

**THE IMPACT OF TRADE POLICY REFORM ON SOUTH AFRICAN
AGRICULTURAL EXPORTS**

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ABSTRACT

Over the past 15 years, South African agriculture has undergone key reforms in trade liberalization and market deregulation. This structural transformation paved the way to enter global value chains and created space for increased private sector participation in the agricultural trade and marketing economy not previously possible. Trade policies form the main economic ingredients for the country to participate actively in the global economy, i.e. the general and specific elements of each nation's trade policy interact directly or indirectly with those of other nations in all economic transactions across international borders. Trade policy reflects how the government values the importance of foreign trade within a complex environment with distinct differences in consumption and production patterns, culture and tradition and local socio-economic conditions.

Issues that are important for this study are whether the type of trade policy reforms that have thus far been undertaken, with their emphasis on trade liberalization, provide more or less opportunity than before.

The calculation of RCA (revealed comparative advantage) for the period from 1991 to 2008 shows that the competitiveness of agricultural exports have declined since 1990. There is a sharp decline in all agricultural products from 1990 to 2008, with maize dropping out of the top-ten agricultural exports by value since 2000. The decline could be attributed to the deregulation of marketing boards and increased global competition.

The main recommendation from the study is that trade policy should in the future take into account domestic production capabilities or potentialities and the degree of trade and production distortions on these products at the global level.

DECLARATION

I declare that this research report is my own, unaided work. It is submitted in partial fulfilment of the requirement of the degree of Masters of Management (in the field of Public and Development Management) in the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in any other university.

SIPHO MICHAEL MALULEKA

20 October 2010

DEDICATION

This research report is dedicated to my Mother, Mrs Mahlako Batseba Mamatlole Maluleka, my aunt Selina Moshopiadi and my sisters Mantlakwane, Monaketjane and Nonhlanhla for their ceaseless prayer, support and confidence on me.

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First and foremost I would like to thank and praise my Heavenly Father who through his grace allowed me to persevere in the apparently endless period of this research report. Thank you Lord for your graciousness.

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ACRONYMS

ACP	African, Pacific and Caribbean Countries
AGOA	African Growth Opportunity Act
BLNS	Botswana, Lesotho, Namibia and Swaziland
EFTA	European Free Trade Area
EU	European Union
FTA	Free Trade Area
GATT	General Agreement on Tariff and Trade
GDP	Gross Domestic Product
GEAR	Growth, Employment and Redistribution
GEIS	General Export Incentive Scheme
GSP	General System of Preference
HOS	Heckscher-Ohlin and Samuelson Theorem
HS	Harmonised System of Tariff Classification
ITAC	International Trade and Administrative Commission
ITC	International Trade Centre
Mercosur	Customs Union between Brazil, Argentina, Uruguay and Paraguay
MFN	Most Favoured Nation
NAMC	National Agricultural Marketing Council
NAV	Non ad Volorem
OECD	Organization of Economic Cooperation and Development
PSE	Producer Support Estimates
RCA	Revealed Comparative Advantage
RSA	Republic of South Africa
SACU	Southern African Customs Union
SADC	Southern African Development Community
SARB	South Africa Reserve Bank
TDCA	Trade, Development and Cooperation Agreement
US	United States of America

WTO World Trade Organisation

Chapter One: Introduction

1. Background and justification

Over the past two decades, South Africa's agricultural sector has been extensively liberalized, both in the domestic and in foreign markets. Domestic liberalization was evident in the 1970s and 80s, and was essentially completed by early 1998.

According to Vink, Kirsten and Tregurtha (2002), South Africa's trade regime had been characterized by numerous quantitative restrictions, a multitude of tariff lines, a wide dispersion of tariffs, and various other forms of protection such as formulae, specific and ad valorem duties and surcharges. These restrictions, and other regulations, often eliminated any foreign competition, but this state of affairs changed considerably after South Africa became a signatory of the Marrakesh Agreement that emanated from the General Agreement on Tariff and Trade (GATT). The accession to the World Trade Organisation (WTO) increased the pace of trade policy reform in the South African agricultural sector.

The participation in global trade agreements reduced existing distortions to exporters, such as indirect export subsidies, electricity and transport rebates, export finance and credit guarantees and marketing allowances (Kirsten et al, 2004). By 1997, all controls had effectively been cut adrift, and with the closing of agricultural Control Boards, there was a phasing out of most import and export controls, elimination of subsidies, and conversion of these to tariff equivalents. Additionally a future commitment to tariff reduction was undertaken (Chitiga, Kandiero and Ngwenya, 2008).

Whereas agricultural trade had been managed through quantitative controls sanctioned under the Marketing Act in the past, the Marrakech Agreement called for the 'tariffication' of all agricultural goods, and a phased reduction in the tariffs. As elsewhere, the tariffs on agricultural goods have been reduced at a rate faster than required under the Agreement on Agriculture. According to Groenewald (1990), the process of trade liberalisation has been a difficult one with agriculture

proving the most troublesome sector. Agricultural policies in many countries caused local prices to exceed market-determined prices, and disparities have developed between domestic and world prices. The export subsidies employed by developed countries, notably the United State (US) and the EU, have distorted international agricultural commodity markets. The falling of export revenue in many developing countries can be attributed to this protectionist approach by developed countries.

Thus trade liberalisation has exposed the agricultural sector in South Africa to the adverse affects of global competition. Hence the objective of more liberalized trade policy in the agricultural sector: to promote the integration of this sector into the world economy in order to encourage greater access to markets, technology, capital and competition (OECD, 2006) may be jeopardized.

2. Problem statement

Until early in 1998 the marketing of most agricultural products in South Africa was extensively regulated by the state. One of the main characteristics of the control over agricultural marketing was isolation from world market forces (Vink, Kirsten and Tregurtha, 2002). Most products were regulated under the marketing schemes introduced from 1931. In addition, commercial farmers benefited from a wide range of support services from the state in the form of research, direct and indirect subsidies, and easy access to finance and credit at very low interest rates.

Since 1994, the policy changes in South Africa with regard to a deregulation in the agricultural sector have contributed to a dramatic increase in the role of international trade impacting on the sector. The transition to democracy in 1994 allowed South Africa to overcome its international isolation and rejoin the international community. The election of the new government and the adoption of the new constitution brought a new landscape both economically and politically. Trade policy reform in South Africa began to gain momentum in the early 1990s, with the progressive reduction or removal of trade restrictions of various types (Kusi, 2002). South Africa's accession to the WTO increased the pace of trade policy reform in agriculture. In this study,

reform in agriculture refers to substantial reduction in tariffs, domestic support and export subsidies. Liberalization also resulted in significant changes in the level of direct subsidies paid to the farmers, apart from changes in the quantitative and tariff protection producers were afforded (Bahta, 2004). Interest rate subsidies were severely cut as a result of monetary policy reforms which re-oriented financial services to the markets. Direct export subsidies which farmers had previously qualified for under the General Export Incentive Scheme (GEIS) were also discontinued in 1997.

However, the benefits of such market-related trade policy reforms in agriculture have been contested (Rangasamy, 2003). It is important from a trade policy point of view to assess the impact of trade policy reform in order to ensure that the expected benefits have been realized. Trade liberalization with the simultaneous deregulation of agricultural marketing boards has caused fierce competition between large international suppliers and local suppliers in South Africa. Although the government successfully liberalized the sector to increase market access opportunities and improve rules in trade, policies did not fully take into account the impact on the agricultural sector in general.

The importance of the agricultural sector cannot be stressed enough. The sector carries a responsibility to ensure food security to the 47 million plus inhabitants as well as create a basis for economic activity in the rural areas. In the main, the number of jobs created per unit of investment is higher in agriculture compared to other sectors of the economy. This implies that growth in agricultural output overall has a greater impact on employment creation and poverty alleviation. It is now well established in South Africa that improved agricultural development is critical to sustain high level of food security, economic growth and employment creation. In 2006, the agriculture sector contributed more than 2.8 per cent of gross domestic product (GDP), 8.5 per cent of total employment and approximately 4 per cent of total exports (Statistics South Africa, 2007; Department of Trade and Industry, 2007).

Given the importance of agriculture in South Africa, research pertaining to the impact of trade policy reform on the sector is important, especially in the light of the high level of protection in the

export markets (US and EU). The South African government is clearly demonstrating willingness to further liberalize and integrate the economy in the global arena and these conditions create a need to critically evaluate the role of trade policy as regards the agricultural sector. Issues that are important for this study are whether the type of trade policy reforms that have thus far been undertaken, with their emphasis on trade liberalization, provide more or less opportunity than before.

2. Research objectives

Following international trade liberalisation within the context of the WTO, member countries are expected to undertake major reforms to improve market access to commodities previously protected by import restrictions, quotas and other discriminatory practices. The primary objective of this study is therefore to assess the impact of trade policy reform on the agricultural sector in South Africa. In order to meet the primary objective of this study, several secondary objectives will be investigated. These are as follows:

- Present in historical perspective the development of the South African agricultural sector
- Provide an overview of the present contribution of the agricultural sector in South Africa's economy
- Examine the extent to which the sector has gained or lost from the reform
- Where possible, provide recommendations to policy makers to make informed strategic decisions that can form part of government and industry's plans of action.

4. Primary research question

Over the past 15 years, South African agriculture has undergone key reforms in trade liberalization and market deregulation. This structural transformation paved the way to entering global value chains and created space for increased private sector participation in the agricultural trade and marketing economy not previously possible. It is within this context that the primary research question will try to address the implication of trade policy reform, specifically in terms of

the performance of agricultural exports since 1990. This primary research question is important in determine whether the type of trade policy reforms that have thus far been undertaken with emphasizes on trade liberalisation, provide more or less opportunity than before.

5. The main hypotheses of the study

As already mentioned, trade policy reform in South Africa began to gain momentum in the early 1990s, with the progressive reduction or removal of trade restrictions and accession to the WTO. This study will examine the impact of trade policy reform on agricultural exports in South Africa. The hypothesis of this study is to investigate if agricultural trade liberalization is economically beneficial.

6. Research methodology

The methodology and the analytical basis for the research are drawn largely from the literature on trade policy reform in South Africa. The review of the trade theory and examination of the literature on trade liberalization underpin the analysis on the impact of trade policy reform on the agricultural sector in South Africa. Descriptive statistics and Revealed Comparative Advantage will be used to derive the results in this study. The detailed methods and analytical techniques employed in the study will be fully discussed in Chapter Five and their limitations will be clearly spelled out. Graphic illustrations and tables will be used to present the results obtained in the study.

7. Research framework

Chapter Two: Literature review

The literature review is divided into three sections. The first section focuses on more recent historical perspective of the South African agricultural sector. The section also highlights the importance of the sector in the economy, its contribution to employment, Gross Domestic Product

(GDP) and trade performance since the 1990s. Section B of the literature review focuses on the role played by trade theories in providing the rationale for trade policy reform. The section will also briefly discuss how Bretton Woods Institutions have impacted on the move to free trade. Section C of the literature review will focus on trade policy debate in South Africa before 1990. Moreover trade relations between South Africa and its main trading partners.

Chapter Three: Research methodology

This section will briefly outline different methodologies implemented in assessing the impact of trade policy reform on different sectors. Revealed comparative advantage (RCA) methodology is used to analyze the impact of trade liberalization on the South African agricultural sector.

Chapter Four: Analysis and results,

The analysis and interpretation of the research results.

Chapter Five: conclusion and policy recommendations

Chapter 2

Literature Review

The literature review is divided into three sections. The first section focuses on more recent historical perspective of the South African agricultural sector. The section also highlight the importance of the sector in the economy, its contribution to employment, Gross Domestic Product (GDP) and trade performance since the 1990s. Section B of the literature review focuses on the role played by trade theories in providing the rationale for trade policy reform. The section will also briefly discuss how Bretton Woods Institutions have impacted on the move to free trade. Section C of the literature review will focus on trade policy debate in South Africa before 1990. Moreover trade relations between South Africa and its main trading partners.

Section A South African agriculture in perspective

2.2.1 (a) Composition of the agricultural sector

The agricultural sector in South Africa has three sub-sectors: agriculture, forestry and fishing. The agriculture sub-sector comprises field crops, horticulture and livestock farming. The performance of these sub-sectors has a pivotal role in the determination of food security, employment and the overall performance of the economy. The agricultural sector in South Africa contributes to the economy in terms of growth, fiscal revenue and expenditures, and terms of foreign exchange earnings (Letsoalo, 2005). With the agricultural sector becoming more modernized and capital intensive, more labour is released to other sectors of the economy i.e. manufacturing.

The important spill- over of the agricultural sector into the South Africa economy is the agro-processing in the form of food. The agro-processing industry is to a large extent dependent on the agricultural sector for many of its inputs. The food industry in South Africa is one of the most strategic and significant economic sectors (Van Rooyen, Groenewald, Nqangweni and Fenyes, 1998). The consumption of food products constitutes more than 20 per cent of the country's

expenditure on GDP and contributes more than 10 per cent to South Africa's GDP. The food sector in South Africa contributes approximately 16.4 per cent of total manufacturing sales, making it the third largest manufacturing sector in South Africa (Department of Trade and Industry, 2007).

2.2.1 (b) The structure of agricultural production in South Africa

The Republic of South Africa covers an area of 1,220,088 square kilometres. Approximately 84 per cent of the total area is used for agriculture and forestry, of which approximately 80 per cent consists of natural veld, which varies from semi-desert vegetation to the highly productive grasslands of the high rainfall areas (Bahta, 2004). The gross value of animal products, field crops and horticultural products contributed 47, 5, 28, 2 and 24, 2 per cent, respectively, to the total gross value of agricultural production (Figure 1). The poultry meat industry made the largest contribution with 14, 9 per cent, followed by maize with 11, 9 per cent and cattle and calves slaughtered with 11, 6 per cent.

The most important field crops grown in South Africa are maize, sugar, sunflower and wheat. South Africa is a net exporter of maize and sugar and a net importer of wheat. Today, South Africa is a major producer of grain crops, vegetables, sugar, flowers, wood and various types of fruits. The farming industry encompasses almost every type of animal, crop, fruit and vegetable production suited to weather conditions ranging from temperate to subtropical climate.

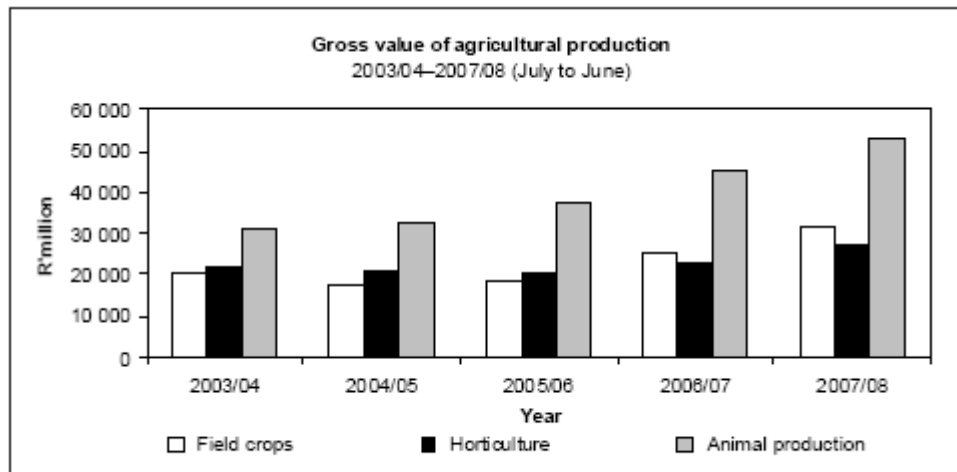


Figure 2.1: Total agricultural production in SA

National Department of Agriculture, 2008

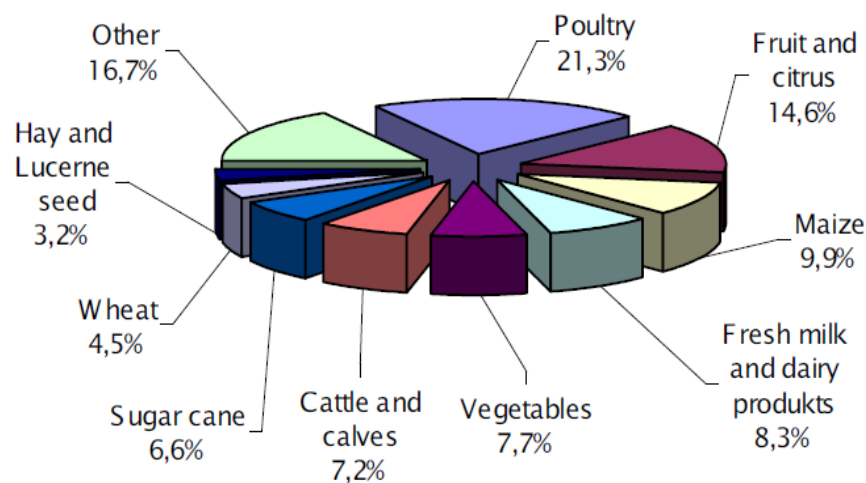


Figure 2.2: Agricultural production by product in SA

National Department of Agriculture, 2007

2.2.1 (c) Weather conditions and agricultural production in South Africa

Because climatic conditions have such a major impact on agriculture, it is important to give a brief overview of the weather conditions in South Africa. One of the major factors influencing the

performance of agriculture in South Africa is undoubtedly climatic variations, and more specifically droughts and global warming (Aliber, Jooste and Kloppers, 2007). History has shown that the whole of southern Africa is prone to severe droughts over extended periods. The beginning of the 1980s saw agriculture affected by natural disasters (Kirsten, Van Zyl and Van Rooyen, 2000).

The middle part of the 1980s had the driest and warmest seasons ever experienced in South Africa, though some areas received high rainfall. Drought conditions in South Africa continued periodically for the rest of the decade. Towards the end of 1989 several crops, particularly tobacco, wheat and cherries, suffered damage worth millions of rand as a result of hail storms. South Africa experienced substantial variations in climate during the 1980s.

The same situation occurred in the middle of 1990 where South Africa experienced severe droughts as results of cyclone El Niño. The situation was worse at the beginning of 2000 where the agricultural sector experience severe floods that destroyed many fields crops. Droughts also occurred in 2004 and 2005 which resulted in loss of production and this had a serious negative effect on agricultural exports in that period. The year 2007 in South Africa was declared a drought year with varying temperatures.

Wilhite and Glantz (1985) state that drought-induced economic losses include those resulting from impaired production of livestock products, crops, timber, and fish. They furthermore link droughts to lack of power for industrial use, decline in agriculture-dependant industries, decreased agricultural employment, strain on financial institutions, loss of revenue to governments, and reduced navigability of waterways.

With regard to global warming, statistical evidence suggests that South Africa has been getting hotter over the past four decades, with average temperatures increasing by 0.13 degrees per decade between 1963 and 2006 (Aliber, Jooste and Kloppers, 2007). The country's average rainfall is estimated at 450 mm per year, which is below the world average of 860 mm, while evaporation is high, reducing the underground water.

These changes in temperature, together with the already scarce water resources, are expected to have a significant effect on all sectors of the economy, particularly agriculture. The agricultural sector is expected to be most affected by these changes because it is highly dependent on climate variables such as temperature.

The big question is what are the economic implications of poor weather conditions on agricultural sector? Weather events affect production of commodities. Hence, different weather events in different places in the world will affect production differently across the world. The size of production and the way that it is affected by weather events will determine the impact on global commodity prices, e.g. the US is a major producer of maize and if production is affected negatively by weather events, it will be reflected in the world price.

Drought is one of the variables that affect the aggregate supply of goods. During a drought season, supply shrinks resulting to lesser exports, and higher food prices as was the case in 2007 in South Africa. This obviously affects trade (lesser exports with a high probability of a rise in imports), thereby bringing pressure to bear on the currency (depreciation) and inflation.

This resulted in government paying out large amounts to farmers in the form of drought aid (Kirsten, Van Zyl & Van Rooyen, 2000). This scheme included interest subsidies, production loans and staggering debt repayments for periods of up to 10 years.

2.2.2 Main features of the agricultural sector in South Africa

The more recent characteristics of the South African agricultural economy are its record of surplus production of food and fibre, its increasing flexibility in response to policy changes, agriculture's key role in development and the continuing skewed distribution of income and wealth in the sector (Van Rooyen, Vink and Malats, 1992).

The principal causes of this inequality in agriculture are the various forms of discrimination, which have led to an extremely skewed distribution of access to resources, markets and power. The net

effect of this discrimination has been that African farmers are at present confined to farming in the homelands on 17 million ha, which constitutes 13 per cent of the total land (Van Zyl, Van Rooyen, Kirsten and Schalkwyk, 2000).

The Natives' Land Act of 1913 was the main cause of inequality in South Africa. The Act which regulated the acquisition of land by Africans created a system of land tenure that deprived the majority of South Africa's inhabitants of the right to own land, which had major socio-economic repercussions (Van Rooyen, Vink & Malats, 1992). The Act remained a cornerstone of past governments until in the 1990s when it was replaced by the current policy of land restitution.

This situation has created dualism in the South Africa agricultural economy, comprising a well-developed commercial sector and a predominantly subsistence-oriented sector in the rural areas. The dualistic nature of the South African economy is also manifest to a large extent in the agricultural sector, where ownership and access to land was previously reserved and is still mainly controlled today by white farmers (Viljoen, 2005). As a result, black farmers were prevented from sharing in the profits derived from a thriving agricultural sector.

This dualism has also created a polarization among participants in the sector and has resulted in an approach to policymaking that focuses on two agricultures rather than a single unified sector (National Department of Agriculture, 2005 (a)). Towards the end of the 1970s and the beginning of the 1980s, several policy processes have taken place in the agricultural sector. Some of these actions had positive results while others had unintended negative consequences. The main policy shifts in this regard included (Kirsten, Van Zyl and Van Rooyen, 2000):

- Deregulation of the marketing of agricultural products
- Changes in the fiscal treatment of agriculture
- A reduction in direct budgetary expenditure on the sector
- Land reform, consisting of the restitution, redistribution and tenure reform
- Trade policy reform
- Institutional reform influencing the governance of agriculture

- The application of labour legislation to the agricultural sector.

All these policy changes will be discussed in full detail in the next section.

2.3 South African agricultural policy themes

2.3.1 Agricultural policy in the 1970s/80s

By the 1970s and 1980s much of the agricultural policy represented a continuation of the earlier protectionist policies of the century. The agricultural sector in South Africa was extensively regulated by state control. One of the main characteristics of the control over agricultural marketing was isolation from world market forces (Vink, Kirsten and Tregurtha, 2002). Agricultural products were regulated under the marketing schemes introduced in 1931. In addition, commercial farmers benefited from a wide range of support services from the state in the form of research, direct and indirect subsidies, and easy access to finance and credit at very low interest rates.

One of the major aims of regulating the agricultural sector in South Africa during the 1970s/80s was self-sufficiency in respect of food, fibre and beverages, and the supply of raw materials to local farmers at reasonable prices. The 1984 White Paper on Agricultural Policy states this forthrightly: 'For any country, the provision of sufficient food for its people is a vital priority and for this reason it is regarded as one of the primary objectives of agricultural policy in South Africa'.

Since the mid 1920s until mid 1990s farmers were protected from foreign competition, received a variety of subsidies, and had access to the latest and most productive mechanical and biological technology through an impressive research and extension network. Through these measures South Africa maintained its position as a surplus agricultural producer and achieved its aim of self-sufficiency (Kirsten, Van Zyl and Van Rooyen, 2000).

Given the scenario above, the deregulation of the sector was not a surprise. The deregulation of the agricultural sector was evident in the 1970s. According to Vink (1993), the deregulation and liberalization of the agricultural sector had their origins in the financial sector rather than agricultural sector itself, following the De Kock Commission Report. Such financial support through lower interest rates was causing a fiscal drain and surely this was another motivating factor for deregulation. Towards the end of the 1970s and early 1980s South Africa's macroeconomic policy changed from non-market to market-oriented control (Viljoen, 2005). Prior to this there had already been a shift away from interest rate controls, liquid assets and cash reserve requirements as the main policy instruments.

The immediate effect on agriculture came from changes in the external value of the currency and in the cost of borrowing. The liberalization of the monetary policy by South African Reserve Bank (SARB) following De Kock Report led to the removal of subsidies on the interest rates, and this led to subsequent decline in capital acquisition (Kirsten, Van Zyl and Van Rooyen, 2000). In the past the interest rate on capital was subsidised to enable farmers to substitute capital for labour (Letsoalo, 2005). These changes led to farmers becoming exposed to market forces.

The second period of structural change in South African agriculture started early in the 1980s, and witnessed a major change in farm policy (Kirsten, Van Zyl and Van Rooyen, 2000). Important shifts in agricultural policy that took place during the 1980s (Brand, Christodoulou, Van Rooyen & Vink, 1992; Vink, 1993) include the following:

- Decline in budget allocations to white farmers by about 50 per cent between 1987 and 1993.
- Tax treatment of agriculture changed
- A shift away from settlement schemes and large-scale projects as the major instruments of agricultural development in the developing areas, in favour of an approach based on the provision of farmer support services
- Scrapping of the Land Acts and related legislation that enforced the racially-based segregation of access to land
- Initiation of removal of quantitative protection and introduction of tariffs for farm commodities as

a result of pressures arising from the Uruguay Round of the GATT.

2.3.2 Agricultural policy development since 1990

During the 1980s South Africa witnessed a number of political changes. This resulted in some political and economic instability. The agricultural sector itself was not in any way excluded from the ups and downs of change which took place during the 1980s and into the 1990s. The transition to democracy in 1994 allowed South Africa to overcome its international isolation and rejoined the international community. The election of the new government and the adoption of the new constitution brought a new landscape both economically and politically. This period was characterized by a reversal of the policies of the previous two decades, starting with increased liberalization of the agricultural sector and then removal of racial barriers between black and white agriculture (Vink and Kirsten, 2000). The following policy development occurred in agricultural sector since 1994:

(a) Deregulation of marketing policy

Until early in 1998 the marketing of most agricultural products in South Africa was extensively regulated by state. The Marketing of Agricultural Products Act (Act 47 of 1996) set up the National Agricultural Marketing Council (NAMC) with its main objectives to increase market access, promote marketing efficiency and optimize export earnings (Vink and Kirsten, 2003).

(b) Trade policy reforms

Under the Marrakech agreement, to which South Africa became a signatory, quantitative trade restrictions were replaced by tariffs, tariffs were downscaled, and market access requirements, such as reduction of support to agriculture and greater emphasis on sanitary and phytosanitary measures, became effective (Jooste, Van Schalkwyk and Groenewald, 2003).

(c) Land reform policy

South Africa inherited one of the most racially skewed land distributions in the world — whites owned 87 per cent of agricultural land, while blacks owned only 13 per cent. The main aim of the land reform policy was to redress the past imbalances in terms of ownership and access into mainstream commercial farming. The policy consists of three programmes, land restitution, land redistribution and tenure reform.

(d) Labour market policy

Until the 1980s, farm workers had little legal protection with regard to rights to organize and to basic conditions of employment (Vink and Kirsten, 2003). The Labour Relations Act (1997), the Skills Development Act (1998) and the Employment Equity Act (1998) now also apply to the agricultural sector.

All these changes in the agricultural sector have exposed the limited capacity of many farmers to adjust to policy and market changes. Greater exposure to international competition and reforms in the domestic support have affected the sector, causing many farmers to leave the industry. In this much more competitive and open economy, small-farming systems are also failing or finding it difficult to become part of mainstream agriculture.

2.4 The sector challenges

Over the past decades in South Africa, it can be concluded that significant development over a wide range of issues took place. These make it possible to identify the main problems of and challenges to the agricultural sector. These problems are manifested in a number of sub-problems, each providing its own challenges. The most critical challenges (Department of Agriculture, 2005) are:

(a) Increasing global competition

Trade liberalization, with the simultaneous marketing deregulation, has caused fierce competition between large international suppliers and local suppliers, and has brought a change in the balance of power between increasingly consolidated buyers and the increasingly fragmented position of agricultural producers. The present industrial-oriented tariff policy does not provide sufficient policy support to long-term stability and development of the agricultural sector. For example, on the one hand there is a strong land reform drive, with efforts to make black farmers part of the mainstream agricultural economy, but on the other hand such initiatives are hampered by allowing the importation of subsidized products without protection levels that adequately offset the world market distortion; or adjusting protection to such levels that it renders production (which may not be easily substituted) unprofitable. The nature of agricultural markets is vastly different from that of industrial markets.

Indications are that the South African agricultural sector is responding positively to the challenges of increased competition. However, the progress remains partial, and there is evidence that some subsectors of agriculture and value-adding activities are uncompetitive in the local and international market. This is caused by factors such as high input costs combined with low productivity, suboptimal business strategies and inefficiencies, and unfair trade practices.

(b) Skewed participation

Given the legacy of exclusion and discrimination, the challenge is now to improve the participation of emerging farmers in all aspects of the sector. The challenge is to identify programmes to encourage new entrants: black and white; young and old; men and women; small and medium-scale enterprises, to enter the sector.

(c) Rapid increase in urbanization

South Africa is experiencing a relatively high rate of urbanization, which is due to a so-called rural push and a low industrial pull for rural labour. The effects of these can be reversed or slowed

with the use of appropriate policies that increase agricultural productivity and growth. South Africa has high levels of rural poverty, i.e. up to 60 per cent of the poor reside in rural areas. The other issue related to urbanization is rapid increase in the demand for food, which requires the sector to increase production.

These challenges need to be addressed with great urgency to enable the agricultural sector in South Africa to generate jobs and contribute to a better life for all. It remain to be seen whether the type of trade policy reforms that have thus far been undertaken, with their emphasis on trade liberalization, provides more or less opportunity for the sector to address these challenges.

2.5 Economic importance of the agricultural sector in South Africa

The importance of the agricultural sector cannot be stressed enough. It is now well established in South Africa that improved agricultural development is critical to sustain a high level of food security, economic growth and employment creation. Although this not often realised, agriculture makes a major contribution to the South African economy in general. It has upstream or backward linkages on the supply side and downstream or forward linkages on the manufacturing side (Poonyth, Hassan, Kirsten and Calcaterral, 2001).

The primary agricultural sector's strong indirect role in the economy is a function of backward and forward linkages to other sectors. Its purchase of goods such as fertilizers, chemicals and implements forms backward linkages with the manufacturing sector, while forward linkages are formed through the supply of raw materials to industry in the food value chain. About 70 per cent of agricultural output is used as intermediate products. These linkages augment the contribution to the GDP to around 14 per cent.

According to conventional views, there are positive links between agriculture and economic development (Poonyth, Hassanl, Kirstenl and Calcaterral, 2001). The agricultural sector affects the economic growth process, as follows:

- Agriculture provides food and raw material for the nation and has an impact on national health and food security.

- Agriculture stimulates local non-agricultural activities, contributes to employment creation and growth, and in addition reduces migration to towns.
- It increases the supply of food and fibre for domestic consumption.
- It releases excess labour to the industrial sector.
- It increases domestic saving and therefore increases rural purchasing power.
- The agricultural sector generates foreign exchange through exports, or it permits saving of foreign exchange through import substitution. These foreign exchanges create extra capital reserve for a timely import of manufacturing production technology, and improved management and marketing.

2.5.1 Agricultural contribution to GDP

Table 2.1: Share of the sectors in the GDP in South Africa

	Agriculture, forestry and fishing	Mining and quarrying	Manufacturing	Services
1980	6.1	20.4	21.4	52.1
1985	5.1	14.0	21.4	59.5
1990	4.6	9.0	23.3	63.1
1995	3.9	7.0	21.2	67.9
1999	3.5	7.1	18.2	70.9
2000	3.3	7.6	19.0	70.1
2001	3.5	8.3	19.1	69.1
2002	4.2	8.7	19.8	67.3
2003	3.6	7.4	19.4	69.6
2004	3.2	7.1	19.0	70.1
2005	2.7	7.5	18.5	71.3
2006	2.9	8.2	18.3	70.6
2007	3.2	8.4	18.4	73.6

Source: National Department of Agriculture, 2008

The table shows the shares of the different sectors in the GDP between 1980 and 2007. The relative contribution of the agricultural sector to the South African economy has been in the decline between 1980 and 2007. The share of the agricultural sector to GDP has declined from 6.1 in 1980 to 3.2 in 2007. This decline can be attributed to low level of productivity, drought in the early part of 2000 and to some extent trade liberalization. While the contribution by the mining sector has also declined, the manufacturing and services sectors have maintained their share of GDP. The largest sector of the South African economy is the services sector which accounted for 70 per cent of GDP in 2007.

2.5.2 Agricultural capital formation and employment in South Africa

Table 2.2: Agricultural capital formation and employment in South Africa

	Gross capital formation agriculture (Millions)	Total farm employment (Millions)	Capital labour ratio
1980	903.2	1.24	728
1990	1770.6	1.18	1501
1995	3780.1	0.89	4247
1996	4589.8	0.92	5016
2002	6606.5	0.94	7021
2005	6661.9	0.628	10608

Source: National Department of Agriculture, 2007

Agriculture accounts for about 8 per cent of formal employment. The fully commercial and developing agricultural sectors provide employment (including seasonal and contract employment) to around 2 million farm workers, albeit often at low incomes. Some 3 to 4 million households derive some of their livelihood from agriculture. While farming is an important direct source of employment in the economy, these figures underestimate the employment effects of agriculture's linkages with the rest of the economy.

Table 4 shows the employment and gross capital formation in South Africa between 1980 and 2005. It can be seen from the table that gross capital formation increased from R903 millions in 1980 to more than R6661 million in 2005. During the same period employment in agriculture declined from 1.24 million jobs in 1980 to 62 8000 in 2005. The ratio of capital labour indicates the value of capital (in millions) for every million of farm employees (Letsoalo, 2005). There was 728 value of capital for every million people employed in the agricultural sector in 1980. This number increased to more than 10 608 value of capital for every employee in 2005.

Table 2.3: The bias in technological change in South African agriculture

Year	Capital	Labour	Land	Intermediate goods
1980	0.1923	-0.0167	-0.208	-0.1503
1984	0.1856	-0.0149	-0.0191	-0.1690
1986	0.1993	-0.0143	-0.0188	-0.1622
1988	0.2134	-0.0139	-0.0181	-0.1587
1990	0.1863	-0.0138	-0.0197	-0.1662
1992	0.1797	-0.0139	-0.0206	-0.1756
1994	0.2174	-0.0137	-0.0229	-0.1454
1996	0.2117	-0.0153	-0.0255	-0.1372
1998	0.2060	-0.0170	-0.0268	-0.1318
1970-1998	0.1930	-0.0139	-0.227	-0.1598

Source: Van Zyl and Fenyes, 2000

The table demonstrates the levels of capital and labour intensity in the agricultural sector from 1980 to 1998. The analyses of technological changes indicate that the use of capital has been found positive between 1980 to 1998 while the bias in land and intermediate goods for that period was negative (Van Zyl and Fenyes, 1987). It was not a surprise to see commercial farmers in South Africa adopting more capital-intensive methods of production. The reason behind this is that in the past the interest rate on capital was subsidized to enable South African farmers to substitute capital for labour.

The debates surrounding this capital-intensive agricultural sector in South African can also be attributed to the deregulation of financial market in the early 1980s, which resulted in positive real rates of interest (Van Zyl, Vink and Kirsten, 2000). The start of negative real rates of interest in the economy during 1988 led to increase in the bias toward capital intensity as capital became relatively cheap. The bias towards capital intensity increased again in the early 1990s when interest rates were targeted to agriculture as part of the drought assistance scheme (Letsoalo, 2005).

2.6 Agricultural trade in South Africa

The emphasis on trade liberalization following South Africa's political reforms in the early 1990s resulted in the South African economy becoming more integrated into the global economy (Daya, 2006). The inclusion of an agreement on agriculture within the WTO framework also facilitated greater trade liberalization in agricultural products. Apart from South Africa's multilateral trade commitments, it is also currently a signatory to various bilateral trade agreements. Most notable of these are the Southern African Customs Union (SACU), SADC and the EU-SA TDCA, and also benefiting from the United States AGOA. These special trading arrangements will probably influence the composition and pattern of agricultural trade in South Africa. The nature and evolution of these special trade relationships will be expanded on in Chapter Three. It should be noted that the export and import figures frequently relate to the customs union area of Botswana, Lesotho, Namibia and Swaziland (BLNS).

2.6.1 South African agricultural exports and the exchange rate

Exchange rates across the world have fluctuated widely, particularly after the collapse of the Bretton Woods system of fixed exchange rates (Todani and Munyama, 2005). Since then, there has been extensive debate about the impact of exchange rate volatility on international trade. The common belief held by most economists is that greater exchange rate volatility generates uncertainty, thereby increasing the level of riskiness of trading activity and this will eventually depress trade. South Africa has not escaped the debate, having witnessed consistent

depreciation of her exchange rate to the lowest levels between 1998 and 2002 (Figure 2.3). Growth in exports since the 1990s was partly the result of traditional exports supported by the devaluation of the rand against the dollar. However, after 2002, the rand strongly appreciated against the dollar. Although an initial correction in declining exports occurred in 2003 and 2004, which was also overlapping with drought years, exports continued on a positive growth path in value terms until 2006.

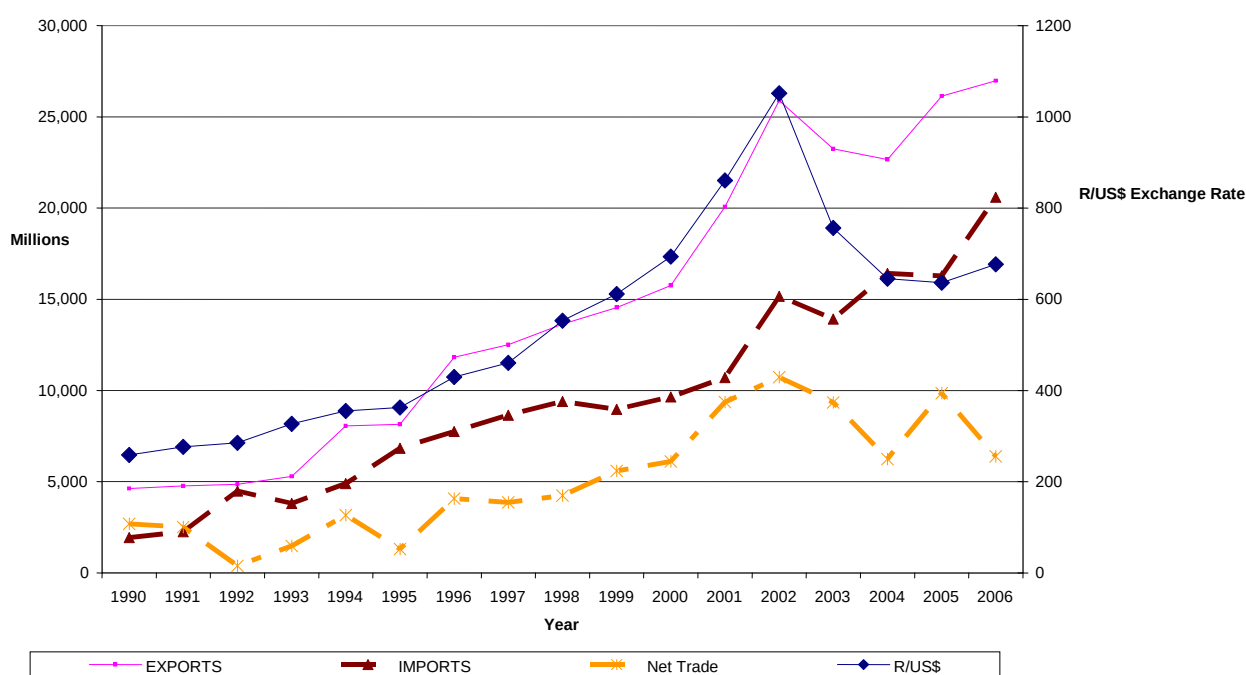


Figure 2.3: Agricultural trade and the exchange rate, 1990- 2007

2.6.3 Agricultural export destination

2.6.3.1 South African agricultural exports according to markets

The following figure displays the leading agricultural product categories as exported by South Africa from the period 1997 to 2007. The major markets for South Africa's agricultural product

exports are displayed in Figures 2.4, 2.5 and 2.6. The United Kingdom topped the list with a 14 per cent share followed by the Netherlands and Zimbabwe with shares of 11 per cent and 7 per cent respectively (Figure 2.6).

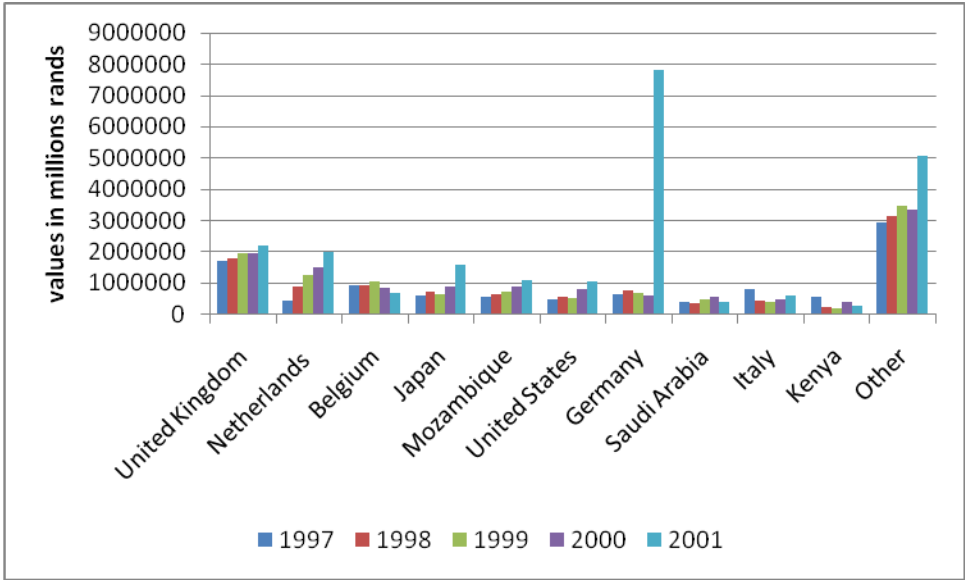


Figure 2.4: Main export destination 1997-2001

Source: ITC COMTRADE statistics, 2009

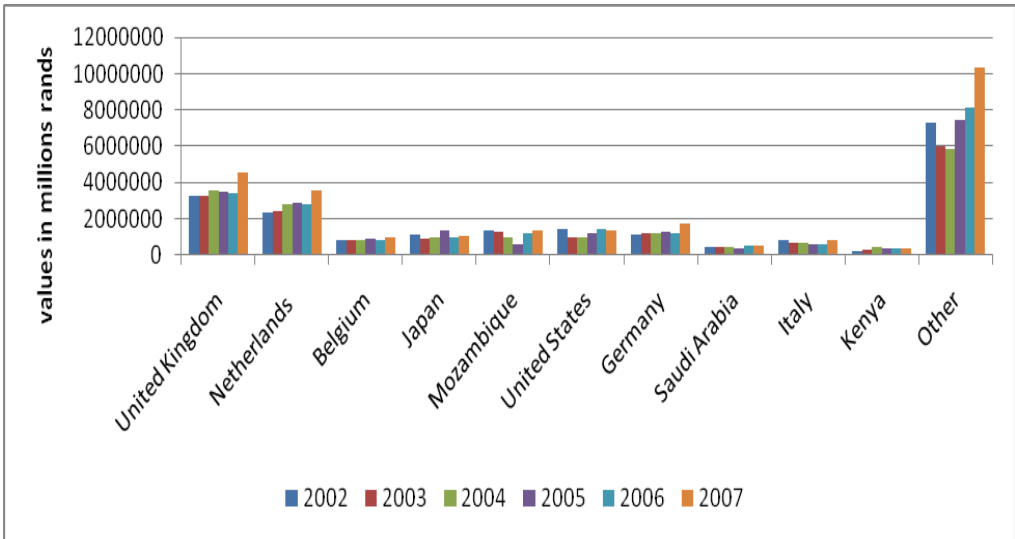


Figure2.5: Main export destination 2002-2007

Source: ITC COMTRADE statistics, 2009

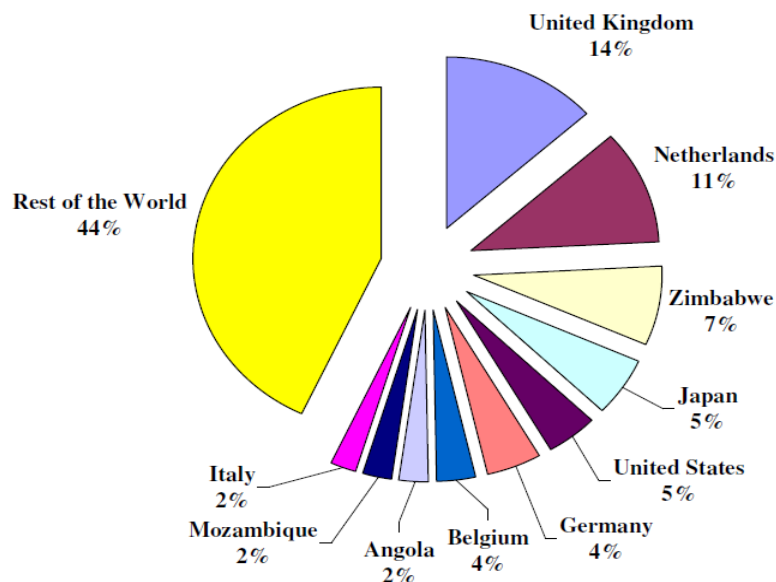


Figure 2.6: Percentage share of South African exports of agricultural products: Major markets 2008

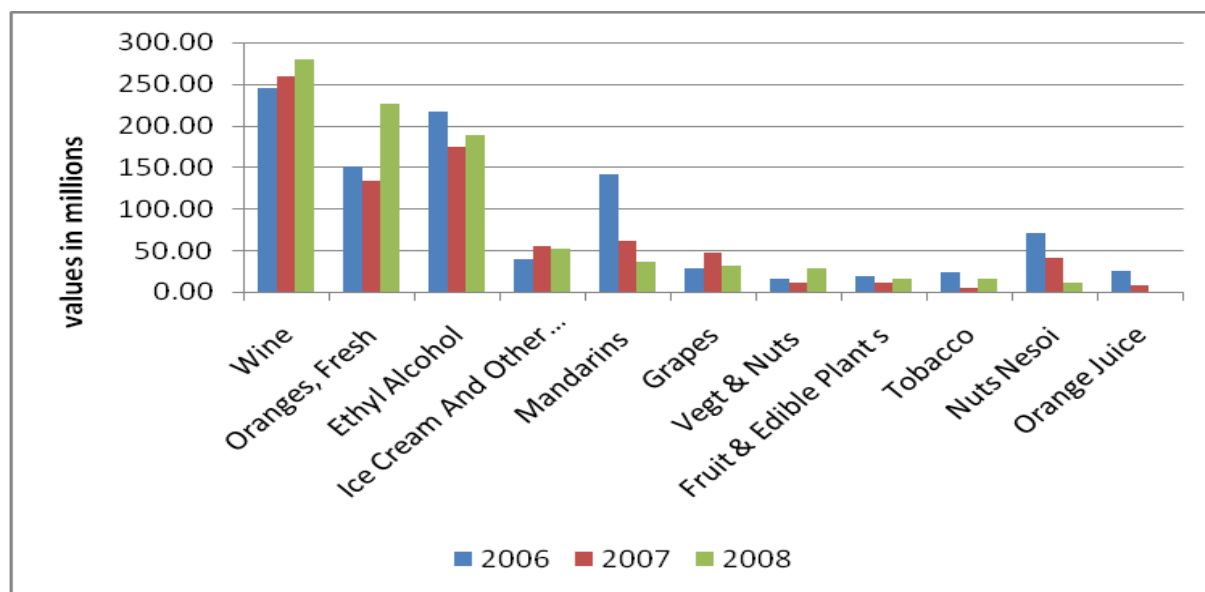
Source: ITC COMTRADE statistics, 2009

2.6.4 South African exports under special trading arrangements

2.6.4.1 South Africa agricultural exports under African Growth and Opportunity Act (AGOA)

South Africa is one of the United States of America's foremost trading partners in Africa. Total trade between the two countries has been increasing steadily in recent years. US exports to South Africa far exceed US exports to any other country in SSA, emphasising the importance of access to the South African market. The amount of exports falling under AGOA is over \$1.7 billion in 2007, although this figure includes exports under the General System of Preference (GSP) programme, of which AGOA is essentially an extension. Figure 2.7 indicates the top 10 agricultural exports under AGOA. It can be seen from the figure that South Africa export lots of wine, oranges and ethyl alcohol to the US under this programme. It can also be seen from the

figure that South Africa agricultural exports are highly diversified. Figure 2.8 shows AGOA exports as a total percentage of all agricultural products in 2008. As much as 71 per cent of South African agricultural exports to US are AGOA exports, with non-AGOA exports occupying only 29 per cent (Figure 2.8).



Figure

2.7: South African main agricultural exports under AGOA 2006-2008 (millions of rands).

ITC COMTRADE statistics, 2009

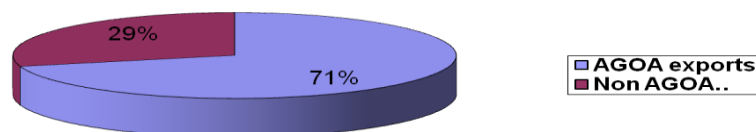


Figure 2.8: South African AGOA agricultural exports as percentage share of total agricultural exports in 2008

Source: ITC COMTRADE statistics, 2009

2.6.4.2 South African agricultural exports under Trade and Development Co-operation Agreement (TDCA)

South Africa inherited a trading regime for Europe characterised by the apartheid era. As a result, South African exports to the EU faced high levels of discrimination, often much higher than for wealthier countries (Bahta, 2005). Against this backdrop, South Africa petitioned the EU for preferential market access as similar as possible to that offered to the African, Caribbean and Pacific (ACP) countries in terms of the Lomé Convention. The impact of the TDCA on agricultural trade can be derived from Figures 2.9 and 2.10. Since the trade provisions of the TDCA have been applied, SA exports to the EU have risen by more than 60 per cent.

Figures 2.9 and 2.10 show the major exports to the EU from South Africa. These exports are dominated by fruits and wines, which accounted for 41 per cent and 26 per cent respectively, of total agricultural exports to the EU since the implementation of TDCA. The United Kingdom is the main South African trading partners in the EU, which imports a lot of fresh fruits and vegetables. Other trading partners are Germany, France, the Netherlands and Belgium.

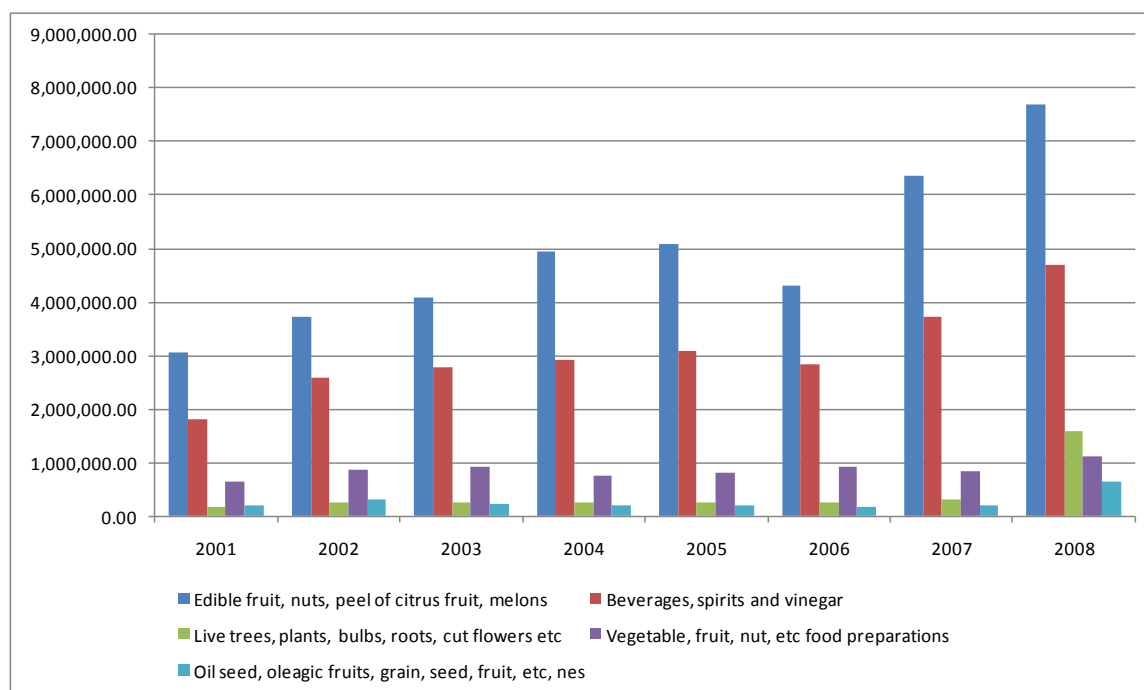


Figure 2.9: South Africa's main agricultural exports to EU 2001-2008 (Rands millions)

Source: ITC COMTRADE statistics, 2009

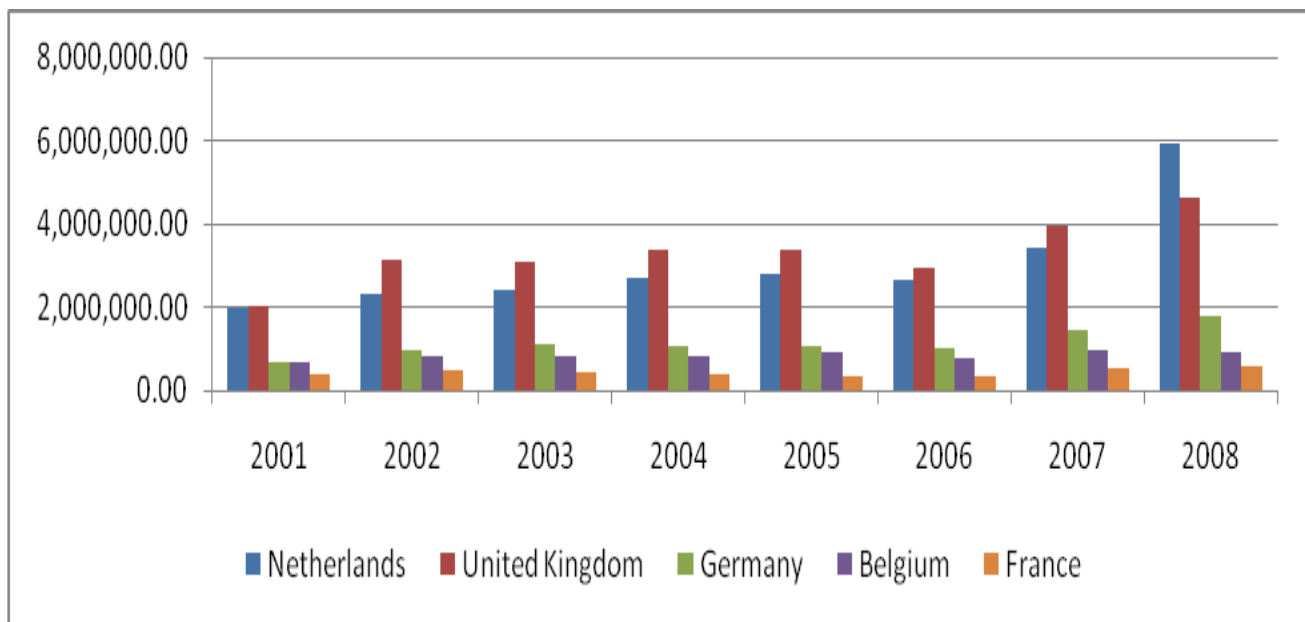


Figure 2.10: EU main importers of South African agricultural products 2001-2008 (Rands millions) Source: ITC COMTRADE statistics, 2009

2.7 Summary and conclusions

This section briefly describes South African agriculture and its policies since 1970. It is evident from this discussion that South Africa has considerably changed its agricultural policies since the 1970s. South African agriculture has been characterized by a history of direct governmental intervention. This has been manifested in commodity policy, factor policy and technology policy. These components of agricultural policy were effected through the Agricultural Marketing Act of 1937, the Land Acts of 1913 and other policy intervention by the state. The government interventionist programme reached a high point around 1980 with a variety of laws, statutes and regulations controlling access to, and the use of, natural resources, finance, capital and labour, as well as marketing of agricultural products.

The transition to democracy in 1994 allowed South Africa to overcome its international isolation and it rejoined the international community. The election of the new government and the adoption of the new constitution brought a new landscape both economically and politically. This period

was characterized by a reversal of the policies of the previous two decades, starting with increased liberalization of the agricultural sector and then removal of racial barriers between black and white agriculture. The deregulation of the agricultural sector was evident in the 1970s. Towards the end of the 1970s and early 1980s South Africa's agricultural policy went through a series of transformations and the process was completed in 1997 with the removal of marketing boards.

This resulted in the dualistic nature of the sector in South Africa consisting of a large number of underdeveloped role players and a small number of very advanced sector role players often referred to as the commercial sector.

On the one hand, an open trading environment has opened opportunities and challenges for the agricultural sector in South Africa. The sector rapidly moved from statutory intervention and support of agriculture prior to the mid nineties to deregulation and liberalization. The participation in global trade agreements reduced existing distortions to exporters, such as indirect export subsidies, electricity and transport rebates, export finance and credit guarantees and marketing allowances. By 1997, all controls had effectively been cut adrift, and with the closing of agricultural Control Boards, there was a phasing out of most import and export controls, elimination of subsidies, and conversion of these to tariff equivalents. These resulted in an increase in agricultural trade in the early 1990s because of the response to a rapidly changing economic policy environment and globalization. Both imports and exports of agricultural products have increased rapidly since 1990. Exports are spread across the top export destinations, while Africa itself offers a fast-growing and largely untapped market due to the high rate of urbanization. However, the sector is still facing a number of challenges. Amongst them are the following:

- (a) Constraint in global competition
- (b) Dual nature of the sector
- (c) Population growth
- (d) High level of protection in industrialised countries

Section B: Trade theory and its implications for trade policy

2.8 Introduction

Economists traditionally use different models to explain the economic behaviour of individuals and countries, which in most cases have been simplified in order to make such models manageable. This chapter will examine trade theories and provide an overview. However, there will be an emphasis and keen examination of comparative advantage, as well as the assumptions inherent in conventional trade theory with its focus on liberalisation.

The chapter will start by giving a brief explanation of the historical importance of agriculture in the exports of developing countries. This will be followed by the discussion of the role played by trade theories in providing the rationale for trade policy reform. A thorough understanding of trade theories will also provide a context within which to assess the effects of trade liberalisation on the South African agricultural sector. The chapter will also briefly discuss how Bretton Woods Institutions have impacted on the move to free trade.

2.8.1 The historical importance of agriculture in the exports of developing countries

Before analysing international trade theories in detail, it is important to give a brief overview of the historical importance of agriculture in the exports of developing countries, and whether the theory of comparative advantage has had any substance in terms of the global trading environment.

Agriculture has long been a dominant sector in the flow of trade in developing countries. In many developing countries, between 1960 and the early part of 1980, the agricultural sector accounted for about 40 per cent of the GDP (gross domestic product) and over 70 per cent of employment (United Nation Commission for Africa, 2008: 115).

International trade in agricultural products has expanded more rapidly than global agricultural GDP, although at lower rates than for overall trade in goods and services and overall GDP. As the global economy, including agriculture, is integrating rapidly through trade, exports of

developing countries are becoming increasingly diversified, so that these countries are less dependent on agricultural exports than they were in the past (Food & Agriculture Organisation, 2005:12).

2.8.2 Changing patterns of agricultural trade

The past four decades have also seen major changes in geographical patterns of agricultural trade. The developing countries have seen their share of world agricultural exports decline from almost 65 per cent to around 32 per cent in the early 1990s before rebounding to around 38 per cent between 1999 and 2008 (Table 3.1). Over this same time period, the share of global agricultural imports purchased by developing countries has increased from less than 20 percent to around 38 percent (Table 3.1).

Table 2.4: Percentage share of agricultural exports in total exports of goods and service

Year	Exports	Imports	Share of agriculture in
1968-78	65.5	20	31.9
1979-88	43.4	37.5	29.6
1989-98	32.6	30.8	24.7
1999-2008	38	38.7	19.8

FAO and World Bank, 2009

It can be seen from table 3.2 below that the role of agricultural trade in the overall trade patterns has changed dramatically in developing countries. The developing countries have seen a major decline in the share of agricultural exports compared to manufacturing exports, together with a slower decline in the share of agriculture in their total imports. This pattern was experienced during much of the 1980s, reflecting depressed exports and increasing imports in the developing countries, particularly in Latin America and the Caribbean and in Africa (Food & Agriculture Organisation, 2005:16). Trade in agricultural products has tended to lag behind trade in other sectors, particularly manufacturing, as industrialisation proceeds. On a global basis, agricultural

exports now account for less than 10 per cent of merchandise exports, compared to about 30 per cent in the early 1980s. Amongst the factors that contributed to this relatively slow growth in agricultural trade was the failure to include agriculture fully in multilateral trade negotiations under GATT were so successful in reducing industrial tariffs. Growth in agricultural exports from developing countries was also held back by the limited absorption capacity of their exports markets (Ataman & Beghin, 2004:234). The major part of their agricultural exports was destined for largely saturated developed country markets without much responsiveness in demand.

Table 2.5: Percentage share of developing countries in world exports, 1980 -2008

Sector by destination	1980-88	1990-1998	2000-2008
Agriculture			
Total	37.8	36.2	63.9
developing countries	13.4	10.5	9.3
Manufacturing			
Total			
Developing countries	19.3	33.4	66.6
	7.5	21.7	19

FAO, 2009

A similar trend was also experienced in South African agricultural exports (Table 3.3). In the period between 1960 and early 1970 agricultural exports as a proportion of total exports was 30 per cent on average. The sector saw a decline to around 9 per cent between the middle of 1970 and the early part of 1980 (National Department of Agriculture, 2008). Between 2000 and 2005 the contribution of agricultural exports as a proportion of total exports was 8 per cent on average, and this indicates a significant decline since 1960.

Table 2.6: South Africa's agricultural trade since 1965

	1965-1	1970-1	1975-1	1980-1	1985-1	1990-1	1995-1	2000-2
Total exports (Rm)	1222	2092	7305	20746	45164	72534	13362	27238
Total agricultural exports'	430	689	1412	8458	16087	25581	42349	68282
Agricultural exports as per cent of total exports	35.21	32.92	19.33	9.38	8	7.61	9.08	8.18
Total imports	1862	3243	6536	18240	32499	55122	12536	26468
Total agricultural imports (Rm)	56	174	290	870	1689	3476	8317	13638
Agriculture imports as per cent of total imports	4.55	8.3	6.84	10.29	10.5	13.59	19.64	20.05

National Department of Agriculture, 2008. Abstract of Agricultural Statistics

South Africa's agricultural sector contributed between 8 and 10 per cent of the country's GDP in the period between 1960 and 1990 (National Department of Agriculture, 2008). The situation in the last four decades has changed dramatically. The share of the agricultural sector has declined from 8 per cent in the 1970s to 3, 2 per cent in 2007. The largest sector of the South African economy today is the services sector, which accounts for more than 70 per cent of the GDP. The next largest sector is manufacturing (National Department of Agriculture, 2008).

It should be noted that developing countries have adopted varying trade reform initiatives in an attempt to overcome domestic market constraints. Since trade reform is used as a proxy for participation in international trade, it could thus be used as an indicator of the openness of a country's trade regime, and it is not surprising to see these trends in agricultural exports in developing countries. Nevertheless, principles guiding the rationale behind trade do exist, explaining the basic variables influencing patterns of trade. The next section will discuss how these trade theories attempt to explain the patterns of trade.

2.8.3 International trade theories in perspective.

In the history of economics, understanding why trade takes place represented one of the foundations of the discipline. The questions posed sound simple: Will countries be better off if they trade with one another? What goods will they trade? Will their welfare be greater if they buy from their own producers? The answers to these questions are highly contested by the numerous theoretical standpoints.

From the 16th century to the middle of the 18th century the theory of trade was dominated by Mercantilism. The Mercantilists believed that national power depended on national economic wealth, with wealth being seen as the holding of precious metals (Jepma, Jager & Kamphuis, 1996: 205). Mercantilism supported both protectionism and regulation of trade as means by which the holding of precious metals, i.e. national economic wealth, might be increased (Donnelly, 1987:2). According to this argument trade policy should therefore seek to maintain and increase the stock of gold and silver. Since exports resulted in an inflow of gold and silver, a principal means by which bullion reserves could be increased was through a surplus of exports over imports (Ellsworth & Leith, 1984: 13).

This in turn implies that the country should seek to achieve favourable balance of trade. Mercantilism was never universally accepted but survived in various modest forms until subjected to incisive criticism in the latter half of the 18th century. One of those economists is Hume, who argued that a mechanism similar to what 'we now term the quantity theory of money made maintenance of a perpetually favourable balance of payment impossible (Donnelly, 1987:2). For instance a balance of trade surplus would lead to an inflow of gold, resulting in an expansion of domestic money supply and general rise in price level. This inflationary effect reduces the competitiveness of the country's goods and lead to a fall in exports and rise in imports. Smith went further and questioned mercantilism philosophy by extolling the benefits of free trade rather than its regulation. Smith ideas were further developed into a model by Heckscher-Ohlin (H-O) in the 1930s. For the purpose of this analysis, trade theories will be classified into two groups, namely traditional trade theory and new trade theories.

2.8.3.1 Traditional trade theory

The main proponents of traditional trade theory were Smith and Ricardo (both classical theorists) and Heckscher-Ohlin (neoclassical proponents). These theorists argue that open international trade could result in the highest possible levels of income and economic growth in almost all countries.

(a) Adam Smith

Adam Smith's publication *The Wealth of Nations* made him one of the premier thinkers in the history of economic thought. In his chapter, 'The division of labour', he noted that some countries, owing to the skills of their workers or quality of their natural resources, could produce the same products as others with fewer labour-hours (Smith, 1776). The division of labour according to Smith increases the quantity of output produced. The general results of the division of labour are an increase in the output of the product, together with great improvements in the condition of the workers (Brown & Hogendorn, 1994: 36). The advantages of the division of labour which results in more efficient and cheaper production are as follows (Brown & Hogendorn, 1994: 36):

- Time is saved in learning a process and in passing from one process to another.
- There is increased scope for invention.
- Physical strain is reduced.
- Dexterity and skill are increased through repetition of the same task.
- Localisation of industry creates a local supply of specialised labour.

According to Smith, free trade automatically results in specialisation and a country should specialise in the production of those goods in which it has an absolute advantage, and trade for goods in which the country does not have an absolute advantage (Dunn & Mutti 2004:17). Goods will be produced where productivity is the highest and cost consequently low, in other words, freedom of competition ensures that goods are produced at the lowest costs possible, in precisely the same way as competition reduces costs in individual countries. Smith's argument

can be explained by the following hypothetical example.

Table 2.7: Production per person per working day

Country	Cloth	Bacon
A	10m	8kg
B	12m	4kg

The table shows labour productivity in the production of bacon and cloth in both countries. Country A produces less cloth, but more bacon in a working day than Country B does. This means that Country A has an absolute advantage in the production of bacon while B has an absolute advantage in the production of cloth. According to Smith, international trade would only take place if a country had at least one absolute advantage, in other words, one industry in which labour productivity is higher than in any other country.

In an ideal Smithian world, there is an efficient allocation of resources with laissez faire policies (less government intervening) and production is specialised in the single product in which the country has absolute advantage (Donnelly, 1987:3). The argument by Smith is that international trade can help to break down national monopolies, generating sounder competitive relationships.

(b) David Ricardo

David Ricardo clearly showed, on the principles of political economy and taxation (1817), that absolute advantages are not necessary conditions for two nations to gain from trade with each other (Dunn & Mutti: 19). Ricardo (1817) showed that even if one country is more efficient than another in producing all commodities, trade between the two can be mutually beneficial. Trade depends on differences in comparative advantage and one nation can profitably trade with another even though its real costs are higher in every commodity. Ricardo showed an advance from Smith's position by showing that trade between two countries is profitable if each has a comparative advantage over the other in the production of a commodity (Wells, 1969:26). He also showed that gains was possible in cases where one country had a comparative advantage over the other in the production of both commodities, but where its advantages was greater in one

commodity than in the other (Sodersten & Reed, 1994:5).

If Country A can produce all goods with less labour cost than Country B, does it still benefit the countries to trade? Ricardo's answer is yes, so long as Country B is not equally less productive in all lines of production, it still pays for both countries to do trade (Sodersten & Reed, 1994:5). As long as the opportunity costs for one good differ, one country has a comparative advantage in the production of one of the two goods, while the second country has comparative advantage in the production of the other (Winters, 1985:17). Both country A and country B can re-allocate their labour to the line where their comparative advantage exists, export this good and import the other. According to Ricardo it is the principle of comparative advantage that underlies the advantages of the division of labour, whether between individuals, firms, regions or nations (Dunn & Mutti, 2004:22).

(c) Heckscher-Ohlin

In the 1920s and 1930s, Swedish economists Eli Heckscher and Berti Ohlin expanded the Ricardian view of natural advantage to one based upon differing quantities and qualities of the factors of production (Batra, 1973: 61). The H-O theory typically focuses on land, labour and capital. According to this theory, nations will export goods that use their labour or capital most intensively, and they import goods that use their scarce factor intensively (Batra, 1973:61). H-O theory followed Ricardo in accepting a static economy with perfect mobility of factors within countries and immobility of factors internationally (Donnelly, 1987:9). Central to the theory is the view that trade exploits the differences which exist between countries in the supply of factors of production.

The other important contribution of the theory is its recognition of the effect of specialisation on factor earnings (Donnelly, 1987:10). The country with much labour and little capital will find that labour is comparatively cheap and capital comparatively expensive. It will export goods that have used greater labour resources relative to capital, and will import goods which have been produced with intensive capital resources (Sodersten & Reed, 1994:6). The factor proportions

theory has been expanded in the Stolper Samuelson theorem and is known as the HOS model. The HOS model argues that one of the causes of trade is that different countries are endowed with different factors of production and a country's factor proportions determine and predict both what it exports and what it imports (Batra,1973:62).

More important about the theory is that putting comparative advantage into practice tends over time to equalize factors of production worldwide. Put in cost terms, as one country begins to use its plentiful factor it becomes more scarce and more expensive, while its less abundant factors become cheaper. As the opposite occur in the other country, similar price changes occur and the result is that factor prices tend to equalize.

Although the HOS theory managed to broaden traditional trade theory by explaining why different production possibilities and trading advantages exist, unfortunately it relies heavily on a number of assumptions which proved unrealistic.

Donnelly (1987:11) highlighted a number of assumptions and their limitations used by HOS theory as follows:

Firstly, the theory assumed a worldwide similarity of tastes and ignored those cultural and economic factors which form the demand pattern. Secondly, the theory assumed that tastes are constant. This neglected the demonstrable effect whereby countries experience changes in demand patterns as a consequence of witnessing the acquisition of new products by other countries.

Thirdly, constant technology was assumed despite the overwhelming evidence that technological progress is a major contributory factor in the development of new products and thus new trading opportunities. Fourthly, the assumption that reduction continues to take place under constant returns to scale neglects the very real importance of economies of scale to the development of international trade.

Fifthly, the assumption that international trade takes place under conditions of perfect competition ignores the monopolistic pressures which influence trading patterns, notably the control over world markets exerted by the great multinational corporations and state trading bodies.

Finally, units of each factor of production are assumed to be homogeneous, when this is clearly not the case in the real world.

Despite these shortcomings, the theory has at least assisted in defining some of the main factors which are likely to influence the structure of world trade. Unfortunately, by attempting to provide a theory rather than to make some general observations, the theory has adopted many unrealistic assumptions, which often make the theory untestable under real world conditions (Donnelly, 1987:13). It is not surprising to see the emergence of New Trade Theories, given this shortcoming of the neoclassical trade theory.

The next section will look at new developments in trade theory. Recognising the diversity and complexity of world trade, the new trade theory which emerged in the 1980s might be useful in explaining some specific cases of international trade.

2.8.3.2 New trade theories

The criticism of traditional trade theory in the late 1970s and early 1980s led to the emergence of a new school of thought – the new trade theories. The modern trade theory abandons the assumption of constant returns to scale and replaces it with the economies of scale in production. The major contribution of new trade theory is its ability to relax some of the unrealistic assumptions of the traditional trade theory. It is argued that the introduction of economies of scale increased the predictability and extent to which countries will benefit from free trade (Nyhodo, Punt & Vink, and 2009:40). The new trade theory attempts to address the shortcomings of standard trade theory by dealing with some of the realities of trade in more complex and sophisticated ways. This is achieved by incorporating a fuller range of factors (Brander and Spencer 1985).

The main pioneers are Krugman (1979), Dixit and Norman (1980) and Lancaster (1980). These economists argue that gains from trade are due to economies of scale in production of particular commodities, rather than specialisation (as advocated by traditional trade theory). According to the new trade theorists, comparative advantage has no role to play in the competitiveness of a country. What is important is for the government to intervene in the economy through industrial policy to enhance competitiveness in various sectors.

The main argument of new trade theorists is that trade occurs as the result of increasing returns on production rather than comparative advantage (Krugman, 1992:245). This is an independent cause of international specialisation and trade, and must therefore be added as the new factor for why trade arises between countries. The pattern of specialisation and trade is due to a combination of history, accident and past government policies rather than underlying differences in national resources and aptitudes (Krugman, 1992: 245). Krugman argues that underlying differences between countries is the only one reason for why trade takes place. Countries also trade because of the advantages created by specialisation caused by increasing returns in one sector not related to comparative advantages (Krugman, 1990:80). According to Krugman the new trade theory concentrates more on resource allocation rather than the production of goods as an explanation for the gains from trade.

In short, the new trade theory has given light to the theoretical framework for international trade by recognising economies of scale as dynamic rather than static. Patterns of trade are not explained by comparative advantage, but increasing returns made possible by imperfect market structures (Krugman 1987: 132).

2.8.4 Influence of Bretton Woods Institutions on trade policy reform

It is not only trade theories that have influenced a move towards free trade in many countries. Since the 1980s, neoliberal belief in free trade has come to be the orthodoxy in international economics and this has been translated into policy advice, particularly for developing countries, for which trade liberalisation has become a major policy objective (Deraniyagala & Fine,

2006:46). By the mid-1980s, the ideas about economic management underlying the structural adjustment and stabilisation programmes, advocated by the Bretton Woods institutions, had become readily accepted orthodoxy in the official donor community (Jomo & Fine, 2006:26). The World Bank was originally involved in Structural Adjustment Programmes (SAP), acting on the supply side of the economy, with liberalisation of the economy in order to eliminate distortions to the market mechanism. Meanwhile, the International Monetary Fund (IMF) concentrated on the demand side, through its stabilisation programmes, affecting money supply, budget deficit and the exchange rate (Jomo & Fine, 2006:26).

The World Bank and IMF played an important role in shaping trade policy and investment conditions faced by developing countries, as well as the trade and investment policies they adopted. Thus the economic model embraced by these institutions assumes that countries benefit from the maximisation of free trade (Shafaeddin, 2005:5). The conditions set by the World Bank and the IMF aimed at economic policy reform with the purpose of eliminating all obstacles to a 'perfect market' as the presumed optimal path to growth, and this came to be referred to as 'Washington Consensus' (Waeyenberge, 2006:26). It was not surprising to see developing countries embarking on extensive and rapid trade liberalisation in recent years, undertaken both in the context of multilateral trade negotiations and as part of the conditionality linked to SAP and stabilisation programmes agreed with the IMF and World Bank. Many developing countries relied heavily on these institutions for technical assistance and advice. This has resulted in directing development strategies and trade and investment policy reforms of developing countries. It is also worth mentioning that developed countries do not borrow from these institutions and they are not constricted by the policies and strategies imposed by those institutions (Sparr, 2006:5).

The policy strings that these institutions attached to SAP to developing countries are in the form of 'conditionality' which affects the policy formulation of the countries concerned. Conditionality imposed on the countries includes measures such as devaluation of local currency, decontrol of internal price systems and external and internal trade flows, cutting the state budget and greater integration into the international economy of developing countries, through opening their borders to trade and capital flows; deregulation of the economy is also encouraged as the key to 'catching

up' with the advanced industrialised countries (Melville, 2002:6). This conditionality ultimately constrains the space within which developing countries can chalk up their own trade policy reforms. Many developing countries depend heavily on foreign aid and they are beholden to liberalisation measures advocated by these institutions.

The declining balance of payments in most countries, particularly in Africa, can be attributed to Structural Adjustment Programmes of the Bretton Woods Institutions. This might be true since import flows respond more rapidly than exports following rapid trade liberalisation advocated by these institutions, causing 'temporary' trade imbalances in the current account of balance of payment.

Related to the Bretton Woods Institution is WTO. The conclusion of Uruguay round of trade in 1994 led to the establishment of WTO to oversee international trade. The principal aim of WTO is to eliminate restrictions and other regulations in trade. The Marrakesh Agreement that emanated from GATT increased the pace of trade policy reform in many countries including South Africa. The detail will be elaborated on with regard to agriculture in section C.

Summary

This section shows that countries cannot operate in isolation from the rest of the world. The section also describes in detail how earlier international trade theories were used to provide intellectual justification for the worldwide movement towards liberalisation, in which South Africa participated. The models proposed by Smith and Ricardo and later developed by HOS provided an overview of the essential issues emanating from these theories that are relevant to research question. The limitations and the weaknesses of the conventional theory, as explained by the new trade theory, are also highlighted. From the analyses of these trade theories, it seems as if there is substantial evidence that economies benefit from free trade.

The analyses of the trade theories above also provide a fruitful ground to identify the main drivers of trade in South Africa. The agricultural sector has direct and indirect links with other economic

sectors where capital and labour are crucial for the success of export growth. There are several factors considered as determinants of trade in several countries. Amongst them are currency fluctuations, trade reforms, world economic demand and weather conditions. These factors are principal determinants of exports, imports and domestic consumption.

However, it is worth mentioning that agricultural policies in many countries such as the EU and US caused local prices to exceed market-determined prices, and disparities developed between domestic and world prices. These prices were lower than market prices and this is the issue with respect to agriculture, when the EU and US export these to Least Developed Countries (LDCs) at cheaper than domestically-produced farm products.

The fundamental message highlighted by this section is that free trade allows nations to specialise along their lines of comparative advantage and allows consumers to benefit from cheap import prices in those commodities in which there is no comparative advantage.

The next section will discuss South Africa's agricultural trade policy regime as it has evolved over the decades and how it has been influenced by these trade theories.

Section C: South Africa's trade policy and international trade agreements

2.9. Background

The debate surrounding trade policy reform is arguably the most contentious issue in international economics. In most cases the debate focuses on whether freer or more open international trade benefits developing countries like South Africa. The theoretical predictions presented in Chapter Three clearly assumed that countries that followed outward-oriented trade policies generally perform better economically than those that pursued protectionist policies. For South Africa to become fully committed to free trade, dismantling of tariff barriers is important for the following reasons:

- Inflating tendency of tariff barriers on costs of inputs

- Foreign competition foster efficient allocation of resources by domestic industries
- Trade is reciprocal business in which protectionism provokes protection in response, and
- Tariff barriers create an artificially profitable home market as business has no incentives to compete in foreign markets. (Moloto, 2005:54).

The first section will review the literature on trade policy debate in South Africa before 1990. The last part will specifically look at agricultural trade policy reform in South Africa. Moreover the trade relations between South Africa and its main trading partners are also highlighted.

2.9.1. Trade policy in South Africa before 1990

Since the mid 1920s until the mid-seventies, South Africa adopted an explicit trade policy based on import substitution (Moritz, 1994:13). During that period, the country's trade regime was characterized by excessive protection around high tariffs, formula duties, import surcharges and direct controls (Tsikata, 1999:3). Import liberalization after 1975 was seen as a means of encouraging export growth. According to Rangasamy and Harmse (2005: 27), the motivation for import substitution was underpinned by the assumption that increased competition will spur efficient allocation of resources, which will in turn increase competitiveness and enhance exports.

In response to the perception that growth through import substitution was being exhausted and manufacturing and trade was declining, attempts were made to mitigate the anti-export bias of the system (Kusi, 2002:4). The main focus was on export promotion measures rather than on liberalization of the import regime.

Export incentives were introduced in the early 1970s in line with the recommendations of the 1972 Reynders Commission report. The report was instrumental in reforming the trade regime of South Africa and stimulated measures necessary for the liberalization of trade as early as the 1970s. The main recommendations of the Commission were:

- The introduction of export incentives to countervail the effects of distance from major markets

and influx of subsidized exports from other countries

- The promotion of exports
- The need for South Africa to earn more foreign currency by diversifying its exports (Jonsson and Subramania, 2003:3).

The Reynders Commission, while recommending a diversification of the export base away from gold exports, did not view import liberalization as a necessary condition for non-gold export production (Bell, 1997: 71).

South African authorities in the early 1980s began moving towards a more outward-oriented industrialization strategy (Tsikata, 1999: 4). By 1980, a full range of incentives was in place, including direct cash grants, tax concessions on export turnover and on profits from exports, and rebate (Baht, 2006:10). The rebates and drawback provisions were applied to custom duties imposed on imported materials used in manufacturing, processing, or packaging of exported goods.

Various export incentive schemes have been introduced since 1980. These include duty rebates, duty drawbacks and export subsidies in various forms (Moritz, 1994:21). The instrument that has proven most successful is the General Export Incentive Scheme (GEIS), which was introduced in April 1990.

Although the GEIS has proved to be an important stimulus for exporters (Moritz, 1994:22), it has significant drawbacks. For one thing, it was not compatible with the GATT rules, which imply that tax concessions and subsidies discriminating in favour of particular exports are not approved. The other reason why this incentive was terminated was that the cost to maintain it was a strain on the fiscus and in most cases it did not achieve the intended effect (Cassim, Onyango & Van Seventer, 2002:6). Contrary to its aim, the GEIS appears to have failed to encourage new investment in the manufacturing sector. This in turn means that the GEIS, to a large extent, has benefitted those companies that were already internationally competitive instead of encouraging potentially new exporters (Moritz, 2002:22).

2.9.2 Trade policy reform after 1990

South Africa has made even more significant strides towards trade liberalization since its readmission to the international community in 1994. (Mabugu and Chitiga, 2007:11). This followed years of international isolation imposed on the country due to its racially motivated apartheid policies. The 1990s was a significant period in South African history and thus the birth of new economic, political and social change. The impetus for liberalization gained momentum in the early 1990s when the country adopted a two-pronged approach to trade reforms (Kusi, 2002:24). With the transition to democracy in South Africa, the policy of an export-oriented trade strategy underpinned by tariff liberalisation was firmly entrenched (Rangasamy and Harmse, 2005: 27). This is clearly borne out in the Growth, Employment and Redistribution (GEAR) strategy, which asserted that sustained growth on a higher plane required a transformation towards a competitive outward-oriented economy (RSA, 1996: 3).

Trade liberalization after 1994 is characterized by various changes: in a nutshell, it involved lowering the average tariff level by one third over five years since 1994 (Baht, 2005). Tariff liberalization took effect in early 1995, signalling commitments of the new government to trade reform (Lewis, 2001: 26).

South Africa offered a five-year phased-in tariff reduction with effect from January 1995 (except in the case of three sectors where reductions were phased in over a longer period).

South Africa has undergone considerable tariff reform since 1994 and is now moderately protected as compared to comparators (Department of Trade and Industry, 2009). This is due to the fact that during the Uruguay round, South Africa was classified as a developed country and undertook obligations of developed countries. Currently, the simple average of the final bound rate is 20.9 per cent, with tariffs on agricultural products (WTO definition) bound at ceiling rates averaging 43.5 per cent, and tariffs on non-agricultural products bound at ceiling rates averaging 18.1 per cent (ITAC, 2007). South Africa's simple average MFN applied rate declined from 15 per cent in 1997 to 8.2 per cent in 2006. The trade-weighted average is 7.4 per cent; the average

tariff for inputs is 5.4 per cent; and the average tariff for final products is 20.2 per cent. Using the WTO definition, tariff protection for agricultural products is 9.6 per cent. There has also been considerable simplification of the tariff regime. In 1990 the tariff schedule consisted of 13 609 tariff lines and 28 per cent of the tariff lines were subject to import control. By 2006, the number of tariff lines was reduced to 6 420. Simple ad valorem rates apply to 6 228 lines at the HS8 digit level, and non ad valorem (NAV) duties (compound and specific) are applied to 192 agriculture lines largely in response to distortions that remain in international agricultural trade. Compared to many other upper middle-income countries, South Africa has a high WTO binding coverage (98 per cent); the simple average tariff is lower; it has significantly higher duty-free lines (54 per cent); a comparable number of non-ad valorem tariffs; and a comparable number of domestic and internationally-defined tariff peaks (Department of Trade and Industry, 2009). The higher number of duty free lines results in tariff dispersion and is a reflection of the extent of liberalisation.

2.9.3 Agricultural trade policy reform in South Africa

The agricultural trade policy reform in South Africa can be discussed under the four pillars of reforms. According to Sandrey (2007:2), these pillars can be classified as (i) unilateral (what South Africa does to its own policies), (ii) bilateral (this refers to special trading arrangements, i.e. TDCA, European Free Trade Area (EFTA) and Mercosur), and (iii) regional (that is SACU and SADC) and multilateral (trade reforms under WTO).

The first pillar of agricultural policy reform has already been discussed in Section B. As indicated in Section B, South African farm policy changed emphatically in the period around 1980, although some of the policy shifts were initially quite gradual. For the sector itself, the strong indicator of the extent to which agricultural policies in South Africa have been reformed is the declining levels of Producer Support Estimates (PSE)¹ (Sandrey and Vink, 2006:6). The main contributor to this was the deregulation of trade policies as border tariffs reduced and export subsidies were eliminated (Sandrey, 2007:2).

¹ Is the percentage of total agricultural returns to the total sector that comes from taxpayers in the form of either direct or indirect support measures

According to Vink, Kirsten and Tregurtha (2002), South Africa's trade regime had been characterized by numerous quantitative restrictions, a multitude of tariff lines, and a wide dispersion of tariffs. It was also distinguished by various other forms of protection such as formulae, specific and ad valorem duties, and surcharges. These restrictions, and other regulations, often eliminated any foreign competition, but this state of affairs changed considerably after South Africa became a signatory of the Marrakesh Agreement that emanated from the GATT. The accession to the WTO increased the pace of trade policy reform in South Africa's agricultural sector.

In South Africa, the objective of trade policy in the agricultural sector is to promote the integration of this sector into the world economy in order to encourage greater access to markets, technology, and capital, as well as competition (OECD, 2006). The process of trade liberalization has been a difficult one with agriculture proving the most troublesome sector (Groenewald, 1990).

Whereas agricultural trade had been managed through quantitative controls sanctioned under the Marketing Act in the past, the Marrakech Agreement called for the 'tariffication' of all agricultural goods, and a phased reduction in the tariffs. As elsewhere, the tariffs on agricultural goods had been reduced at a rate faster than required under the Agreement on Agriculture.

Trade liberalization resulted in the following significant changes (Vink, Kirsten and Tregurtha, 2002):

- The levels of direct subsidies paid to the farmers were reduced;
- Interest rate subsidies were severely cut as a result of monetary policy reforms which re-oriented financial services to the market;
- The depreciation of the Rand also eliminated any subsidization of imported inputs that may have resulted from an overvalued exchange rate;
- Direct export subsidies which farmers had previously qualified for under the GEIS were also discontinued in 1997.

Major significant changes in agricultural trade took place in the framework of the WTO. Under the WTO, agricultural liberalization is aimed at achieving reduction in domestic support; elimination of exports subsidies; binding of tariffs against further increases, and improvement in market access.

With regard to agricultural marketing, the reforms were centred on the shifting from systems of surplus removal at floor prices, to complete domestic deregulation (Kusi, 2002:8). The liberalization of the marketing boards began in May 1995. Steps were also taken to abolish all agricultural control boards, with the process being completed in 1996. This paved the way for the development of the private sector in different markets. The new marketing scheme is based on the free market determination of domestic prices, where all imports of agricultural products are freed.

2.9.3.1 Deregulation of agricultural tariff structure

Reforms undertaken in agriculture were quite extensive, having begun with the conversion of quantitative restrictions into tariffs in 1992, and tariff reductions to lower rates by early 2000. Exceptions remained on a few commodities such as sugar (40 per cent), dairy (20 per cent), beef and veal (20 per cent), mutton and wheat (20 per cent). This was largely due to the global distortion of trade in agriculture. Currently, duties on wheat and maize are 0 per cent (Department of Agriculture, 2006). It should be noted that South Africa also binds the rate of customs duties on agricultural products at a level that is necessary to increase the price of imported products to SACU's imported price level.

Initial progress in rationalizing the complex tariff regime and with lowering the overall level of nominal and effective protection was relatively fast (Flatters and Stern, 2007:7). Of considerable importance is that nominal tariff rates have been coming down (Flatters and Stern, 2007:7). In 1990 the tariff schedule consisted of 13 609 tariff lines and 28 per cent of the tariff lines were subject to import control. By 2006, the number of tariff lines was reduced to 6 420 (ITAC, 2007). Simple ad valorem rates apply to 6 228 lines at the HS8 digit level, and non-ad valorem (NAV)

duties (compound and specific) are applied to 192 agriculture lines largely in response to distortions that remain in international agricultural trade.

In agriculture, tariff reform entailed conversion of quantitative restrictions to tariffs. From 1990 to 2006 the average applied rate went down from 27.5 to 8.2 per cent (the bound rate is at 17 per cent), with the reduction in anti-export bias (ITAC, 2007). Our comparator countries have much higher bound and applied rates: Brazil's bound is at 30 per cent, and applied at 11 per cent; Argentina is 30 per cent and 10 per cent respectively; and India is 40 per cent and 19 per cent respectively. Most applied rates of duties (average 11 per cent) are well below the commitment levels of the bound rates (average 41 per cent). In some cases specific duties, such as for garlic and poultry, were implemented (Cassim et al, 2002:11).

The South Africa-EU TDCA and the SADC Trade Protocol have set additional parameters on our tariff regime for trade with those partners. This, indeed, has introduced more tariff reforms in the economy, and has increased the overall level of openness, especially to a significant external player.

2.9.4 South African agricultural trade reforms under special trading arrangements

South Africa's trade policy is not only driven by multilateral arrangements but also by bilateral and regional agreements. Most notable of these are the SACU, SADC, and the EU-SA TDCA. South Africa has also benefitted from the United States AGOA. These special trading arrangements will probably influence the composition and pattern of agricultural trade in South Africa.

2.9.4.1 South African Customs Union

The Southern African Customs Union came into existence on 11 December 1969 with the signing of the Customs Union Agreement between South Africa, Botswana, Lesotho, Namibia and Swaziland. It came into force on 1 March 1970, thereby replacing the Customs Union Agreement of 1910 (Blumberg and Wentzel, 1994).

The SACU agreement was renegotiated and the 2002 agreement sets a common trade system for the five countries. In terms of the new SACU, there are no tariff barriers between member countries as all members share a common external tariff on imports into the region. The most important factor about the 2002 agreement is that member states negotiate as single block (SACU, 2002).

The main provisions of the agreement are the following (SACU, 2002):

- Free trade in locally produced goods;
- Free movement of goods once cleared through customs;
- Common external tariffs;
- Common excise tariffs;
- Infant industry protection for BLNS;
- No intra-SACU restrictions allowed;
- Similar customs and excise legislation;
- Import control where each member state has its own regulations; and
- Freedom of transit and non-discrimination on transit duties.

2.9.4.2 Southern African Development Community

The declaration and treaty establishing SADC was signed at the Summit of Heads of State in 1992 in Namibia. The ultimate aim of SADC is to build a region in which there will be a high degree of harmonization and rationalization to enable the pooling of resources to achieve collective self-reliance and to improve the living standards of the people of the region (Baht, 2006:21).

The overall objectives of this protocol are:

1. To further liberalize intra-regional trade in goods and services on the basis of fair, mutually equitable and beneficial trade arrangements, complemented by protocols in other areas;
2. To ensure efficient production within SADC, reflecting the current and dynamic comparative advantages of its members;
3. To contribute towards the improvement of the climate for domestic, cross-border and foreign investment;
4. To enhance the economic development, diversification and industrialization of the region;
5. To establish a free trade area in the SADC Region (SADC Protocol on Trade, 1996).

A very important feature of the SADC Trade Protocol is the intention to stimulate trade between member countries through the reduction of tariffs. The first step of the implementation of the SADC Trade Protocol began in 2000 with the tariff liberalization process. A free trade area (FTA) was achieved in 2008, and 85 per cent of trade flows in the SADC region remains free. The remaining 15 per cent consisting of sensitive products will be liberalized by 2012.

2.9.4.3 Africa Growth and Opportunity Act

The African Growth and Opportunity Act (AGOA) was passed as part of the Trade and Development Act of 2000 in the USA. It provides duty-free access to the USA market for almost all products exported from over 40 eligible sub-Saharan African (SSA) countries, including South Africa. AGOA is aimed at promoting a free-market system, expanding USA-African trade and investment, stimulating economic growth and assisting SSA's integration into the global economy.

AGOA covers over 7 000 products of which about 800 are agricultural. The agricultural products not eligible for market access under AGOA are sugar, peanuts and certain alcoholic beverages.

South Africa is one of the beneficiary countries under AGOA. However, South Africa is classified as a middle-income developing country by the World Bank and thus excluded from extra

concessions for clothing under AGOA (Mattoo, Roy and Subramanian, 2002).

South African trade with the USA has increased steadily over recent years with South Africa holding a trade surplus since 1999. USA exports to South Africa far exceed USA exports to any other country in SSA.

South African exports under AGOA amounted to \$2.4 billion in 2008, increasing from \$1.1 billion in the previous year (Department of Trade and Industry, 2009). Bilateral agricultural trade between the USA and South Africa increased steadily from 2000 with a positive trade balance in favour of South Africa. South African agricultural exports to the USA under AGOA increased significantly from \$21.5 million in 2001 to \$138 million in 2008 (National Department of Agriculture, 2009). The main South African agricultural exports under AGOA in 2008 were oranges, mandarins, raisins, frozen orange juice, tobacco, essential oil of lemon, vegetable seed, wine and other juices.

Over the years, South Africa exported 150-180 tariff lines of agricultural products out of the possible 800 tariff lines provided under AGOA. Citrus fruits and their concentrated juices, wines and ethyl alcohol have proved to be the most successful products under AGOA, and promise to have the highest potential for growth. However, agricultural exports are generally constrained by the USA's SPS requirements on primary and fresh produce.

2.9.4.4 South African Customs Union and European Free Trade Agreement

EFTA² and SACU countries negotiated a Free Trade Agreement (FTA) in order to improve their relationship and market access. The agreement was signed in June 2006 but due to some delays it only came into force on 1 May 2008. EFTA member states do not have common agricultural policies and therefore they were unable to develop one agricultural offer to SACU. Instead, each individual EFTA state (Switzerland and Liechtenstein signed one agreement) had to sign an agreement with SACU which gave rise to three agreements covering basic agricultural products falling within HS Chapters 1 to 24.

² Switzerland, Iceland, Norway and Liechtenstein 53

The three agricultural agreements will be liberalized over a period of 10 years. The other agreement, referred to as the main agreement, covers all products falling within HS Chapters 25 to 97. Processed agricultural products and products classified by the WTO as agricultural products falling outside Chapters 1 to 24 are also included in the main agreement. This resulted in having four agreements that all form part of the instruments establishing the FTA between SACU and EFTA.

The agricultural trade balance between EFTA and South Africa is in favour of SA for the period 2006 to 2008 (National Department of Agriculture, 2009). There was a marginal increase of SA exports to EFTA compared to a huge growth of SA imports from EFTA, which resulted in the trade balance declining. Between 2006 and 2008, South African agricultural exports increased by 19 per cent, compared to a 105 per cent increase in imports from EFTA during the same period (National Department of Agriculture, 2009). The main products exported to EFTA are other meat and edible offal, fresh, chilled or frozen (HS 02089000) followed by unfortified wine in containers of 2 litres or less (HS 22042140). Switzerland (including Lichtenstein) is the main trading partner for South Africa.

In terms of the main agreement, SACU enjoys immediate duty-free access into EFTA for all products covered by this agreement, with the exception of processed agricultural products (SACU-EFTA Agreement, 2008).

2.9.4.4.1 South African Customs Union tariff offers to EFTA

Customs duties on imports into SACU on products originating in Switzerland will be gradually eliminated in accordance with the following schedule:

- On the date of entry into force of this agreement, each duty will be reduced to 67 per cent of the basic duty;
- One year after the date of entry into force of this agreement, each duty will be reduced to 33 per cent of the basic duty;

- Two years after the date of entry into force of this agreement, the remaining duties will be abolished;

2.9.4.5 South Africa and the European Union

The European Union is South Africa's main trading partner. In 2007, about 45 per cent of South Africa's agricultural products were exported to the EU. The agreement that regulates trade between South Africa and the EU is called the TDCA. Part of the agreement that entered into force on 1 January 2000 regulates agricultural trade between South Africa and the EU. The agricultural aspect of the TDCA involves various degrees of trade liberalization, ranging from immediate liberalization (that was the year 2000) to transitional liberalization over longer periods of up to 10 years by the EU and 12 years by South Africa.

Some processed agricultural products like chocolate, bread, sugar confectionary; yoghurt, pasta, ice cream and other edible ice, are subject to partial liberalization.

2.9.4.5.1 South Africa's offer to the European Union

The Tariff liberalization schedule of the EU is categorized into eight lists, i.e. Lists 1 to 8. Lists 2, 3 and 4 will be fully liberalized in 2010. List 5 includes processed agricultural products subject to partial liberalization. List 6 includes products subjected to quota. List 7 is a reserve list including products that are excluded from liberalization subject to a review of the agreement. List 8 is an omission list, including products permanently excluded from liberalization as they are protected EU denominations for Geographical Indications or Designation of Origin for agricultural products.

The most important list for the purpose of this chapter is list 1 to 3. List 1 started immediately after the implementation of the agreement and was completed by 2003. This list implied that tariff liberalization was fully liberalized in 2003 regarding products like live horses, edible offal, potatoes, vegetables, fruits and nuts. List 2 was completed by year five of implementation. The products in this category include milk, yoghurt, melons, cherries, sunflower seeds, fruits, nuts and

fruit juices. List 3 started in five years of the implementation of the agreement and is expected to finish by year 2012.

The following products available in List 6 of the agreement are subject to tariff quotas. These include cut flowers, strawberries, canned pears, apricots and peaches, fruit juices, sparkling wine and other wine. Tariff preferences for these products are granted in limited quantities.

2.9.4. 6 SACU-Mercosur Preferential Trade Agreement

The SACU-Mercosur Preferential Trade Agreement was signed on 16 December 2004 by SACU countries. Mercosur is a customs union agreement between Brazil, Argentina, Paraguay and Uruguay. The largest economies (Brazil and Argentina) account for 92 per cent and 98 per cent of the GDP of SACU and Mercosur respectively. The agreement covers a narrow range of products in industrial, agricultural and fishery goods. The agreement also seeks to promote trade-related issues such as customs cooperation, sanitary and phytosanitary measures and further product coverage for preferential treatment.

The reduction in tariffs for all products by both SACU and Mercosur ranges from 10 per cent to 100 per cent. Additional offers were made by the two customs unions. At the time of signing the PTA, SACU granted Mercosur preferences on a total of 951 products, while Mercosur granted SACU preferences on 967 product lines. With respect to agriculture, Mercosur offered SACU 176 lines, against SACU's offer of 159 lines

South Africa's imports from Mercosur increased steadily from 2.7 billion in 2003 to 8.9 billion by 2007 (National Department of Agriculture, 2009). The majority of agricultural products were imported from Brazil and Argentina. South African exports to Mercosur have also increased from 69.7 million in 2003 to 92.7 million in 2007, which is significantly less than its imports from Mercosur. Most agricultural products are destined for Brazil, followed by Argentina, Uruguay and Paraguay. The main agricultural products exported to Mercosur between 2006 and 2007 are maize seed, vegetables, tobacco, sheep skins, grapes, wool and animal feed.

Summary

This section briefly described South Africa's trade policy and its liberalization. It is clear from the discussion that South Africa has liberalized its trade policy since the 1970s. These reforms included changes to a wide range of policy instruments, most notably the tariff structure and abolishing of domestic support.

In addition, this section discussed South Africa's WTO commitments and the extent to which the country complied. Several bilateral agreements were also discussed. Most notable of these are SACU, SADC and EU-SA TDCA. South Africa also benefited from the US AGOA. This section, however, did not reflect on whether the more open trade regime has resulted in increased agricultural export performance or whether the institutions associated with a more open trade regime had reformed sufficiently.

Chapter Three: Research Methodology

3.1 Background

The global economic and trading environment has changed rapidly over the last few decades. The new multilateral trading system under the auspices of the WTO since its inception in 1994 provided the institutional guidelines and structure for the liberalisation of international trade in goods (including agriculture) as well as services. The rationale for this reduction of trade barriers rested on creating competitive pressures and the potential for technology transfer so as to lead to productivity gains and restructuring of an economy toward its comparative advantage. South Africa has undertaken a series of economic reforms towards opening up of the economy in the decade of the nineties. Notable among these has been the extensive effort to liberalize its international trade. It was therefore anticipated that trade liberalization in South Africa will lead to changes in the composition of exports so as to reflect South Africa's comparative advantage in the global economy. This chapter makes an attempt to develop some technique to measure the competitiveness of South African agricultural exports.

The main objective of this chapter is to develop an appropriate or relevant methodological technique for analyzing the impact of trade policy reform on South African agriculture exports. The methodology and the analytical basis for the research are largely drawn from the literature on trade liberalization and the competitiveness of agricultural exports in South Africa.

Several studies have been conducted in South Africa and elsewhere to analyze trade liberalization and the competitiveness of agricultural exports. In this chapter, the most used methods of analyzing the impact of trade policy reforms on trade performance will be discussed.

3.2 Regression method and indexes

There is a strong tendency in most academic research papers in South Africa to use regression models and indexes as the research strategy for analyzing the trade performance of agricultural exports. Regression models are complex and require large data collection and analysis.

Regression analysis helps to understand how the typical value of the dependent variable changes when any one of the independent variables is varied, while the other independent variables are held fixed. Regression analysis is also used to understand which among the independent variables are related to the dependent variable, and to explore the forms of these relationships. In restricted circumstances, regression analysis can be used to infer causal relationship between the independent and dependent variables.

The performance of regression analysis methods in practice depends on the form of the data-generating process, and how it relates to the regression approach being used. This means that relatively large investment in data collection and analyses is required. Since the true form of the data-generating process is not known, regression analysis depends to some extent on making assumptions about this process. However, in many applications, especially with small effects or questions of causality based on observational data, regression methods can give misleading results.

In the study by Kusi (2002), a time-series regression analysis was used to determine the export performance and diversification of South African manufacturing and agricultural commodities. The main objective of the study was to examine the impact of trade liberalization on export performance in South Africa during the 1980s and 1990s. The results indicate that external demand conditions were important in determining export performance across all sectors during the sample period, although the elasticity coefficients are very low. In addition, in the study by Wik (2007), panel data was used to analyze the relationship between trade openness and export growth. The objective in this study was to test the link between trade liberalization and export growth on existing influential theories within the field of international trade. The main finding was that trade liberalization does not appear to have a significant effect on export growth for a majority of the countries included in the study. Both the above methodologies necessitate large investment in data collection and sophisticated analytical tools which falls beyond the realms of this research project. The prime critique of using regression analysis is that these studies fail to imply causality and can give misleading results.

An alternative to the approach of the above models is the use of variety of statistical indexes which are designed to measure some change over time. The indexes measure the success of countries in providing firms operating within their borders with an environment that sustains domestic and global competitiveness (Farrugia, 2002). The advantage of using indexes is that it allows researchers to examine firms and industries to determine what gives certain countries advantages in certain industries and what policies government can pursue or change to give their domestic industries a competitive edge. The other advantage of using indexes is less data demanding compared to regression method. The quality of the results obtained with these indexes depends on the quality of available data. The quality, type and amount of data required also vary between the measures, and the choice of the method to be used is often dictated by availability of data (Masters, 1995). However, it is important to mention that there are many ex-post and ex-ante methods developed and used by researchers to measure competitiveness. Amongst them are real exchange rate, foreign direct investment, accounting methods, trade potential index and domestic resource cost. The choice of revealed comparative advantage (RCA) in this study is explained in details below. Import and export data will be used in the calculation of RCA.

3.3. Revealed comparative advantage (RCA)

The concept of revealed comparative advantage (Balassa 1965 & 1989) pertains to the relative trade performance of individual countries in particular commodities. The difficulty of measuring comparative advantage itself led Balassa to investigate trade patterns directly, without reference to underlying resources, productivity, subsidies or prices. He argued that ‘revealed’ comparative advantage (or competitive advantage) could be indicated by the trade performance of individual commodities and countries in the sense that the commodity pattern off trade reflects relative market costs as well as differences in non-price competitive factors, such as government policies.

In fact RCA approach uses ex post specialization patterns to infer comparative advantage patterns; i.e. country’s actual high specialization in an activity implies that it has strong comparative advantage in that activity (Balassa, 1965). It is called ‘revealed comparative

advantage because rather than reflecting true comparative advantage, high specialization could reflect the influence of policy interventions or other distortions such as tariffs or trade barriers. The factors that contribute to movements in RCA are economic: structural change, improved world demand and trade specialization.

The advantage of using the comparative advantage index is that it considers the intrinsic advantage of a particular export commodity and is consistent with changes in an economy's relative factor endowment and productivity. The RCA can also provide useful information about potential trade prospects with new partners. The method can also be helpful in identifying trading partners since countries with similar RCA profiles are unlikely to have high bilateral trade intensities (Batra and Khan, 2005).

However, a well recognized limitation of RCA approach is that high specialization may not reveal true comparative advantage but result from policy or other distortions (Balassa, 1965). Conversely, low RCA index may not indicate comparative disadvantage but could reflect comparative advantage being unexploited. This implies that it is important to calculate RCA over time rather than at a point in time (Batra and Khan, 2005: 15). In this study RCA will be calculated from 1990 to 2008.

Despite these limitations, RCA approach is still the best and useful since it provides a systematic framework for comparing specialization patterns across countries. In this era of rapid trade liberalization, information about the South African comparative advantage can be invaluable to design economic strategies relevant and focused to the development of the sector.

3.3.1 Formulation of RCA

The impact of trade liberalization can be indirectly measured by calculating the RCA of a product. Thus the RCA is based on observed trade patterns, measuring a country's exports of a particular commodity, relative to its total exports and to the corresponding export performance of a set of countries (Cassim, Onyango and Van Seventer, 2002). Trade statistics reflect only post-trade

situations and that the true pattern of comparative advantage can be observed from post-trade data. The availability of data at different levels of aggregation and the data bias caused by government policy distortions caused immeasurable damage to the 'true' pattern of comparative advantage. Though the RCA method fails to distinguish between a region's factor endowments, the measure is still acceptable since the impact of changes in trade policies can be deducted from movements of RCA (Bender and Li, 2002). It is within this context that the RCA is used in this study.

The RCA indicates whether a country is in the process of extending the products in which it has trade potential, as opposed to a situation in which the number of products that can be competitively exported is static. Balassa (1965) argued that RCA could be indicated by the trade performance of individual commodities and countries in the sense that commodity pattern of trade reflects relative market costs as well as differences in non-price competitive factors, such as government policies.

The index is calculated as follows (Balassa, 1989):

$$RCA_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$$

Where:

- x_{ij} = the value of country i 's exports of product j
- x_{wj} = the value of world exports of product j
- x_{it} = the value of country i 's total exports
- x_{wt} = the value of world total exports

The simple interpretation of RCA is that if a value is between zero and 1, it has a revealed comparative disadvantage in the product. Similarly, if the index exceeds 1, the country is said to have a revealed comparative advantage in the product. This will form a good basis for analyzing the competitiveness of agricultural exports in South Africa.

In addition to RCA, Trade Maps will also be used to analyze the performance of South Africa agricultural exports under different special trading arrangements. Particularly South Africa's engagement with EU after the implementation of TDCA, SADC trade protocol and AGOA.

Trade Maps refer to charts, pictograms and tables that analyze markets for a specific product for a given country developed by International Trade Centre. In essence they benchmark the weight and dynamics of each market in national exports against the weight and dynamics of other markets in a world context. They scan and analyze the positioning of national exports in a target market in terms of average unit values and are useful in exploring trade patterns.

3.4. Data collection

Gathering of data is very important in determining the status quo within a research field (Botha and Engelbrecht, 1992:50). The type of data used in most academic studies can be classified as primary and secondary data. For the purpose of this study secondary data will be used. Secondary data in this case is defined as the data collected for some purpose other than the problem at hand and is easily accessible (Malhotra, 2004: 37). The use of secondary data offers several advantages (Tustin, 2005: 37):

- It helps to define the research problem better
- It assists in identifying the problem
- It helps to test hypotheses
- It assists in answering research questions

Import and export data for the purpose of this study is to assist in comparing South African performance and global competition. The data collection process for this can be quite formidable, as the data is not necessarily available or published in the required format. In order to ease this problem, trade data (import and export values) will be sourced from the World Trade Atlas's (WTA) database of the Global Trade Information Services.

This database covers monthly, quarterly and annual trade data, in values and quantities of more than thirty countries. The International Trade Centre's (ITC) Trade Map will be evaluated with reference to trade flows between South Africa and the respective trading partners. The Trade Map analysis is based on COMTRADE statistics by the ITC (ITC, 2001). South African data will also be sourced from the South African Revenue Service (SARS), Department of Trade (DTI) and Statistic South Africa (STATSSA).

Although the quality of data can be questioned, it is one of the best agricultural databases available given the cost of gathering primary data.

The advantage of using these databases is its ability to show SA trade flows and trade patterns with the rest of the world. This will help to answer the primary research question in this study by identifying whether our exports have grown or declined in various markets by tracing movements in RCA. The base year for the trade analysis in this study is 1990, which is sufficient to assess the competitiveness of agricultural exports since trade reforms.

3.5 Data analysis and presentation of results

Data analysis represents the most important part of the research process. The purpose of data analysis is to interrogate, interpret and draw conclusions from the data collected from secondary sources (Tustin 2005:104). Descriptive statistics and RCA will be used to analyse the data and therefore derive the results on the competitiveness of South African agricultural exports since the 1990s.

5.6 Summary

This chapter highlighted a description and application of RCA. RCA was identified as the relevant measure to assess the impact of trade policy on agricultural exports. The RCA indicates whether a country is in the process of extending the products in which it has a trade potential, as opposed to situations in which the number of products that can be competitively exported is static. The shortcomings of RCA were also highlighted. The next chapter will focus on the implementation of RCA when analyzing the competitiveness of South African agricultural exports since 1990.

Chapter 4: Analysis and results

4.1 Introduction

Over the past 15 years, South African agriculture has undergone key reforms in trade liberalization and market deregulation. This structural transformation paved the way to entering global value chains and created space for increased private sector participation in the agricultural trade and marketing economy not previously possible. The sector carries a responsibility to ensure food security to the 47 million plus inhabitants as well as create a basis for economic activity in the rural areas. In the main, the number of jobs created per unit of investment is higher in agriculture compared to other sectors of the economy. This implies that growth in agricultural output overall has a greater impact on employment creation and poverty alleviation

The RCA framework discussed in Chapter Three will be used to analyze the competitiveness of South African agricultural exports since 1990. In addition to RCA, TradeMap will also be used to analyze the performance of South Africa agricultural exports under different special trading arrangements, particularly South Africa engagements with the EU after the implementation of TDCA, the SADC trade protocol and AGOA. Specifically the chapter will make an attempt to analyze the following aspects:

- (i) The pattern of comparative advantage for South Africa agricultural exports since 1990
- (ii) What the leading agricultural products are in terms of their revealed comparative advantage
- (iii) Whether the pattern of comparative advantage has undergone a structural shift since 1990
- (v) To what extent exports have changed in composition, particularly in those special trading arrangements
- (vi) Successful agricultural exports since the 1990s.

4.2 The performance of South African agricultural exports since 1990

In this section trends in the competitiveness of the South African agricultural exports is calculated using the RCA index. The South African agricultural sector has seen some dramatic changes over the past few years, moving from a wholly regulated market environment towards a free-market system in a global environment. The industry has suffered from increased globalization of markets; trade liberalization; deregulation and changes in consumer preference. The primary objective of this study is to assess the impact of trade policy reform on agricultural exports in South Africa. So the analysis of agricultural exports using RCA will help to determine whether the reforms undertaken so far are beneficial. Two questions are important in this regard: (i) Are the results indicating that the South African agricultural exports have a comparative disadvantage or advantage, and (ii) do the RCA measures from 1990 to 2008 indicate that selected agricultural products that have been dominant in South Africa's production and trade patterns have become more export intensive? Several factors have to be considered in order to answer these questions. These are:

- (i) South Africa is a net exporter of agricultural products and the situation is almost the same as in 1970.
- (ii) The country was isolated from the global world for a long time and most products were restricted.
- (iii) The sector was highly protected and characterized by domestic regulations, i.e. marketing boards which regulated the price of various agricultural products. The situation changed after the Marrakesh Agreement, which calls for tariffication of all agricultural goods and phased reduction of tariffs.

Given the three scenarios above, it will be difficult for one to conclude that the RCA results will show comparative advantage or disadvantage. The RCA measure is primarily based on relative exports shares that could be biased due to distortions from various trade and non-trade barriers.

The RCA indexes of the top ten agricultural exports indicate that all products show positive trends. This could be attributed to the fact that the sector was highly regulated, especially for maize, which shows a high level of comparative advantage. South Africa is a net exporter of maize and the results are not surprising. The other reason which gave rise to a sharp increase is the continuous decrease in the value of the Rand against the US\$ and this resulted in making agricultural products more competitive. As the implementation of the Marrakesh Agreement starts to take its course and more competition comes into the market, the competitiveness of the top ten exports starts to decrease.

Table 4.1: RCAs of the top 10 agricultural exports, 1990-2008

Product	1991	1992	1993	1994	1995	1996	1997	1998	2000	2001	2002	2003	2004	2005	2006	2007	2008
Preserved food	9.5	9.7	3.8	4.3	3.8	2.9	3.2	2.8	2.4	2.5	3.4	3.2	3.1	3.4	3.7	3.5	3.3
Sugar	9.3	8.2	3.6	3.3	2.9	3.7	3.7	2.6	3.7	4.1	3.8	3	2.7	2.5	8.2	3.8	4.2
Beverages	10.7	9.3	6	3.9	4.3	3.8	3.2	2.8	2.9	2.5	3.2	3.2	3.3	3.9	3.7	4.7	3.9
Edible fruits &	13.7	16.4	6.6	7.7	7.2	4.7	5.7	3.9	3.4	4.2	5.5	6	7.1	7.3	7.8	10.4	9.8
Cereals	3.9	6.3	1.5	1.3	1.8	7	1.4	2.3	3.6	0.8	1.2	0.9	0.7	1.5	1	0.3	1.7
Miscellaneous	1.3	4.3	1.4	1.8	3.9	7.2	7.6	7.6	1.9	0.7	0.9	0.8	0.7	0.8	1.2	1.6	2.3
Wool	10.2	6.8	4.3	3.9	1.4	1.9	2.8	1.6	2.6	2.5	3.8	3.7	3.3	3.7	4.9	6.7	5.9
Milling product	7	3	3.1	1.6	1.8	2.2	1.8	2	1.7	1.1	2.6	1.3	0.8	3.9	1	0.8	1.6
Tobacco	7.9	6.4	4.6	1.8	2.3	1.6	6.4	3.6	3	1.1	0.9	0.7	1	1.4	1.9	1.8	1.7
Maize corn	18.5	14.8	11.6	12.9	9.7	7.8	8.3	6.7	8.1	-	-	-	-	-	-	-	-
Grain seeds	-	-	-	-	-	-	-	-	-	0.1	1.3	0.6	1.5	1.9	0.5	1.2	1.4

Own calculations based on ITC COMTRADE statistics, 2009

Comparing the period from 1991 to 2008, it is clear from the analysis that the competitiveness of South African agricultural exports has declined. There is a sharp decline in all agricultural products from 1990 to 2008 with maize losing the top ten spot since 2000. Despite contending with global players, many of whom are subsidized and protected, the RCAs of the top ten South African agricultural exports has developed a resilience to withstand competition and has maintained its competitiveness, particularly in edible fruits and sugar, as well as on beverage exports. From the table it is clear that the indexes of most agricultural exports are positive, except for miscellaneous foods, which experience a reduced index from 2001 to 2004.

The reason for the reduced RCA could be attributed to the deregulation which affected the industry negatively. The structure and composition of agricultural exports hasn't changed so much since 1990. South Africa exports the same basket of products, and this clearly shows that trade policy reform has proved to be insufficient as an instrument to restructure the agricultural exports and induce structural changes necessary to significantly alter the export basket to advance beyond its static comparative advantage.

4.3 Performance of South African exports under special trading arrangements

This section will briefly review the performance of South African exports under special trading arrangements. The South Africa-EU TDCA and the SADC Trade Protocol have set additional parameters on our tariff regime for trade with those partners. This, indeed, has presented further opportunities in the export markets of these countries and it is important to assess whether there is any change in composition of our exports since the implementation of these trading arrangements. Also important in this analysis are the arrangements under AGOA. Although AGOA is unilateral, it is important to see if this trading arrangement has stimulated trade between South Africa and United States.

The nature of this trading arrangement means that trade will take place on a preferential basis and not on MFN. The South African government is clearly demonstrating its willingness to further liberalize and integrate the economy in the global arena and these conditions create a need to critically evaluate whether this special trading arrangement has anything to add to South African trade.

4.3.1 South African trade performance in SADC

South Africa joined SADC in August 1994 and since then South Africa has taken a leading role in the region to address such issues as closer collaboration and economic integration. These include the establishment of a free trade area in the region, the development of basic infrastructure, the development of human resources and the creation of the necessary capacity to

drive this complicated process forward. In 2000 the SADC Trade Protocol was signed and member states were expected to phase down tariffs with the aim of achieving a FTA in 2008. The section will review the performance of South African agricultural exports since the implementation of FTA in 2000. After 8 years of implementation of the trade protocol, the DRC, Angola and the Seychelles have not acceded, while Madagascar has been suspended. The BLNS countries are excluded from this discussion since there is no trade data available and the other reason is that these countries are in a customs union with a common external tariff.

South Africa has a positive trade balance with the SADC region even though the tariffs are still high in some countries. Exports of agricultural products are valued at 23 per cent of total agricultural trade in 2008 and this makes the region the largest market for South African agricultural products in Africa. The rest of Africa constitutes only 3 per cent of SA agricultural trade with COMESA being second after SADC.

The main markets for SA agricultural products are Zimbabwe, Mozambique, Zambia, Angola and Mauritius. The main agricultural exports to SADC are predominantly processed agricultural products in the form of cereals, beverages, sugar and preserved food. Imports from the region constitute only 6 per cent of total agricultural imports. Products imported from the region are in the form of unprocessed agricultural products, i.e. cotton, tobacco, spices, coffee, tea, vegetables, fats and oil (Table 4.3). The current trade arrangements in SADC are expected to stimulate trade in the region as tariffs will be phased out by 2012.

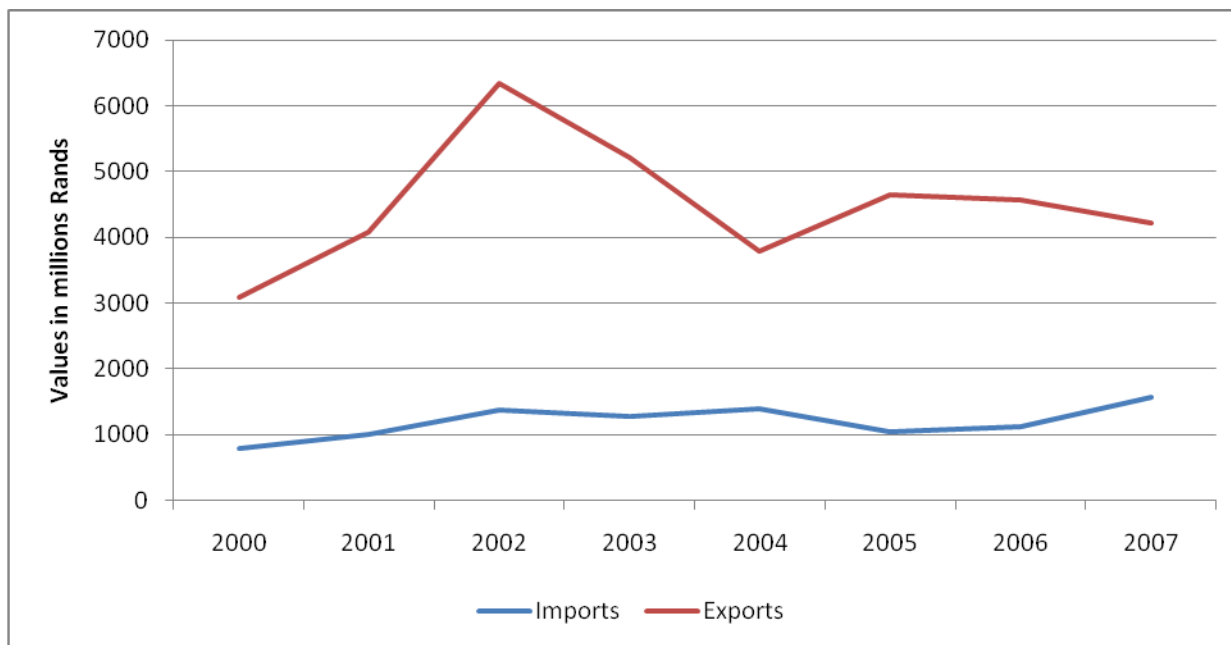


Figure 4.1: Trends in South Africa agricultural import & exports 2000-2007

World Trade Atlas, 2009

It is interesting to see from Figure 4.1 that imports from SADC have fluctuated over the period of 8 years. Despite the lowering of tariffs in South Africa, the growth of imports is relatively small as it is expected that tariff phase down in our market will positively increase imports from the region. This point shows that the lowering of tariffs is not the only condition for increasing intra-regional trade. There are other factors that are also important to increase trade flows in the region. Amongst them are the non-tariff barrier, supply-side constraints, infrastructure and appropriate policies and institutions to support tariff liberalizations.

4.3.1.1 South African main products exported in SADC

Tables 4.2 and 4.3 show South African main products exported to SADC in the period between 2000 and 2008.

Table 4.2: South African exports by product (Value and share) in 2000 and 2008

2000				2008		
	Products	Values in Rands	Share of prod	Products		Share products
No	Total	3039	100%	Total	10662	100%
1	Sugars	414	14.4	Cereals	4130	38
2	Tobacco	427	14	Beverages	1380	12
3	Beverages	372	12	Sugars	750	7
4	Miscellaneous Food	218	7.2	Milling; Malt; Starch	621	5
5	Dairy, Eggs, Honey	214	7	Miscellaneous Food	526	4.94
6	Milling; Malt; Starch	212	6.9	Preserved Food	431	4.4
7	Cereals	129	4.2	Dairy, Eggs, Honey	381	3.5
8	Preserved Food	119	3.9	Baking Related	340	3.2
9	Edible Fruit and Nut	118	3.9	Edible Fruit and Nut	322	3
10	Meat	77	2.5	Vegetables	221	2

World Trade Atlas, 2009

South African exports in 2000 amounted to R3 billion, of which R2 billion was contributed by ten products. After eight years of implementation of the trade protocol the structure of the top ten agricultural products is almost the same. In 2000 the top five products were sugar, tobacco, beverages, miscellaneous food and dairy, eggs and honey, comparing this to the 2008 cereals, beverages, sugar, milling materials and miscellaneous food as the top five. The main gains at the top of the list were cereals, growing from 4.26 per cent in 2000 to 38 per cent in 2008, and beverages from 12.26 per cent to 12.95 per cent in 2008. These top ten products are not only

the main contributors of South African agricultural products to SADC but also to overall agricultural trade.

Table 4.3: South Africa main trading partners in SADC, 2000 and 2008

2000	Value of export	percentage	2008	Value of exports	percentage
SADC	3039	19.58	SADC (less SACU)	10662	23
Mozambique	948	6.1	Zimbabwe	3695	8.23
Angola	481	3.11	Mozambique	2190	4.87
Zambia	310	2	Zambia	1800	4.01
Zimbabwe	300	1.9	Angola	1490	3.32
Malawi	293	1.87	Mauritius	442	0.98
Mauritius	278	1.77	Tanzania	346	0.77
DRC	250	1.61	DRC	343	0.76
Tanzania	147	0.95	Malawi	289	0.64
Madagascar	40	0.27	Madagascar	225	0.5

World Trade Atlas, 2009

Table 6.4 compares South African main agricultural export markets between 2000 and 2008. At the beginning of 2000 Mozambique, Angola, Zambia and Zimbabwe were the top 4 of the main South African agricultural export markets in SADC. During this period trade was taking place under MFN (Most Favoured Nation agreements) and it was expected that SADC tariff liberalization would increase South African agricultural exports. Eight years after the implementation of the protocol the share of South African exports into SADC has increased from 19 per cent in 2000 to 23 per cent in 2008. This point shows that agricultural exports into the region have grown slowly over the eight-year period.

It is also interesting to note that Angola is in the top 4 of South Africa's agricultural export destinations although they are not implementing the protocol. This can be an important market for South Africa if Angola becomes part of SADC FTA in future. Other countries which are implementing the protocol agricultural exports have increased. Zimbabwe, Mozambique and

Zambia are now the main destinations of South African agricultural exports, contributing more than 70 per cent of total exports in the region. In general the composition of South African agricultural exports in the region hasn't changed since the implementation of the trade protocol. South Africa is still exporting the same basket of products since the implementation of the trade protocol.

4.3.2 South African trade under AGOA

South Africa started to benefit under AGOA in 2001. Previously South Africa benefited under the Generalized System of Preference (GSP). The Act extends GSP status to qualifying African countries and expands the existing list of 4 650 GSP products by 1 837. Following the AGOA forum in Kenya in 2009, African countries will now benefit under the Act indefinitely. South Africa is allocated 1000 tariff lines of which 700 are for agriculture.

Currently South Africa exports only 150 tariffs lines of agricultural products out of 700 lines designated for agriculture. The amount of exports falling under AGOA was over \$1.7 billion in 2008, although this figure includes exports under the GSP program, of which AGOA is essentially an extension. Agricultural trade is in favour of the USA in all the years except in 2001, 2002, 2006 and 2009, when trade was on South African side (Figure 4.2). It can be seen from the Figure that South African agricultural exports have increased quite significantly since 1999 and this could be attributed to AGOA. The main challenge to access the market in the US are the high labelling and food standards they impose on imports, especially highly processed products. The main agricultural exports to the US are wine, oranges and ethyl alcohol and they are highly diversified.

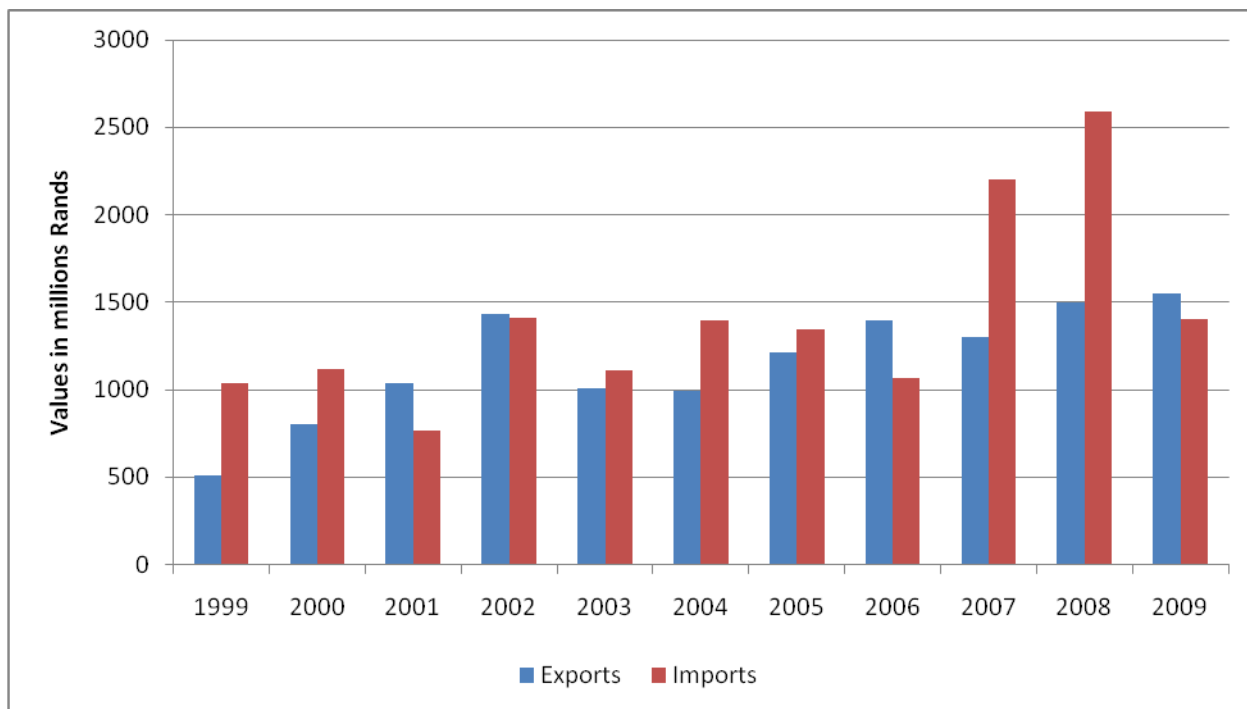


Figure 4.2: South African agricultural trade with the USA, 1999-2009

ITC COMTRADE statistics, 2009

4.3.3 South African trade under TDCA

Chapter Two highlighted South African trade with the EU. A breakdown of exports and the main markets was also discussed. This section will show trends in South African trade with the EU starting from 1999, before the implementation of TDCA, to 2008. This will provide an opportunity to assess whether TDCA has anything to do with these export trends. It is important to mention that when South Africa signed the TDCA, there were only 15 EU countries and in 2004 ten more countries joined the customs union and the last two join in 2007. South Africa has a positive trade balance with the EU and trade has increase from R6 billion in 2000 to more than R16 billion in 2008 (Figure 4.3). This makes the EU the largest trading partner in the world.

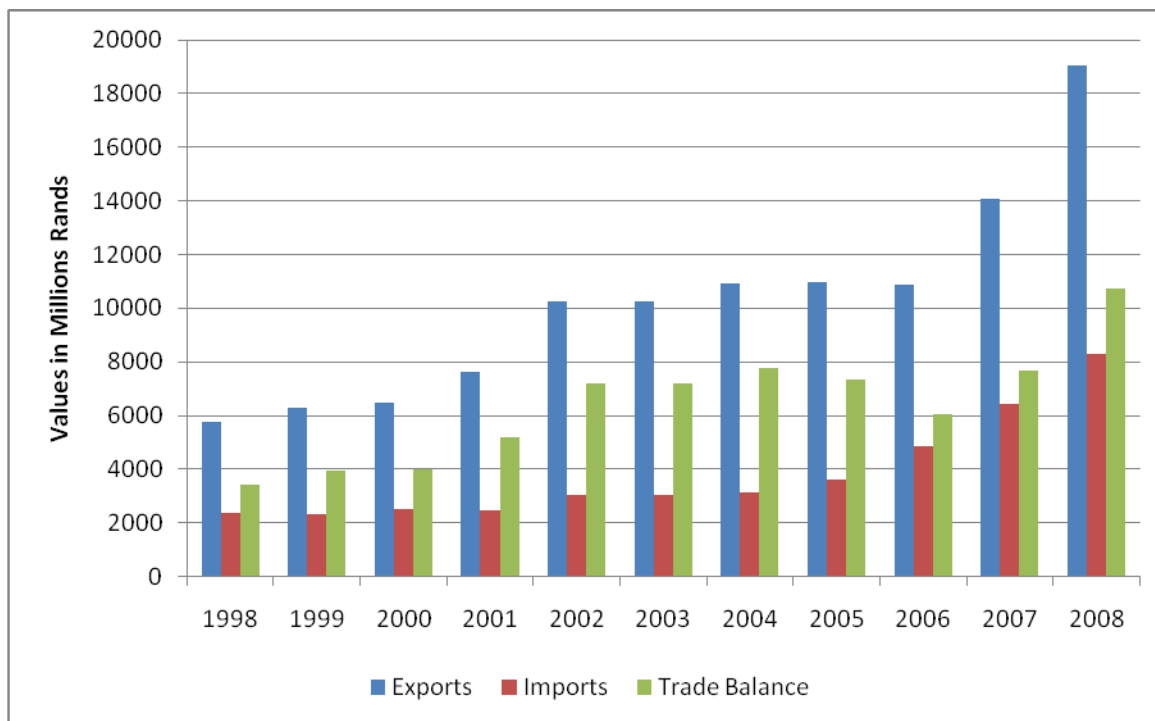


Figure 4.3: South African agricultural exports to the EU (1998-2008)

ITC COMTRADE statistics, 2009

4.3.4 South African exports to a selected regional destination

This section gives a breakdown of exports under different trading arrangements. Figure 4.4 shows that since South Africa signed TDCA, SADC and AGOA, the European Union has accounted for most of the South African agricultural exports, followed by SADC and the USA. Eight years after the implementation of the protocol, the EU is still the main trading partner of South Africa with exports totalling R16 billion in 2008. Exports by value to the EU increased from R6 billion in 2000 to more than R16 billion in 2008. Outside the EU, SADC is the second largest trading partner of South Africa with exports total more than R10 billion in 2008. South African agricultural exports to the USA have increased quite significantly since 2000 and this could be attributed to duty-free market access under AGOA. In SADC it is too early to conclude that the trade protocol has contributed to the increase in agricultural exports since the process of tariff reduction was too slow and most countries have achieved the 85 per cent of FTA in 2008. Trade in the SADC region was mostly taking place under MFN and the fact that agricultural trade has

increased is a positive sign.

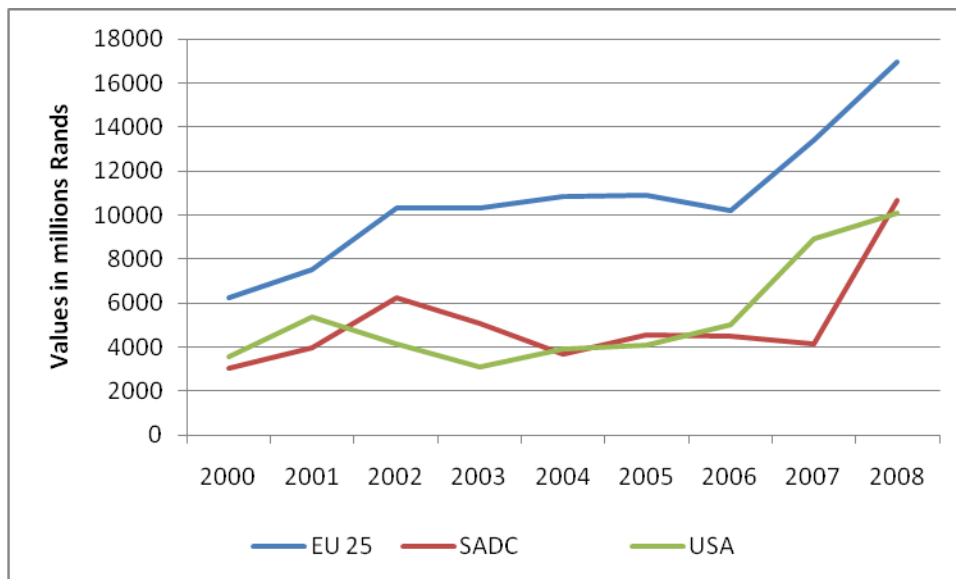


Figure 4.4: South African exports under various trading arrangements

TradeMap, 2009

4.4 Overview of Trends in South African Agricultural Trade since 1990

Agricultural trade is still increasing in significance as a component of South Africa's agricultural economy and is essential to South Africa's growth and prosperity (National Department of Agriculture, 2008). In the last decade agricultural exports have grown strongly in importance, from 16 per cent (1990s) of the total value of agricultural production to 37 per cent (2008). Both primary and processed agriculture have doubled their exports as a share of production, with primary production contributing 14 per cent and processed 23 per cent of the value of agricultural production in 1996 (Figure 4.5). Processed exports were the largest contributor to overall agricultural exports. The composition of agricultural exports now comprises 62 per cent processed and 38 per cent primary exports (2007) in value terms. The growth in exports and the composition of unprocessed versus processed agricultural goods remained almost the same, in an approximately 40:60 ratio, over the past decade from 1996 to 2006.

However, an analysis of the agricultural trade balance reveals that unprocessed agricultural exports are mostly responsible for a positive trade balance of R6 billion Rand in 1996, despite the strengthening of the currency, while processed agricultural trade has fast lost its strong positive

trade balance due to the strong growth in processed imports due to domestic consumption patterns (Figures 4.6 and 4.7). The structure and composition of South African exports has not changed so much since the liberalization of the sector. The top ten agricultural exports have remained almost the same since 1990. The reason for this could be a decline in investment in the sector especially in the areas of new technology, research and development.

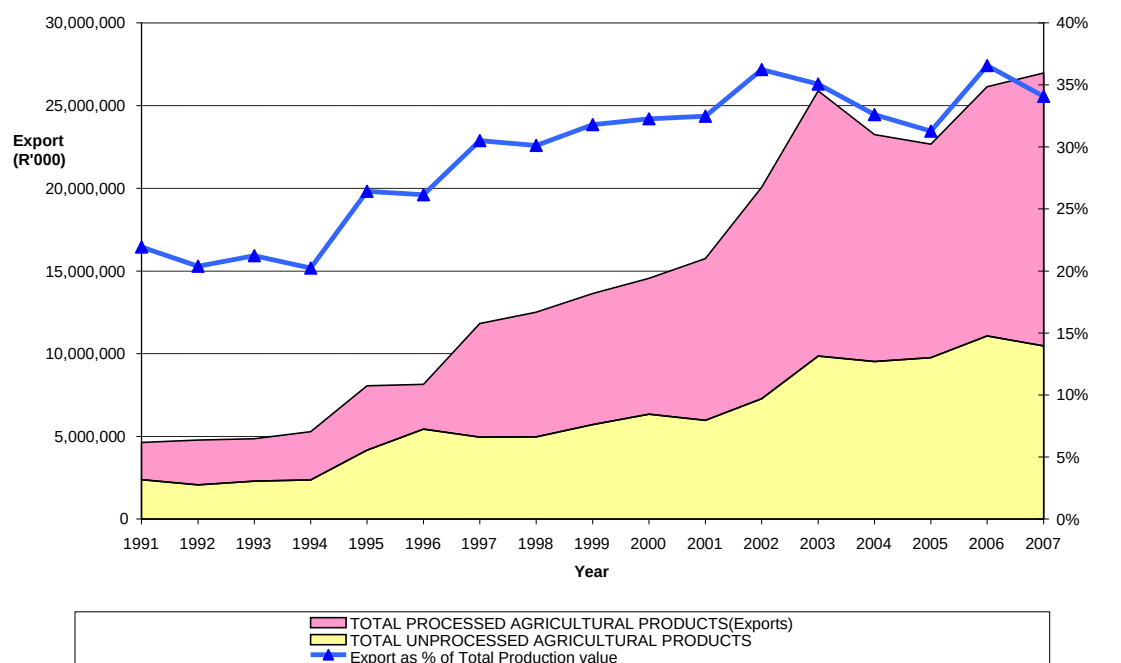


Figure 4.5: Processed & Primary Exports as a percentage of Total Production Value of Agriculture Production

ITC COMTRADE statistics, 2008

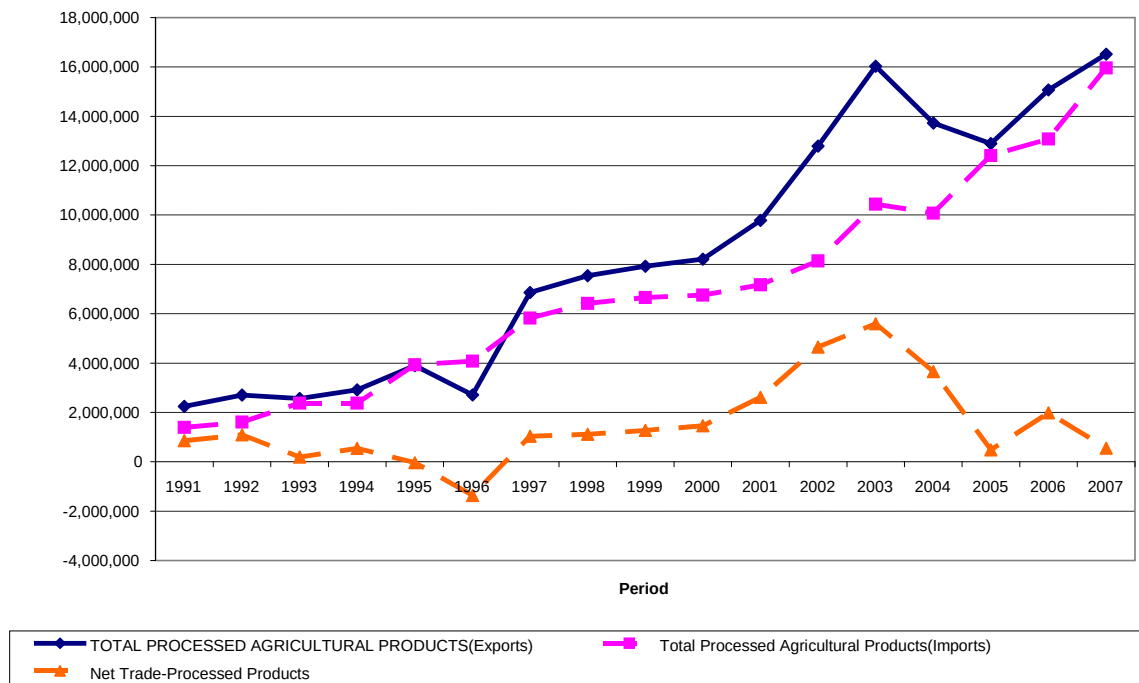


Figure 4.6: Processed Agriculture (Imports & Exports) and Net Trade from 1990 until 2006
ITC COMTRADE statistics, 2008

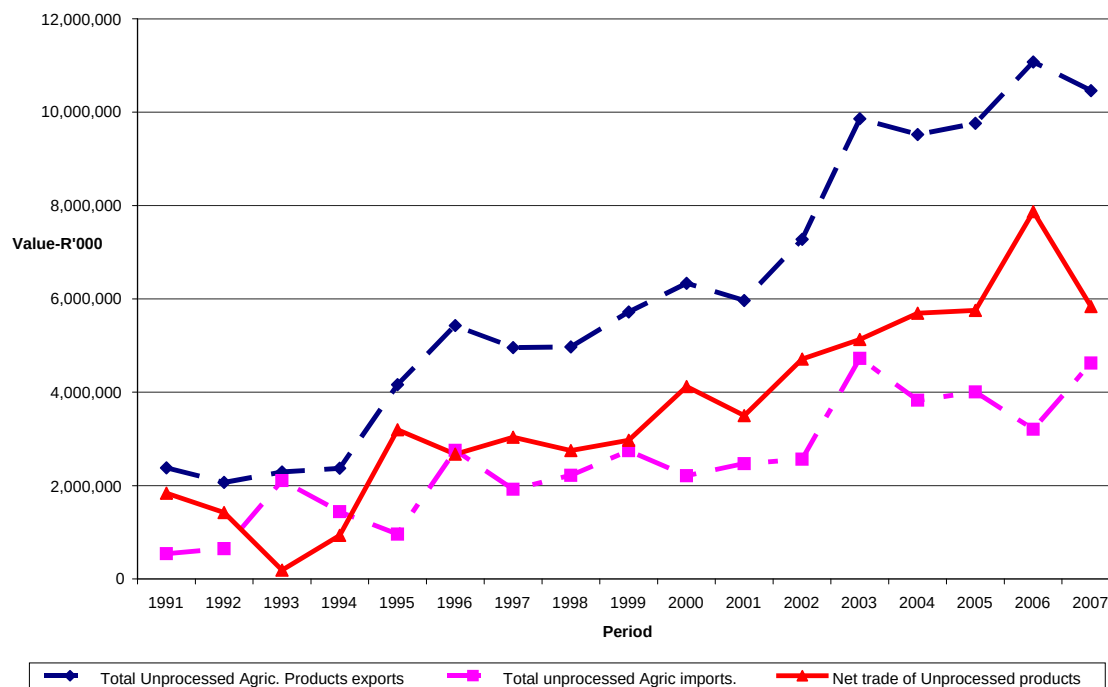


Figure 4.7: Primary Agriculture (Unprocessed) and Net trade of Unprocessed agriculture
ITC COMTRADE statistics, 2008

4.5 Successful South Africa agricultural export products to the world

The following figure displays the leading agricultural product categories as exported by South Africa in 2007. Agricultural exports contribute on average a steady 8 per cent of total South African exports. Edible Fruit and Nuts (HS02), Beverages (HS22), Sugars (HS17), Preserved Food (HS20), Tobacco (HS24), Cereals (HS10) and Miscellaneous Food (HS21) are currently the main agricultural exports making up 80 per cent of the total agricultural exports (Figure 4.8). Table 6.5 presents the growth achieved between 1990 and 2007 by the top 10 major agricultural product groups exported by South Africa. The 10 major product groups, as shown in Figure 13, all realized positive growth rates during this period.

Over a ten-year period, only two of the ten leading product groups for South African agricultural exports recorded growth rates in excess of South Africa's global export growth of 8.7 per cent, namely Edible fruit and nuts, and Beverages. The worst-performing product group among the leading five was Cereals, which only recorded a growth rate of 0.6 per cent. The best performing product group among them over the ten-year period was Edible fruit and nuts with a growth rate of 14.1 per cent. The main reason for this performance is that South Africa has comparative advantage in the production of these commodities compared to the other countries.

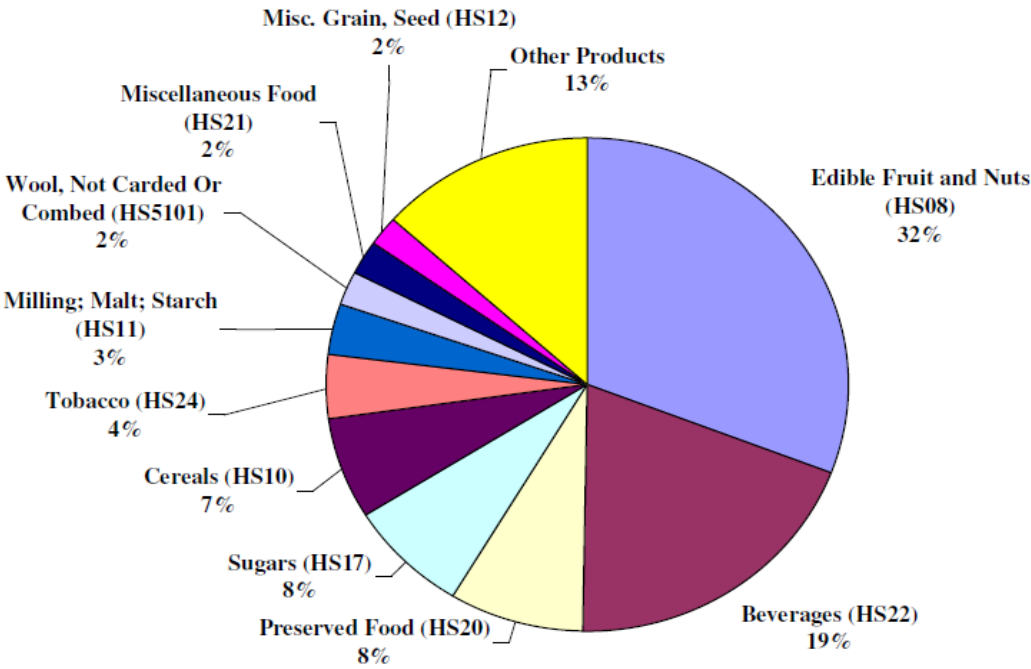


Figure 4.8: South Africa agricultural exports: Major products exported in 2008

Source: ITC COMTRADE statistics, 2009

Table 4.4: Growth of South African agricultural product exports 1997-2007

	Compounded growth 1990-1998	Compounded growth 1999-2007
Total agricultural exports growth annum	6.7	8.7
Edible fruit & nuts; citrus & peel	11.3	14.1
Beverages, spirits and vinegars	8.6	13.9
Prep vegetables, fruits, nuts plants	4.7	6.3
Sugar and sugar confectionery	2.8	3.8
Cereals	0.5	0.6
Tobacco & manufactured tobacco	14.6	16.7
Milling industry products	8.9	9.2
Wool	3.9	5.9
Miscellaneous edible preparations	11.8	14.4
Oil seeds	6.9	8.9

ITC calculations based on COMTRADE statistics, 2008

4.6 Conclusion

The purpose of this chapter is twofold; firstly it calculates the performance of agricultural exports using RCA and secondly it shows South African trade under different trading arrangements, using Trade Map.

The analysis of the top ten agricultural exports from 1991 to 2008 shows that agricultural exports have lost their competitiveness. There is a sharp decline in all agricultural products from 1990 to 2008 with maize losing the top ten spot since 2000. The decline could be attributed to the deregulation of marketing boards and increased global competition. Despite contending with global players, many of whom are subsidized and protected, the RCAs of the top ten South African agricultural exports has developed a resilience to withstand competition and has maintained its competitiveness particularly in edible fruits, sugar and beverages exports.

The breakdown of exports under different trading arrangements shows that since South Africa signed TDCA, SADC and AGOA, the European Union accounted for most of the South African agricultural exports, followed by SADC and the USA. Eight years after the implementation of the protocols, the EU is still the main trading partner of South Africa, with exports totalling R16 billion in 2008.

It appears that the more recent era of trade liberalization and the deregulation of the agricultural sector in South Africa have had little impact on inducing structural shifts in the export profile of these agricultural goods. This is a surprising result, particularly if one also takes into account the proliferation of additional multi- and bilateral trading arrangements and the protection offered to agriculture in the EU and North America. Maybe the theory suggested by comparative advantage holds, despite political influences and a highly uneven international playing field.

Chapter Five: Conclusion and recommendations

5.1 Introduction

Trade policies form the main economic ingredients for the country to participate actively in the global economy, i.e. the general and specific elements of each nation's trade policy interact directly or indirectly with those of other nations in all economic transactions across international borders. A nation's trade policy involves specific actions by government to encourage and promote or discourage foreign trade through instruments, i.e. the legal, financial and institutional environment within which foreign transactions occur. Trade policy reflects its overall attitude towards the importance and value of foreign trade within a complex environment where there exist distinct differences in consumption and production patterns, culture and tradition and local socio-economic conditions.

This international experience resonates in South Africa. Since 1994, South Africa has undertaken significant tariff cuts and while exports in all sectors grew, manufactured exports continue to be heavily dominated by resource-based products. In other words, tariff reduction has proved to be insufficient as an instrument to restructure the industrial economy and induce structural changes necessary to significantly alter the export basket to advance beyond its static comparative advantage.

Besides tariff liberalization, South Africa undertook considerable changes in its agricultural policies since the 1970s. South African agriculture has been characterized by a history of direct governmental intervention. The election of the new government and the adoption of the new constitution brought a new landscape both economically and politically. This period was characterized by a reversal of the policies of the previous two decades, starting with increased liberalization of the agricultural sector and then removal of racial barriers between black and white agriculture. The deregulation of agricultural sector was evident in the 1970s.

It is important analyze the implications of trade liberalization, and the consequences for South African agriculture in the context of this study, specifically in terms of the performance of agricultural exports since 1990. The aim of this study was to investigate the possible trade policy implications on the agricultural exports using RCA method.

5.2 Major conclusions drawn from the study

5.2.1 Trade liberalization in South Africa

South Africa has undergone considerable tariff reform since 1994 and is now 'moderately' protected as compared to comparators. This is due to the fact that during the Uruguay round, South Africa was classified as a developed country and undertook obligations of developed countries. Currently, the simple average of the final bound rate is 20.9 per cent, with tariffs on agricultural products (WTO definition) bound at ceiling rates averaging 43.5 per cent, and tariffs on non-agricultural products bound at ceiling rates averaging 18.1 per cent. South Africa's simple average MFN applied rate declined from 15 per cent in 1997 to 8.2 per cent in 2006. The trade-weighted average is 7.4 per cent; the average tariff for inputs is 5.4 per cent; and the average tariff for final products is 20.2 per cent. Using the WTO definition, tariff protection for agricultural products is 9.6 per cent.

Reforms undertaken in agriculture were quite extensive, having begun with the conversion of quantitative restrictions into tariffs in 1992, and tariff reductions to lower rates by early 2000. Exceptions remained on a few commodities such as sugar (40 per cent), dairy (20 per cent), beef and veal (20 per cent), mutton and wheat (20 per cent). This was largely due to the global distortion of trade in agriculture. Currently, duties on wheat and maize are 0 per cent (Department of Agriculture, 2006). It should be noted that South Africa also binds the rate of customs duties on agricultural products at a level that is necessary to increase the price of imported products to SACU's imported price level.

The South Africa-EU TDCA and the SADC Trade Protocol have set additional parameters on our tariff regime for trade with those partners. This, indeed, has introduced more tariff reforms in the economy, and has increased the overall level of openness, especially to a significant external player.

5.2.2 Impact of trade policy reform on agricultural exports

Over the past 15 years, South African agriculture has undergone key reforms in trade liberalization and market deregulation. This structural transformation paved the way to entering global value chains and created space for increased private sector participation in the agricultural trade and marketing economy not previously possible.

The calculation of RCA for the periods from 1991 to 2008 shows that agricultural exports have lost their competitiveness. There is a sharp decline in all agricultural products from 1990 to 2008 with maize losing the top-ten spot since 2000. The decline could be attributed to the deregulation of marketing boards and increased global competition.

The breakdown of exports under different trading arrangements shows that since South Africa signed TDCA, SADC and AGOA, the European Union has accounted for most of the South African agricultural exports, followed by SADC and USA. Eight years after the implementation of additional bilateral trading arrangements, the geographical composition of export markets as far as agricultural goods are concerned has shown very little change.

The structure and composition of South African exports has not changed so much since the liberalization of the sector. Although agricultural exports have increased quite significantly since 1990, the top ten agricultural exports are almost the same during the same period. This is a surprising result, particularly if one also takes into account the proliferation of additional multi- and bilateral trading arrangements and the protection offered to agriculture in the EU and North America. Despite contending with global players, many of whom are subsidized and protected, South African agriculture has developed a resilience to withstand competition and has maintained

its competitiveness particularly in fruits, sugar and wine exports in the last 8 years.

5.3 Recommendations

Based on the results of this study the following recommendations are important for future research in this field:

- It is important to take into account domestic production capabilities/potentialities and the degree of trade and production distortions on the global level when the government is developing trade policy in the future.
- The government should conduct comprehensive impact analyses on the likely benefits and costs of the current trade agreements and future trade agreements. This is necessary as some countries are likely to become a channel for the export of cheap and highly subsidized products from the rest of the world.

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