

Deregulation of agricultural marketing in South Africa:

Lessons learned

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Contents

Foreword

The authors

1 Introduction

2 Agricultural policy in historical perspective

Segregation and support: 1910 to the Second World War

The post-war period to 1980

Agricultural policy during the 1980s

3 Changes in agricultural policy from the 1980s

Change in tax policy

Budgetary allocations to agriculture

Agricultural and rural development policy

Trade policy reform

Labour market reform

4 Reform of the agricultural marketing system

The period before 1996

The promulgation of the new Marketing Act

The objectives of the Act

The NAMC

The procedures for allowing intervention in the market

5 Some effects of the changing farm policy

Structural changes

The financial position of farmers

Changing land use patterns

Changes in domestic support to South African agriculture

Effects on productivity of South African agriculture

Changes resulting from the new Marketing Act

The average annual growth rate in the consumer price index for food

Growth in gross domestic investment and foreign direct investment in agriculture

Growth in new enterprise establishment in the food and agricultural sector

Changes in cropping patterns

The benefits of deregulation: Two case studies

Maize and wheat

Apples in South Africa and Chile

The effects of deregulation

Output and net incomes

Composition of production (output mix)

Employment and wages

Direct investment and new entrants

6 Conclusions

References

Foreword

The purpose of FMF *Monographs* is to use the analytic method of political economy to shed light on how best the promotion of free markets will improve the workings of the South African economy. In particular, authors are urged to apply the microeconomic approach of studying how individuals, firms and households behave in response to either naturally occurring or regulatory induced incentives. This requires that they display a sound institutional knowledge and understanding of their theme. It also implies that authors pursue their analysis in a logical fashion to policy proposals, unencumbered by preoccupation as to what is or is not politically acceptable at any given time.

In one sense this *Monograph* has departed from that format. It is less a series of policy proposals and more a record of a decade of successful deregulation. Agricultural Control Boards disturbed the industry's commercial activities for decades. Of course agricultural support policies of various sorts are not unique to South Africa. They have been common throughout the world since the Depression years. They have been maintained allegedly to keep farm incomes above what they would be in the presence of exposure to free markets, including imports. Subsidies, price guarantees and restrictions on imports are all variations on the theme.

France and Germany in Europe, the USA in the Americas, and South Africa are all countries typified by long-standing government intervention in agricultural markets. The front runner in deregulation has been South Africa. This *Monograph* recounts the growth in regulation in the early- to middle-twentieth century to the revolutionary reforms of the 1990s.

Few people are better equipped to provide this narrative than Professors Vink and Kirsten. Vink served on the Kassier Committee whose recommendations underlie many of the current reforms. Kirsten, holds a chair at Pretoria University and is widely experienced internationally as a commentator on both small and large scale agriculture.

Vink and Kirsten carefully document how the deregulation has benefited both farmers, farm workers and the overall economy. They show how food price inflation has decreased and investment in agriculture has risen.

In addition there has been a marked relative shift away from field crop production towards higher value horticulture and livestock products. Growth rates in gross income from field crops, horticultural products and livestock products have been higher since the elections in 1994. There is evidence of large changes in cropping patterns. The area under yellow maize has declined and under oilseeds and cotton has increased. Thus, a shift from low value to higher value commodities is taking place. Total output of maize and wheat has been maintained despite the declines in area planted, i.e. grain yields have increased. Increased productivity will lead to increased economic activity in rural areas. The non-farm rural economy will benefit as farm production becomes more diversified and storage, processing and support services become more diverse and decentralised. The farm sector will continue to lose jobs, but the demand for labour will switch to skilled and better paid employment. More rural non-farm job opportunities will be created. There is growing evidence of increased foreign investment in input supply, agro-processing and marketing activities directly related to agriculture.

In short, South Africa is a successful pioneer in agricultural deregulation. The market rules in almost every sector; from maize, to wheat to fruit. (There are still some sectors where little has been achieved – most notably sugar). Market control, not state control, unambiguously best serves farmers, consumers, and the economy at large.

The FMF offers this *Monograph* as a serious contribution to the economic history of the country. The views of Professors Vink and Kirsten are their own and not necessarily shared by the members, directors or staff of the FMF. Nevertheless, as discussions continue on how future policy should evolve, the record as laid out by Vink and Kirsten will be an indispensable foundation for that process.

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Johann Kirsten completed his undergraduate studies in Agricultural Economics at the University of Stellenbosch, and his post-graduate degrees at the University of Pretoria. He served a term as Agricultural Councillor in the United Kingdom. He is currently Chair of the Department of Agricultural Economics, Extension and Rural Development at the University of Pretoria, and was recently appointed Chair of the School of Agricultural and Food Sciences at that University. He has extensive field experience in researching small farmer systems throughout the sub-continent, and recently managed an extensive research project for the Government of Namibia on livestock marketing in the Northern Communal Areas.

1 Introduction

The purpose of this *Monograph* is to document the changes in agricultural policy in South Africa in recent times, and to attempt to trace some of the effects of those policy changes on the agricultural sector, and on the broader economy of South Africa. To this end, Chapter 2 of the paper provides an introduction that places these policy changes into historical context. This is followed in Chapter 3 by a discussion of the policy shifts that have taken place since the early 1980s, with a focus in Chapter 4 on changes to agricultural marketing policy. In Chapter 5 the effects of the changes in policy at the sector level are analysed. Chapter 6 summarises our conclusions.

2 Agricultural policy in historical perspective

There has been a long history of state intervention in South African agriculture, which reached its zenith around 1980 with a host of laws, ordinances, statutes and regulations. These affected, and in many cases still affect, all aspects of agriculture, including prices of, access to and use of natural resources, finance, capital, labour, local markets, foreign markets and foreign exchange, etc. Importantly, these measures impacted unequally on different categories of farmers. The two best known outcomes of the complex interaction of social, political and economic factors that characterise South African agriculture are probably the highly skewed distribution of land ownership and food production's consistent outpacing of population growth rates. In this century these have been the result of at least three distinct phases of structural adjustment in the sector (see e.g. Vink, 1990; Brand *et al*, 1992; Kassier Report, 1992). There are the periods from Union to World War II; from 1945 to 1980; and from 1980 to the present.

Segregation and support: 1910 to the Second World War

When the Union of South Africa was established in 1910, legislation from its constituent parts was consolidated into national laws and supplemented by other farm policy measures. The most important legislation was the Land Bank Act of 1912, the 1913 Land Act, the Land Settlement Act of 1912 and the legislation establishing the wine farmers' co-operative, the KWV. In the period leading up to the Second World War further legislation was promulgated, including the Co-operative Societies Acts of 1922 and 1939, the Natives Administration Act of 1927, the Land Act of 1936 and the Marketing Act of 1937. This body of policy instruments set the scene for the almost total segregation of agriculture and for a comprehensive system of support measures to white farmers.

The main features of this period can be summarised as follows:

- 1 The existing racial discrimination in access to land was consolidated in the early part of this period and extended as time went on. The cumulative effect of the Land Acts was the eventual 87:13 split in access to land, with many African landowners deprived of ownership during the decades after 1913. The maldistribution of land ownership is of course worse than this, as most of the land in the former homelands is owned by the state. The Land Acts also attempted to outlaw other forms of access to land such as labour tenancy and sharecropping. This caused much disruption to the farm production of the black peasantry (Keegan, 1981; Matsetela, 1981; Willan, 1984; Plaatje, 1987).
- 2 The Land Acts, the Administration Act of 1927 and a wide range of Proclamations made in terms of these Acts during the 1960s, controlled the form of land access in the 'reserves'. The legislation served to co-opt traditional chieftanship systems into the structures of the state and to cement the ruling interpretation of 'traditional' tenure systems in law. The principal economic effect was to increase the transaction costs of evolutionary changes to these tenure forms (Vink, 1986; Ault and Rutman, 1993).
- 3 A wide range of instruments was introduced for supporting commercial (white) farmers. These included the Land and Agricultural Bank, formed out of existing provincial institutions; the securing of input supply and marketing services for farmers under the Co-operative Societies Acts of 1922 and 1939; and the tightening of controls over produce marketing under the Marketing Act of 1937 and various other bits of legislation. Settlement of state owned land by white farmers under the Land Settlement Act of 1912 took place at a time when, in the USA for example, there was considerable pressure to keep state owned land in the public domain for conservation purposes (e.g. Schmid, 1987).

- 4 Although it would change more rapidly in the future, the structure of the agricultural sector was subjected to a number of changes during this period. The number of farms in the commercial farming areas of South Africa was still increasing throughout the first half of the century. Labour tenancy and sharecropping remained features of the farm economy despite legal prohibition under the Land Acts (e.g. Keegan, 1983; Morrell, 1986; Trapido, 1986; Murray, 1992). At the same time population pressure in the homelands was increasing and already above the environmental carrying capacity (e.g. Simkins, 1981). The economically perverse inverse spatial pattern of farm sizes, with the smallest farms on the geographical and economic periphery of the country, was largely set in this period.

Prior to 1937 State intervention in agricultural marketing in South Africa was piecemeal, and was seen as merely part of a larger effort to support the agricultural sector. The Marketing Act of 1937, on the other hand, became the cornerstone of commercial agricultural policy: from that date agricultural policy and agricultural marketing were virtually synonymous. It is also no coincidence that the second of the most intrusive interventions in the lives of black farmers, namely the 1936 Land Act, was promulgated at the same time¹, thereby consolidating segregation in agricultural policy.

The 1937 Act was amended fairly regularly and eventually consolidated into a new Marketing Act, No.59 of 1968. Although the legislation had succeeded in a) changing the lives of commercial farmers; and b) excluding African farmers from access to most markets for farm commodities, it also provided ample evidence of the working of the 'law of unintended consequences'. The aims of the Marketing Act were never entirely clear, as the Act itself defines its purpose as intervention in pursuit of 'orderly marketing', but does not define this concept. The Kassier Committee (Kassier, 1992) argued that the Act had not been successful at achieving aims which could have been seen as facilitating 'orderly marketing' such as keeping the maximum number of (white) commercial farmers on the *platteland*; efficient production; reducing the marketing margin; increasing consumption; and price stability. There is evidence that the Act achieved the opposite of each of these aims in at least some industries.

Despite its claim to foster 'orderly marketing', the most relevant of the effects of the Marketing Acts of 1937 and 1968, was its role in influencing access to markets for different groups of farmers. In this respect, it is clear that the main beneficiaries of the legislation were not commercial farmers in general, but a favoured few within the commercial farming sector. Three examples illustrate the point:

- 1 Nieuwoudt (1987) estimated that beef marketing quotas at the controlled abattoirs resulted in an increase in retail prices and a decrease in producer prices at uncontrolled abattoirs. Larger-scale farmers were more likely to be allocated these permits, and smaller-scale farmers were more likely to sell to uncontrolled abattoirs.
- 2 Under the single channel, fixed price schemes (maize, sorghum, and wheat) agricultural co-operatives were generally appointed as agents of the relevant Boards. The co-operatives functioned as regional monopolies. Under these schemes, farmers were paid a fixed price at delivery to the co-operative, regardless of where the delivery was made. This resulted in substantial cross-subsidisation from farmers proximate to the market to farmers situated further away from the market.
- 3 Van Zyl (1988) has estimated that the maize scheme resulted in a substantial transfer from consumers to producers. Small scale (African) maize farmers were twice affected by these arrangements: they were often forced to sell maize at a discount, either through a marketing arrangement in the former homelands, where they had to wait longer for payment, or via a white farmer; and up to 95 per cent of small scale producers were net consumers of maize (van Zyl and Coetzee, 1990).

Similar distortions were found in the wine and sugar industries, which were covered by separate legislation (e.g. Brand *et al*, 1992). It is, therefore, clear that the Marketing Act resulted in the disempowerment of all farmers in South Africa other than a small proportion of the commercial farming fraternity.

Despite the recommendations of the Kassier Committee in 1992, the then Minister of Agriculture created a committee (the Agricultural Marketing Policy Advisory Committee or AMPEC) whose report recommended far less sweeping deregulation in the marketing system than was envisaged by the Kassier Committee, or in terms of the stated policy of the ANC. The implementation of the AMPEC recommendations continued after the democratic elections of 1994 under the National Party Minister of Agriculture in the form of a draft Marketing Act which did little to change the skewed benefits apparent under the previous system. However, by the time the National Party had withdrawn from the Government of National Unity, a draft of what was to become the Marketing of Agricultural Products Act, No.47 of 1996, had already been prepared within the ANC, and the way was cleared for its eventual promulgation.

The post-war period to 1980

The South African economy grew at above 5 per cent per annum to 1970 and above 3 per cent to 1980, both well above population growth rates during this period. Despite the increase in per capita incomes, the economy was characterised by a number of negative features that have been ascribed to apartheid and bad economic policies (Kritzinger- van Niekerk *et al*, 1992). The most important of these features, with their impact on agriculture, were the rise in the inflation rate from the early 1970s (e.g. Moll, 1993) and increasing concentration in the agro-industrial complex. The latter was largely a result of industrialisation through import substitution (Board of Tariffs and Trade, 1992; Brand *et al*, 1992; Kassier Report, 1992). By the beginning of the 1980s these distortionary influences on prices, together with a range of farm-specific policies, had created an agricultural sector that desperately needed to be reformed (Kassier and Groenewald, 1992).

The main features of the second phase of agricultural restructuring, which took place after the Second World War, were the mechanisation of commercial farming and the increased pressure on food production in the homelands. Regarding the former, the experience in the maize farming areas tells the story of capital and labour substitution in agriculture (de Klerk, 1983; van Zyl *et al*, 1987a). The total number of farm employees in South African agriculture grew to 1970, and then fell between 1970 and 1980. Despite the decline in the latter period, farm employment was higher in 1980 than it had been in 1950 (van Zyl *et al*, 1987a). More detailed analyses of farms in the maize producing areas show a turning point around 1970, with the growth rate in employees per 1 000 ha dropping faster than that per 1 000 ha of cultivated land in the period 1945-1970 as compared to 1970-1985 (van Zyl *et al*, 1987a: 245). This turning point around 1970 is graphically illustrated by de Klerk (1983: 46), who shows that while 16 per cent of the maize crop was harvested with combines in 1968, this had increased to 81 per cent by 1977. The area planted to maize increased from 1945-1970 as tractors were introduced on a large scale. This increased the demand for labour to harvest the bigger crop. Combines were introduced in the late 1960s, stimulated by preferential tax treatment (van Zyl *et al*, 1987a), and the demand for labour fell. This period simultaneously saw the highest rates of forced removals from the farms and an increasing use of temporary or seasonal labour, most of whom were women and children (Marcus, 1989).

Other features of the commercial farm sector in the post-war period included the tightening of control over prices and the movement of produce in terms of the Marketing Act, and an increase in subsidies to white farmers. The latter was both direct in the form of budgetary transfers for disaster relief, irrigation infrastructure, water subsidies, research etc and indirectly through for example price policy and interest rate subsidies (e.g. van Zyl *et al*, 1992; Vink *et al* 1992).

The early part of this period also saw the release of the Tomlinson Commission Report (1955), which proposed development of the reserves, emphasising the creation of a class of small property owning farmers. Most of the recommendations of this Commission were rejected by the

government, which subsequently created the vision and practice of ethnically based homelands. This in turn was the ideological precursor to extensive forced removals, Trust land purchase and consolidation of the homelands, which were to occur throughout this period. These processes had disruptive social and economic effects on the farming sector as a whole. Government intervention in homeland agriculture was directed towards physical 'betterment planning' and administrative control (de Wet, 1987). The absence of commercial farming in the homelands was ascribed to a lack of managerial and entrepreneurial ability among black farmers, despite a long history of evidence to the contrary (Bundy, 1979; Keegan, 1981; Matsetela, 1981; Beinart *et al*, 1986). This served to justify the use of public institutions and expatriate management to 'develop' agriculture, resulting in large scale centrally managed projects with little or no community participation. In a later adaptation some of these schemes were adjusted to settle selected labourers as 'project farmers' under the control of central management. The farmer settlement approach became the mainstay of agricultural development efforts in the 1970s and early 1980s.

This combination of segregation of land ownership and a two-track approach to access to support services had a number of major effects on the farming sector. First, it resulted in extraordinary institutional duplication with attendant high fiscal cost (e.g. Vink and Kassier, 1991; Lipton, 1993). South Africa ended up with 11 Departments of Agriculture by 1980 (14 by 1984) and with internal barriers to trade in farm commodities through duplication of control over marketing (Kassier Report, 1992). Second, it created 'two agricultures' (Lipton, 1977) which differed in access to land and support services, productivity, etc (Brand *et al*, 1992). Third, it created the anomaly of a country that regularly exported food 'surpluses' while most of the population lived well below minimum levels of living. In addition, the food self-sufficiency index showed exports of field crops and imports of red meat while the country has a poor arable resource base (McKenzie *et al*, 1989). Fourth, for much of this period farm input prices were rising faster than product prices despite attempts to keep domestic prices above parity with imports. Fifth, there was much evidence of severe environmental damage to fragile land resources in both the commercial farming areas and the homelands (e.g. McKenzie *et al*, 1989; Brand *et al*, 1992). Sixth, the combination of subsidies and distortive price policies led to high rates of growth in farm land prices. By the beginning of the 1980s the farm sector had become inflexible and it has been argued that these farm policies made the sector particularly vulnerable to the disastrous drought that struck the subcontinent in the early 1980s (van Zyl and Groenewald, 1988a). Seventh, the processes of forced removals and homeland consolidation created a high level of uncertainty among individual farmers, both black and white, as to the protection of existing property rights, with predictable economic consequences in some of the ecologically most vulnerable parts of the country.

The second phase of structural change started around the time of World War II (Wickens, 1989) and lasted until the early 1980s. In the former homelands, there was increased pressure on food production despite increased investment in large-scale development projects under expatriate management. This period also saw the commercialisation of white farming through the adoption of modern mechanical and biological technology, resulting in consistent growth in output within a policy environment heavily favouring increased production by large-scale owner operated farms. Much of this *Monograph* analyses the success of the research system in generating new technologies that resulted in productivity growth, but we also find that there were huge costs to the biases caused by the distortionary policies.

Two trends were evident in the commercial sector during this period (van Zyl *et al*, 1987a). Between 1950 and about 1970 there was a large expansion in cultivated farm area, probably because tractors replaced draught oxen in ploughing operations. Larger areas could be managed and more labour was required for harvesting. This was exacerbated by the increase in yields throughout the 1960s and 1970s as a result of improved biological technology. The introduction of the combine harvester during the 1970s alleviated this problem but, together with credit, labour and tax policies favouring capital substitution and mechanisation, led to considerable shedding of labour from agriculture thereafter (Fènyes and van Rooyen, 1985). Table 1 shows these trends.

**Table 1: Average growth in employment
and capital formation per annum, 1950 to 1980**

Period	Growth (%)	Real gross capital formation
	Total number of farm employees	
1950-1960	2.08	3.21
1960-1970	4.38	5.34
1970-1980	-2.67	5.09

Source: Adapted from van Zyl, *et al* (1987a).

Agricultural policy during the 1980s

History has shown that neither racial discrimination nor price distortions in South African agriculture could be sustained, and the pressures on agriculture for a reversal of these policies began to mount during the 1980s. This period was characterised by a reversal of the policies of the previous two decades, starting with increased liberalisation of the agricultural sector and then removal of racial barriers between black and white agriculture. The focus in this section is on the period leading up to the democratic elections in 1994.

Agricultural policy in South Africa during the 1980s was largely determined by the 1983 Constitution, and the continuation of a dualistic agricultural policy contained therein. Policy with regard to 'white' commercial agriculture was outlined in a White Paper on Agricultural Policy, tabled in 1984. The objective was to guide the development path of agriculture to ensure that factors of production would be used optimally with respect to economic, political and social development and stability, while also contributing to the promotion of an economically sound farming community. This was to be achieved through pursuing production, marketing and other goals.

Production goals included striving towards optimum use of natural agricultural resources; the preservation of agricultural land; the pursuit of a high number of well trained and financially sound owner occupant farmers; and the optimum use of labour. The government's objective was to ensure that potentially productive land was maintained as agricultural land and to retain any other land identified as agricultural land for agricultural purposes.

Marketing goals included the pursuit of orderly marketing, duly considering the principles of the free market system and the maintenance of specific quality and hygiene standards of South African agricultural products. Since the government was advocating a free market system, control under the Marketing Act needed to be applied with great circumspection to ensure that state involvement did not distort production, marketing and price structures. However, reform of the marketing system was limited in the period before the report of the Kassier Committee in 1992.

General goals included self sufficiency in food, optimum participation in international trade of agricultural products, and maximisation of agriculture's contribution to 'regional' development, incorporating the promotion of development in Southern Africa (i.e. the former homelands) and the rest of Africa.

One of the main aims of agricultural policy was 'self-sufficiency in respect of food, fibre and beverages and the supply of raw materials to local industries at reasonable prices' (RSA, 1984). The White Paper (RSA, 1984: 8-9) motivated this policy aim as follows: *'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. Adequate provision in this basic need of man not only promotes, but is also an essential prerequisite for an acceptable economic, political and social order and for stability.'*

In order to achieve this aim, the South African agricultural bureaucracy was geared to support the white commercial farmer, especially in field crops and livestock. Farmers were protected from foreign competition, received various forms of direct subsidies, often received producer prices at a

premium relative to world prices, and had access to the latest and most productive mechanical and biological technology. Through these measures, South Africa maintained its position as a surplus agricultural producer and achieved the aim of self-sufficiency in most commodities. However, these measures were often in conflict with environmental aims as contained in the Agricultural Resources Act. The cultivation of maize, for example, became so profitable that large tracts of marginal land came under production (Brand *et al*, 1992).

South Africa experienced a number of political changes and considerable political and economic instability during the 1980s. The constitution of 1983 gave birth to the tricameral parliamentary system and the concepts of 'own' and 'general' affairs. Violent uprisings, starting in 1984, led to a state of emergency and the intensification of economic sanctions in the mid-1980s.

As an important industry in the national economy, agriculture was also affected by numerous changes. The 1980s began with bumper harvests for maize and groundnuts in 1980/1, with an all-time record maize harvest of 14.6 million tonnes in that year. This was, however, followed by a period of drought between 1982 and 1984, resulting in widespread crop failures. Between 1984 and 1990, large surpluses of sorghum (1986), sunflower seed (1989), dry beans (1989), soybeans (1990) and sugar cane (1984) were produced. The field crop sector was again hit by drought in 1988 and 1991/92. In spite of periodic droughts, South African agriculture still succeeded in producing surpluses of all the important staples.

The land area devoted to crops fluctuated throughout the decade. A decline from 1986/87 in the area under maize was particularly noticeable and formed part of a longer-term trend. Maize plantings decreased from an average of 4.6 million hectares per year in the periods 1970-75 and 1980-85 (after increasing from 3.2 million hectares in 1950-55) to an average of 4.1 million hectares in 1990-95. This was largely the result of the change in the price policy of the maize industry, which resulted in a near 50 per cent drop in the real producer price of maize over the decade (Vink, 1993). Other influences included the land conversion scheme introduced to take land out of maize production, as well as unfavourable climatic conditions.

Although the area under cultivation for maize, wheat and sorghum declined during the period, production of these commodities grew steadily. Table 2 shows the trends in average yields for these commodities for the period 1950-55 to 1990-95. These increases in average yields may have been the result of a combination of yield-increasing technology, a shift in production away from the marginally productive areas and more intensive agronomic practices.

**Table 2: Average yields,
1950/55 to 1990/95 (tons per hectare)**

	1950/55	1960/65	1970/75	1980/85	1990/95
Maize	0.88	1.22	1.82	1.78	1.94
Wheat	0.50	0.59	0.81	1.13	1.54
Sorghum	0.67	0.67	1.46	1.62	1.74

Source: Calculated from Abstract of Agricultural Statistics (RSA, 1995).

Real producer prices in many of the major commodities such as maize, wheat, red meat and oilseeds showed a marked decline from the beginning of the 1980s. Farmers also experienced a cost-price squeeze as the prices of farm requisites rose faster than producer prices in nominal terms, as indicated in Table 3.

**Table 3: Annual increase in producer prices
vs. prices of inputs (1980-1991)**

Product	Producer price (% increase p.a.)	Prices of inputs (% increase p.a.)
Summer grains	9.7	12.4
Winter grains	9.0	9.8
Dairy products	11.2	11.3
Poultry	11.9	11.9
Red meat	11.1	12.2
Vegetables	10.1	10.1
Fruit	13.5	13.3
Average	10.6	12.0

Source: Abstract of Agricultural Statistics (RSA, 1994).

Although per capita food production levels were maintained throughout the earlier part of the century, this says little about the nutritional status of the population. The Committee for the Development of a Food and Nutrition Strategy for Southern Africa (1990) attempted to identify the numbers of nutritionally deficient people in the country. It was estimated that, in 1989, there were around 16.3 million people in South Africa with an income lower than the minimum subsistence level (MSL). A more accurate description of the situation can be gleaned from anthropometric data (Table 4). Estimates according to these somewhat conservative norms show that there were at least 2.3 million people in South Africa who could be considered nutritionally deficient, as against the 16.3 million according to income criteria. About 2 million or 86.7 per cent of the 2.3 million people were Africans. Table 4 also shows that 829 000 (35.9 per cent) were children of six months to five years, 1.3 million (55.8 per cent) children of six to twelve years and 192 000 (8.3 per cent) pregnant and lactating women.

**Table 4: Number of nutritionally needy
in South Africa, 1989**

	White	Coloured	Indian	African	Total
Children six to 60 months:					
Urban	15 874	52 214	15 323	236 419	319 830
Rural	1 617	33 108	2 366	472 517	509 608
Total	17 491	85 322	77 689	708 936	829 438
Children 6 to 12 years	20 318	123 467	24 530	1 123 095	1 291 410
Pregnant & lactating women	2 061	16 492	1 260	171 988	191 801
TOTAL	39 870	225 281	43 479	2 004 019	2 313 649

Source: Committee for the Development of a Food and Nutrition Strategy for Southern Africa (1990).

One of the major instruments to achieve the goals of the White Paper of 1984 was agricultural credit. Agricultural policy in this period was characterised by the large sums of government subsidies to farmers, usually in the form of drought aid and other disaster payments. The government also paid industry subsidies to, amongst others, the wheat, maize, and dairy industries. The subsidy to the wheat industry was paid to keep consumer prices of wheat and wheat products (flour, bread) as low as possible. The payment to the maize industry was in terms of the government's subsidisation of the Maize Board's handling and storage costs, in order to keep selling prices of maize as low as possible. The extent of subsidies to the wheat and maize industry is

shown in Table 5. Apart from the subsidisation of handling costs in the maize industry, the government also took responsibility for the Maize Board's export losses.

**Table 5: Government subsidies
to the wheat and maize industries (1980-1993)**

Year	Maize (Rm.)	Wheat (Rm.)
1980	44.7	116.4
1981	59.5	162.1
1982	82.9	181.9
1983	69.9	193.4
1984	132.4	276.6
1985	215.0	194.3
1986	250.0	180.5
1987	151.0	147.4
1988	359.0	132.0
1989	79.9	105.9
1990	76.0	60.0
1991	100.0	-
1992	100.0	-
1993	-	-

Source: Abstract of Agricultural Statistics (RSA. 1994).

¹ The Marketing Act had been scheduled for Parliament in 1936, but was held back a year because of technical difficulties.

3 Changes in agricultural policy from the 1980s

Within this policy framework, and at times seemingly despite stated policy, the agricultural sector faced increasing deregulation and market liberalisation from the mid-1980s. Vink (1993) argues that the deregulation of the agricultural sector started outside agriculture in the late-1970s when the financial sector was extensively liberalised following the publication of the de Kock Commission report. The most immediate impact on agriculture came from declines in the foreign exchange value of the currency and in the interest cost of farm borrowing. Changes to the reserve requirements of the banking sector made it impossible for the Land Bank to continue subsidising farmers' interest rates. The use of interest rate policy by the Reserve Bank led to a rise in interest rates to very high levels, which resulted in interest payments becoming the single largest cost of production in agriculture at that time. The decline in the value of the Rand resulted in farm input prices, which have a relatively large import component, rising faster than farm output prices.

Other changes in the broader political economy that resulted in changes in agricultural policy included the lifting of controls over the movement of labour in South Africa in the mid-1980s, the considerable micro-economic deregulation leading to increased activity in the informal sector, especially in food supply services (Vink, 1993); and the momentous political changes that were set in motion on 2 February, 1990. Within this climate of macroeconomic and political change, a number of shifts in agricultural policy took place during the 1980s (Brand *et al*, 1992; Vink, 1993):

- 1 The tax treatment of agriculture changed, for example, by the extension in the period within which capital purchases could be written off from one to three years, thereby reducing the implicit subsidy, and the effective 'ring fencing' of agricultural incomes.
- 2 Budgetary allocations supporting white farmers declined by some 50 per cent between 1987 and 1993 (see also Vink and Kassier, 1991; LAPC, 1993).
- 3 There was a shift away from settlement schemes and large-scale projects as the major instruments of agricultural development in the former homelands areas, in favour of an approach based on the provision of farmer support services such as infrastructure, extension services, research, and access to credit and markets.

Each of these is discussed below.

Change in tax policy

The farm sector has traditionally received differential tax treatment from the Receiver of Revenue. Lamont (1990) estimated that income tax concessions to farmers amounted to 70 per cent of their theoretical tax bill in 1981/84. Table 6 shows some comparative data. Although the contribution to tax is lower than contribution to GDP, which declined from about 7 per cent in 1980 to less than 5 per cent in the 1990s, farmers provide social services that are not usually expected of other business enterprises. What is important is that although agriculture's share of revenue remained fairly constant over the years under consideration, it increased from 1986. This coincided with the reduction in major tax concessions in the treatment of certain capital purchases. Such tax concessions tended to result in over-investment by farmers in good years but led to cash flow problems in bad years (LAPC, 1993).

**Table 6: Percentage contribution
of different sources to income tax (%)**

Source of income tax	1989
Banking and finance	0.70
Commerce, property dealing	9.97
Manufacturing (industry)	9.53
Employment	56.37
Agriculture, forestry, fishing	1.84
Construction	0.40
Mining and quarrying	10.83
Investments	4.47
Professional services	1.19
Other services	1.64
Real estate	2.25
Transport and storage	0.33
Insurance	0.46

Source: Department of Finance (1989)

Budgetary allocations to agriculture

During the 1980s, government expenditure on agriculture, forestry and fishing increased in nominal terms from R833 million in 1982/3 to R2.24bn by 1990/1. However, real expenditure rose between 1982/3 and 1984/5, but fell back for the rest of the decade (LAPC, 1993). Data on budget expenditure provided by the Central Statistical Service indicate that white farmers' share of the agriculture budget was declining in the latter part of the 1980s. Between 1988/9 and 1990/1, white agriculture's share of the budget dropped from 72 per cent to 61 per cent. Conversely, over the same period, the former homelands received a greater proportion. Auditors' reports and expenditure estimates of the government indicate a similar trend. These figures show a steady fall in white agriculture's share of total expenditure from 79 per cent of the budget in 1985/6 to 52 per cent in 1990/1.

Agricultural and rural development policy

Three clearly defined approaches to agricultural development in the former homelands can be identified, i.e. betterment planning to the late 1970s; centrally managed project farming and farmer settlement projects during the 1970s and 1980s, and the more broad-based farmer support programmes supported by the Development Bank of Southern Africa from the late 1980s (*cf.* Ellis-Jones, 1987; Christodoulou and Vink, 1990; van Rooyen *et al*, 1987; van Rooyen, 1993; Bromberger and Antonie, 1993).

The 1970s were characterised by large-scale, centrally managed estate project farms (Christodoulou and Vink, 1990). This was particularly the case with industrial crops 'where large units were desirable' (van Wyk, 1970: 66). The project farming approach obtained a further boost with the establishment in 1973 of an agricultural division in the Bantu Investment Corporation. According to Bromberger and Antonie (1993), Christodoulou and Vink (1990) and Christodoulou *et al* (1993), it appeared that substantial financial losses were the norm with these schemes. Further, the distribution of benefits was limited in relation to total need and to aggregate resources available for development. Although higher levels of resource use, production and wage employment were achieved through these 'modern' farming enterprises managed by parastatal companies and consultants, little was done to promote a class of self-employed farmers or to improve farming conditions for smallholders outside these schemes.

Many of these schemes were later adjusted to settle selected persons as 'project farmers' operating under paternalistic control (van Rooyen, 1993). Occupiers of plots were strictly selected,

and they had to farm according to direction and under supervision (van Wyk, 1970: 66). Participation by so-called farmers was accommodated by using farmer committees to assist the project manager. These farmers, however, were little more than paid wage labourers with virtually no control over their production activities.

In due course, disillusionment set in. The projects were capital-intensive, expensive to operate, often incurred losses, and rarely involved spill-overs or linkages with the surrounding communities. They were viewed as 'islands of prosperity amidst an ocean of poverty' (Bromberger and Antonie, 1993). In acknowledging the limitations of such projects, an alternative approach to agricultural development was designed. The Farmer Support Programme (FSP) was introduced in 1986 (van Rooyen *et al.*, 1987; Singini and van Rooyen, 1995), trying to achieve a shift away from investment in projects to a programme which could provide access to support services for a large number of smallholders and rural households in a broad-based manner. An important motivation for this programme was the promotion of equitable access to support services, resources and opportunities.

During this period the state also started a number of other piecemeal reforms, which included:

- The scrapping of the Land Acts and related legislation in 1991;
- The application of certain elements of wider labour legislation to include farm labour, and
- A reorganisation of the institutions of the State that served the sector, including the creation of the Agricultural Research Council and the amalgamation of the 'Own' and 'General' Affairs Departments of Agriculture.

Trade policy reform

The new South African government embarked on a process of trade policy reform that aimed to reverse decades of 'inward industrialisation' strategies. The distinguishing characteristic of the reform policy was a willingness to expose businesses in the country to tariffs that were often below the bound rates negotiated in the Uruguay Round of the GATT. 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, however, been reduced at a rate faster than required under the Agreement. South Africa has also participated in the renegotiation of the Southern African Customs Union treaty, has agreed to the new SADC trade protocol, and has successfully negotiated a free trade agreement with the EU. In all these cases, the country has agreed in principle to further liberalise agricultural trade. Finally, the country has gained membership of the Cairns Group, thus signalling its intention to unilaterally liberalise its trade regardless of the progress made by the developed countries in withdrawing farm support programmes.

Labour market reform

While labour legislation governing working conditions, wage rates, etc. has progressively become applicable to the agricultural sector over a period of more than a decade, certain aspects of the land reform programme have also impacted on the manner in which labour is managed in the agricultural sector. Here specific mention should be made of the introduction of legislation that governs the occupation rights of workers who live on farms.

Other government policy initiatives such as the land reform programme and changes in technology policy will influence the agricultural sector in future. As the consequences are expected to be long term, they will not be discussed in this *Monograph*. However, there can be no doubt that the changes to agricultural marketing policy represented the most important agricultural policy changes to occur after the early-1980s.

4 Reform of the agricultural marketing system

The period before 1996

Agricultural marketing policy was largely determined by the Marketing Act (Act 59 of 1968, as amended). The Act contained, *inter alia*, a list of potential policy instruments that could be used to control the marketing of a commodity. It also enabled the Minister of Agriculture to proclaim a marketing scheme, and appoint a Control Board to control the marketing of a particular commodity in a prescribed manner. A total of 23 Control Boards were established under the Act.

During the early 1980s there was a general reduction in the use of price controls and registration requirements as instruments of marketing policy (e.g. in the maize and wheat industries). There were also shifts towards more market-based pricing systems, away from the cost-plus pricing procedures that had traditionally been used. In addition to the macro factors described above, there was considerable pressure from within the system, with many farmers becoming increasingly unhappy with aspects of the controlled marketing of many agricultural products. There was also a realisation that the performance of the agricultural sector in aggregate, as measured by the very slow rate of productivity growth, was poor (see Thirtle *et al*, 1993).

The market liberalisation trend was further enhanced by the pressures emerging from the GATT negotiations for the abolition of quantitative import controls and the introduction of tariffs on all agricultural commodities. This process was intended to reduce the distortions created by quantitative controls, to create a more commercial environment in the planning of imports, to reduce the role of government in the allocation of licences, and to increase competition. A general move towards tariffs and away from quotas has been taking place since 1985, but the application of this policy to agricultural commodities only commenced in 1992.

The report of the Committee of Inquiry into the Marketing Act (Kassier, 1992), appointed by the Minister of Agriculture in June 1992, was instrumental in supporting this process of deregulation. Between the release of the Kassier report in January 1993 and the promulgation of new legislation, some ten of the existing Boards were abolished. The impact of these events on the reform and deregulation of South Africa's agricultural marketing system is evident from Table 7.

Table 7: A Summary of marketing reforms before 1994

Product	First intervention	Recommendation by CIMA (1993)	Reforms (including those before 1993)
<i>Single channel fixed price schemes</i>			
Maize	1938	Change necessary.	Shift to pool-type pricing (1987); prohibition on erection of grain silos repealed; grain sorghum established as surplus removal scheme (1986); scrapping of control on buckwheat considered; scrapping of price control on maize meal; change to buyer of last resort (April, 1995); one channel marketing system abolished.
Winter cereals	1938	Change necessary.	Abolition of registration of millers and confectioners; elimination of bread subsidy (1990); price control on flour, meal and bread, and fixing of millers' margins scrapped (1991); simplification of grading system for wheat (1991).
<i>Single channel pool schemes</i>			
Oilseed	1952	Change necessary.	Abolition of import control measures on oilcake & fishmeal; groundnuts under surplus removal scheme.
Leaf tobacco	1939	Statutory power unnecessary.	Single channel marketing system under the Co-operatives Act discontinued. Export subsidies suspended.

Product	First intervention	Recommendation by CIMA (1993)	Reforms (including those before 1993)
Deciduous fruit	1939	Moratorium on statutory powers.	No change.
Citrus fruit	1939	Voluntary organisation.	Domestic market control abolished (1990).
Bananas	1957	-	Abolished in 1993.
Lucerne seed	1952	Statutory powers unnecessary.	Switch to surplus removal scheme rejected (1990); Board permitted private imports and exports (1992).
Wool	1972	Statutory powers unnecessary.	Single channel pool scheme discontinued. Wool Board voluntary organisation providing market information etc.
Dried fruit	1938	Statutory powers unnecessary.	No change.
Chicory	1939	No intervention.	Abolished in 1993.
Rooibos tea	1954	Statutory powers unnecessary.	Abolished in 1993.
Mohair	1965	Voluntary organisation.	Abolished on 31 January 1994.
Dairy	1956	-	Consumer price control on fresh milk abolished (1983); price control on butter and cheese abolished (1985); price stabilisation activities ended following court ruling ending levy income (1992); Dairy Board and scheme abolished (31 Dec 1993). A voluntary organisation established 1 Jan 1994.
<i>Surplus removal schemes (or price support schemes)</i>			
Red meat	1945	Change necessary.	Abolition of restrictions on movement from uncontrolled to controlled areas (1992); abolition of registration of producers, abattoir agents, butchers, dealers, processors and importers.
Eggs	1953	Statutory powers unnecessary.	Abolition of production and pricing control in 1993. Abolition of Egg Board in 1994.
Potatoes	1951	Statutory powers unnecessary.	Abolished in 1993.
Dry beans	1955	Statutory powers unnecessary.	Abolished in 1993.
Sorghum	1957	Statutory powers unnecessary.	No change.
<i>Supervisory and price regulation schemes</i>			
Canning fruit	1963	Statutory powers unnecessary.	No change.
Cotton	1974	-	No change.
<i>Control in terms of promotion</i>			
Karakul pelts	1968	-	Karakul scheme and board abolished circa 1985.
<i>Control in terms of other legislation</i>			
Sugar cane	1936 #		Reform of cane quota system (1990).
Wine	1918		Abolition of production quota system (1992).
Ostriches and ostrich products	1958 * 1988 **	Statutory single channel control to be repealed.	Abolition of single channel marketing system (1993).
Lucerne hay	1958	-	Abolition of single channel marketing (1993). The last government notice allowing a co-operative to implement single channel marketing withdrawn in 1993 (Oranje Co-operative).

Notes:

- # The Sugar Act of 1936 established control measures in the sugar industry. The Act makes provision for a Sugar Agreement, established in 1943, to oversee the industry.
- * Only ostrich products.
- ** Ostriches and ostrich products.

One other key aspect of marketing deregulation was the relaxation of price controls on a wide range of products. Examples are presented in Table 8.

Table 8: Abolition of price control in the food industry

Product	Level abolished	Year (R million)	1981 Subsidy
Bread	Retail and wholesale	1991	162.1
Maize marketing margin		1991	59.4
Dairy			3.7
Cheese	Retail	1985	
	Wholesale	1986	
Milk	Retail	1983	
	Wholesale	1983	
	Producer	1987	
Butter	Retail	1985	
	Wholesale	1988	
Fertiliser		1987/8	11.0
Stock feed and grazing			15.7
Transport rebates			4.0
Total			255.9

Source: Abstract of Agricultural Statistics. 1982.

The promulgation of the new Marketing Act

Opposition to government intervention in agricultural marketing dates from before the implementation of the original Marketing Act in 1937. An analysis of the reasons for the promulgation of the Act, as well as the reasons for opposition to the Act should clarify why the new Marketing of Agricultural Products Act (1996) was required, rather than a mere scrapping of the old Act.

The 1937 Act was promulgated for two main reasons. First, it was believed that the Act would enable farmers to stand together, and thereby stabilise and increase the prices they received for their produce (also on the export markets). Second, there was a belief that co-operation amongst farmers would cut out unnecessary duplication in the marketing chain, and therefore lower the cost of getting produce to the consumer in the form, and at the time and place, desired (de Swardt, 1983). Both these arguments were premised on the view that incomes in agriculture were lower than they should be because of a combination of natural factors and exploitation by middlemen and sundry other speculators. As has been seen above, there is little evidence that these objectives were achieved. There is, however, substantial evidence to show that the system was hijacked for the benefit of a few commercial farmers.

The case for a free market system rests on the argument that farmers will be rewarded according to the contributions they make to the national economy, and that it is not possible to raise their incomes above these levels for any sustained period through interference with the forces of supply and demand. If society feels that this 'natural' level of earnings is too low, the best that can be done is to compensate them with direct income transfers, as these do not distort market signals. Further, it is argued that the forces of competition will sort out any inefficiencies in the marketing

chain. As far as export markets go, it is accepted that collusion can increase the price received by farmers, but that this will be at the expense of the volume of sales, and will lead to market inefficiencies. The net incomes of farmers will, therefore, not necessarily be higher. In addition, the market does not discriminate amongst participants and consequently provides the best mechanism for ensuring access for new entrants.

Theoretically, if there are information asymmetries – if your access to information depends on who you are – then it is not possible to attain an efficient allocation of resources. This is precisely the situation that could have existed if the dissolution of the Control Boards had been instantaneous. The Kassier Committee therefore argued that a managed deregulation was required rather than a ‘big bang’ abolition. It consequently recommended a strong, independent and transparent Council whose main purpose would be to ensure that new entrants among the providers of marketing services would not be disadvantaged relative to existing participants. The Committee further argued that a competitive service provider industry would give new entrants greater access to farming and would also empower emerging and new farmers.

The recommendations of the Kassier Committee were based on the premise that a stronger, more centralised and more representative authority was required in order to override the vested interests that were so well represented in the various Control Boards. The main purpose of the recommended ‘Agricultural Marketing Council’ would therefore be to manage the process of deregulation that would be undertaken by the different Boards. However, once the desired *status quo* had been reached and the Boards dissolved, it was envisaged that certain statutory interventions would still remain on the statute books, and that the Council would be given the task of implementing these interventions through industry bodies that would act as agents of the Council.

This principle of a managed transition leading to minimal intervention was carried over into the Marketing of Agricultural Products Act, No.47 of 1996 despite strong representations to simply scrap the entire system after a suitable phasing out period. However, the new Act went further than the recommendations of the Kassier Committee in building safeguards to protect the interests of the disempowered. This was accomplished through the ingenious manner in which it defined the conditions under which intervention could take place, and the process for allowing this to happen.

There are three ways in which the new Act attempts to protect the interests of all interest groups as opposed to the interests of only a few farmers. These are the description of the objectives of the Act; the stipulation of the establishment, composition and functions of the National Agricultural Marketing Council (NAMC); and the procedures laid down for any intervention by the state in the marketing of an agricultural product.

The objectives of the Act

As stated above, the old Marketing Act never clearly set out its objectives beyond the general desire for ‘orderly marketing’. To accomplish this, the old Act set out a series of enabling measures that could be implemented under certain specified conditions. These conditions were kept vague, and there were few checks and balances built into the process. By contrast, the 1996 Act sets out to *prevent* rather than to *enable* undesirable interventions. This it accomplishes through the mechanism of the stated objectives, as well as the procedures required to implement any intervention.

The 1996 Act states its objectives explicitly in Section 2, where it spells out the conditions under which any statutory measures are to be allowed. These include:

- 1 increased market access for all market participants;
- 2 the promotion of efficiency in the marketing of agricultural products;
- 3 optimisation of export earnings from agricultural products;
- 4 enhancing the viability of the agricultural sector.

Statutory measures may only be introduced if ‘...the Minister is satisfied that such measure will *directly and substantially* advance one or more of the objectives...without being *substantially detrimental* to one or more of such objectives’ (emphasis added) (Section 2 (1)). In addition, the

Act states (Section 2 (3)) that no measure that is likely to be substantially detrimental to ‘...food security, the number of employment opportunities within the economy or to fair labour practice...’ will be allowed.

The NAMC

The 1996 Act makes provision for the establishment of a National Agricultural Marketing Council, whose composition, powers and functions differ quite markedly from its predecessor, the National Marketing Council. First, the members of the NAMC have to have ‘practical knowledge and experience...’ of one or more of the following:

- 1 the commercial production of agricultural products;
- 2 agricultural product-related trade and industry;
- 3 agricultural economics, including agricultural marketing and international agricultural trade;
- 4 consumer issues relating to agricultural products, including issues relating to previously disadvantaged communities;
- 5 the production and marketing of agricultural products by small-scale and previously disadvantaged farmers.

The members of the Council are appointed by the Minister after recommendations to the responsible parliamentary committees.

The provisions in the Act regarding the appointment of the Council give effect to the recommendation of the Kasser Committee that a ‘...more representative and transparent Marketing Council...’ be established. A wide range of interests, including those of previously disadvantaged consumers and farmers, are thus allegedly represented on the Council, differing from its predecessor, which consisted of Ministerial appointees, in practice nominated by the South African Agricultural Union, and officials of the Department of Agriculture.

Second, the Council has wider powers than its predecessor, whose main purpose was to advise the Minister, who in turn had little need to heed that advice. The following checks and balances have been built into the relationship between the Council and the Department of Agriculture under the new Act:

- 1 The staff of the NAMC are explicitly under the ‘... control of the chairperson of the Council...’ (section 8(1)(b)) as opposed to seconded staff as took place under the old Act.
- 2 The Minister approves the budget of the Council after consultation with the Minister of Finance, as opposed to the control that rested with the Director-General under the old Act.
- 3 Where the Council makes recommendations regarding the implementation of a statutory measure (i.e. the introduction of a new measure or the continuation, amendment or repeal of an existing measure) the Minister has to publish his or her reasons for accepting, rejecting or referring back those recommendations in the *Government Gazette*.

The procedures for allowing intervention in the market

The process for establishing whether a statutory measure complies with the objectives of the Act serves as further protection against the kind of discriminatory practices that were characteristic of the Control Boards under the old Act. Under the former rules, the National Marketing Council, whose members were officials of the Department, and whose staff were seconded by the Department, advised the Minister, who made the final decisions with no compulsion to provide reasons for a decision. Under the new Act there are, by contrast, a number of stipulations that attempt to make the process of deciding on an intervention more transparent and inclusive, in the process allowing the NAMC access to a broader range of expertise. These provisions include the following:

- 1 The NAMC has to publish its intention to investigate the possibility of introducing a new intervention, or of continuing, repealing or amending an existing intervention, in the Government Gazette as well as the popular press. The purpose is to ensure that all directly affected groups are aware of the proposed change, and are given the opportunity to lodge objections or representations (Section 11 (a)).
- 2 Directly affected groups are defined in the Act as ‘...any group of persons which is party to the production, sale, purchase, processing or consumption of an agricultural product *and includes labour* employed in the production or processing of such product.’ (emphasis added) (Section 1 (viii)).
- 3 The NAMC can, in terms of powers granted under Section 7 of the Act, appoint a committee to investigate any changes to statutory interventions. Such a committee has, however, as far as is possible, to represent the relevant directly affected groups (Section 7 (3)).
- 4 In the event that the NAMC does not appoint a committee, it ‘...shall as far as possible give directly affected groups an opportunity to comment...directly to the Council...’ The full spectrum of views put to the council also has to be presented to the Minister. (Section 5(4) (c)).
- 5 The NAMC is also empowered to ‘...enter into agreements with persons for the performance of specific duties...’ (Section 8(2)).
- 6 Finally, the NAMC is also empowered to undertake investigations, and advise the Minister, on a number of issues related to the marketing of agricultural products. These include the co-ordination of agricultural marketing policy in relation to national economic, social and development policies and international trends and developments; and the ways in which the objectives of the Act can be promoted (Section 9(e)). This wider brief allows the NAMC to place its recommendations into a wider perspective.

Thus, the way in which the objectives of the Marketing of Agricultural Products Act are structured, the procedures required to give sanction to an intervention, and the manner in which representations by affected groups are dealt with, all serve to minimise the risk of decisions aimed at favouring the few and disempowering the majority.

5 Some effects of the changing farm policy

Structural changes

The changes in farm policy outlined in Chapters 3 and 4 have had significant effects on the agricultural sector as a whole, and on the different farming regions in South Africa. Aggregate data show that the sector has become more flexible in several parts of the country. This is highlighted by an improved aggregate debt service ratio along with financial difficulties for some groups of farmers; an increase in land-use intensity in high potential regions and 'over-cropping' in more marginal regions; there has been an aggregate decline in average farm size; shifts in the cropping pattern have occurred; and there is a relative absence of yield effects.

The effects of these changes in farm policy can be traced through variables such as the financial position of farmers, changing land use patterns and farm size and ecological considerations.

The financial position of farmers

Declining farm profitability as a result of the reversal of distortionary policies (and adverse weather conditions) caused severe cash-flow problems in agriculture (van Zyl and van Rooyen, 1991). Liquidity problems affected the financial standing of commercial agriculture in three ways: a) debt loads increased; b) loan arrears mounted; and c) sequestrations increased. The total debt of farmers increased substantially from the mid-1970s.

The decline in farm profitability also seems to have caused a substitution of short-term for long-term debt from 1970 until the mid-1980s. The ratio of short-term to total debt increased from 28.2 per cent in 1970 to 54.6 per cent in 1985, and peaked in 1991 at 57 per cent (World Bank, 1994). From Table 13 it can also be calculated that the share of total farm debt at commercial banks and co-operatives increased from 20 per cent and 8 per cent respectively in 1970 to 30 per cent and 25 per cent respectively in 1991, again indicating the switch to short-term debt.

The high growth rates of farm debt per annum for the period 1980-1985 (see Table 9), is attributable mainly to drought and general economic conditions, especially the increase in interest costs. Interest rates, drought, volume of field crop production, real GNP and the ratio of input to output prices have been shown to have had a relatively large impact on the real debt burden in the period from 1970 to 1985 (van Zyl *et al*, 1987b).

**Table 9: Annual growth rates
of debt from selected sources**

Category	1980-1990 (%)	1985-1990 (%)
Land Bank	2.98	12.7
Agricultural co-operatives	1.0	10.29
Department of Agriculture	5.49	10.49
Private Persons	-6.48	-6.66

Source: Abstract of Agricultural Statistics (RSA, 1995)

In the mid-1980s, the South African Agricultural Union carried out a national survey on the financial situation of all farmers. The survey revealed that 49 per cent of farmers were financially sound at the end of 1983, but the percentage in this category was expected to fall below 39 per cent at the end of 1984. While the financial position of farmers older than 50 years was generally sound, 38 per cent of farmers aged between 25 and 35 years were in a critical financial position. This proportion increased to over 50 per cent by the end of 1984.

Many of these farmers left the industry, but the majority were kept on their farms through government intervention in the form of 'cheap' credit and debt relief to insolvent or near-insolvent farmers. In 1993, around 17 000 farmers still benefited from such assistance, provided through the

Financial Assistance Schemes of the Department of Agriculture. If it is assumed that these farmers are also the most inefficient, it can be said that the policy of blanket debt relief and subsidies only added to the financial unsustainability of the sector and the entrenchment of inefficiencies. During the 1980s, the state granted financial assistance in one form or another to some 27 000 farmers. Direct financial assistance to these farmers over the decade amounted to R1.73bn, while subsidies totalled R2.35bn.

The declining profitability in many parts of the agricultural sector would have produced substantial declines in farm incomes had it not been for state aid. However, in spite of this generous financial assistance, loan arrears increased as the farm financial crisis worsened. It also did not succeed in countering the structural decline of farm profitability since the early 1980s, and the debt burden worsened. An important component of the short-term credit (mainly to co-operatives) fell under a carry-over scheme for farm debt guaranteed by the government. This programme, initially introduced after the 1982/83 drought became a permanent feature, escalated as a result of the 1991/92 drought when the guarantee required from the government rose from an initial R800 million in 1983 to R2.4bn in 1992.

The drought relief package announced by the Government in 1992 consisted of R2.4bn debt relief (the guarantee referred to above) plus an additional R1bn drought relief amounting to a total of R3.4bn. This constituted a substantial recapitalisation of the least efficient sub-sectors of the agricultural sector, namely the livestock and grain producers in the summer and winter rainfall areas. It is clear that blanket debt relief was costly, and entrenched inefficiency and inequality in the commercial farming sector.

Changing land use patterns

The changing land use patterns in commercial farming manifested themselves differently in different regions. They were related to the policy changes discussed earlier through changes in relative product prices and factor costs, the cash flow position of farmers, shifts in tax incidence, and so forth. A theoretical analysis of the effects of the changes in farm policy over the past decade leads to the conclusion that a decline in average farm size was indeed possible. However, this would be the aggregate effect of a number of more specific micro-level and regional changes. Policy effects that could lead to downward pressure on farm size include (Brand *et al*, 1992):

- 1 a higher incidence of part-time farming and of land rentals resulting from the need to find other sources of capital and to use less capital;
- 2 more intensive farming in high-potential areas as farmers exploit growing local and foreign markets;
- 3 attempts to manage risk through mixed farming systems, that is, by more intensive management in the high-potential areas;
- 4 the development of urban agriculture which, by definition, is suited to small-scale farming;
- 5 distress selling of parcels of land in areas which have become vulnerable to the deregulation of controlled markets;
- 6 the introduction of elements of labour legislation of farming which could result in innovations in the means of access to land, including farmer settlement, share-cropping, and sectional title arrangements.

On the other hand, there were a number of factors which could have put upward pressure on average farm size, including:

- 1 the declining use of production inputs such as fertiliser and agrochemicals, leading to more extensive farming;
- 2 the switching from crop production to livestock ranching in the more marginal cropping areas, including planted pasture;
- 3 the switching to lower yielding but more drought resistant crop cultivars;
- 4 the expansion of the corporate farming sector.

Agriculture is a prime user of natural resources. Although it supplies food and fibre, foreign exchange, and employment opportunities to the South African economy, a high price has been paid in terms of the degradation of natural ecosystems. The imbalances created by biotic simplification (monoculture), lack of managerial expertise and agricultural policies are evident in many parts of the country. Studies by the Department of Agriculture showed that at least 9 million ha of arable land and 21 million ha of grazing land in the 'white' farming areas were subject to some or other form of wind or water erosion. Of this, some 11 million ha or 13 per cent of the total agricultural land in these farming areas had been damaged by mild or severe erosion. Much of the irrigation land became degraded through salination, while natural grazing land was seriously overstocked.

Changes in domestic support to South African agriculture

Helm and van Zyl (1994) calculated the total support received by South African agriculture during the period 1988/89 to 1993/94, using the Producer Subsidy Equivalent (PSE) measure. The results are shown in Table 10.

**Table 10: Total domestic support
to South African agriculture (PSE)**

Description	1988/9	1989/90	1990/1	1991/2	1992/3	1993/4
a) Value of production: Products with MPS*	11 322	13 454	13 784	15 736	12 872	16 468
b) Value of production: Products without MPS	5 231	5 966	6 910	7 498	11 194	11 861
c) Direct payments	114	116	120	92	89	80
d) Adjusted value of production (a+b+c)	16 669	19 535	20 814	23 326	24 155	28 408
e) Policy transfers to agriculture: Market price support	217	701	1 309	2 322	2 449	2 120
f) Direct income support	368	336	332	250	2 616	386
g) Indirect income support	943	775	704	819	1 279	1 048
h) General services	422	446	504	513	1 155	564
i) Total PSE (e+f+g+h)	1 949	2 258	2 848	3 904	7 499	4 119
Percentage PSE (i/d)	11,70	11,56	13,69	16,74	31,04	14,50

Note: *Market price support.

The total PSE was at its lowest during 1988/89, with market price support accounting for only 11 per cent of total assistance, the remainder being financed by taxpayers. Producer prices of sugar, rye, chicory, eggs, beef, sheep and dairy products were higher than the representative world prices. In 1989/90 market price support accounted for about 31 per cent of total assistance. The reduction in indirect income support was mainly due to the substantial reduction, and eventual termination, of the production input subsidy. In 1990/91, the total PSE again increased as a result of substantially higher domestic producer prices for certain products, together with a decline in world prices. Market price support accounted for about 46 per cent of total assistance.

Changes in producer prices relative to world prices of agricultural products were once again the main reason for the higher market price support, together with the subsequent increase in the total PSE, in 1991/92. Market price support accounted for about 60 per cent of total assistance and was 37 per cent higher than the previous year. The large change in the percentage PSE in 1992/3 was the result of a huge once-off increase in direct income support to farmers, from R250m the previous year, to R2.6bn (Rimmer, 1993). This came in the form of a drought relief package, announced by the Government in 1992, which consisted of R2.4bn in debt relief.

Effects on productivity of South African agriculture

Total factor productivity (TFP) figures are useful in explaining the effects of agricultural policy. The growth rate in TFP is greater than would be expected on the basis of Liebenberg and Groenewald's (1990) preliminary study of productivity in grain production. The increasing rate of growth over the period is in accordance with van Zyl and Groenewald's (1988a) perception that farmers' profits came under increasing pressure as inflation gathered pace. The growth in productivity can be partly explained by the increasing competitive pressures within the industry as a result of the policy reversals and removal of price distortions caused by credit, tax and macro policies. New technologies generated by the research system played an increasingly important role in productivity growth and profits.

The data in Table 11 show that TFP increased in the period 1973 to 1991. During the period 1973 to 1983, however, farmers' terms of trade¹ caused their net farm income to decline at an alarming rate. However, in the period when the effects of these earlier policy changes were expected to occur (i.e. after 1983), TFP grew at a rate that was high enough to cause a substantial increase in the rate of growth of net farm income of the order of above 6 per cent per year. While it is clear that not all farmers benefited equally or even that all farmers benefited from these changes, it is clear that welfare in the agricultural sector as a whole improved.

**Table 11: Average growth rates
in real net farm income, 1973-91 (%p.a.)**

Period	Terms of trade	TFP	NFI
1973-91	-2,63	1,48	-1,06
1973-83	-3,27	0,27	-8,14
1983-91	-3,11	4,63	6,24

Changes resulting from the new Marketing Act

In this section, a number of aggregate indicators are considered to illustrate the impact of deregulation of the agricultural marketing system:

- 1 the average annual growth rate in the consumer price index for food;
- 2 growth in gross domestic investment and foreign direct investment in agriculture;
- 3 growth in the number of new companies established annually in the food and agricultural sector; and
- 4 changes in cropping patterns.

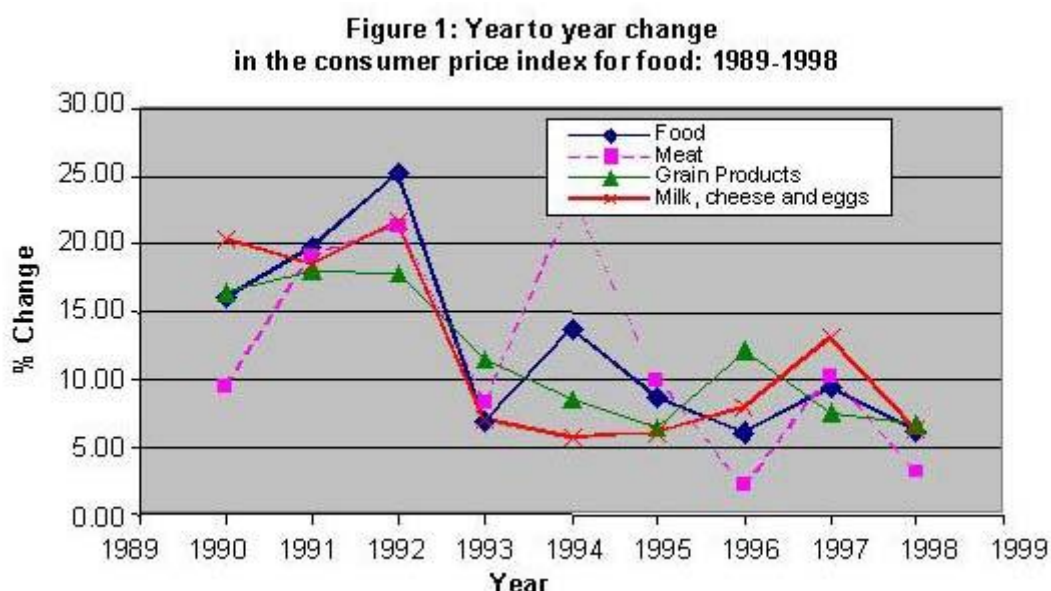
The calculations on the average annual growth rates for most of the indicators were done for two periods between 1990 and 1998 – the four years before the change in government and the 4 years thereafter.

The average annual growth rate in the consumer price index for food

The question to be answered here is whether deregulation has reduced food price inflation and as such benefited the majority of poor consumers for whom food makes up an important part of total expenditure. During the early 1990s the Board on Tariffs and Trade (1993) released a report which implied that the controlled marketing system, as operated through the various Control Boards, was largely responsible for South Africa's high food inflation rate. It is therefore necessary to assess whether food price inflation has dropped since 1993 when the process of dismantling of Boards was initiated following the release of the Kassier Report (1992).

The year on year change in consumer food prices is depicted in Figure 1. It is evident that the annual increase in consumer prices for food has been much lower since 1994. Annual food price inflation was as high as 25% in 1992 and 13.72% in 1994. The increase in food prices from 1997 to 1998 has been only 6.25%, which is a considerable drop from the situation in 1992 and 1994. This trend is confirmed by a calculation of the average annual growth rate in the consumer price index

for food. The results in Table 12 show that between 1990 and 1994 the average annual growth rate was 16.15% per annum. During the past 4 years this has decreased to only 7.59%.



While it is obvious that this decline was part of the general decrease in the consumer price index in South Africa, it is just as obvious that the CPI has declined as a result of structural changes in the economy as well as tight monetary policy. Thus, it is fair to argue that the decline in food price inflation can partly be attributed to the process of market deregulation.

Table 12: Food price trends, 1990-98

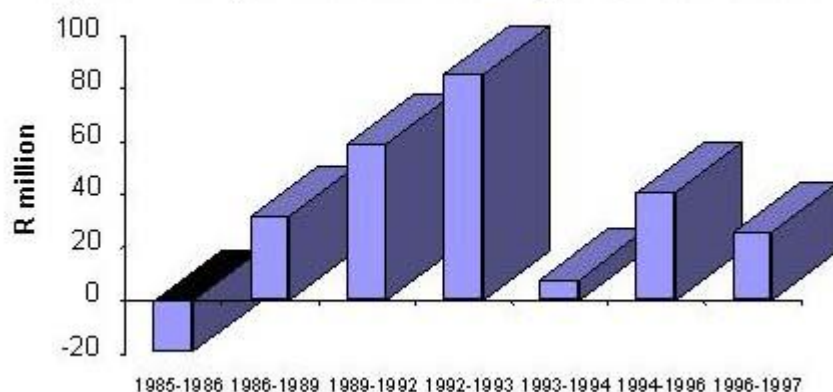
Time period	Average annual growth rate in consumer prices for food
1990-94	16.18%
1994-98	7.59%

Growth in gross domestic investment and foreign direct investment in agriculture

A deregulated sector could potentially attract new business and investment from domestic and foreign investors. By determining the change in investment it is possible to assess the confidence that foreign and domestic investors have in the South African agricultural industry. It is obvious that investors will not invest in South African agriculture if they perceive the risk of investment in the country in general to be too high. By the same token, even if there is enough investor confidence in the country, the agricultural sector will only attract investment if it is profitable. Thus, an increase in investment in agriculture could be ascribed to general investor confidence as well as to the deregulation process.

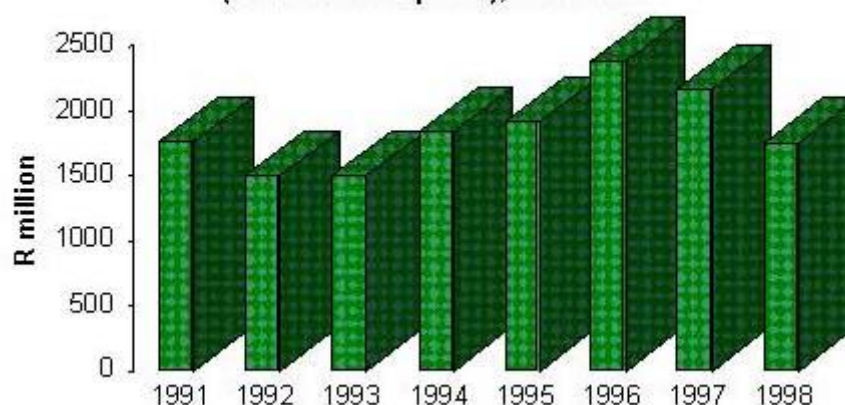
Figure 2 shows the change in foreign direct investment in South African agriculture, broken down into specific periods for which data are available from the Reserve Bank. The data correspond with the major political events in South African over the past decade, and show the outflow of foreign investment in the turbulent period of the mid-1980s and the rapid build-up in foreign investment in the post-1990 period. A climate of uncertainty in the few years before the election in 1994 was probably the main reason for the slowdown in foreign investment in those years. The successful completion of the first democratic elections again resulted in an increase in foreign direct investment, albeit at lower levels than during 1990-1993. This was followed by a far smaller increase in the period between 1996 and 1997.

Figure 2: Foreign direct investment in agriculture, 1985-1997



The case studies below suggest that a large part of the post-1990 investment could be ascribed to investment in the wine industry in the Western Cape, and that foreign investors have since tended to concentrate on value-added activities (e.g. in fruit marketing) rather than in primary production. As foreign investors are more likely to invest only where domestic investors have already shown their confidence in an industry, trends in domestic investment will give a clearer picture of the state of investor confidence. The lag time between the completion of the deregulation process and the availability of data also tends to favour the use of domestic investment data. This latter aspect is illustrated in Figure 3.

Figure 3: Annual gross domestic fixed investment (constant 1990 prices), 1991-1998



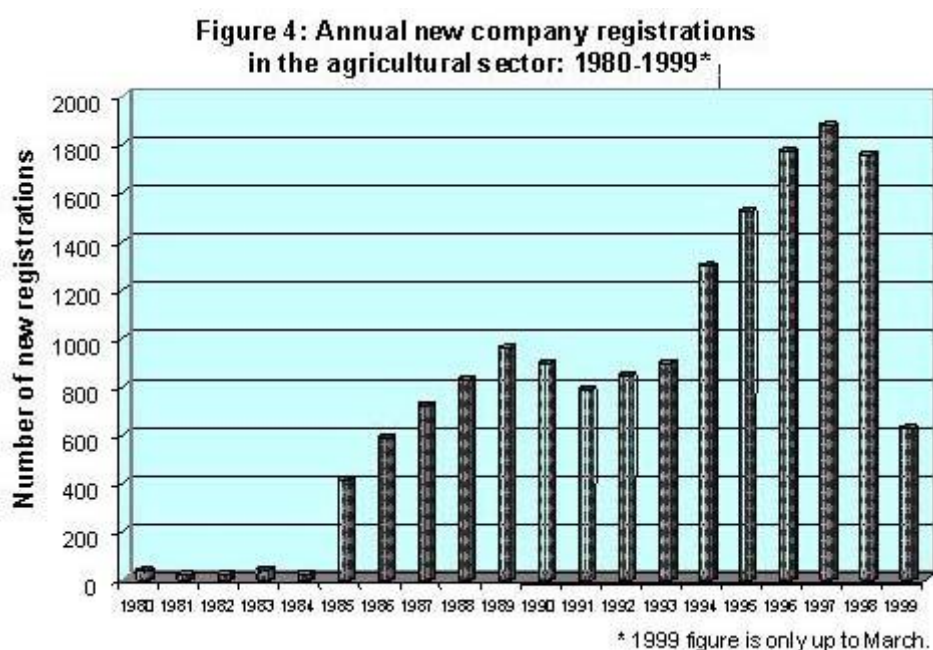
The analysis illustrated in Figure 3 clearly shows the trend of a declining propensity to invest in the period leading up to the 1994 elections, a period that also includes the 1992/93 drought that affected the whole of Southern African agriculture. This was followed by a considerable increase in gross domestic investment in the period after the elections in 1994. Real gross domestic fixed investment in agriculture increased by 24% in real terms in 1996 while investment figures in 1997 were 9% lower than 1996 but still up on 1995 levels by 13%. With the other years not really showing any effect of political events it is possible to attribute much of the changes in gross domestic investment in the sector to the liberalising of the agricultural sector. Increased export opportunities as well as more opportunities for innovative marketing and value-adding processes are perhaps the major reasons for the increased investment.

Growth in new enterprise establishment in the food and agricultural sector

The extensive liberalisation of agriculture in the period under discussion has the potential to create new business opportunities in farming and associated industries, both as a result of the need to

replace activities of the Control Boards, and because deregulation leads to new opportunities. Some of these are discussed in the case studies presented below. However, data on net new enterprise formation in agriculture also provides some indication of the relationship between deregulation and the creation of new business opportunities. These new business ventures could on the one hand provide an efficient delivery and more diverse set of services to agriculture. On the other hand they could be linked to the creation of a range of new value adding and export activities which could have a positive impact on economic growth and job creation.

Data on new company registration in the Agricultural and Fisheries sector were obtained from the Department of Trade and Industry and are shown in Figure 4. It is fair to assume that the majority of these enterprises have been established in the agricultural sector. The data thus tend to confirm prior expectations about the impact of economic confidence and the process of deregulation, which took off after the release of the Kassier report in 1993 and the elections in 1994. The number of companies registered per annum has increased rapidly since 1985 but the fastest growth was experienced in the post 1994 period, with new registrations increasing from 895 per year in 1993 to as many as 1 879 in 1997 – an increase of 209% over the number in 1993.



Changes in cropping patterns

With the dismantling of the system of guaranteed markets and prices and the reduction of import protection one can expect to see changes in cropping patterns. It has already been suggested that there has been a considerable shift to higher value commodities. This can partly be attributed to the removal of guaranteed prices in especially the grain and oilseeds markets and perhaps also to the opening of export opportunities for higher value commodities. It is also feasible to predict that, as the relative price of grain crops used for animal feeds declines, the relative growth in livestock production will be greater. Table 13 shows the relative growth in field crops, horticulture and livestock products. These growth rates were based on a two-year moving average of gross income. The higher growth rates in gross income from field crops in the two sub-periods can be ascribed to the high variation in the production of these commodities.

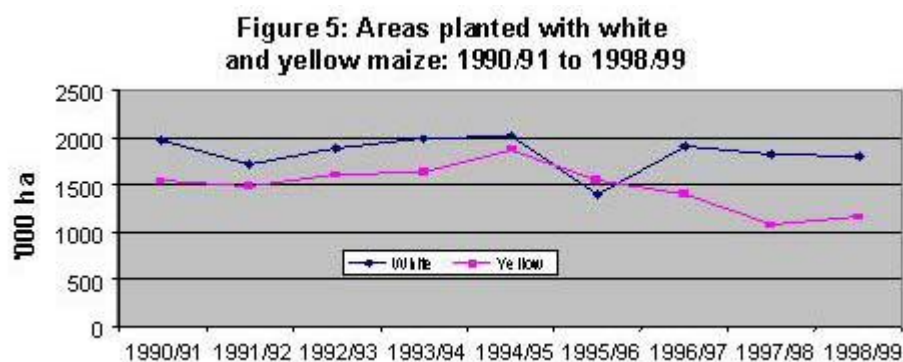
Table 13: Index of growth in gross farm income, 1989/90-1997/98 (1990 = 100)

Period	Field Crops	Horticulture	Livestock
1989/90-1997/98	182	215	202
1989/90-1993/94	132	127	125
1993/94-1997/98	144	145	138

These data confirm the relative shift away from field crop production towards horticulture and livestock products. While the shift to horticultural products can largely be ascribed to new export opportunities, this is not the case with livestock products, where the major effect seems to be through the relative decline in grain prices. It is also interesting to note that in all three cases, the growth in the period after the elections was greater than in the 1989/90-1993/94 period.

It is also desirable to test whether the aggregate data on crop acreage signifies any trends, although it is clear that the shifts would be more noticeable at the farm and district level. The discussion of the case study on the grain industry below will also confirm some of these trends.

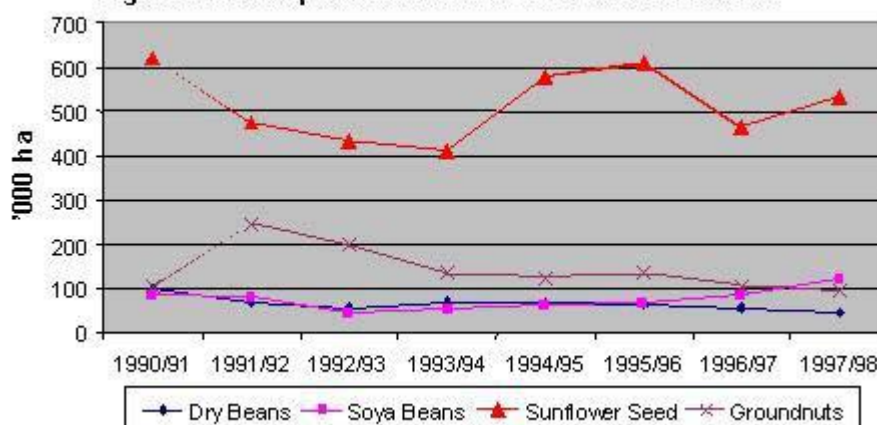
The first indication of changing cropping patterns in the period following market deregulation can be found in the maize industry. Although the total area planted with maize has decreased in the last few years (as shown later) this change was largely in terms of area under yellow maize. As shown in Figure 5 farmers have planted more white maize relative to yellow maize since 1996 (under the Control Board regime there was only a small differential in the net price of white and yellow maize). The data therefore show how the process of market deregulation has shifted farmer and trader sentiment in favour of white maize.



To assess whether there have been any other major changes in cropping patterns we start by presenting a range of figures presenting the areas planted with the major field crops in South Africa.

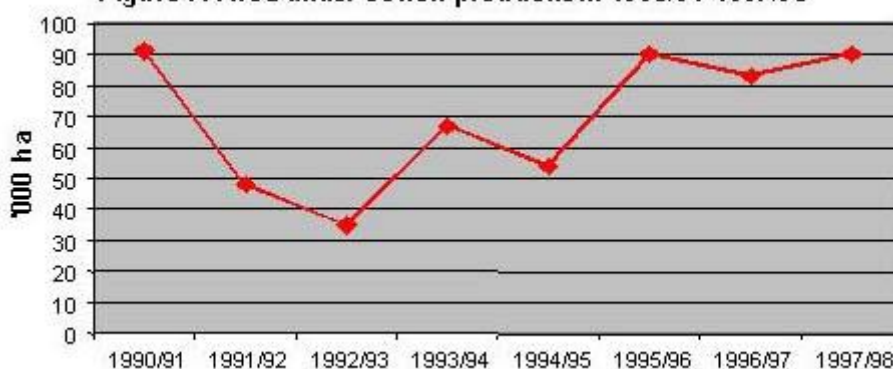
In Figure 6 no definite long-term trends are observed for any of the commodities, although a slight increase in the area under soybeans is noticeable. Dry beans showed a continuous decline from 100 000 hectares in 1990/91 to 47 000 hectares in the 1997/98 season. However, more detailed statistics released by Nampo on plantings for the 1998/99 season show an increase in the area under groundnuts of 86%, in sunflower of 62% and dry beans of 31 % on the figures for 1997/98. These statistics thus show a reversal of the trends reflected in Figure 5. The envisaged lower maize price for July 1999 was the major cause for this change in cropping patterns in the summer rainfall region.

Figure 6: Areas planted with oilseeds: 1990/91-1997/98



Cotton is another field crop where the area cultivated has increased. This area has increased by 157% since the low levels of the 1992/93 season, as reflected in Figure 7.

Figure 7: Area under cotton production: 1990/91-1997/98



The last 8 years has also seen a considerable change in the structure of the South African wine industry. The acceptance of South African produced wines abroad has provided increased export opportunities. This has resulted in growth in the area under wine grapes from 91 942ha in 1991 to 98 203 ha in 1997, a growth of 6 261 hectares or 6.8%. The mix of grape varieties have also changed, with red wine grape varieties increasing from 15.7% of all plantings in 1990 to 19.6% in 1997, indicating a significant shift to red grape varieties.

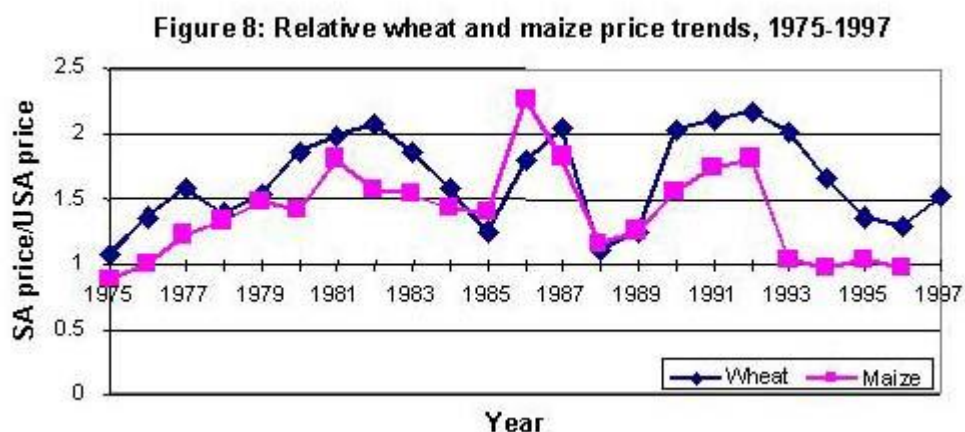
These aggregate data reveal only part of the longer-term trends in cropping patterns that are expected to result from the deregulation process, largely because of the short time period that has elapsed. It is also clear that such shifts will be more noticeable at the farm and district level. The next part of the discussion consists of two case studies that examine trends at a more micro level.

The benefits of deregulation: Two case studies

Maize and wheat

In theory, the flexibility of agriculture can be measured by the extent to which producers are able to substitute different inputs in the production process as a result of changes in market signals. Van Zyl and Groenewald (1988b) measured flexibility in input substitution in South African agriculture for the period 1960 to 1985. They showed that producers were least able to react to market signals during the 1970s and the early part of the 1980s (i.e. in the pre-deregulation era), and that the structure of South African agriculture was less flexible than US agriculture. A later study (van Zyl and Sartorius von Bach, 1991) shows that there was a remarkable increase in flexibility through the decade of the 1980s as the deregulation process gained momentum.

Deregulation leads to greater flexibility in agriculture because the rise of market institutions helps farmers better manage risk. The way this works can be illustrated by contrasting the deregulation process in the maize and wheat industries over the past few years. The discussion starts with the data represented in Figure 8, which shows trends in the ratio of world to domestic prices for maize and wheat respectively from 1975. These data show that the domestic price of maize reached parity with the world price from 1993. Before this period, the domestic price was higher than the world price, excepting in the period around 1988. By contrast, the wheat price remained above the world price throughout this period, even during the middle-1990s when the world price reached historically high levels.



The process of deregulation followed in the two industries is also well known. By the time of the Kassier Report in 1992, both industries had already undergone considerable deregulation. In the wheat industry, for example, the compulsory registration of millers and bakers was terminated, the bread subsidy was discontinued in 1992, and wholesale and retail price control over wheat flour and bread was abolished in 1991. In the maize industry the basis for price setting was changed from the single price to a pool pricing scheme in 1987, and single channel marketing was abolished from 1995.

It is important to note that the process of deregulation in the wheat industry initially tracked that of the maize industry, but only up to around 1992, after which no further deregulation steps were taken. The price trends reflected in Figure 8 suggest that the high world price of wheat may have taken off some of the pressure for further deregulation. By contrast, those responsible for taking strategic decisions on the future of the maize industry read the signals coming from the world and domestic market, and from domestic politics, differently. They seem to have decided on a unilateral process of deregulation some time in the early 1990s. By the time of the promulgation of the Marketing of Agricultural Products Act, No.47 of 1996, the market for maize was already all but fully liberalised, and all that remained was the administrative winding-up of the affairs of the Maize Board. The dissolution of the wheat scheme, on the other hand, created considerable trauma in the wheat industry, especially in the Western Cape.

The Kassier Committee remarked that the objectives of agricultural marketing were not specified clearly in the Marketing Acts of 1937 and 1968. However, an interpretation of the Act, as well as published reminiscences (e.g. de Swardt, 1983), show that the main purpose of the marketing schemes set up under the Acts was to assist farmers in managing instability, a factor that is inherent to the agricultural sector. In this sense, South Africa was following an international trend towards greater state intervention in agriculture that started in the 1930s in the USA. However, this intervention was kept in place for so long in this country that farmers forgot that state intervention was only one method of managing risk or instability.

Theoretically, of course, the market should not be equated with an unregulated situation: by definition the market is merely an alternative institutional mechanism for regulation. What makes it

unique is its dependence on the actions of private individuals. In this sense, the market relies on a range of instruments that help farmers to regulate supply and demand. These instruments include:

- **The market in derivatives**, including futures and options, which allow producers (and buyers) to hedge against anticipated price movements on a single, centralised, transparent² and relatively liquid market. Traditionally, intermediaries such as co-operatives and traders are more frequent users of futures hedging contracts than farmers themselves, while farmers are more likely to use options as a means of hedging against price risk.
- **Contracts**, which are a form of short-term hedging in the extent to which they distribute the risk between the contracting parties. Contracts can take many forms, and can be entered into with a wide range of parties both with and without the intermediation of a broker. Examples include silo contracts and direct contracting with millers and traders, etc. Three basic forms of contracts occur most frequently in the maize industry. These include fixed price contracts, where the price is fixed at a level stipulated in the contract; minimum price contracts where the possibility exists for upward price movements at the time of delivery; and production finance contracts, a form of sharecropping where the farmer is provided with finance for production inputs and the price is determined by a mutually agreed formula.
- **Insurance** instruments which, however, have rarely proved successful in agriculture without some form of direct or indirect state support such as compulsory cover, tax breaks, etc. Agriculture provides a good example of an industry where the problems associated with asymmetrical information (i.e. adverse selection and moral hazard) lead to market failure, and in some cases also to government failure, as state intervention is prone to rent-seeking activities.
- **Sequential marketing**, which entails the use of storage facilities, either on the farm or in the near vicinity, so that the harvest can be sold at any time of the year. In this manner the producer also gets more control over the selling price of the produce, as prices tend to rise from their lowest point immediately after the harvest until before the next harvest (given that imports can also influence these price trends).
- **Vertical integration**, which includes some form of processing on the farm or in the rural areas to capture the benefits of value adding processes. Three trends can be predicted here. First, individual farmers or groups of farmers can invest in processing facilities (in the case of wheat and maize this will entail milling or the mixing of animal feeds) either on the farm or in the near vicinity. Second, it is expected that farmers will revert to a more mixed grain/livestock production pattern and away from monoculture as the dominant mode of production, thus a form of on-farm value adding. Third, one of the expected effects of deregulation is a reversal of the trend whereby milling facilities were set up closer to the market rather than to the production areas. This came about largely because of the pan-territorial pricing policy followed under the maize and wheat schemes, whereby farmers were paid the same price for their wheat regardless of the place of delivery, and millers paid the same price regardless of the origin of the grain. The net result will be an increase within the rural areas in downstream industries related to agriculture.
- **Changes in the mode of production**. This includes direct changes such as the extensification of crop production through the use of minimum and no-tillage production practices. It also includes changes in market strategy to exploit new markets, including export markets and the market for different cultivars such as wheat cultivars more suited to pasta and biscuit making rather than bread. Further, farmers can diversify their income portfolio (i.e. by part-time farming, addition of facilities such as a retail sales, guesthouses, etc. to the farm business) and

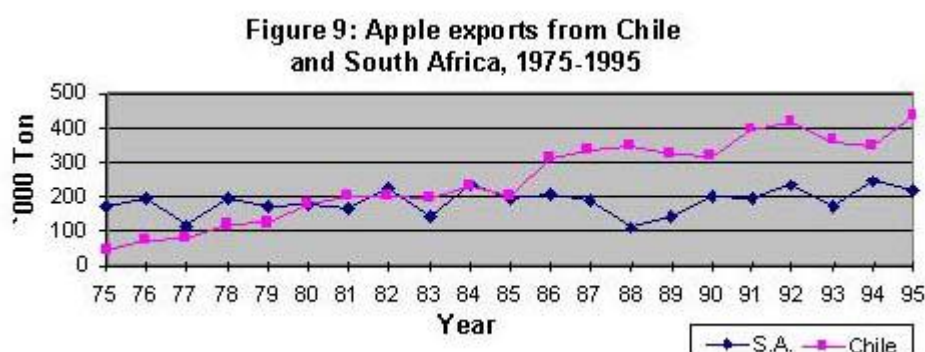
their asset portfolio (e.g. through renting rather than buying land for expansion, investment in off-farm assets or in non-agricultural assets on the farm, etc.).

- **Demand-led research for technology development** that is supported financially and in other ways by farmers and farmer groups, such as through the use of statutory or voluntary levies, contracting research from the ARC and Universities, and conducting on-farm field trials.

The lessons from this case study are twofold. First, decision makers in the maize industry, in correctly anticipating the policy changes, allowed farmers in the industry time to adapt to the deregulation process more or less on their own terms. The result was that ‘the market’ (read entrepreneurs) had time to adapt and create the institutions required to help farmers to manage risk. By contrast, farmers in the wheat industry were faced with a precipitous drop in the selling price of their product almost overnight. This created considerable trauma for farmers in the Western Cape who have fewer alternatives than their counterparts in the Free State, and who have traditionally produced a surplus that can no longer be exported to the rest of the country because of high domestic transport costs. Second, the experience with deregulation in the maize industry provides some guidelines to the kind of market adaptations that will eventually take place in the wheat industry. Anecdotal evidence shows that many of the changes identified above have already been implemented, at least by some wheat farmers in the Western Cape.

Apples in South Africa and Chile

A comparison between the relative performance of South Africa and Chile on the deciduous fruit export markets can be used to illustrate the effects of deregulation. Chilean deciduous fruit producers have exported their produce in competition with each other since at least 1975. During most of this period, South African producers were forced to sell their produce through a single channel monopoly, which operated a pool pricing system until the 1996 marketing season. Figure 9 shows the rates of growth in apple exports from the two countries over the past two decades.



South African fruit exports started in the early 1890s, and apple exports had reached 170 000 tons by 1975, compared to 50 000 tons from Chile. From this point onwards, political and market factors combined to influence future levels of exports.

In the case of Chile, the overthrow of the Allende regime in 1973 resulted in a reversal of the land reforms and the vesting of private property rights in land. Apple exports started to increase at a considerable pace, to the extent that they equalled South Africa's exports in 1980. For the next five years the two countries competed in terms of the volume of sales. After 1985, however, Chilean exports started on a further massive expansion path, fuelled by foreign direct investment. This took the form of the entry into the marketing chain of four large multinational enterprises, which brought capital to invest in expanding production as well as access to home markets in the USA, Italy, Spain, etc.

The result was that Chilean apple exports grew by some 800% since 1975, compared to the approximately 66% growth in South African exports. South African exports were, in fact, falling

during most of the 1980s. The figure shows that exports were lower in 1990 than in 1982. The drop and subsequent expansion between 1987 and 1990 reflects the diversion of sales that the industry had to resort to in the severest of the sanctions years.

It is feasible to argue, therefore, that the monopolistic arrangements in the export of apples could have inhibited growth in the volume of exports. The marketing scheme could have had this effect in a number of different ways:

- 1 The South African industry has traditionally focused on selling only the best quality under the 'Cape' trademark, with the result that price premiums of up to 30% were regularly achieved. However, this had to be at the expense of volume.
- 2 South African exporters had to finance the facilities required to move their produce from the farm to the Deciduous Fruit Board (and later Unifruco, the co-operative to which the Board delegated most of its powers in the late 1980s). The considerable investment in packhouses, etc., combined with relatively high interest rates, limited the amount of investment funds available for the expansion of production.
- 3 South Africa was relatively unsuccessful at exploiting new markets, with only a small proportion of exports going to non-traditional markets such as the Asian and Middle Eastern regions, compared to Chile, which sells about a third of its export crop in these markets. Again, it could be argued that a monopoly exporter would not be sufficiently flexible to be able to exploit such niche markets.

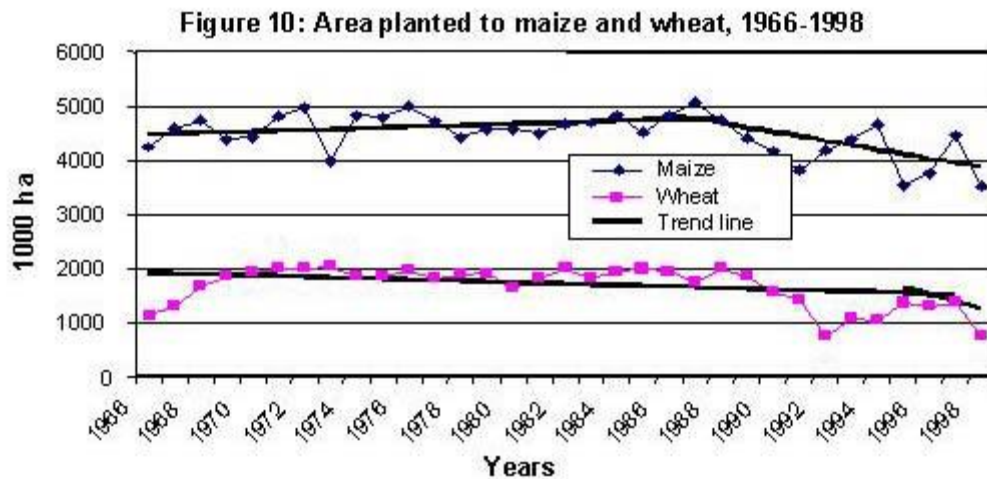
A further result of the concentration of exports to a few traditional markets and South Africa's isolation from the world market was the relative lack of effort given to the development of new cultivars in the period before 1990. Hence, the country's fruit growers have been at a competitive disadvantage with respect to changing tastes in the consumer market.

The effects of deregulation

A number of conclusions can be drawn from these two case studies. These are discussed below in terms of the expected effects of deregulation on output and net incomes, the extent to which new entrants have been able to gain entry to the respective industries, the effect on changes in the composition of production, employment and wages and direct investment. Where possible, supporting empirical evidence is provided to show whether these expected effects are indeed occurring in the respective industries.

Output and net incomes

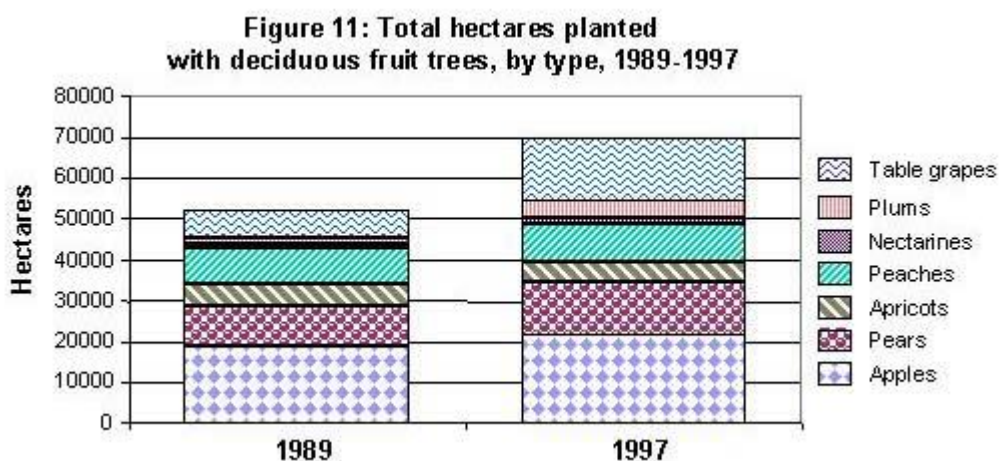
Figure 10 shows the long-term trends in the area planted to maize and wheat in South Africa. During the period under review, the yields of both maize and wheat were increasing. Maize production in South Africa is heavily dependent on the weather, to the extent that it is not possible to discern a trend in the long-term average production of the crop. Thus, there is no reason to believe that the total maize crop has increased or decreased as a result of the policy changes discussed above. However, the data illustrated in the figure show clearly that there was a turning point in the area planted around 1987, i.e. when the price regime for maize changed. If it is true that the total production of maize has remained unchanged, this implies that maize farmers have, on average, been successful in their use of market-related risk management instruments. The same cannot be said for wheat farmers, where it is clear that the area planted remained stable until around 1987, then increased sharply between 1993 and 1997, after which it decreased sharply. This latter turning point coincides with the abolition of the marketing scheme for winter grains.



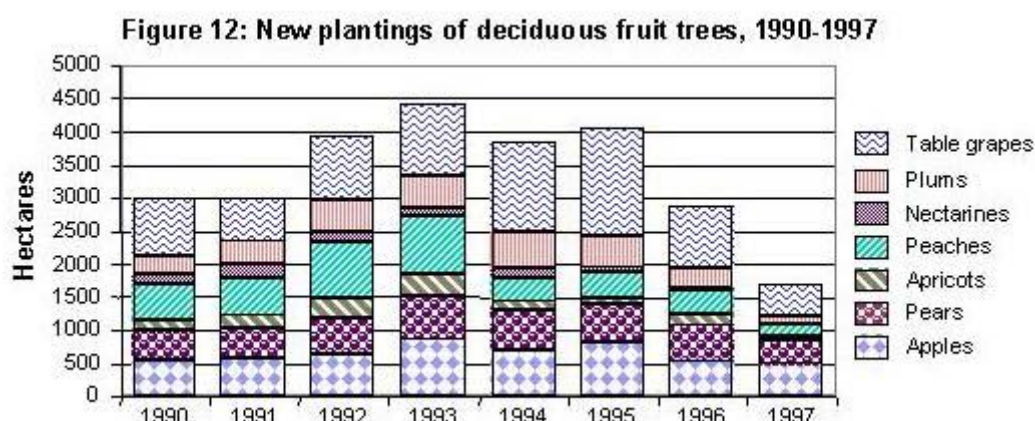
The expectation is that, if the Free State wheat farmers can adapt as successfully to the market environment as their counterparts in the maize industry, they will soon adopt the new risk management techniques. As in the maize industry, this will benefit the rural economy generally in a number of different ways. Increased productivity means higher average profits, and higher wages as a result of the greater demand for skilled labour. Hence, the gross purchasing power of the rural areas will increase. In addition, the movement of activities such as maize storage and milling to the rural areas will stimulate employment in off-farm activities, both directly and in the related service industries.

The Western Cape has always been somewhat of an exception in terms of its wheat production. Historically, the region produced twice its own consumption, with the rest being exported to the main consumer market in Gauteng. This was, however, possible only because of pan-territorial pricing, as domestic transport costs are too high to make this a profitable proposition in a liberalised marketing regime. Hence, large parts of the rural areas of the Western Cape will be detrimentally affected as wheat output declines, despite the benefits accruing as a result of more efficient production of wheat (but see also the discussion in the next section). However, this drop in production will be attenuated by the recent imposition of duties on the importation of wheat and flour.

Figure 11 shows the growth in the planting of deciduous fruit trees between 1989 and 1997. It is clear from these data that the highest growth has been in the number of hectares planted with table grapes, while apples have held their position as the single most popular fruit type. These data show a growth in area planted of more than a third in the ten years during which the industry was being deregulated.



However, Figure 12 shows that much of the acceleration in hectares planted took place between 1993 and 1995, and that planting decreased substantially in the two years before deregulation. If the Chilean example is applicable to South Africa, future growth in plantings will probably be spurred by foreign investment.



Composition of production (output mix)

The Free State has traditionally produced wheat with superior baking characteristics in the production of flour for bread, and this is not expected to change much, as the region is somewhat protected from imports due to its proximity to the main consumer market in South Africa. The wheat that has traditionally been grown in the Western Cape, on the other hand, is less suited to baking bread. There is, however, anecdotal evidence that the area may be better for growing wheat varieties that are more suitable for the production of wheat-based products such as pasta and biscuits.

If this is the case, the total output of wheat may not decline as much as feared and a range of new processing industries could arise. This would be accompanied by a more diverse trade regime, where wheat for bread flour is produced only in the high potential areas and the deficit imported, while other wheat varieties are grown and exported or beneficiated in the production regions.

The change in the output mix in the deciduous fruit industry can also be deduced from Figure 12. The data on which this figure is based are reflected in Table 14. These data show that the greatest rate of growth has been in the planting of plums, which have more than doubled their proportionate share of the total area under deciduous fruit trees, from 2.7 to 5.8 per cent. The most impressive growth has, however, been in the planting of vines for table grapes, which increased their proportionate share from 12.6 to 21.8 per cent of the area. More than 8600 hectares of table grapes (i.e. 49 per cent of the additional planting of all deciduous fruit during this period) have been planted since 1989, of which some 51 per cent were planted between 1994 and 1997. Plantings of apples, plums and pears also showed a substantial expansion in the total area planted.

Table 14: Hectares planted to deciduous fruit, 1989 and 1997

	1989	Proportion of total (%)	1997	Proportion of total (%)	Number of hectares added
Apricots	5377	10.4	4935	7.1	- 442
Peaches	8772	16.9	9520	13.7	748
Nectarines	1018	2.0	1602	2.2	584
Apples	18671	36.0	21499	30.1	2828
Plums	1412	2.7	4014	5.8	2602
Pears	10035	19.4	12741	18.4	2706
Grapes	6531	12.6	15138	21.7	8607
Total	51 816	100.0	69440	100.0	17 624

Employment and wages

The structural changes taking place in agriculture have resulted in a decline in total employment in the sector. This is a process that started in the middle to late 1960s, when grain harvesting became mechanised. There is considerable evidence that the growth path followed in agriculture during that period, where capital was substituted for labour, resulted in a shedding of labour. In this sense it can be argued that agriculture played a distorting role in the economic development of South Africa. A development strategy that subsidised capital through numerous tax breaks and direct interest rate subsidies, even to the extent that farmers paid negative real interest on their loans for long periods, was always likely to lead to a skewed pattern of factor use in the sector.

Most of these distortions have now been removed. Nevertheless, it is clear that the commercial sector, as currently constituted, will not employ more labour than at present. While data on the size of the farm labour force are notoriously outdated and inaccurate, all the available evidence shows that the decline in employment has continued despite the steps taken to liberalise the sector. Whether this trend can in future be turned around through the encouragement of a small-scale commercial farming sector under the land reform programme is not an issue that can properly be addressed here.

However, it is clear from the case studies that were presented above that farmers who succeed in becoming internationally competitive in any of these industries will pay higher wages to the larger number of skilled workers that they are taking into employment, even if they do decrease overall employment levels. The potential for this is shown in Table 15. The Western Cape is used here as the basis of comparison for two reasons. First, the province is the leading source of agricultural exports from South Africa; hence it is more likely that the sector as a whole is more competitive than is the case in the rest of the country (although this is hardly true of wheat production, for example). Second, because the sector is dominated by a capital-intensive mode of production, there is a greater prospect of an increase in better-paid job opportunities. In fact, a survey conducted for the 1997 agricultural summit showed that farmers in the wine and fruit industries generally expected to increase employment despite increased mechanisation in, for example, wine harvesting. In addition, rural employment opportunities will increase as a result of their efforts to include more value-adding opportunities to their enterprise portfolios. This could lead to at least a reduction in the rate at which the sector is shedding labour if there is sufficient investment in the sector.

Table 15: Western Cape agriculture in perspective

	Total RSA	Western Cape	Western Cape / Total RSA (%)
Farming area (Hectares)	82 748 886	10 249 642	12,4
Number of farms	57 980	8352	14,4
Number of employees	1 139 427	202 949	17,8
Gross remuneration (R'000)	2 779 816	664 555	23,9
Gross income (R'000)	19 631 654	4 394 427	22,4
Current expenditure (R'000)	14 396 443	2 692 249	18,7
Capital expenditure (R'000)	2 078 368	651 962	31,4
Farming debts (R'000)	15 283 265	2 522 127	16,5

Direct investment and new entrants

Direct investment in an economy is an incontrovertible sign of confidence in the future. It is also normal to expect that foreign investment will follow rather than lead domestic investment, on the argument that foreign investors will look for opportunities that are already emerging rather than accept the dual risk of new investment in an unknown environment. The extent of direct investment in agriculture in the Western Cape is illustrated in Table 15.

The two case studies presented show conflicting trends. There is little expectation of increased investment in the wheat industry in the Western Cape, at least in the near future. On the other hand, the discussion thus far has shown a considerable increase in investment in production capacity in the deciduous fruit industry. At the same time, however, it is clear that the rate of planting of fruit trees and vines has declined since the deregulation of the single channel export monopoly in 1997. The question is whether this rate of investment will increase, and whether this will be accompanied by an increase in foreign investment. Anecdotal evidence suggests that both these questions can be answered positively.

First, at least three multinational fresh produce marketing firms have already established a presence in the deciduous fruit industry, and have been recruiting staff for more than a year. If the South African situation turns out to be similar to that of Chile, where 5 large marketing firms dominate the industry, it is clear that two or possibly all three of these investors will gain a position of prominence. Second, there is considerable evidence of equity investment in agriculture in the Western Cape. This conclusion is drawn from the results in Table 15, which shows that the province accounts for 30 per cent of all capital expenditure in agriculture in South Africa, but holds only 16.5 per cent of the total debt. The balance comes from retained earnings, and from investments from outside of the sector, whether domestic or foreign.

Third, there is substantial evidence of foreign investment in the wine industry, the other major export-orientated branch of farming in the Western Cape. A head-count of wine estates shows that foreign investors now own 25 either fully or partly (i.e. more than 10 per cent of the 78 estates and 105 non-estate wine producers that fall outside of the co-operative producers). These estates, which have a total of some 1500 ha of land under vines, are concentrated in the wine districts where the highest proportion of noble wine varieties is grown. In addition, some two thirds of these investors have also invested in non-farm facilities such as restaurants, guesthouses or some combination of these. It is, therefore, feasible to argue that favourable conditions exist for foreign investment in the deciduous fruit industry.

1 The ratio of output to input prices in the agricultural sector

2 Turnover on SAFEX increased from 14 725 contracts in the first quarter of 1998 to 37 396 contracts in the first quarter of 1999 (Landbouweekblad 16 April 1999: 70).

6 Conclusions

Commercial agriculture in South Africa has a long history of state intervention that was largely justified in terms of factors such as the strategic importance of the sector (the need for food self-sufficiency); and the need to stabilise an inherently unstable sector (the need to avoid ‘chaos’ as it was so picturesquely described to the Kasser Committee). Today, however, even critics of the deregulation process seem to focus more on the timing and sequencing of the process rather than on whether it should have been done. The purpose of this *Monograph* has been to gather empirical evidence in support of the argument that, on balance, the process of deregulation has resulted in a net welfare gain to the commercial agricultural sector, and thus also to the South African economy. In this respect, the following conclusions with respect to a comparison between the periods 1990-1994 and 1994-1998 are pertinent:

- Food price inflation has decreased from an annual average rate of above 16% to below 8%. The evidence suggests that this was partly the result of deregulation.
- The general level of investment in agriculture has been relatively high throughout this period, and substantially higher than in the period before 1990.
- Domestic investment in agriculture reached a peak in 1990, while the rates of new investment in 1997 and 1998 were the second and third highest recorded growth levels.
- New company registrations have increased rapidly since 1985 but the fastest growth was experienced in the post 1994 period, increasing from 895 per year in 1993 to as many as 1 879 in 1997 – an increase of 209% over the number in 1993.
- There has been a marked relative shift away from field crop production towards the higher value horticulture and livestock products, even in the short period since 1990.
- Growth rates in gross income from field crops, horticultural products and livestock products have been higher since the elections in 1994 than in the period 1990-1994.
- There is emerging evidence of large changes in cropping patterns as a result of the structural changes in relative prices. The area planted to yellow maize has declined and to oilseeds and cotton has increased. Thus, a shift from low value to higher value commodities is signalled.
- There are no discernible trends in total output of maize and wheat despite the declines in area planted, i.e. grain yields have increased.
- The increased productivity that results will lead to increased activity in the rural areas (with the exception of the wheat-producing areas of the Western Cape).
- The evidence suggests that the non-farm rural economy (even in the wheat areas of the Western Cape) will benefit from these changes as farm production becomes more diversified and storage, processing and support services become more diverse and more decentralised.
- The evidence also suggests that, while the farm sector will continue to lose job opportunities, the demand for labour will switch to a higher demand for more skilled and better paid jobs. In addition, more rural non-farm job opportunities will be created.
- Foreign investment in agriculture is a reflection of investor confidence in a country, and of a positive view of the profitability of a sector. Whereas foreign investment in South African agriculture has thus far been concentrated in the wine industry, it has been accompanied by substantial investment in agro-tourism.
- There is growing anecdotal evidence of increased foreign investment in input supply, agro-processing and marketing activities directly related to agriculture.

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