incentives in the compensation of management			2
- Continuous innovation			3
- R&D spending			2
- Adaptability	3		
- Culture	2 – 3		
- Structure	2 – 3		
- Flexibility	2 – 3		
- Pricing strategy	2 – 3		
- Managerial capabilities	3		
<b><i>Modus score for firm strategy, structure and rivalry</i></b>	<b><i>(2 – 3)</i></b>	<b><i>(2 – 3)</i></b>	<b><i>(2 – 3)</i></b>
1 = Constraint	2 = Moderate	3 = Enhancement	( ) = Modus

**Source:** Own database

However, it is evident from the 2000 Executive Survey that most of these supply chain manageable factors were constraining the competitiveness of the agribusiness sector in South Africa. In Figure 7.3 the impact of seven factors on the competitiveness of agribusinesses in South Africa that can be managed through a supply chain interaction is indicated, as measured in 2000. From Figure 7.3 it is clear that most of the factors constraining the competitiveness of agribusiness in 2000 were factors such as price instability, the market power of buyers, the market power of suppliers and the quality, availability and cost of market information. Agribusinesses indicated that they had a good linkage with suppliers. This was, however, not converted into an enhancing factor to competitiveness because of a lack of effective supply chain management.



**Figure 7.3: The impact of specific factors on the competitiveness of agribusinesses in South Africa in 2000**

**Source:** Own calculations from the 2000 Executive Survey

One reason for the improvement in the efficiency of supply chain management by the agribusiness sector in South Africa could be credited to the work and research performed by the Agricultural Business Chamber amongst its members on this issue (Doyer, 2002; VanRooyen *et al*, 2001; Esterhuizen *et al*, 2001; Esterhuizen *et al*, 2002).

### **7.3.5 Government policies and attitudes**

Government policies and attitudes have a constraining impact on the competitiveness of the agribusiness sector in South Africa (see Table 7.7). In 2000, the modus score for government policies and attitudes were 1, in 2002, it was 2 and in 2004, it was between 1 and 2.

South African labour policy and land reform policy has been constraining the competitive success of agribusinesses for the past five years. South African macro-economic policy and trade policy have positive impacts on competitiveness.



**Table 7.7: Trends in the impact of government policy and attitudes as determinant of competitiveness**

<b>Government</b>	<b>2000</b>	<b>2002</b>	<b>2004</b>
South Africa's macro economic policy		2 – 3	2 – 3
Indirect support	1		
Administrative regulations			1 – 2
Competence of personnel in the public sector			1
SA trade policy	1 – 2	2	2
South Africa's land reform policy	1	2	1 – 2
The SA tax system's impact on investment and risk-taking		1 – 2	1 – 2
Impact of legal and political changes for the past five years			2
South Africa's fiscal policy	2	2	
Enforcement of environmental regulations			2
SA environmental regulations			2 – 3
South Africa's labour policy	1	1 – 2	1 – 2
South Africa's competition law		2	2
SA BEE policy			1 – 2
Trust in the political system			1
<b>Modus score for government</b>	<b>(1)</b>	<b>(2)</b>	<b>(1 – 2)</b>
1 = Constraint	2 = Moderate	3 = Enhancement	( ) = Modus

**Source:** Own database

### 7.3.6 Chance events

Crime still poses a major constraint to the competitiveness of the agribusinesses sector in South Africa. Since the 2000 Executive Survey, there has been no change in the constraining impact of crime on the agribusiness sector in South Africa. Aids and the developments in Zimbabwe also have an on-going constraining impact on the competitiveness of agribusinesses.

In 2002, the devaluation of the Rand against all other major currencies had an enhancing impact on the competitiveness of the agribusiness sector in South Africa. In 2004, the

strong Rand had a constraining impact on the competitiveness of the agribusiness sector in South Africa.

**Table 7.8: Trends in chance events as determinants of competitiveness**

Chance	2000	2002	2004
Crime	1	1	1
Devaluation of the Rand		3	
Strong Rand			1 – 2
Economic stability	1 – 2		
Aids	1	1 – 2	1 – 2
The events of 11 September 2001 in America		1 – 2	
Political stability	2		
Biotechnology		2	2 – 3
Price stability	1		
Developments in Zimbabwe		1	1 – 2
<i>Modus score for change conditions</i>	<i>(1)</i>	<i>(1 - 2)</i>	<i>(1 - 2)</i>
1 = Constraint	2 = Moderate	3 = Enhancement	( ) = Modus

**Source:** Own database

## 7.4 SUMMARY AND CONCLUSION

From Chapter four it was clear that the South African agribusiness sector is generally marginal as far as international competitiveness is rated. However, the South African agribusiness sector is much more competitive now than ten years ago and it looks as if this positive trend will continue.

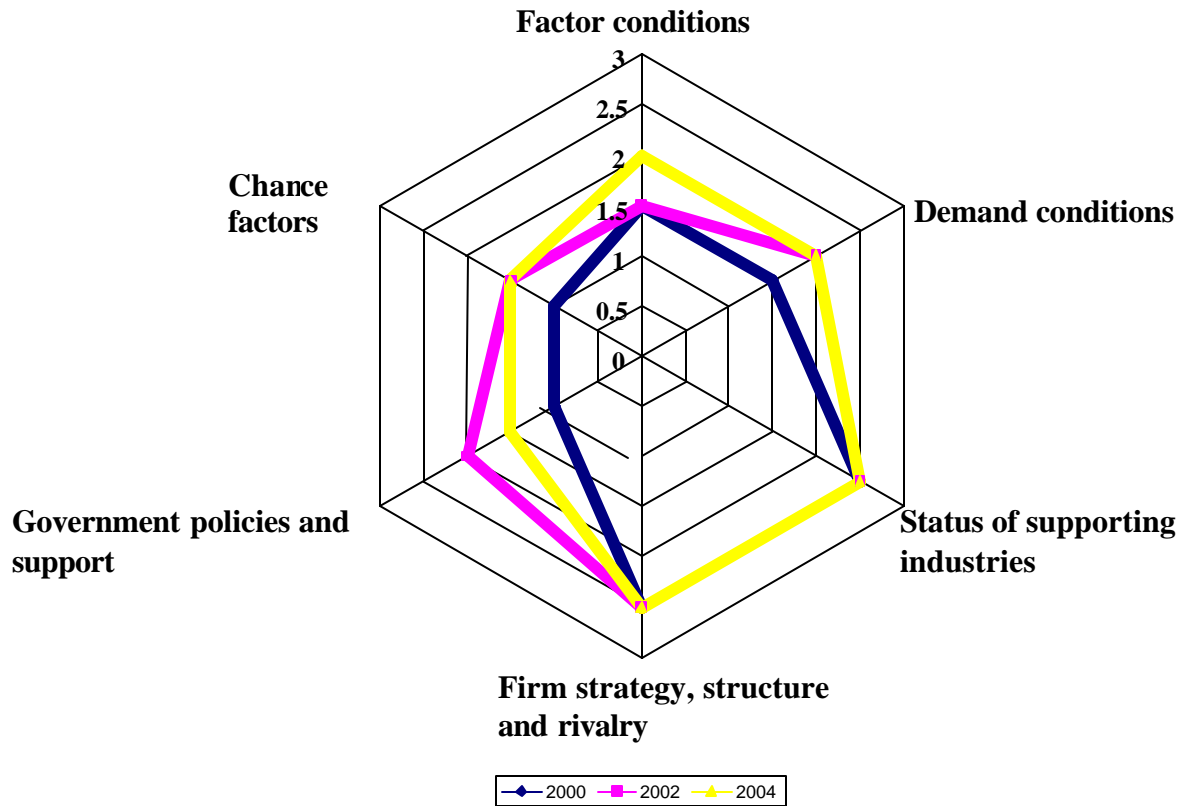
From the analysis in this Chapter it is also clear that the South African agribusiness sector illustrates a positive trend in the determinants of competitiveness. Figure 7.4 and Figure 7.5 illustrates this positive trend. In Figure 7.4 the main determinants (Porter – diamond) of competitiveness are illustrated. In Figure 7.5 selected factors influencing the competitiveness of the agribusiness sector in South Africa are illustrated.

From Figure 7.4 it is clear that the 2004 - line is on the outside of the graph in all the determinants, except for government policies and support, indicating a positive trend in these determinants ability to enhance the competitiveness of the agribusiness sector in South Africa. Factor and demand conditions indicate positive trends in terms of its impact on the competitiveness of the agribusiness sector in South Africa, but it still needs improvement. Firm strategies, industry structure and the local rivalry, combined with the supporting industries, with a score of 2 – 3 in all three years, are the key factors that provide the agribusiness sector in South Africa a global competitive edge.

Government indicates a decreasing trend in their ability to influence the competitiveness of the agribusiness sector in South Africa in a positive manner. With a score of between 1 and 2 in 2004, government, through its policies and attitudes, is constraining the competitiveness of the agribusiness sector in South Africa. Chance factors also influence the South African agribusiness sector's competitiveness in a negative manner, which indicates the vulnerability of businesses in South Africa against local and global shocks. It also indicates that agribusinesses in South Africa are not flexible enough to exploit business opportunities that originate from a changing environment.

The 2004 – line in Figure 7.5 is also on the outside of the graph in most of the factors, indicating a positive or constant trend in these factors' ability to enhance the competitiveness of the agribusiness sector in South Africa. Factors that show a positive trend in their ability to enhance the competitiveness of the sector are: factor conditions – labour, infrastructure, capital and technology; demand conditions – market size and market growth; local suppliers of primary inputs; South Africa's Trade policy and a decreasing trend in the cost of doing business in South Africa.

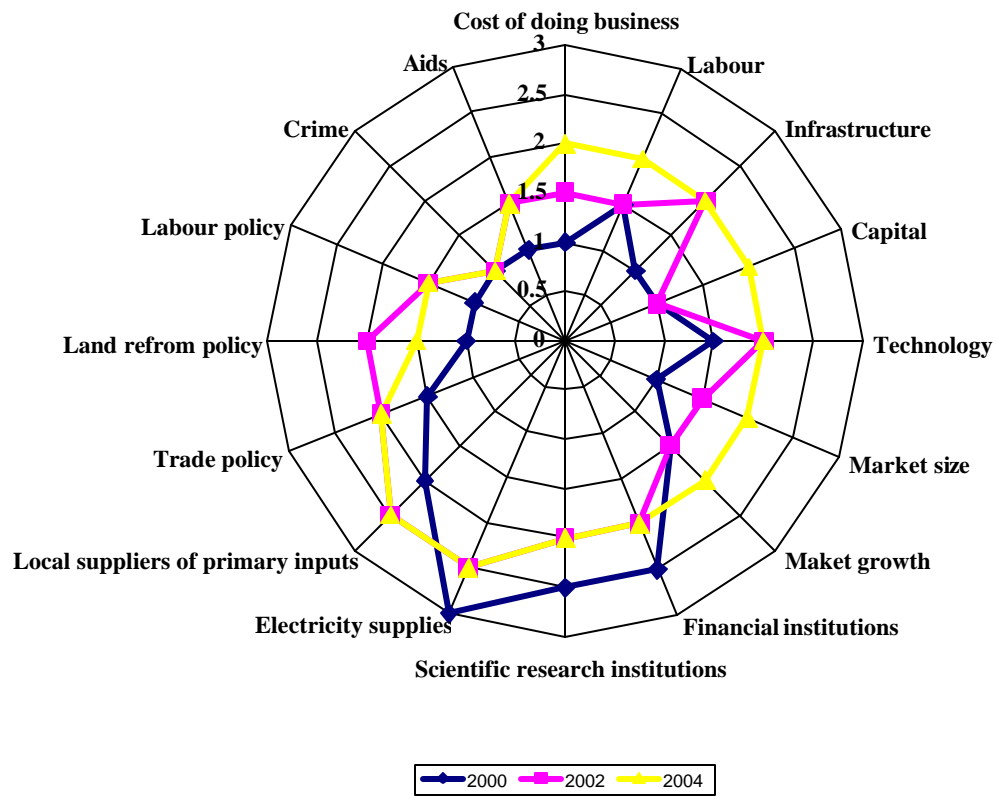
Factors that indicate negative trends in their impact on the competitiveness of the agribusiness sector in South Africa are: financial institutions, scientific research institutions and electricity supplies.



**Figure 7.4: Trends in the impact of the determinants of competitiveness on the agribusiness sector in South Africa**

**Source:** Own database

**Notes:** 1 = Constraint    2 = Moderate    3 = Enhancement



**Figure 7.5: Trends in the impact of specific factors on the competitiveness of the agribusiness sector in South Africa**

**Source:** Own database

**Notes:** 1 = Constraint    2 = Moderate    3 = Enhancement

## **CHAPTER EIGHT**

### **AN ANALYSIS OF THE DECISION-MAKING ENVIRONMENT OF THE AGRIBUSINESS SECTOR IN SOUTH AFRICA**

#### **8.1 INTRODUCTION**

In this chapter, the methodology of the fourth step of the competitiveness framework as developed in Chapter three will be used to investigate the decision-making environment of the agribusiness sector in South Africa and to develop a model to determine the confidence status and trends of agribusinesses.

Change in virtually every stratum of society is a feature of our time. These changes have a direct effect on the business confidence of managers and influence their next business decision. Economists have developed indicators, generally known as indexes, in an attempt to measure these changes. Up until now there has not existed an index for the measurement of the business confidence in the agribusiness sector of South Africa. The measurement of business confidence is important, as it reliably indicates the current and expected state of the economy. Business confidence also has a direct impact on the competitive performance of agribusinesses.

An increase in business confidence reveals that economic growth and private fixed and inventory investment could improve in future. The opposite applies if confidence declines. Business confidence tends to rise when the increase in business activity matches or surpasses previous expectations and when the external environment (e.g. the political situation in South Africa, economic policy, the world economy) remains relatively stable (Bureau for Economic Research, 2000).

Business confidence could be “low”, because business people are uncertain about prospects and/or unhappy with current company performance. This may reflect

uncertainty about the macro-environment or micro-environment within which the company operates and/or that business activity (e.g. sales, production or exports) is low.

In this chapter, the methodology to construct an Agribusiness Confidence Index for South Africa will firstly be discussed. The objective of such an index will be to determine the business confidence of agribusinesses as accurately as possible. The index can then be used in management and policy processes. The aim is to determine the confidence of agribusinesses on a quarterly basis, with the first index being released in 2001.

The status and trends in the business confidence of the agribusiness sector in South Africa will then, secondly, be analysed and discussed. Thirdly, in this chapter, tests of consistency will be performed to see if the results of the Agribusiness Confidence Index can be linked to other performances in the agribusiness sector of South Africa. Tests of consistency are important because it will reflect whether an increase or decrease in the index portrays reality. The chapter ends with concluding remarks.

## **8.2 METHODOLOGY**

### **8.2.1 Indexes as means of measurement**

There are many concepts in the social sciences that can be measured directly in a satisfactory manner, but there are also many others for which this simply cannot be done. For example, a bank's prime interest rate on loans is a fairly well defined concept capable of being measured directly. However, it is not clear how one should measure things such as the intelligence of students, the confidence of managers, the cost of living or the ability of farmers to perform.

For things that do not lend themselves to direct measurement, it is necessary to introduce some associated quantity that will serve to represent them quantitatively. Psychologists have used certain tests for measuring students' academic talents and, on the basis of such tests, have introduced a quantity called an intelligence quotient for discussing intelligence

in a quantitative manner (Steyn et al, 1989). Similarly, economists have introduced various quantities for describing the level of the stock market, the most common of which is the Dow-Jones Industrial Average and the Johannesburg Stock Exchange index.

These indirect measures, or indicators, are also known as indexes, or indices, even though they may not carry that name in their title. There exist quite a large number of such indexes in economics and the business environment.

Indexes are frequently used in quantitative research, for several reasons. Firstly, despite the care taken in designing studies to provide valid and reliable measurements of variables, the researcher can seldom develop in advance single indicators of complex concepts. This is especially true with regard to attitudes and orientations. Social scientists, using a variety of research methods, frequently wish to study variables that do not possess clear and unambiguous single indicators.

Secondly, a rather refined ordinal measure of variables may need to be employed, arranging cases in several ordinal categories from, for example, very low to very high on a specific variable. A single data item may not have enough categories to provide the desired range of variation, but an index consisting of several items could. Indexes are typical ordinal measures of variables. Indexes rank-order the units of analysis in terms of specific variables. A person's score on a scale or index of confidence, for example, gives an indication of his or her relative confidence vis-à-vis other people.

Finally, indexes are efficient devices for data analysis. By taking a single data item into consideration it provides us with only a rough indication of a given variable. By taking several data items into consideration, it may provide us with a more comprehensive and more accurate indication. Indexes are efficient data-reduction devices: Several indicators may be summarised into a single numerical score, while sometimes also maintaining the specific details of all the individual indicators.



The primary purpose of an index is to provide a value that is useful for comparing magnitudes of aggregates of related variables to each other and to measure their changes over time. Consequently, many different indexes have been developed for special uses. Five uses of indexes will briefly be discussed: Firstly, index numbers are useful summary measures for policy guides. The Reserve Bank uses index numbers on interest rates or employment or consumer credit, as inputs for discussions on appropriate open-market transactions.

Secondly, many indexes have been developed to serve as indicators of business conditions, for example, different business confidence and consumer confidence indexes. Some indexes are commonly used in a third way for making comparisons of change among different sectors of the economy. Growth in the agricultural or mining sector may, for example, be compared with growth in the manufacturing sector.

A fourth use of certain special indexes, such as wage, productivity and cost-of-living indexes is in wage contracts and labour-management bargaining. Management often prefers to tie wage increases to productivity increases, while labour unions prefer to relate the need for wage increases to cost-of-living increases. Similar relations among indexes are used in the adjustment of insurance coverage, changing retirement and social security benefits, etc.

Finally, a fifth and very common use of an index number is as a deflator. Price or cost indexes are divided into certain measures of economic activity, in order to obtain the real or constant value of these measures. That is, an adjustment is made for the changing value of the Rand, so that more meaningful comparisons can be made over time.

### **8.2.2 Constructing an Agribusiness Confidence Index**

In this section, the methodology to construct a business confidence index for the agribusiness sector in South Africa will be discussed. Firstly, it is plausible to assume that business people whose business conditions are to their satisfaction will have more

confidence than their counterparts experiencing unsatisfactory business conditions. Secondly, following the model illustrated in Figure 2.4, it is again plausible to assume that changes in business confidence lead to changes in action taken. Confidence can make all the difference between success and failure, mastery and misfortune. Business success and failure are not just episodes, but self-perpetuating trajectories shaped by confidence or the lack thereof (Kanter, 2004).

Economic and business indicators or factors that will give the most accurate measure of the business confidence of agribusinesses in South Africa, were statistically identified through a survey amongst the eighty agribusinesses of the ABC. The results from the survey were also discussed with the executive management of the group of agribusinesses on the Board of the ABC and agricultural economists. Other confidence indexes, international as well as domestic, were also investigated. The ten factors that were identified in this manner and that will be used to determine the business confidence of agribusinesses in South Africa as accurately as possible, are:

- ? The expected turnover of the business
- ? The expected nett operating income of the business
- ? The employment trends in the business
- ? The trends in capital investment by the business
- ? Expected economic growth in South Africa
- ? The amount of export by the business
- ? The general agricultural conditions in South Africa
- ? The trends in market share by the business
- ? The increase or decrease in debtor provision for bad debt by the business
- ? The increase or decrease in financing costs

Both macro and micro indicators are included in the index. All of the above factors have an obvious impact on the business confidence of agribusinesses. Poor sales, for instance, will dampen confidence, as well as a lack of orders received. In fact, research done in

Europe has shown that orders received are an important determinant of manufacturer's confidence (Bureau for Economic Research, 2000).

The various determinants listed above do not have identical impacts on confidence. This implies that the factors need to be weighted in order to obtain a reliable composite index. The Laspeyres composite index is the most widely used in practise, because it employs the same weights in each period. For the same reasons and because the weights assigned to each factor will not change dramatically over the next few years, the Laspeyres type index was used in the construction of the Agribusiness Confidence Index. The Laspeyres index is given as (Steyn et al, 1996):

$$I = \frac{\sum F_n w_o}{\sum F_o w_o} \times 100$$

Where:

I	=	Index
F <sub>n</sub>	=	Factors in period n
F <sub>o</sub>	=	Factors in period o (base period)
W <sub>o</sub>	=	Weight of each factor as determined in base period

The importance of the indicators was determined at the same time and through the same scientific procedures as when the economic and business indicators were determined. Weights were allocated to each of the indicators according to the survey results and after the discussion held with the executive management of a group of agribusinesses on the board of the ABC. The weights allocated to each indicator are illustrated in Table 8.1.

**Table 8.1: The mean, variation coefficient and weights assign to each factor**

Factors	Mean <sup>a</sup>	Variation coefficient <sup>b</sup>	Weight assign to factor
Turnover	3.36	21.78%	1.26
Nett operating income	3.43	20.13%	1.29
Employment	2.93	25.68%	1.10
Capital investment	3.59	15.84%	1.35
Economic growth in South Africa	3.69	14.67%	1.39
Exports	3.10	21.69%	1.17
General agricultural conditions	3.29	16.27%	1.24
Market share	2.66	30.66%	1.00
Debtor provision for bad debt	3.10	21.69%	1.17
Financing cost	3.10	21.69%	1.17

**Source:** Own calculations from survey

**Notes:** <sup>a</sup> Scores ranging from 1 (not determinant of business confidence) to 4 (very important determinant of business confidence).

<sup>b</sup> The variation coefficient represents the standard deviation as a percentage of the mean. The higher the coefficient, the higher the variation.

The Agribusiness Confidence Index is compiled quarterly, starting with the first quarter of 2000. The year 2000 will be used as base year. The base period, or reference point, is the year or time period in the past against which all other comparisons are made. In selecting the base period for a particular index, two rules should be observed. Firstly, the period selected should, as much as possible, be one of economic normality or stability, rather than one at or near the peak of an expanding economy or the trough of a recession or declining economy. Secondly, the base period should be recent, so that comparisons will not be unduly affected by changing technology, changing product quality, and/or changing consumer attitudes, interests, tastes and habits (Steyn et al, 1996).

### 8.2.3 Data collection

In constructing an Agribusiness Confidence Index for the South African agribusinesses sector, agribusinesses involved in the following activities were selected - as they provide the most reliable and measurable “barometers” of the situation in the agribusiness sector:

- ? **Tertiary transformation** of commodities into value added products – where the value is derived from the process of transformation.
- ? **Supply of inputs** to the primary and tertiary sectors.
- ? **Retail and wholesale provision** of commodity and value added food, fibre and related products to consumers.
- ? The **provision of services** such as finance, insurance and technical advice.

The group of agribusinesses are mainly agricultural companies, agricultural co-operatives; agricultural co-operatives in the developing agricultural sector; companies that arose out of the conversion of agricultural co-operatives and all members of the ABC. These businesses play a significant role in the economy of South Africa as handlers, processors and marketers of agricultural products, and as suppliers of production inputs and services. In addition, they are major employers, developers and sources of added value, representing a total asset value of almost R30 billion and an annual agricultural business turnover of approximately R50 billion. Combined, they operate more than 2000 service centres country-wide and have a total employee complement of more than 100 000. In many rural areas, these agribusinesses are the business hub of the community and they make a key contribution to maintaining the rural infrastructure (Agricultural Business Chamber, 2000).

The primary data is collected every quarter from a sample size of fifty agribusinesses. The survey results are obtained from questionnaires completed by the senior executives. Their views are obviously based on own experience and perceptions, but also on hard facts that are essential for sound business decision-making. Respondents must give their

opinion on the 10 key economic and business indicators by comparing the current situation with that of a year ago.

“The actions people take depend on what they believe is true. But what they believe is true, that is, their perceptions, may be only partly true or even wholly false. Even so, these perceptions of reality, not reality itself, affect their behaviour. The effects of their actions do depend on reality and may in turn cause changes in their perceptions”

- Telser, 1987

### **8.3 STATUS AND TRENDS IN THE BUSINESS CONFIDENCE OF THE AGRIBUSINESS SECTOR IN SOUTH AFRICA**

In Table 8.2 trends in the Agribusiness Confidence Index for South Africa are indicated. The base year is 2000. Each quarter of a specific year is then compared to the base quarter, which is one hundred in 2000. The results from 2000 to 2004 are indicated.

The business confidence of the agribusiness sector in South Africa was 17.16% higher in the 1<sup>st</sup> quarter of 2004 compared to the 1<sup>st</sup> quarter of 2000. Business confidence was, however, 2.08% lower in the 2<sup>nd</sup> quarter of 2004 compared to the 2<sup>nd</sup> quarter of 2000. The business confidence of the agribusiness sector in South Africa during the 3<sup>rd</sup> quarter of 2004 was 19.73% higher than in the 3<sup>rd</sup> quarter of 2000. There was, however, no growth in the business confidence of agribusinesses between the 3<sup>rd</sup> quarter of 2003 and the 3<sup>rd</sup> quarter of 2004. In the 4<sup>th</sup> quarter of 2004 business confidence of agribusiness was 28.33% higher than in the 4<sup>th</sup> quarter of 2000.

According to the Agribusiness Confidence Index, agribusiness confidence was the highest during the 3<sup>rd</sup> and 4<sup>th</sup> quarter of 2002 and the 1<sup>st</sup> quarter of 2003. During this period, business confidence of agribusiness was respectively 35.06%, 39.99% and 49.41% higher than the 1<sup>st</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2000. Agribusiness confidence was the lowest in the 2<sup>nd</sup> quarter of 2004 (2.08% lower than the base year)

**Table 8.2: The Agribusiness Confidence Index**

The Agribusiness Confidence Index				
Quarters				
Year	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>
2000	100.00	100.00	100.00	100.00
2001	103.27	100.96	113.95	115.89
2002	127.65	116.12	139.99	149.41
2003	135.06	102.48	119.20	126.65
2004	117.16	97.92	119.73	128.33

**Source:** Own database

The reasons for the changes in the Agribusiness Confidence Index will now be discussed for each quarter, starting at the first quarter of 2002.

### **8.3.1 First quarter 2002 – Growing business confidence in agribusinesses**

The Agribusiness Confidence Index for the first quarter of 2002 showed a 23.61% increase in the business confidence of agribusinesses in South Africa compared to the same period in the year before, and a 10.15% increase compared to the fourth quarter of 2001.

This increase in business confidence was driven largely by expectations of better agricultural conditions, higher capital investment, higher turnovers and operating income, higher export volumes and a bigger market share. The good news was the expected increase in employment and job creation that could be facilitated by the growth in confidence.

A cause for concern, however, was that agribusinesses were still not positive in their expectations of economic growth, although the situation had improved slightly since the last quarter of 2001.

### **8.3.2 Second quarter 2002 – 15.02% increase in the business confidence of agribusinesses**

The Agribusiness Confidence Index showed a 15.02% increase in the business confidence of agribusinesses in South Africa for the second quarter of 2002 compared to the same period in the previous year.

This increase in business confidence was largely driven by expectations of better agricultural conditions, an increase in employment and job creation and higher capital investment. There were also expectations of higher turnovers and operating income, higher export volumes, bigger market share and a drop in debtor provision for bad debt.

Factors that influenced the index negatively were continued expectations of an increase in finance costs and a negative expectation in respect of economic growth in South Africa. This increase in the business confidence of the agribusiness sector in South Africa coincided with the generally positive trends of higher investment and competitiveness.

### **8.3.3 Third quarter 2002 – Agricultural business confidence at its highest level**

The Agribusiness Confidence Index showed a 22.85% increase in the business confidence of agribusinesses in South Africa for the third quarter of 2002 compared to the same period of the previous year. With regards to the previous quarter (2nd quarter 2002), an increase of 20.56% in the business confidence of South African agribusinesses was registered. This is good news for the agricultural environment - especially as there appears to be a sustained upward trend in business confidence.

This increase in the business confidence of agribusinesses was largely driven by highly favourable expectations regarding agricultural conditions and product prices. Although the prices of imported production inputs continued to increase, as a result of the weaker exchange rate, the netto effect implied improved cash flow and profits for agriculture.



At this point it became important that farmers and agribusinesses manage their cash flows correctly and also get rid of debt. There were also strong expectations of a decline in debtor provision for bad debt at agribusinesses.

A factor that still had a negative influence on the index was the continued expectation of an increase in finance costs. The expected growth in inflation had an influence on this.

#### **8.3.4 Fourth quarter 2002 – New highest level in agricultural business confidence**

The Agribusiness Confidence Index showed a 28.92% increase in the business confidence of South African agribusinesses for the fourth quarter of 2002 compared to the same period for the previous year. With regard to the previous quarter (3rd quarter 2002), an increase of 6.73% in the business confidence of South African agribusinesses was registered. This was again good news for the agricultural environment - it seems as if the sustained upward trend in business confidence continued.

In addition to expectations of an increase in economic growth and generally favourable agricultural conditions, this increase in business confidence was also driven by an expected increase in nett operating income, employment and capital investment and a decline in debtor provision for bad debt. The expected increase in finance costs, however, had a negative impact on the Agribusiness Confidence Index.

Therefore, depending on the effect of interest rates and fuel costs, agricultural businesses in South Africa were generally optimistic about agriculture as a whole during this period. Rising inflation and an accompanying increase in interest, however, could start putting pressure on nett operating income and economic growth.

### **8.3.5 First quarter 2003 – Business confidence of agribusinesses increase by 5.81%**

The Agribusiness Confidence Index for the first quarter of 2003 shows an increase of 5.80% in the business confidence of South African agribusinesses compared to the corresponding period in the previous year. There was, however, a decrease of 9.60% in agribusiness confidence compared to the fourth quarter of 2002.

The year-on-year increase in business confidence was driven by an expected increase in turnover, nett operating income, capital investment as well as an increase in the market share of agribusinesses in South Africa. General agricultural conditions and economic growth in South Africa also contributed to the improvement in business confidence.

Factors that had a negative influence on the business confidence of agribusinesses in South Africa include the expected decline in volume exports, which was largely as a result of the increase in the value of the Rand against the major currencies. No increase in employment was expected and financing costs remained relatively high compared to two years ago.

According to the Agribusiness Confidence Index, there has been an increase of 35.06% in the business confidence of agribusinesses since 2000. This positive trend can be seen in conjunction with other excellent performances achieved by the South African agricultural sector since 2000 in terms of competitiveness, financial management, labour productivity, exports and increased investment.

South African agribusinesses performed well over the past year on international markets, exploiting the weakened Rand. Local agribusinesses used the opportunity to forge new trade connections and to gain experience in international markets. However, the strengthening of the Rand will cause export realisation to decline and local businesses will have to focus on retaining cost advantages during the coming year.

### **8.3.6 Second quarter 2003 – Agribusiness confidence declines by 11.75%**

The Agribusiness Confidence Index showed a decline of 11.75% in the business confidence of the agribusiness sector in South Africa for the second quarter of 2003 compared to the same period for the previous year. This was the first time that business confidence dropped since the inception of the index in 2000. However, the index was still 2.48 index points higher than two years ago, which showed that business was still being positively experienced.

An expected drop in export volumes and unfavourable farming conditions drove the decline in business confidence. The strengthening of the Rand against the American Dollar undermined exports, while below-normal rainfall over the preceding months rendered farming conditions unfavourable.

Agribusinesses also expected an increase in debtor provision for bad debt as a result of the strong decline in the prices of agricultural products. The expected drop in interest rates, which failed to materialise, also impacted negatively on the business confidence of South African agribusinesses.

The decline in business confidence should not be seen as a negative trend. Business confidence was still higher than two years ago, and 2002 can be regarded as an extraordinary year where high product prices, favourable climatic conditions and an extremely weak Rand were experienced.

### **8.3.7 Third quarter 2003 – Agribusiness confidence drops by 14.85%**

The Agribusiness Confidence Index showed a 14.85% drop in the business confidence of South African agribusinesses for the third quarter of 2003 compared to the figure for the same period for the previous year.

This decline in business confidence can largely be attributed to unfavourable farming conditions, which had a negative impact on agribusinesses' turnover, nett operating income and debtor provision for bad debt. The drought in the Western Cape and parts of Limpopo, as well as an expected dry season, placed further pressure on the business confidence of agribusinesses.

A decline in export volumes was also expected due to the increased value of the Rand against the American Dollar. The stronger Rand also kept product prices low, which placed pressure on the grain industry, in particular, as farmers started planning for the forthcoming production season.

One ray of light at the end of the tunnel was the drop in financing costs, which, in turn, had a positive effect on capital investment by agribusinesses in the rural areas of South Africa. There was also a 16.32% increase in the business confidence of agribusinesses compared to the 2<sup>nd</sup> quarter of 2003.

### **8.3.8 Fourth quarter 2003 – 15.32% drop in business confidence of agribusinesses**

The Agribusiness Confidence Index for the fourth quarter of 2003 showed a decline of 15.23%, or 22.76 index points, in the business confidence of the agribusiness sector in South Africa compared to the same period for the previous year.

This decline in business confidence was once again mainly driven by the persistent drought in large parts of the country. The unfavourable conditions, as well as low grain prices, exerted further pressure on the turnover, nett operating income and cash flows of farmers and agribusinesses. The negativity in business confidence could also be ascribed to the stronger Rand, which caused a drop in export volume. The stronger Rand also kept product prices low.

The Reserve Bank's interest rate policy focused on inflation targets, and not on the exchange rate. The implication of this was that the strong Rand would remain a reality

for the foreseeable future. However, agribusinesses were also using the opportunity to give renewed attention to capital investment. A drop in employment was also expected - which was not good news for job seekers in the agricultural sector.

One positive contribution to the agricultural business confidence index was the decline in finance costs as a result of the drop in interest rates, which, in turn, had a positive effect on capital investment and market share of agribusinesses in the rural environment of South Africa. Lower finance costs, however, did not make a significant difference to the quality of agribusinesses' debtors; in fact, a strong increase in debtor provision for bad debt was expected due to the pressure in terms of lower product prices and poor agricultural conditions that farmers experienced at that time.

Agribusinesses were also concerned about the fact that economic growth in South Africa could not seem to get off the ground. Statistics South Africa's data indicated that economic growth slowed down further during the second quarter of 2003 compared to the first quarter of 2003, and that economic growth would most likely remain poor in the third and fourth quarter of 2003.

#### **8.3.9 First quarter 2004 – Another decrease in agribusiness confidence**

The Agribusiness Confidence Index showed a 13.25% drop in business confidence on the part of South African agribusinesses for the first quarter of 2004 compared to the corresponding period of the previous year. This was the fourth consecutive drop in the Agribusiness Confidence Index.

As was the case in the last quarter, this decline in business confidence was mainly driven by the persistent drought in large parts of the country. The unfavourable conditions brought pressure to bear on agribusinesses' turnover, nett operating income and cash flow. Agribusinesses were therefore expecting an escalation in bad debt.

The negativity in business confidence was also driven by the stronger Rand, which caused a drop in export volume. The stronger Rand also kept product prices low. However, the stronger Rand would force agribusinesses in South Africa to become even more productive and competitive.

Drought has a social, environmental and economic impact on a country, while the direct and indirect impact of a drought is usually wider than the areas that are physically affected by it. The impact of a drought and its ripple effects continue long after it has rained.

The R500 million in drought aid allocated by the government would help to soften the social and environmental impact in rural areas. However, the economic impact of the drought and the ripple effect thereof could have serious implications for the country. Economic growth could come under pressure, while food prices, and therefore inflation, could escalate. This, in turn, could put interest rates under pressure.

#### **8.3.10 Second quarter 2004 – Agricultural business confidence at its lowest level**

The Agribusiness Confidence Index showed a 4.45% or 4.56 index point's decline in business confidence for the second quarter in 2004 compared to the same period in 2003. Agribusiness confidence in the 2<sup>nd</sup> quarter of 2004 is also 2.08% lower than in the same period of 2000.

Although good rain fell over the past few months in large parts of the country, general agricultural conditions were still on a very low level compared to previous years. Normal winter grain plantings were expected in the hope of a better winter rainfall season compared to the drought conditions that prevailed the previous year.

Agribusinesses expected a year-on-year increase in turnover, nett operating income, capital investment and market share. However, compared to the 1<sup>st</sup> quarter of 2004, all four factors were at a lower level. Agribusinesses were negative in their expectations

towards employment and economic growth in South Africa. Increases in debtor provision for bad debt were also expected.

The stronger Rand continued to exert pressure on exports of agricultural products, which, in turn, had a negative effect on the index. The stronger Rand and low interest rates, however, are favourable for the procurement of implements and other capital items.

It would be fatal if the competitiveness of the South African agricultural sector were to be at the sole mercy of the exchange rate. Higher productivity, sharper business know-how and strategies, superior and differentiated products and processing processes, as well as a stable macroeconomic environment should drive the competitiveness of the agribusiness sector.

#### **8.3.11 Third quarter 2004 – Slight increase in the business confidence of agribusinesses**

The Agribusiness Confidence Index for the third quarter of 2004 showed an increase of 0.44% or 0.53 index points in business confidence compared to the same period in 2003. The quarter-to-quarter increase in business confidence on the part of South African agribusinesses was 22.27%.

This increase in agribusiness confidence could largely be attributed to improvement in general agricultural conditions in large parts of the country. General agricultural conditions, however, are still not nearly at the positive levels experienced in 2001 and 2002. In the Western Cape, however, agricultural conditions are less favourable than in 2003. The prices of wheat, canola and barley are considerably lower than a year ago. This had a negative effect on the turnover of agribusinesses in the region.

The strong Rand continued to exert pressure on agricultural exports, which, in turn, has a negative impact on the index. Agribusinesses were also concerned about economic growth in South Africa, which was not getting off the ground. Agriculture and

agriculture-related businesses play an important role in the economy of South Africa through forward and backward linkages and the direct impact of the food and fibre sector on consumer's pocket. It is therefore important that the grouping should become part of the government's economic growth and development, investment and trade promotion initiatives in its own right.

A positive contribution to the agricultural business confidence index was the drop in financing costs as a result of the lower interest rate which also had a positive impact on capital investment and market share of agribusinesses in the rural environment of South Africa. Lower financing costs, however, did not make a significant difference to the quality of agribusiness's debtors books. On the contrary, an increase was expected in provision for bad debt as a result of the pressure of lower product prices experienced by farmers at that time.

#### **8.3.12 Fourth quarter 2004 - 1.33% increase in business confidence of agribusiness**

The Agribusiness Confidence Index reflects a 1.33% increase in the business confidence of agribusinesses for the fourth quarter of 2004 compared to the same quarter in 2003. This trend in business confidence follows on the 0.44% increase in business confidence for the previous quarter. The Agribusiness Confidence Index shows a positive trend in business confidence since the third quarter of 2004. Quarter on quarter, there has been a 7.18% increase in business confidence on the part of agribusinesses.

The increase in business confidence can mainly be attributed to the sharp increase in agribusinesses' expectations for positive economic growth in South Africa. The expectation of agribusinesses in terms of increased economic growth in South Africa is 123.99% higher than in the same quarter of 2003.

South Africa's economy grew by 3.9% in the second quarter of 2004. This increase is higher than the 3.6% growth of the first quarter in 2004. The 3.9% growth in the second quarter of 2004 is the 23rd consecutive increase in real gross domestic product.



According to the Reserve Bank (Reserve Bank, 2004) this is the longest period of continuous quarter-on-quarter growth since quarterly data was first made available in 1960. Growth in the agricultural sector was 7.4% in the second quarter of 2004 - an increase when compared to the 4.5% of the first quarter in 2004.

Other factors that had a positive influence on the index include the drop in finance costs and an increase in capital investment as a result of relatively low interest rates. An increase in market share is also expected.

An increase in market share, however, gives rise to greater competition, which in turn forces pressure to bear down on the nett operating income of agribusinesses. Healthy conservatism also causes farmers to cut expenditure, which has an effect on turnover and income. Agribusinesses therefore expect a decline in nett operating income.

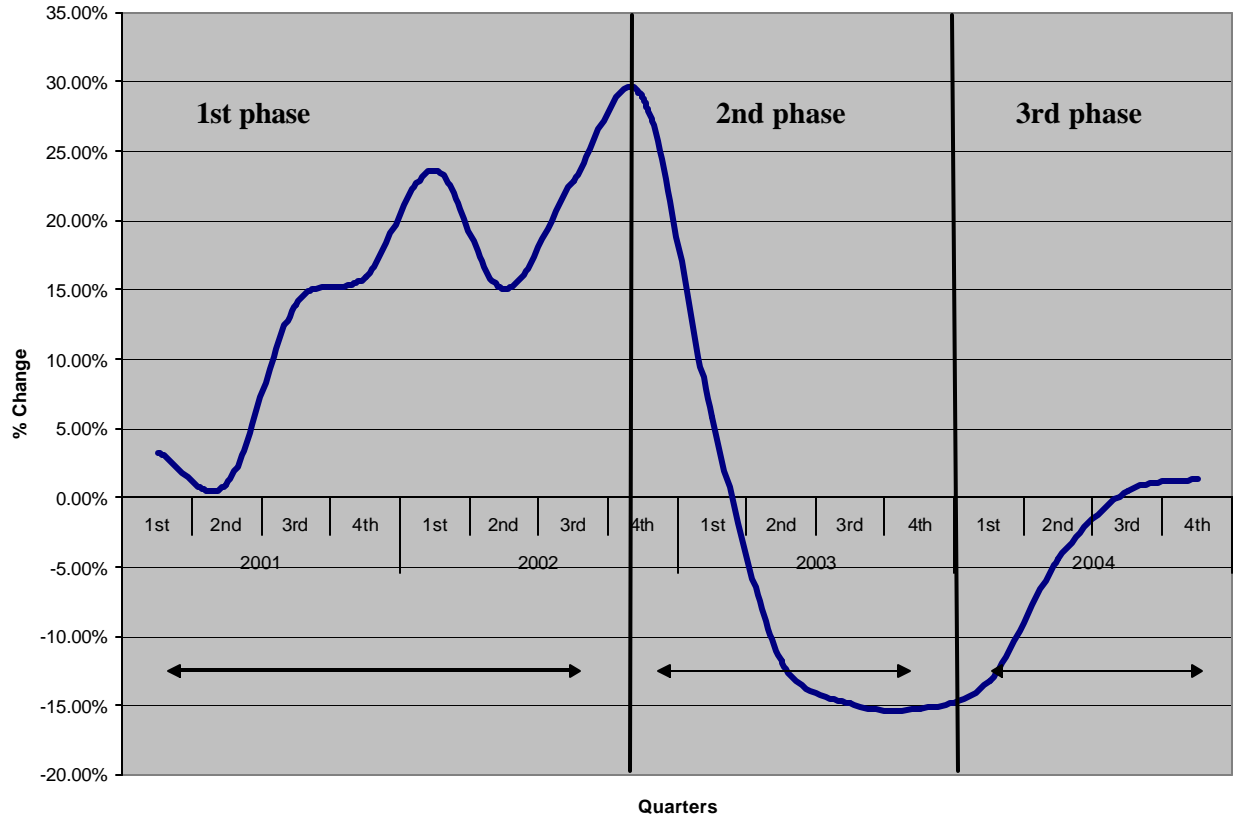
The stronger Rand places further pressure on agricultural exports, which impacts negatively on the index. The income of farmers and agribusinesses producing mainly for the export market is under pressure as a result of the strong Rand.

Agribusinesses regard agricultural conditions in general as being 46.28% less favourable than in the same period for the previous year. This places enormous pressure on the debtor book of agribusinesses. An increase in the provision for bad debt is expected as a result of the pressure caused by lower product prices and climatic conditions that haven't improved significantly in large parts of the country.

#### **8.4 SUMMARY**

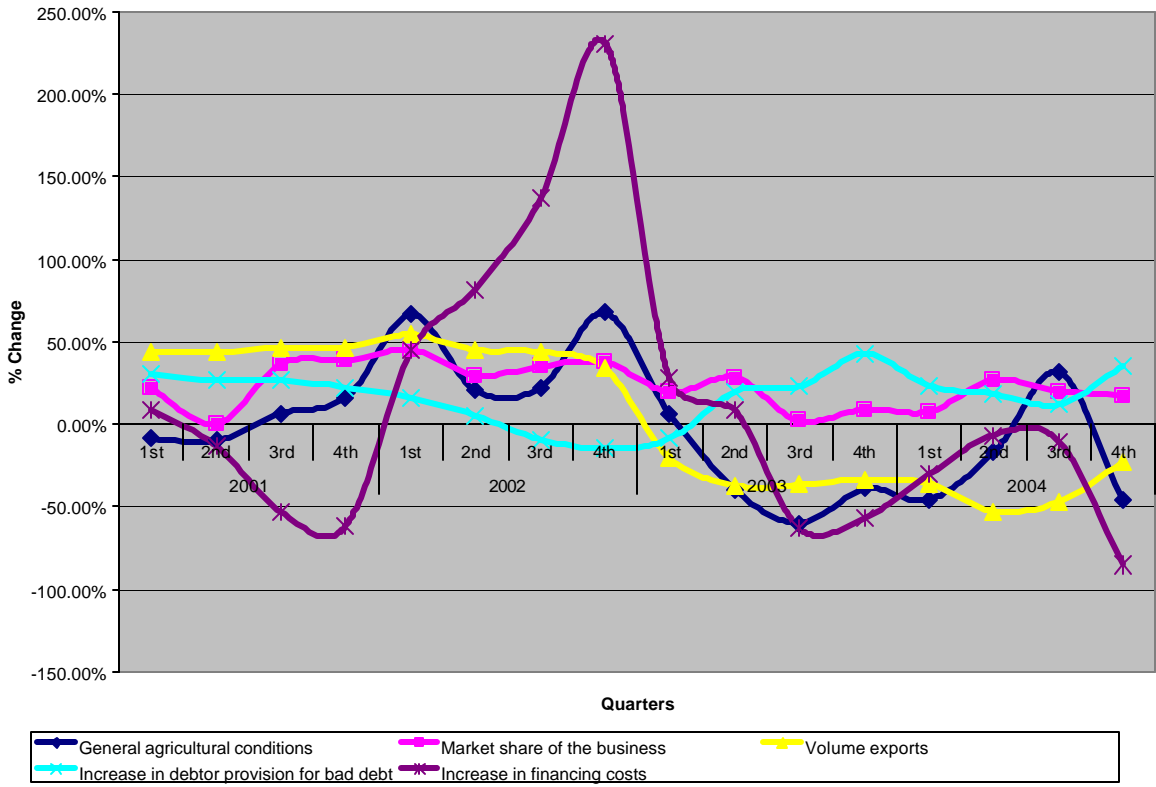
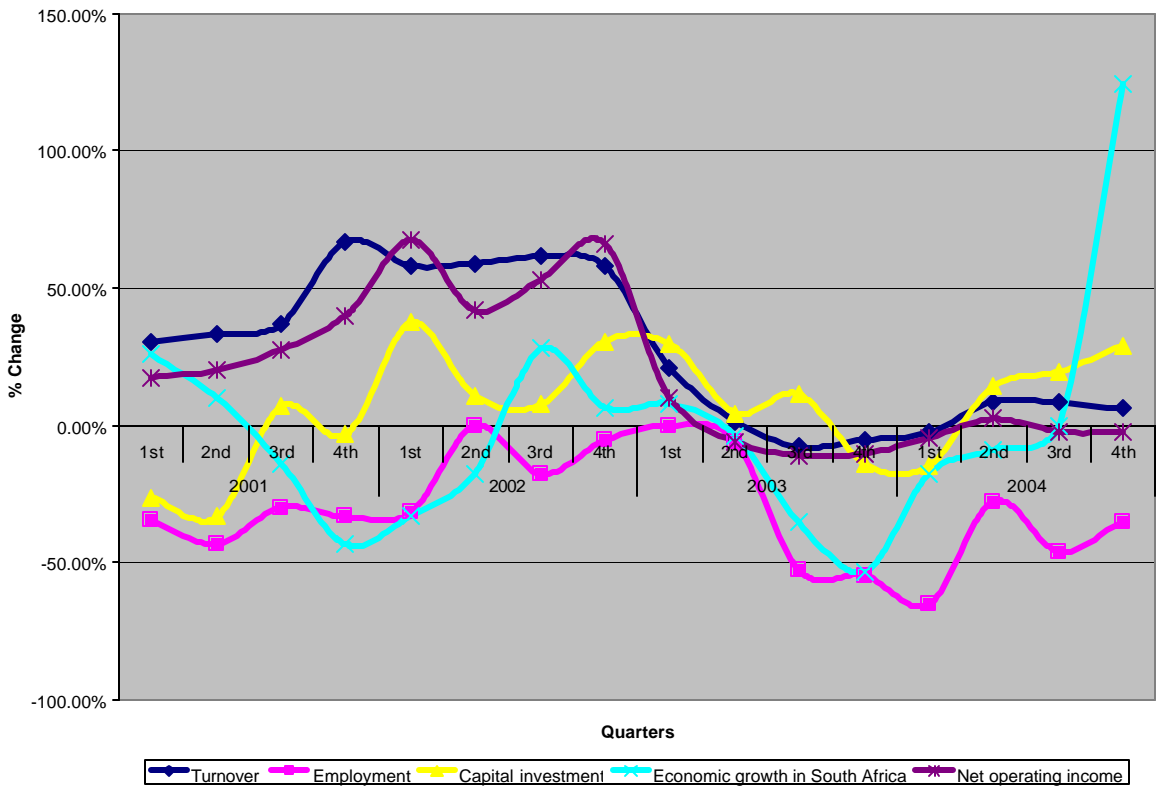
In Figure 8.1 the percentage change in the Agribusiness Confidence Index from the 1<sup>st</sup> quarter of 2001 to the 4<sup>th</sup> quarter of 2004 is illustrated. The trends in the factors used to construct the Agribusiness Confidence Index are shown in Figure 8.2. The following interesting trends are observed from the figures:

Trends in the business confidence of agribusinesses in South Africa from 2001 to 2004 can be divided into three phases. There is a definite positive trend in the overall confidence of agribusiness in South Africa from the 1<sup>st</sup> quarter 2001 to the 4<sup>th</sup> quarter 2002. There is, however, a small decrease in confidence in the 2<sup>nd</sup> quarter of 2002. In the 4<sup>th</sup> quarter of 2002 agribusiness confidence was 44.68% higher than in the 1<sup>st</sup> quarter of 2001.



**Figure 8.1: Trends in the confidence of agribusinesses in South Africa**

**Source:** Own database



**Figure 8.2: Trends in the factors used to construct the Agribusiness Confidence Index**

Source: Own database

The factors that contributed to the positive trend in agribusiness' confidence during the 1<sup>st</sup> phase were the increase in turnover and nett operating income, employment, capital investment, general agricultural conditions, market share and a decrease in debtor provision for bad debt. The increase in turnover and nett operating income were mainly because of the devaluation of the Rand against the major currencies from the 4<sup>th</sup> quarter of 2001, which resulted in a sharp increase in the prices of the major commodities.

However, the nett operating income decreased slightly in the 2<sup>nd</sup> quarter of 2002. This situation, combined with a decrease in capital investment, exports, general agricultural conditions and an increase in financing cost were responsible for the decrease in overall confidence of agribusiness in the 2<sup>nd</sup> quarter of 2002. The general agricultural condition looked 28.61% worse (mainly because of lower than normal rainfall) in the 2<sup>nd</sup> quarter of 2002 than in the first quarter of 2002, but still better than the same time the previous year. This worsen agricultural conditions was responsible for the slight decrease in net operating income in the 2<sup>nd</sup> quarter of 2002.

The decrease in debtor provision for bad debt over the two-year period is as a result of the general high producer prices that farmers received for their products over this period. South African agribusinesses also used sound financial management. Exports increased from the 1<sup>st</sup> quarter of 2001 to the 1<sup>st</sup> quarter of 2002 and decline in the 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2002. This trend of increases and decreases in exports can be directly correlated to the value of the Rand against the US\$. The expected decrease in exports in the second quarter of 2002 is as a result of an increase in the value of the Rand against the US\$ from its high levels in January (R11.60/US\$), February (R11.48/US\$) and March (R11.49/US\$) to April (R11.07/US\$), May (R10.14/US\$) and June (R10.13/US\$). However, expected exports were still higher than in the first three quarters of 2001 when the value of the Rand was around R8/US\$.

Factors that impacted negatively on the confidence of agribusinesses over the two-year period were agribusiness expectations of economic growth in South Africa and an increase in financing cost. Expectations for economic growth in South Africa decreased

by 55.06% in 2001 and then made a turnaround in the 1<sup>st</sup> and 2<sup>nd</sup> quarters of 2002. However, in the 4<sup>th</sup> quarter of 2002, expected economic growth in South Africa by agribusinesses was still 52.12% lower than in the beginning of 2001.

The financing cost of agribusiness decreased in 2001 but increased sharply in 2002. The prime interest rate increased by one percentage point in the first quarter of 2001 and the expectation was that another increase would follow. In June 2002 interest rates increased by another percentage point. The result of this was that agribusiness experienced finance cost 17.76% more negative in the 4<sup>th</sup> quarter of 2002 than in the 1<sup>st</sup> quarter of 2001.

Since the fourth quarter of 2002, there has been a sharp decline in the business confidence of South African agribusinesses - the start of the second phase in the business confidence of agribusinesses in South Africa. This decline in business confidence is largely driven by the persistent drought that afflicted large parts of the country. These unfavourable conditions put pressure on the turnover, nett operating income and cash flow of farmers and agribusinesses. The negativity in business confidence was also driven by the stronger Rand which resulted in a decline in export volume.

Expectations of agribusinesses in South Africa with regard to turnover, nett operating capital, employment, volume exports and market share dropped respectively by 22.74%, 25.25%, 57.10%, 32.29% and 0.81% from the 4<sup>th</sup> quarter of 2002 to the 3<sup>rd</sup> quarter of 2003.

General agricultural conditions worsened by 73.88% from the 4<sup>th</sup> quarter in 2002 to the 3<sup>rd</sup> quarter of 2003. The results of this decrease in general agricultural condition, mainly caused by the drought that still prevailed over large parts of the country, had contributed to the 34.41% increase in agribusinesses expectation in the provision for bad debt from the 4<sup>th</sup> quarter of 2002 to the 3<sup>rd</sup> quarter of 2003.

One positive contribution to agricultural business confidence from 2003 was the decrease in finance costs as a result of lower interest rates, which in turn had a positive effect on

the capital investment and market share of agribusinesses in rural South Africa. Lower finance costs, however, did not make a significant difference to the quality of agribusinesses' debtor books. On the contrary, a sharp increase in debtor provision for bad debt was expected due to the pressure of lower product prices and poor agricultural conditions experienced by farmers at that point.

From the 4<sup>th</sup> quarter of 2003, agribusiness confidence began to indicate a slight turnaround – the start of the third phase in the agribusinesses confidence index. Although the percentage change in confidence was still negative, the percentage change was smaller. In the 3<sup>rd</sup> and 4<sup>th</sup> quarters of 2004 a positive increase in business confidence was again experienced. This positive increase in agribusiness confidence can largely be attributed to an improvement in the general agricultural conditions in large parts of the country. General agricultural conditions improved with 31.79% from that in the 3<sup>rd</sup> quarter of 2003.

Another positive contribution to the agricultural business confidence index in the 3<sup>rd</sup> quarter of 2004 was the decrease in financing costs as a result of the lower interest rate, which also had a positive impact on capital investment and market share of agribusinesses in the rural environment of South Africa. There was a 10.15% decrease in agribusinesses expectations towards financing cost from the 3<sup>rd</sup> quarter of 2003 to the 3<sup>rd</sup> quarter of 2004.

An increase in market share, however, gives rise to greater competition, which in turn forces pressure to bear down on the nett operating income of agribusinesses. Healthy conservatism also causes farmers to cut expenditure, which had an effect on turnover and income. Agribusinesses therefore expected a decline in nett operating income.

In the 4<sup>th</sup> quarter of 2004 a sharp increase in agribusinesses' expectations for positive economic growth in South Africa were experienced. The expectation of agribusinesses in terms of increased economic growth in South Africa was 123.99% higher than in the same quarter of 2003.

The stronger Rand (R6.50/US\$) places further pressure on agricultural exports that impacts negatively on the index. The income of farmers and agribusinesses producing mainly for the export market is under pressure because of the strong rand.

Lower financing costs, however, did not make a significant difference to the quality of agribusiness's debtors books. On the contrary, an 11.84% and 35.19% increase was respectively expected in provision for bad debt from the 3<sup>rd</sup> quarter of 2003 to the 3<sup>rd</sup> quarter of 2004 and from the 4<sup>th</sup> quarter of 2003 to the 4<sup>th</sup> quarter of 2004, as a result of the pressure of lower product prices experienced by farmers at that time.

## **8.5 TEST OF CONSISTENCY**

It is important to link the results of the Agribusiness Confidence Index to other performances in the agribusiness sector in order to assess whether an increase or decrease in the index reflects upon reality. Trends in competitiveness, investment, employment, export and gross domestic product will be discussed.

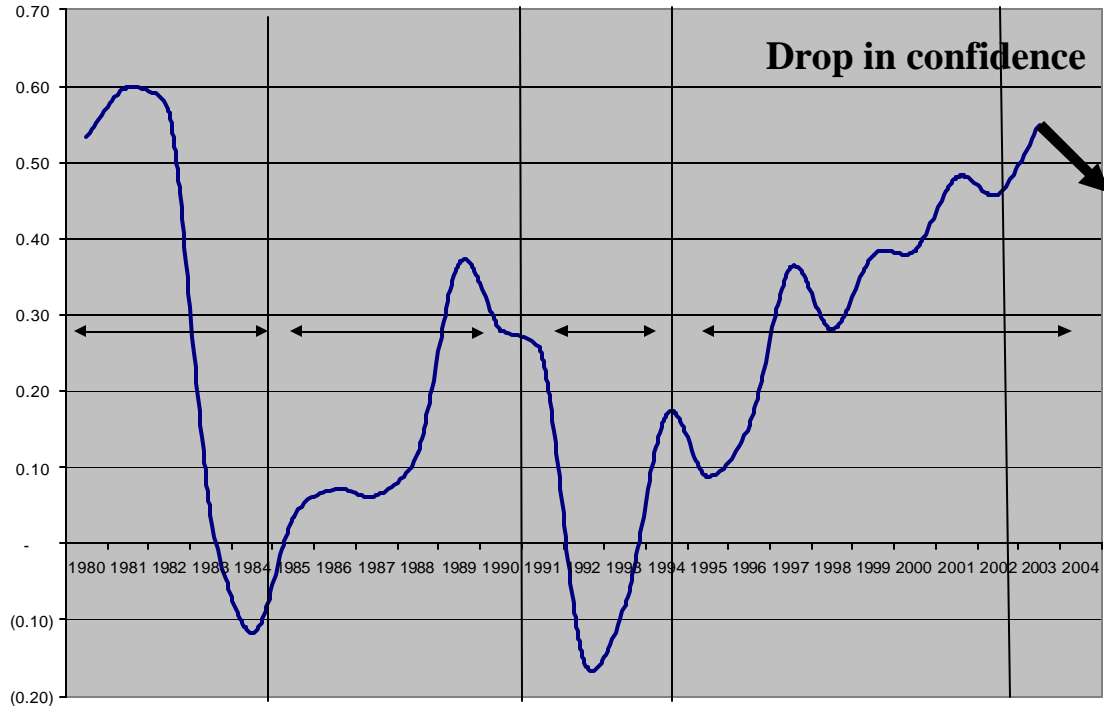
### **8.5.1 Competitiveness and investment**

The increase in agribusiness confidence from 2000 to the end of 2002 in South Africa goes hand in hand with some other positive trends in the agribusiness sector of South Africa in that period regarding competitiveness and investment (Esterhuizen, Van Rooyen & Doyer, 2002; Esterhuizen & Van Rooyen, 2001).

The assessment performed in Chapter four indicates that there was an increase of 22.50% or 9 index points from 2000 to 2002 in the competitiveness of the South African agribusiness sector. The competitiveness index serves as a measure of a sector's competitiveness in terms of its ability to compete successfully with sustainable growth within the global environment.

The competitiveness index for the South African agricultural sector improved from 0.38 in 2000 to 0.48 in 2001 and to 0.46 in 2002. This upward trend has persisted since 1992, when the index was negative, at  $-0.16$ .

Given the direct impact of confidence on the competitive performance of businesses - the decrease in the confidence of the agribusiness sector in 2003 and 2004 will have a negative impact on the competitiveness status of the agribusiness sector in South Africa. One can expect that the competitiveness index will decrease from 2003 onwards (see Figure 8.3 as illustration).



**Figure 8.3: An illustration of the possible impact of the drop in the business confidence of the agribusiness sector in South Africa on the competitiveness status of the sector**

**Source:** Own calculation from the RTA index and Agribusiness Confidence Index



There is already evidence of a strong correlation between investment in a sector and the competitiveness and business confidence of that sector. (Esterhuizen & Van Rooyen, 2001). As shown in Chapter four, real investments in agriculture have also increased by 44.44% from 2000 to 2002. This is good news considering that there was a negative trend in investment in the agricultural sector from 1996 to 1999. Real investment in the agribusiness sector of South Africa has, however, decreased in 2003 by 8.76% - the start of a decrease in the business confidence of the agribusiness sector in South Africa.

### **8.5.2 Employment**

In a recent survey by the Agricultural Business Chamber (Agricultural Business Chamber, 2004) important information about the turnover, nett profit and employment of the agribusiness sector in South Africa has been received and analysed. A summary of this information will now follow:

The respondents had a collective turnover for the year ended in 2003 of R18 billion, an increase of 35% from the previous year when the collective turnover was R13 billion. The collective nett profit before tax for the respondents for the year ended 2003 was R448 million, an increase of 675% from the previous year when the collective nett profit before tax for the respondents was R58 million.

The respondents paid tax to the amount of R63 million in 2003. Total assets increased from R7.1 billion in 2002 to R7.5 billion in 2003, an increase of 5.4%. Total liabilities increased from R5.3 billion in 2003 to R5.4 billion in 2004, an increase of only 1.8%. The effect of the relatively lower interest rate can clearly be seen from these figures. The respondents represent 34 195 shareholders.

In Table 8.3 a summary is given of the total personnel corps of the respondents. There is a definite decrease in the total personnel corps of the respondents from 2002 to 2004. From 2002 to 2003 the total personnel corps decreased by 14.7% and from 2003 to 2004

the total personnel corps decreased by 10.8%. This same trend in expectations towards employment was captured by the Agribusiness Confidence Index.

It seems that the discharge was mainly of the temporary staff in agribusinesses. Temporary staff decreased from 34.6% of the total personnel corps in 2002 to 15.2% of the total personnel corps in 2004. Permanent staff makes up 84.8% of the total personnel corps in 2004, while in 2002 it was only 64.4%.

**Table 8.3: Trends in the total personnel corps of agribusinesses**

	2002	2003	2004
Total Personnel corps	13 253	11 300	10 081
% Permanent	65.4%	78.4%	84.8%
% Temporally	34.6%	21.6%	15.2%

**Source:** Agricultural Business Chamber, 2004

### 8.5.3 Exports

Table 8.4 shows the percentage growth in the volume of agricultural and manufacturing exports. The impact of an increase in the value of the Rand against major currencies can clearly be seen from the Table. From 2002 to 2003, exports of agricultural and manufacturing products decreased by 10.13% and 12.40% respectively. The same trend in the expectations towards exports was captured by the Agribusiness Confidence Index.

The stronger Rand not only brought pressure to bear down on agricultural exports, but it also poses the potential threat of import substitutes. From 1990 to 2002 the Rand weakened annually against the US Dollar, with a total decline in value of 306% over this period. It was therefore fairly easy to do long-term planning. Since 2003, however, the Rand has strengthened against the US Dollar by 42%, which makes future planning and investment, especially in export products, problematic.

**Table 8.4: Percentage change in the value of exports**

	2000	2001	2002	2003
<b>Agricultural</b>	-10.26	22.00	25.95	-10.13
<b>Manufacturing</b>	20.44	12.77	16.11	-12.40

**Source:** National Department of Agricultural, 2004

#### **8.5.4 Gross domestic product**

After four quarters of lustreless growth, which not even matched the rate of population expansion, the rate of increase in South Africa's real gross domestic product firmed appreciably in the first quarter of 2004 (South African Reserve Bank, 2004). Real economic growth accelerated from an annualised rate of 1.5% in the fourth quarter of 2003 to 3% in the first quarter of 2004. The buoyancy of real output in the first quarter was spread throughout all the major sectors of the economy, with the primary and secondary sectors recording increases in the real value added against contractions in the final quarter of 2003. However, the level of the real gross domestic product in the first quarter of 2004 was only about 2% higher than in the first quarter of 2003 (see also Table 8.5).

Growth in real gross domestic product, excluding agriculture, accelerated from an annual rate of 1.5% in the fourth quarter of 2003 to 3.5% in the first quarter of 2004. When compared with the first quarter of 2003, growth in non-agricultural gross domestic product amounted to 2%, roughly the same rate as was attained in 2003 as a whole (South African Reserve Bank, 2004).

**Table 8.5: Real gross domestic product - Percentage change at seasonally adjusted annualised rates**

Sectors	2002				2003				2004
	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	4 <sup>th</sup>	1 <sup>st</sup>
<b>Primary sector</b>	7.0	7.5	5.5	3.0	-2.5	-6.5	-6.5	-4.0	3.0
<b>Agriculture</b>	13.5	14.0	9.5	5.5	-5.5	-19.5	-22.0	-9.5	2.5
<b>Mining</b>	2.0	3.0	2.5	1.5	0.5	5.0	6.0	0.0	3.5
<b>Secondary sector</b>	4.5	8.5	6.0	1.5	-3.0	-3.0	-0.5	-1.5	3.0
<b>Manufacturing</b>	5.0	10.0	7.5	0.0	-4.5	-4.5	-1.5	-3.5	2.5
<b>Tertiary sector</b>	3.0	3.5	3.0	3.0	3.0	3.0	3.0	3.0	3.5
<b>Non-agricultural sector</b>	3.5	5	4	2.5	1.0	1.5	2.0	1.5	3.5
<b>Total</b>	4.0	5.0	4.0	2.5	1.0	0.5	1.0	1.5	3

**Source:** South African Reserve Bank, 2004

Subsequent to a decline at an annualised rate of 9.5% in the fourth quarter of 2003, the real value added by the agricultural sector increased at a rate of 2.5% in the first quarter of 2004. The same trend in the expectations towards economic growth was captured by the Agribusiness Confidence Index. The improved conditions in the agricultural sector can partly be attributed to the firm output growth in the horticultural sector. Part of the 2003 wheat crop was harvested in the first quarter of 2004. In addition, the late summer rains that fell over most of the country changed agricultural prospects for the better. Estimates of 2003/04 maize crop were accordingly revised upwards (South African Reserve Bank, 2004).

## 8.6 CONCLUSION

The Agribusiness Confidence Index is determined on a quarterly basis, and the first index was released in 2001, with the year 2000 being the base year. Fifty agribusinesses are participating in conducting the index. Ten factors were identified that will give a true reflection of the business confidence of the agribusiness sector in South Africa. These are: the expected turnover of the business; the expected nett operating income of the business; the employment trends in the business; the trends in capital investment by the

business; expected economic growth in South Africa; the amount of export by the business; the general agricultural conditions in South Africa; the trends in market share by the business; the increase or decrease in debtor provision for bad debt by the business; the increase or decrease in financing costs. The importance of these factors was also determined through a survey. Weights were allocated to each factor according to the survey results.

Trends in the business confidence of agribusinesses in South Africa from 2001 to 2004 can be divided into three phases (see also Table 8.6 for a summary). From the 1<sup>st</sup> quarter of 2001 to the 4<sup>th</sup> quarter of 2002 there was a definite positive trend in the confidence of agribusiness. The devaluation of the Rand against the major currencies that resulted in a sharp increase in the prices of commodities played a major role in this positive trend.

The second phase in the business confidence of agribusinesses in South Africa is the sharp decline since the 4<sup>th</sup> quarter of 2002. This decline in business confidence was largely driven by the persistent drought that affected large parts of the country. The increase in the value of the Rand also had an impact.

From the 4<sup>th</sup> quarter of 2003, agribusiness confidence began to indicate a slight turnaround – the start of the third phase in the agribusinesses confidence index. This positive increase in agribusiness confidence can largely be attributed to an improvement in the general agricultural conditions as well as a sharp increase in agribusinesses' expectations for positive economic growth in South Africa. The lower interest rates also impacted positively on the confidence of agribusinesses in South Africa.

This trend in the business confidence of agribusinesses in South Africa goes hand in hand with some other trends in the agribusiness sector regarding competitiveness, investments, exports and economic growth. The competitiveness status of the agribusiness sector is in jeopardy because of the decline in the Agribusiness Confidence Index in 2003 and 2004.

**Table 8.6: Summary of trends in the Agribusiness Confidence Index**

<b>1st Phase</b> <b>1st quarter 2001 to 4th quarter 2002</b> <i>(Devaluation of the Rand against major currencies; Sharp increase in the price of major commodities)</i>	
<b>POSITIVES</b> Turnover ↑ Net operating income ↑ Employment ↑ Capital investment ↑ General agricultural conditions ↑ Market share ↑ Debtor provisions for bad debt ↓ Exports ↑	<b>NEGATIVES</b> Expectations towards economic growth ↓ Financing cost ↑
<b>2nd Phase</b> <b>1st quarter 2003 to 4th quarter 2003</b> <i>(Persistent drought; Increase in the value of the Rand)</i>	
<b>POSITIVES</b> Market share ↑ Financing cost ↓	<b>NEGATIVES</b> Turnover ↓ Net operating income ↓ Employment ↓ Capital investment ↓ General agricultural conditions ↓ Debtor provisions for bad debt ↑ Expectations towards economic growth ↓ Exports ↓
<b>3rd Phase</b> <b>1st quarter 2004 to 4th quarter 2004</b> <i>(Improvement in the general agricultural conditions; Lower interest rates; Positive economic growth in South Africa)</i>	
<b>POSITIVES</b> Turnover ↑ Capital investment ↑ Market share ↑ Financing cost ↓ Expectations towards economic growth ↑ General agricultural conditions ↑	<b>NEGATIVES</b> Net operating income ↓ Employment ↓ Debtor provisions for bad debt ↑ Exports ↓

**Source:** The Agribusiness Confidence Index