

South African agriculture during the 1980s*

by

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1. INTRODUCTION AND BACKGROUND

During the 1980s South Africa witnessed a number of political changes and some political and economic instability. The new constitution in 1983 gave birth to the tricameral parliamentary system and the concepts of "own and general affairs". The violent uprisings during 1985/86 led to a state of emergency and the intensification of economic sanctions in the mid-1980s. The agricultural sector itself was not in any way excluded from the "ups" and "downs" of change which took place during the 1980s into the 1990s.

South African agriculture has been characterised by a "marathon" history of direct governmental intervention. This has been manifested in commodity policy, factor policy and technology policy. As revealed by Vink and Kassier,¹ these components of agricultural policy were effected through the *Agricultural Marketing Act of 1937*, the *Land Acts of 1913 and 1936* and the *Subdivision of Agricultural Land Act of 1970* and other factor policies such as tax policies, and classifying technology services as "own affairs". According to Kassier and Groenewald,² the government interventionist programme reached a high point around 1980 with a variety of laws, statutes and regulations controlling access to, and the use of, natural resources, finance, capital, labour, as well as marketing of agricultural products.

Brand *et al* note that the agricultural sector was subjected to two phases of restructuring in the period up to the early 1980s.³ The first phase embraced initial steps directed at territorial segregation of White and Black

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1. N. Vink & W.E. Kassier, "Agricultural policy and the South African state", in M. de Ceitl Klerk (ed), *A harvest of discontent: The land question in South Africa*, Cape Town, 1991
2. W.E. Kassier & J.A. Groenewald, "Agriculture: An overview", in R. Schrire (ed), *Wealth or poverty? Critical choices for South Africa*, Cape Town, 1992
3. S. Brand, N. Christodoulou, J. van Rooyen & N. Vink, "Agriculture and redistribution", in R. Schrire (ed), *Wealth or poverty? Critical choices for South Africa*, Cape Town, 1992

farmers which was realised through the promulgation of the *Natives' Land Act of 1913*. This served effectively to segregate ownership in addition to the abolition of various tenancy forms (mainly share-cropping). Peasant farmers were in effect converted into farm labourers in their large numbers. Two decades later, intensification of state intervention in agriculture was achieved through the introduction of legislative measures such as the *Marketing Act of 1937* and the *Co-operative Societies Act of 1939* which "excluded" other categories of farmers such as smallholder Black farmers, and part-time farmers.

The second phase consisted of increased mechanisation of commercial farming and the resultant substitution of capital for labour around 1970. Government intervention in Black agriculture consisted of physical "betterment planning" and administrative control. Failure of this "development" approach to achieve its welfare objectives saw a shift to intensive large-scale, centrally-managed agricultural development projects in Black areas, which became the mainstay of agricultural development efforts in the late 1970s and early 1980s. The structural imbalances between White commercial and Black subsistence agriculture resulting from the "two-track policy" toward the two agricultural sub-sectors became steadily more apparent.⁴ This manifested itself through limited access to land and agricultural support services for homeland farmers.

The build-up to the 1980s saw increased concern from commercial farmers about the "unhealthy state" of agriculture resulting mainly from the ever-widening gap between production costs and producer prices. In the late 1970s, producer prices rose by only nine per cent a year, while production costs rose by about 15 per cent a year. Against this background, farmers' debts increased to R2 621-million in 1978. During the same year, the agricultural sector's nett income was only 62 per cent of the total debt load. Rising production costs became a matter of concern.

The maize industry, which is arguably the most important or most significant component in South African agriculture, experienced export losses borne by farmers amounting to R150-million annually. These losses were largely attributed to the huge maize surpluses of the United States which flooded the world market. Most commercial maize producing areas were affected by the 1978/79 drought as a result of which financial assistance from the Government was given to affected farmers in parts of the Orange Free State, northern Cape, northern Natal and western Transvaal.

Apart from the nature of the agricultural industry which makes it different from other sectors of the economy and its vulnerability to natural factors

4. T.I. Fényes, J. van Zyl, & N. Vink, "Structural imbalances in South African agriculture", *South African Journal of Economics*, 56(2), 1988, pp 181-95

(climate, diseases), the decade of the 1980s was loaded with a multitude of other changes in policy.

The main purpose of this article is to review these changes and the major events associated with agriculture and farming in South Africa during the decade of the 1980s. This review will point out: vital changes in general growth in the sector; changes in farming costs, farm incomes, profits, yields and related variables associated with performance; changes in natural factors (climate, diseases, and disasters); as well as changes in agricultural policy. Most of the variable changes will be supported by statistical tables and figures mainly concentrating on the ten-year period from 1980 to 1989. On the basis of some of these statistics, general observations and conclusions will be made.

2. WEATHER CONDITIONS BETWEEN 1980 AND 1990

Because climatic conditions have such a major impact on agriculture, it is necessary to start this article with an overview of the climatic conditions of the 1980s. The beginning of the 1980s saw agriculture affected by floods which ravaged areas of the southern Cape. According to estimates, this was the greatest and worst flood disaster ever to befall agriculture in South Africa. The 1981 floods resulted in huge losses in crops and stock, the destruction of road and rail links cutting farmers off from markets, and destruction of irrigation channels and other equipment. In the summer rainfall areas, a severe drought troubled crop farmers in 1983. The northern Natal farmers were hardest hit. For example the Winterton area only received 22,4mm of rainfall during the month of February 1982 compared to a February average of 146,9mm. By early 1983 it was evident that the drought had caused considerable damage to grazing land. The entire Free State was dry. Fortunately the northern Cape irrigation areas were not seriously affected except for the Riet River Scheme, which was short of water. The worst areas were the northern Cape and the western parts of the Karoo, where Calvinia, Kenhardt, Carnarvon, Williston and parts of Prieska were declared disaster areas. Most of the dam levels in these areas were critical and the Van Ryneveld's Pass dam at Graaff-Reinet was completely dry for about a year.

The summer of 1982/83 (November 1982 until April 1983) was one of the driest and warmest seasons ever experienced in South Africa, yet some areas received high rainfall, for example the south western Cape, particularly the coastal belt. Drought conditions continued periodically for the rest of the decade. This entailed losses of income for thousands of farmers, as well as an escalation in farmers' debt. Low income levels pertained in agriculture from 1983 to 1986 as a result of the unfavourable climatic condi-

tions. This resulted in the government paying out large amounts to farmers in the form of drought aid when drought measures were announced in 1986. This scheme included interest subsidies, production loans and staggering debt repayments for periods of up to 10 years.

From April to August 1987 good rain fell in the winter rainfall region. Heavy rains and floods in the later part of 1987 damaged roads, infrastructure and crop land and sugar cane plantations in Natal. The rest of the summer rainfall region had good rains during the early part of the season but experienced extreme dry conditions during December and January 1988. Good rains fell in February 1988 but resulted in excessive flood damage in parts of the Western Transvaal, Free State and the Northern Cape. Towards the end of 1989 several crops, particularly tobacco, wheat and cherries suffered damage worth millions of rand as a result of hail storms. Worst hit areas were Nelspruit, White River and Hazyview, where tobacco worth R25 million was wiped out. South Africa experienced substantial variations in climate during the 1980s.

3. TRENDS IN AGRICULTURAL PRODUCTION AND CONSUMPTION

The 1980s began with bumper harvests for maize (14,6 million tonnes) and groundnuts. In the decade that followed bumper harvests were recorded for sugar cane (1984), sorghum (1986), sunflower seed (1989), dry beans (1989) and soya beans (1990). Maize, sunflower seed, groundnuts, dry beans and sugar cane all showed annual growth rates of between 0,84 and 17,03 per cent for the period 1980-1990, with maize experiencing the lowest growth rate and soya beans the highest.

In Table 1 an analysis is made of the production and consumption of the most important agricultural commodities produced in South Africa during the period 1985 to 1990. This is done in order to establish total production, surplus production for the export market and the degree of self-sufficiency. Table 1 shows that, in spite of the periodic droughts experienced during the 1980s, South African agriculture continued to produce surpluses. This is confirmed by the self-sufficiency index (SSI) which indicates that South Africa is self-sufficient in all the important staples. Crop production can therefore drop before South Africa becomes a nett importer of these products on a regular basis. Some individual commodities in this group such as oil seeds are, however, regularly imported. In horticultural production, particularly fruit, South Africa is not only self-sufficient, but to a large degree dependent on the export market. In contrast to crop and horticultural products, red meat has a self-sufficiency index of lower than 100. South Africa did not produce enough red meat during the years 1985 to 1990 to

TABLE 1

Average production and consumption of selected
agricultural commodities in South Africa
1985-1990
(000 ton)

Commodity	Imports	Exports	Production	Total consumption*	Human consumption**	SSI***
Wheat	94	449	2 612	2 262	2 119	115,5
Maize (white & yellow)	484	1 689	7 422	6 127	2 615	121,1
Potatoes	5	8	1 042	1 039	872	100,3
Vegetables	4	27	1 739	1 717	1 545	101,3
Sugar	63	863	2 044	1 258	1 258	162,5
Beef	81	16	579	644	639	89,9
Mutton, goat's meat & lamb	14	1	182	195	193	93,3
Pork	1	2	110	109	108	100,9
Chicken	3	0	521	524	519	99,4
Eggs	0	3	181	178	169	101,7
Deciduous & subtropical fruit	0	466	1 366	897	808	152,3
Dairy products	35	58	2 344	2 321	2 321	101,0
Sunflower seed oil	14	1	84	96	85	87,5
Citrus fruits (fresh & processed)	0	426	706	278	278	254,0

* Available for use = Opening stock + Production - Closing stock + Imports = Exports

** Nett human consumption = Available for use - Other uses - Losses, and further adjusted for extraction rate

*** SSI (self-sufficiency index) = Total production ÷ Total consumption x 100

Source: Food balance sheets of the Directorate of Agricultural Economic Trends of the Department of Agriculture (as processed)

meet domestic requirements. These shortages were supplemented by imports from Namibia, Botswana and some European countries. Red meat, coffee, rice, vegetables, animal fats and vegetable oils are the most important food products imported. The total gross value of agricultural production in South Africa was almost R15 000 million in 1987, whereas that of food imports was about R1 200 million. Food exports in 1987 amounted to about R2 400 million.

The area under crops fluctuated throughout the decade (see Table 2 below). The decline in the area under maize since 1987 is particularly noticeable. This is largely the result of the change in the pricing policy and the land conversion scheme introduced to take land out of maize production.

TABLE 2

Area grown under selected crops
(000 ha)

Crop	1983/ 8 4	1984/ 8 5	1985/ 8 6	1986/ 8 7	1987/ 8 8	1988/ 89
Maize	4 028	3 913	4 054	4 029	3 778	3 475
Wheat	1 809	1 919	1 919	1 729	1 985	1 830
Sorghum	283	315	307	265	182	138
Dry Beans	54	47	56	60	64	69
Sugar cane	412	407	411	388	380	375
Tobacco	32	34	31	25	25	25
Potatoes	67	66	57	65	72	63

Source: Volkscas, *Agrifokus*, 1994

The changes in area cultivated under crops such as maize, sorghum, groundnuts and sugar cane have been rather mixed. All showed declining rates ranging between 0,61 per cent and 10,78 per cent per annum between 1980 and 1990. The area under cultivation of sunflower seed, dry beans and soya beans increased by 5,24 per cent, 2,3 per cent and 11,57 per cent per annum respectively (see Table 3). The growth in area under soya bean cultivation is good for soil conservation because maize production reduces the fertility of the soil.

Although the area under cultivation for maize, groundnuts and sugar cane showed a declining trend during the period 1980-1990, production of these commodities grew steadily during the same period. This was the result of the following developments:

- Improved yields
- Withdrawal from marginal land
- Improved farming methods

TABLE 3

Annual growth rates of area and production of selected crops

Growth rate*	Maize	Sorghum	Sunflower seed	Groundnuts	Dry beans	Soya beans	Sugar cane
Area							
1980-1985	-1,37%	13,13%	-2,38%	-3,98%	-3,58%	5,30%	1,31%
1980-1990	-2,64%	-3,28%	5,24%	-10,78%	2,30%	11,57%	-0,61%
Production							
1980-1985	-8,07%	6,44%	-18,60%	-10,84%	3,57%	10,74%	4,27%
1980-1990	0,84%	-0,24%	7,87%	0,62%	6,08%	17,03%	1,64%

* Calculated using the exponential equation $Q = A\ell^a$ Time. Where G gives the growth rate.

Source: Calculated from *Abstract of agricultural statistics*, Department of Agriculture

4. AGRICULTURAL TRADE

The cost effectiveness, efficiency and competitiveness of South African agriculture are dependent on free access to foreign markets and international trade. Sanctions restricted access to these markets. In spite of this, the quality of South African agricultural products, together with their marketing reliability, stringent quality controls and the introduction of export incentives, enabled the country to maintain its export position in the world market.⁵

Terms of trade are important considerations when determining the potential international competitiveness of a country. In the case of South Africa, agriculture has been experiencing weakening terms of trade.⁶ These improved slightly towards the turn of the decade as a result of favourable changes in the world prices of primary products since 1987.⁷

Agricultural trade matters were put on the world stage in 1986 when GATT launched the Uruguay Round of Trade Negotiations. South Africa, a founder member of GATT, took part in all the negotiations up to the sign-

5. G.F. Liebenberg, *RSA agricultural trade: The 1980s in review*, Special Report, Directorate Marketing, 1990
6. G.F. Liebenberg & J.A. Groenewald, "Die RSA-landbouuilvoet", *Agrekon*, 29(3), 1990, pp 178-84
7. Liebenberg, *op cit*

ing of the final agreement in Morocco in April 1994. With regard to GATT, Liebenberg and Groenewald conclude that, in view of South African agriculture's great dependence on international trade, the country cannot afford to ignore the agreements under the Uruguay Round.⁸

TABLE 4

Export figures
(000 tonnes)

Year	Maize	Sugar	Citrus fruit	Deciduous fruit
1980	3 662	976	458	259
1981	4 690	905	446	247
1982	4 245	1 016	442	307
1983	1 320	806	394	235
1984	15	826	314	305
1985	370	1 206	300	296
1986	1 769	1 202	313	288
1987	2 443	1 303	350	309
1988	337	1 153	380	211
1989	2 933	1 218	395	243
1990	2 001	1 014	372	336

Source: Central Statistical Service

The most remarkable aspect of South Africa's agricultural trade in this period (Table 4) is the growth in deciduous fruit exports which grew at a rate of 2,6 per cent per annum between 1980-1985. They, however, declined by 0,74 per cent per annum between 1985-1990, largely as a result of stricter trade sanctions in Europe against South African products. Citrus export volume showed an overall decline of 2,02 per cent per year between 1980-1990. However, between 1985-1990 citrus exports grew impressively by 5,3 per cent per annum after their sharp decline of 9,3 per cent a year in the previous quinquennium.

Maize exports mirrored those of citrus fruit, declining sharply in the first five years, before bouncing back with a growth of 22,79 per cent per annum between 1985 and 1990. Sugar exports grew at a rate of 1,58 per cent between 1980 and 1985, but declined by 2,71 per cent a year in the following five years.

8. Liebenberg & Groenewald, *op cit*

TABLE 5

Annual growth rates in export quantities of selected export commodities

Category	1980-1990	1980-1985	1985-1990
Deciduous fruit	0,55	2,95	-0,74
Citrus fruit	-2,02	-9,30	5,30
Maize	-5,91	-85,33	22,79
Sugar	2,81	1,58	-2,71

Source: Central Statistical Service

5. AGRICULTURAL POLICY DURING THE 1980s

Policy with regard to "White" commercial agriculture was outlined by the White Paper on Agricultural Policy tabled in 1984. According to the White Paper the objective of agricultural policy was to direct the development of agriculture so that factors of production were utilised in ways likely to lead to stability with optimum economic, political and social development. An economically sound farming community was considered essential. This was to be achieved through the following goals:

Production goals

- (1) The optimum use of natural agricultural resources
- (2) The preservation of potentially productive land as agricultural land
- (3) Well trained and financially sound land owning farmers
- (4) The optimum use of labour

Marketing goals

- (1) The pursuit of orderly marketing. Because the government was advocating a more free market system, the control boards needed to work with great circumspection to ensure that state involvement did not distort production, marketing and prices. The orderliness in the marketing of agricultural products results from the application of the *Marketing Act*. The greater price stability achieved, proves the success of the control measures, especially the single-channel pool schemes, the floor

- price schemes, the surplus removal schemes and the supervisory schemes.
- (2) Maintenance of the quality and hygiene standards of South African agricultural products

General aims

- (1) Self sufficiency in food
- (2) Optimum participation in the international trade in agricultural products
- (3) Agriculture's contribution to regional, national and continental development

Several Acts were passed to support these goals, most notably the 1984 *Soil Conservation Act*. The following schemes were introduced:

- (1) Soil Conservation Scheme
- (2) Flood Relief Scheme
- (3) Bush Combat Scheme
- (4) Weed Scheme

In terms of the *Agricultural Resources Act (Act 43 of 1983)*, the following regulations were issued:

- (1) No soil user could plough (or cultivate) virgin soil without written permission from the local extension office at least three months in advance.
- (2) No soil user could allow excessive soil losses through water erosion on cultivated soil. Suitable conservation works, crop rotation, strip cultivation and sufficient crop residues had to be utilised. Any negligent cultivator allowing excessive wind erosion could be forced to take counter measures such as erecting wind breaks etc.
- (3) Irrigated soil had to be protected from water logging and salination through the necessary drainage works.
- (4) Swampy areas, flood zones, or land within 10 metres of a flood zone could not be cultivated or drained without written permission.
- (5) Drainage water from one water course could not be rerouted to another course and a soil user could not erect any obstruction that could disrupt the natural pattern of a water course.
- (6) No one could damage natural grazing by over stocking. Anyone exceeding their official grazing capacity would forfeit all claims to financial aid in the form of subsidies for soil conservation works and drought aid.

One of the major aims of agricultural policy in South Africa during the 1980s was "self-sufficiency in respect of food, fibre and beverages and the supply of raw materials to local industries at reasonable prices".⁹ The White Paper on Agricultural Policy states this forthrightly:¹⁰

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. Farmers were protected from foreign competition, received a variety of subsidies, received producer prices at a premium to world prices and had access to the latest and most productive mechanical and biological technology through an impressive research and extension network. Through these measures South Africa maintained its position as a surplus agricultural producer and achieved its aim of self-sufficiency, but at the price of encouraging some unsound practices. These measures, for example, made maize growing so profitable that large tracts of marginal land in South Africa came under cultivation.¹¹

This policy of food self-sufficiency was apparently justifiable at the time. It was followed by many other countries in the world. The South African policy was to some extent based on the world experience during the 1960s and 1970s. Surplus agricultural production was also seen as a way to earn foreign exchange in a world plagued by "Malthusian views" of chronic food shortages. It was also thought to be necessary in order for South Africa not to rely for its basic foodstuffs on an increasingly antagonistic and hostile world. With the threat of sanctions becoming a reality in the 1970s and 1980s, the policy of food self-sufficiency fitted well into the concept of total strategy. The apparent initial success of the policy also strengthened the government's hand in telling the world: "Do your damndest!"

The policy of self-sufficiency benefited producers at the expense of consumers. The strong agricultural lobby at that time, through parliamentary representation, ensured that agriculture received beneficial treatment. Producers have benefited largely from the agricultural policy of the past four decades. This policy, however, was implemented at the cost of the

9. Republic of South Africa, *White paper on agricultural policy, 1984*, Pretoria, 1984

10. *Ibid*, pp 8-9

11. Brand *et al*, *op cit*

consumer and the country as a whole.¹² In the long run, too, it hurt the producers. Because the policy encouraged unsound farming practices, it can be argued that the policy of self-sufficiency contributed to the present detrimental position of White commercial agriculture.¹³

The policy was very detrimental to the consumers. Food prices kept on rising and surpluses were exported while more than 2 million people remained underfed. It may be concluded that the policy of food self-sufficiency served its purpose but that it should be replaced by a more consumer friendly policy.

The agricultural policy of the 1980s was also noted for the large subsidies handed to farmers in the form of drought aid and other disaster payments. In 1985/86 government subsidies to farmers amounted to R708 million. In early 1988 it was noted that 25 000 of the 59 000 farming units had received government aid amounting to R24 billion in the previous seven years. This did not include flood aid and financial aid to the wool (R15,5 million) and maize (R309 million) industries. Nor did it include the government guarantee for debt carried over (R900 million) and the R400 million to keep insolvent farmers on land.

Apart from the subsidies to individual farmers, the government also paid subsidies to the wheat, maize and dairy industries. The subsidy to the wheat industry was paid to keep the consumer price of wheat and wheat products (flour and bread) as low as possible. The payment to the maize industry was to subsidise the Maize Board's handling and storage costs in order to keep the selling price of maize as low as possible. The extent of the subsidies to the wheat and maize industry is shown in Table 6 below. Apart from the subsidisation of the Maize Board's handling costs, the government was also responsible for payment of the Maize Board's export losses.

5.1 Changes in agricultural policy

Before 1980 the agricultural sector had experienced two phases of structural change, both of which were associated with the Land Acts. A third period of structural change in South African agriculture started early in the 1980s, and witnessed a major change in farm policy - the result of changes in the broader political economy on the one hand and of more direct policy reactions to the needs of the farming sector on the other.

12. J. van Zyl, "Interrelationships in maize markets in Southern Africa II: Welfare aspects of the farmer support programme", *Development Southern Africa*, 6(3), 1989

13. Brand *et al*, *op cit*

TABLE 6

Government subsidies to the wheat and maize industries
1980-1990

Year	Maize (Rm)	Wheat (Rm)
1980/81	59,5	162,7
1981/82	82,9	181,9
1982/83	69,9	193,4
1983/84	132,4	276,6
1984/85	215,0	194,3
1985/86	250,0	180,5
1986/87	151,0	147,0
1987/88	359,0	147,4
1988/89	79,9	132,0
1989/90	76,0	105,9

Source: *Abstract of agricultural statistics*

Vink argues that the deregulation of the agricultural sector started outside agriculture in the late 1970s, when the financial sector was liberalised following the publication of the De Kock Commission report.¹⁴ The immediate effect on agriculture came from changes in the external value of the currency and in the cost of borrowing. The decline in the value of the rand resulted in farm input prices, which had a relatively large import component, rising faster than farm output prices. 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 such high levels that interest became the single largest cost of production in agriculture. These changes led to farmers becoming exposed to market forces.

Other changes in the broader political economy influencing agricultural policy were the lifting of controls over the movement of labour in South Africa in the mid-1980s and the micro-economic deregulation leading to increased activity in the informal activity.¹⁵ Within this climate of macroeconomic change a number of shifts in agricultural policy took place:¹⁶

14. N. Vink, "Entrepreneurs and the political economy of reform in South African agriculture, *Agrekon*, 32(4), 1993, pp 153-66

15. *Ibid*

16. Brand *et al*, *op cit*; Vink, *op cit*

- Budgetary allocations supporting White farmers declined by some 50 per cent after 1987.¹⁷
- The real producer prices of maize and wheat declined by more than 25 per cent in real terms.
- Deregulation of controlled marketing in terms of the *Marketing Act*.
- Liberalisation of price controls in large parts of the farm sector. This include the change in price setting in the grain industries from a cost-plus basis to market-based systems that led to substantial declines in real farm output prices. The abolition of price control of dairy products, and later of flour, meal and bread and the termination of consumer price subsidies on maize meal and bread.
- Tax changes that extended the writing off of capital purchases from one to three years.
- A shift away from settlement schemes, as the major instrument of agricultural development in the developing areas, in favour of an approach based on the provision of farmer support services, such as infrastructure, extension services and research, and access to credit and markets.

Over the decade of the 1980s, expenditure on agriculture, forestry and fishing increased in nominal terms from R833 million in 1982/83 to R2 240 million by 1990/91. When this expenditure is deflated by the consumer price index real expenditure rose between 1982/83 and 1984/85 but fell back for the rest of the decade.¹⁸ Figures on budget expenditure provided by the Central Statistical Service indicate that the White farmer's share of the agriculture budget was declining in the latter part of the 1980s. Between 1988/89 and 1990/91, White agriculture's share of the budget dropped from 72 per cent to 61 per cent. Conversely, over the same period, the homelands received a greater proportion. Figures from 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 1985/86 to 52 per cent in 1990/91.

The decline in the "White" budget vote is to a large extent attributed to the decline in subsidies. Government subsidies to the food industry amounted to an estimated R236 million in 1980. These subsidies were suspended gradually during the 1980s leading to an increase in food prices.¹⁹ The

17. See also Vink & Kassier, *op cit* and LAPC, "A review of the South African agricultural budget", unpublished LAPC research document, Johannesburg, August 1993

18. LAPC, *op cit*

19. Board on Tariffs and Trade (BTT), "Preliminary report on an investigation into the price mechanism in the food chain with recommendations for its improvement", unpublished discussion document, Pretoria, 1992

most important of these subsidies was the bread subsidy which consumed 69 per cent of the total subsidy.

TABLE 7
The phasing out of subsidies
1984-1991

Item	1980/ 81 subsidy (R)	Date of suspension
Bread	R162,75 million	March 1991
Maize marketing margin	R 59,55 million	March 1991
Butter	R 3,80 million	1983/84
Crop insurance	R 3,69 million	1987/88
Fertiliser	R 5,98 million	1987/88
Total	R235,77 million	

The trend in agricultural financing (subsidies and loans to farmers), the largest single component of the budget, is less straightforward. Between 1985/86 and 1990/91 there was a steady fall in real expenditure on agricultural financing. As a proportion of the total budget, however, there is no marked trend - it fluctuated between a low of 27 per cent (1987/88) and a high of 47 per cent (1988/89).

During the early 1980s several financing schemes (subsidies and loans) of the Agricultural Credit Board were suspended. These included:

- Soil conservation works
- Eradication of invading weeds
- The establishment or management of private plantations and the financing of debts incurred for that purpose
- Housing for Black farm workers
- Buying of private farm land.

5.1.1 The decline in real producer prices

Producer prices in many of the major commodities such as maize, wheat, red meat and oilseeds have shown a decline in real prices. Farmers also experienced a cost-price squeeze as a result of price of farm requisites rising faster than producer prices in nominal terms (Table 8).

TABLE 8

Annual increase in producer prices vs
increase in prices of agricultural inputs
1980-1991

Product	Producer price (%)	Prices of inputs (%)
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*

5.1.2 The reform of the agricultural marketing system

Political and economic pressures led to the more market related approach in the marketing of agricultural commodities in South Africa. In accordance with the Government's "new found support" for a free-market system, the marketing schemes were applied with greater caution. In 1986/87 the National Marketing Council was commissioned to investigate the activities of all the marketing boards with a view to support the government's commitment to less intervention by the authorities. The following recommendations were implemented during 1987/88:

- Reducing controls on wheat millers and processors of wheat products.
- Amalgamation of the Canned Fruit Board and the Export Board for SA Canned Fruit.
- The powers of the Deciduous Fruit Board were transferred to a private co-operative, UNIFRUCO.
- The Karakul Marketing Scheme was abolished.
- Control over the marketing of rye was abolished.

After 1987 agricultural policy in South Africa was characterised by a movement towards freer markets, starting with maize. The board could no longer rely on state support for the financing of export losses and as a result had to determine producer and selling prices which would ensure that losses did not occur. Since the 1987/88 marketing season the Maize Board has been responsible for determining maize price according to the basis laid down by the minister. Prices were to be in the long-term interests of the producers; price signals were to be provided to producers before planting time; and the Maize Board was not to make use of loans to finance expenses in any marketing year. A similar approach was followed for wheat and oilseeds.

Other pressures came from within the system, with many farmers becoming increasingly unhappy with aspects of the controlled marketing of agricultural products. There was furthermore a realisation of the very poor productivity performance of the agricultural sector.²⁰ In addition to the sectoral reforms, the economic environment for agriculture has been profoundly affected by changes to macro-economic policy, most notably the tightening of monetary policy through increases in interest rates and exchange rate depreciation.

The trend towards market liberalisation 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. The replacement of quantitative controls by tariffs was intended to reduce the distortions they had created, to create a more commercial environment for imports, to reduce the role of government in the allocation of licenses, to limit the use of quantitative controls, and to increase competition. A general policy of "tariffication" has been in operation since 1985; but this began to be applied to agricultural commodities only after 1992.

5.1.3 Liberalisation of price controls in the food sector

One of the important aspects of this deregulation was the liberalisation of price control on a wide range of food products. In their 1992 discussion document, the Board on Tariffs and Trade argued that abolishing price control was directly responsible for sharp price increases in the products listed in Table 9; but controls were not reimposed.

20. C. Thirtle, H.J. Sartorius von Bach & J. van Zyl, "Total factor productivity in South African agriculture, 1947-1991", *Development Southern Africa*, 10, 1993, pp 301-18

TABLE 9

The abolition of price control in the food industry
1983-1991

Product	Level	Year abolished
Milk	Retail	1983
	Wholesale	1983
	Producer	1987
Cheese	Retail	1985
	Wholesale	1986
Butter	Retail	1985
	Wholesale	1988
Wheat flour	Retail and wholesale	1991
Bread	Retail and wholesale	1991

Source: Board on Tariffs and Trade, "Preliminary report on an investigation into the price mechanism in the food chain with recommendations for its improvement", unpublished discussion document, Pretoria, 1992

5.1.4 Changes in tax policy

In the past, the agricultural sector benefited from favourable fiscal policy. Lamont estimates that income tax concessions to farmers amounted to 70 per cent of their theoretical tax bill in 1981-84.²¹ Before the changes in fiscal policy in the 1980s, farmers could depreciate an entire asset, for tax purposes, within the first year of purchase. Not only was the state denied revenue, but resources were not optimally deployed as capital formation occurred at the expense of a relatively cheap labour resource. These tax concessions resulted in over-investment in good years and cash-flow problems in bad years.²² During the second half of the 1980s the tax concessions were reduced. Assets had to be depreciated over three years at rates of 50 per cent, 30 per cent and 20 per cent per annum respectively. Yet depreci-

21. Lamont (1990)

22. LAPC, *op cit*

ation provisions for agriculture remain certainly more generous than those for other sectors.

5.1.5 Agricultural and rural development policy

As a result of the dual nature of South African agriculture, different policies applied to White commercial agriculture and to Black small-scale farmers in the "homelands". For the Black sector, three clearly defined approaches to agricultural development can be identified, i.e. improvement planning from 1936 to the late 1970s; centrally managed farmer settlement projects during the 1970s and 1980s, and the more broad-based farmer support programmes since the late 1980s.²³ Increasing emphasis was placed on large-scale centrally managed estate project farming during the 1970s,²⁴ particularly in the case of industrial crops "where large units were desirable".²⁵ The project farming approach obtained a further boost with the establishment in 1973 of an agricultural division in the Bantu Investment Corporation.

Substantial financial losses were the norm with these schemes and the distribution of benefits was very limited in relation both to total needs and to aggregate resources available for development. Although higher levels of resource use, increased production and the creation of wage employment were promoted through modern farming enterprises, little was done to promote a class of self-employed farmers and improved farming methods for smallholders outside the schemes. Schemes were later adjusted to settle selected persons as "project farmers" operating under paternalistic control.²⁶ Occupiers of plots were strictly selected, they had to farm according to direction and under supervision and they were dismissed from their plots if they were unsuccessful.²⁷ This approach, commonly known as the farmer settlement approach, focused on large schemes but concentrated on settling

23. See J. Ellis-Jones, "Guidelines for the role of the public sector in promoting agricultural development, with particular reference to Transkei", *Development Southern Africa*, 4(3), August 1987, pp 538-42; N.T. Christodoulou & N. Vink, "The potential for black smallholder farmers participation in the South African agriculture economy", paper presented at a conference on "Land reform and agricultural development", Newick Park Initiative, United Kingdom, October 1990; C.J. van Rooyen, N. Vink & N.T. Christodoulou, "Access to the agricultural market for small farmers in South Africa: The farmer support programme", *Development Southern Africa*, 4(2), May 1987, pp 207-23; C.J. van Rooyen, "An overview of DBSA's (small) farmer support programme (FSP) 1987-1993", paper presented at the evaluation of the FSP workshop, April 1993, Development Bank of Southern Africa; N. Bromberger & F. Antonie, "Black small farmers in the homelands", in M. Lipton & C. Simkins (eds), *State and market in post apartheid South Africa*, Johannesburg, 1993.

24. Christodoulou & Vink, *op cit*

25. J.J. van Wyk, "Agricultural development in South African Bantu areas", *Agrekon*, 9(1), 1970, p 66

26. Van Rooyen, *op cit*

27. Van Wyk, *op cit*, p 66

selected labourers as project farmers operating under strict control. Participation by so-called farmers was accommodated by using farmer committees to assist the project manager. These farmers were however, nothing more than paid wage labourers with virtually no control over their production activities. A drive towards self-reliant farm businessmen did not materialise.²⁸ This approach was dominant in the late 1970s and early 1980s.²⁹

With time, disillusionment developed about these projects. They were expensive, often loss-incurring, and rarely involved spill-overs or linkages with the surrounding communities. They were often viewed as "islands of prosperity amidst an ocean of poverty".³⁰ These models of development were thus viewed with increasing scepticism in terms of their undesirable impact on investment and operational costs, entrepreneurial establishment, fiscal affordability, upliftment of adjacent communities, project sustainability, and overall rural development.³¹ In recognition of this an alternative approach, the Farmer Support Programme, was introduced in 1986. This move away from investments in projects to a programme which could provide access to support services for large numbers of small holders and rural households. Motivation for this programme was the promotion of equitable access to support services, resources and opportunities.

5.2 Some effects of the changing farm policy

The changes in farm policy since the early 1980s have had significant effects on the agricultural sector. Aggregated data show that in some parts of the country the sector is becoming more flexible. This is highlighted by the improved debt service ratio; by the increasing intensity in land utilisation; by the decline in farm size; by shifts in the cropping pattern; and by the maintenance of yields. Much has been made of the increase in total farm debt in the period since 1980 and the fact that debt repayment has become the biggest input cost for commercial farmers. The ability of farmers to service their debt, however, improved in the later 1980s.

28. N.T. Christodoulou, M.L. Sibisi & C.J. van Rooyen, "Shaping the impact of the small farmer support programmes (FSPs) in South Africa", unpublished mimeograph, Development Bank of South Africa, 1993

29. Christodoulou & Vink, *op cit*

30. Bromberger & Antonie, *op cit*

31. Christodoulou *et al*, *op cit*; J. van Rooyen, N. Vink & M. Malatsi, "Viewpoint: Agricultural change, the farm sector and the land issue in South Africa", *Development Southern Africa*, 10(1), 1993, pp 127-30

TABLE 10

The changing land use patterns in White farming
1981-88

Crop	1981 (ha)	1988 (ha)	Increase/ decrease (ha)	Growth p.a. (%)
Dry land	8 721 750	9 367 620	645 870	1,0
Irrigation	851 943	1 290 070	438 127	6,1
Planted pastures	1 195 512	1 449 845	245 333	10,8
Natural veld	73 453 976	69 742 302	(3 711 674)	-0,7
Forestry	1 151 290	1 510 628	359 338	4,0
Other	892 638	1 408 065	515 427	6,7
Total	86 267 109	85 768 530	(498 579)	-0,1

Sources: Central Statistical Service, *Census of agriculture*, Report 06-01-20, Pretoria, 1981; Central Statistical Service, *Agricultural survey 1988*, Report 11-01-01, Pretoria, 1988

Table 10 shows how the patterns of land use in South Africa have changed between 1981 and 1988. The amount of rain-fed arable land under crops has increased by one per cent per year in this period, but the area planted to maize, the largest single crop in South Africa, has decreased by 1,52 per cent per year. There has also been a decrease in the area of land devoted to wheat, sunflower seed, grain sorghum, soya beans, cotton, forestry, and pasture.

These changing land use patterns in commercial farming were the result of changes in relative product prices and factor costs, the cash flow position of farmers and changes in taxation.

5.2.1 Changes in domestic support to South African agriculture

In a study by Helm and Van Zyl the total support received by the South African agricultural sector during the period 1988/89 to 1993/94 was calculated in terms of the Producer Subsidy Equivalent (PSE).³² In order to determine the total domestic support to farmers in South Africa, the PSE was calculated on a sector-wide basis and not on a product-specific basis. Certain policy measures, however, had to be calculated per product and then

32. W. Helm & J. van Zyl, "Domestic agricultural support in South Africa from 1988/89 to 1993/94: A calculation", paper presented at AEASA conference, Pretoria, September 1994

only could it be brought into the sector-wide PSE. When formulating the PSE, two components must be taken into account. The first is the income transfers to producers as a result of agricultural policy. These transfers are calculated by means of a comparison between an internal market price and an external world price.³³ It is this component, the Market Price Support, which has to be calculated on a product-specific basis. The second is to bring into the calculation transfers from government sources. These transfers are calculated from government financial accounts and are done on a sector wide basis. According to Van Heerden, the accuracy of these estimates depends on a reasonably accurate knowledge of the budgetary cost of these measures, which means not only information on budgeted funds, but also on the revenue foregone (tax concessions) or costs not fully recovered (interest subsidies).³⁴

Table 11 shows the evolution of assistance to agricultural producers (as measured by the PSE) for the period 1988/89 to 1993/94. 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 only sugar, rye, chicory, eggs, beef, sheep and dairy products were higher than representative world prices. The increase in the total PSE in 1989/90 was the result of the higher production volume which led to a slight decrease in the PSE percentage from 11,70 per cent to 11,56 per cent in that year. Market price support accounted for about 31 per cent of total assistance in 1989/90. The reduction in the indirect income support component was mainly the result of the fact that the production input subsidy paid to farmers was substantially reduced and then entirely eliminated the following year. In 1990/91, the total PSE again increased as a result of substantially higher producer prices being paid certain products and for a decline in world prices. Market price support accounted for about 46 per cent of total assistance in 1990/91. With regard to direct and indirect income support, there was little change. The PSE percentage increased to 13,69 per cent. Both the increases in producer prices and/or the decrease in world prices of agricultural products, were once again the main reason for the higher market price support. 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.

33. W.R. van Heerden, "An economic analysis of an aggregate measure of support for maize in South Africa", 1992

34. *Ibid*

TABLE 11

The calculation of total domestic support (PSE)
(R000)

DESCRIPTION	1988/89	1989/90	1990/91	1991/92	1992/93	1993/94
(a) Value of production: Products with MPS	11 321 897	13 454 158	13 784 297	15 736 341	12 872 328	16 467 791
(b) Value of production: Products without MPS	5 231 386	5 965 538	6 910 111	7 497 910	11 193 516	11 860 609
(c) Direct Payments	113 549	115 621	119 871	91 674	89 075	79 803
(d) ADJUSTED VALUE OF PRODUCTION (a+ b+ c)	16 668 832	19 535 317	20 814 279	23 325 925	24 154 919	28 408 203
Policy transfers to agriculture:						
(e) Market price support	216 819	701 428	1 308 831	2 321 722	2 448 684	2 119 873
(f) Direct income support	367 977	335 768	332 025	250 019	2 616 106	386 477
(g) Indirect income support	942 692	774 528	703 863	819 426	1 278 611	1 048 097
(h) General services	422 001	446 259	503 761	512 940	1 155 325	564 305
(i) TOTAL PSE (e+ f+ g+ h)	1 949 489	2 257 983	2 848 480	3 904 107	7 498 726	4 118 752
PERCENTAGE PSE (i/d)	11,70%	11,56%	13,69%	16,74%	31,04%	14,50%

5.2.2 Effects on productivity in South African agriculture

The change in agricultural policy also had some effect on the total factor productivity (TFP = the ratio of aggregate output to an aggregate of all inputs combined) of South African agriculture. The results of TFP calculations by Thirtle *et al* show that between 1947 and 1991, the output index has grown by nearly 350 per cent, at a rate of three per cent per annum.³⁵ The index of inputs has more than doubled, growing at 1,8 per cent per annum. This aggregate hides the fact that inputs grew at over 2,5 per cent a year until 1979 but since then have been falling at 0,9 per cent per annum. Over the full period, TFP grew rather slowly, at 1,3 per cent per annum, but there was fairly rapid growth in total factor productivity of 2,88 per cent per annum after 1981.

These TFP results are extremely useful. The growth rate is greater than would have been expected on the basis of Liebenberg and Groenewald's preliminary study of productivity in grain production.³⁶ The increasing rate of growth over the period is in accordance with Van Zyl and Groenewald's perception that farmer's profits came under increasing pressure as inflation gathered pace.³⁷ The rapid growth of productivity after 1983 confirms the findings of the regional econometric study by Van Schalkwyk and Groenewald.³⁸ Total factor productivity grew 4,6 per cent annually after 1983 and countered the decline of 3,1 in terms of trade during the same period. This resulted in a growth of 6,2 per cent in real nett farm income (NFI) (Table 12). The growth in productivity after 1983 can be ascribed to a gain in capacity utilisation to a longer replacement period for tractors, the removal of price distortions and increased competition.

The analysis by Van Zyl *et al* shows that the agricultural sector experienced a steady decline in its financial performance after 1973 with the largest downswing in 1983.³⁹ The decline is attributable to the cost-price squeeze which exerted considerable pressure on incomes. The negative trend, however, was countered by an annual growth in productivity of 4,6 per cent since 1983. Agricultural policy, especially on issues like import substitution, import protection and the pricing policies of marketing boards, were used to counter the unfavourable terms of trade and ensure a sustained growth of profit.

35. Thirtle *et al*, *op cit*

36. Liebenberg & Groenewald, *op cit*

37. J. van Zyl, & J.A. Groenewald, "Effects of protection on South African commercial agriculture, *Journal of Agricultural Economics*, 39(3), 1988, pp 387-401

38. In H.D. van Schalkwyk & J.A. Groenewald, "Regional analysis of South African agricultural resource use and productivity", *Agrekon*, 31(3), 1992, pp 116-27.

39. J. van Zyl, H.D. van Schalkwyk, & C. Thirtle, "Entrepreneurship and the bottom line: How much of agriculture's profits is due to changes in price, how much to productivity?", *Agrekon*, 32(4), 1993

TABLE 12

Average annual growth rates in real nett farm income by period
1973-91
(%)

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

5.3 Institutional aspects of South African agricultural policy

5.3.1 Institutional fragmentation

Before 1980 South African ("White") agriculture was served by three departments, the Department of Agricultural Technical Services, the Department of Agricultural Economics and Marketing and the Department of Agricultural Credit and Land Tenure. In 1980 these three departments were amalgamated into one department, the Department of Agriculture and Fisheries, to ensure a more comprehensive policy of agricultural and marine development.

With the new constitutional dispensation of March 31, 1983 the various government departments had to be reorganised once more. The reorganisation was completed in September 1984 with the formation of the "White" own affairs Department of Agriculture and Water Supply, the general affairs Department of Agricultural Economics and Marketing and the two own affairs departments in the House of Representatives and the House of Delegates. As a result, agriculture in South Africa and the independent homelands was served by 14 departments of agriculture each with its own agricultural policy.

As a result of the Good Hope initiative, at which the private sector's role in development was confirmed, and the Carlton summit, at which a regional approach to economic development was initiated, the dualism between "White" and "Black" agriculture was brought into question. The supporters of the "regional development policy" argued that economic opportunities across political borders needed to be exploited through joint initiatives.

This led to the issue of policy harmonisation where policies differed substantially, as in interest rates to farmers, marketing policies and subsidies.

One innovation to support policy harmonisation was the multilateral technical committee system that attended to a range of agricultural matters, ranging from agricultural trade and economics, animal health and crop production, to the use of prisoners as agricultural labourers. Although these committees were largely bureaucratic, valuable transfers of information were recorded that contributed to a less dualistic view of agriculture.⁴⁰ The Development Bank of Southern Africa played a positive role in developing a regional approach to agricultural development with its concept of nine "development regions". The introduction of the farmer support programme, rationalisation of abattoir facilities, and access to Land Bank funds by commercial farmers in the TBVC⁴¹ states are a few of the examples of the first steps to "deracialise" South African agriculture during the latter half of the 1980s.⁴²

5.3.2 Lobby groups

Political influence is an important mechanism for farmers to gain access to resources, the present agricultural milieu and has to a large degree been influenced by political lobby groups. Historically, White commercial farmers have had a disproportionate amount of political influence. In 1910, over 50 per cent of South African members of parliament were farmers⁴³ and farmers' interests were still over-represented in 1990. The formation of the Conservative Party in 1982 had the effect of increasing the farmers' bargaining power while the amalgamation of the two rival maize producer groups into the National Maize Producer Organisation in 1980 further strengthened the farm lobby. The emergence of the National African Farmers' Union (NAFU) from NAFCO completed the process of national union formation.

6. FARMERS' FINANCIAL POSITION DURING THE 1980s

During the early 1980s farmers continued to increase their indebtedness to the Land and Agricultural bank, commercial banks, agricultural co-operatives, the Department of Agriculture, private persons and other financial institutions. In the period 1980-1990, total farm debt grew at a rate of 0,38

40. Van Rooyen (1985); SECOSAF annual reports

41. The independent homelands: Transkei, Bophuthatswana, Venda & Ciskei

42. Van Rooyen, *op cit*

43. M. Lipton, *Capitalism and apartheid: South Africa, 1910-84*, Aldershot, 1986, p 258

per cent in real terms but showed a drastic decline of 7,12 per cent per annum in real terms between 1985 and 1990.

TABLE 13

Farmers' debt in real terms
1980-1990

	Land Bank	Comm banks	Agric co-ops	Dept of Agric	Pvt per- sons	Other fin insts	Debt	Total debt
1980	13,02	15,44	16,70	3,47	11,17	11,80	2,36	73,96
1981	14,31	17,64	18,89	3,37	10,06	13,93	2,71	80,91
1982	14,41	23,32	19,94	3,60	9,24	11,29	2,54	84,34
1983	17,26	29,32	23,09	4,00	8,69	11,42	2,40	96,09
1984	22,36	34,52	25,97	5,15	8,37	11,62	2,41	110,41
1985	23,38	33,15	27,54	5,49	7,92	11,28	2,41	111,18
1986	22,33	28,98	25,98	5,77	7,51	11,98	2,12	104,66
1987	20,39	24,37	23,41	5,73	6,83	10,98	1,92	93,54
1988	18,81	22,38	21,95	5,92	6,43	9,65	1,80	86,95
1989	17,67	26,09	20,13	5,45	6,02	7,58	1,69	84,63
1990	16,88	24,29	18,15	4,97	4,67	5,89	1,59	77,83

Source: *Abstract of agricultural statistics*

Note: Figures have been deflated using the consumer price index (1985=100)

Total debt increased from R5 537,9 million at the end of June 1982 to R7 408,9 million by the end of December 1983, largely as result of inflation and incomes declining during the severe drought of 1982/1983. Farmers owed the Land Bank and agricultural co-operatives, R1 330,5 million and R1 780,2 million respectively.

Farmers' debt at the Land Bank grew at an average rate of 12,7 per cent per annum between 1980 and 1985 but then declined at the rate of 6,3 per cent from 1985 to 1990. Debt at the commercial banks grew by 21,1 per cent per annum between 1980 and 1985 and then declined by 6,0 per cent in the second half of the decade. The high growth rate in debt at the commercial banks between 1980-1985 may be attributed to the drought, the high rate of inflation and an increase in debt repayment problems. The drought had the greatest impact on the gross income from field crop production,

the value of which fell by over 45 per cent.⁴⁴ After 1985 more normal conditions prevailed.

Despite the increase in debt and the decline in gross farm incomes, nett income rose. This was possible because farm expenses declined in real terms faster than gross income and the debt servicing charges.

In 1985 the South African Agricultural Union carried out a national survey of the financial situation of all farmers. This survey revealed that 49 per cent of the farmers were basically sound at end of 1983, but that the percentage in this category was expected to fall to below 39 per cent by the end of 1984. The financial position of farmers older than 50, those mainly engaged in the production of wool, fur and mohair and those in the Eastern Cape were the strongest. In 1983 more than 75 per cent of the farmers older than 65 and more than 60 per cent of those aged between 51 and 65 had a debt burden ratio of 10 per cent or lower. Of farmers aged between 25 and 35, 38 per cent were in a critical position, a proportion that had increased to over 50 per cent by the end of 1984. Altogether, by the end of 1986, farmers owed the Land Bank R2 380 million in long-term loans secured by mortgages and charges against fixed property.

7. TRENDS IN LAND VALUES

There was a strong demand for farms and farming land in the Southern and Western Cape with properties fetching high prices. As shown in Table 17 below the land value index in real terms (1985=100) showed a fairly stable level in the period 1981-1984 with a declining growth rate of 0,5 per cent. This occurred in a period when the real index for subsidy and rebates was highest.

Van Schalkwyk and Van Zyl, in their study on land values, show that since 1951, the difference between market price and agricultural value increased.⁴⁵

The reasons for the increasing difference between the market and agricultural value of land since 1951 are clear. As farmers redeemed more subsidies and policies were distorted in their favour, this was capitalised into land values. Van Schalkwyk and Van Zyl have shown that, whereas market

44. J. van Zyl, A. van der Vyver, & J.A. Groenewald, "The influence of drought and general economic effects on agriculture", *Agrekon*, 27(2), 1987b, pp 1-9

45. H.D. van Schalkwyk & J. van ZYL, "Is South African land overvalued: Common misconceptions", paper presented at the 32nd AEASA conference, University of Pretoria, September 1994

TABLE 14

Real land value index and index for subsidies
1980-1990
(1985= 100)

Year	Consumer price index	Real index for subsidies	Real land index
1980	51,9	129,1	101,0
1981	59,8	142,5	109,5
1982	68,6	125,8	109,2
1983	72,1	101,4	108,7
1984	86,0	128,6	107,8
1985	100,0	100,0	100,0
1986	118,6	71,8	88,7
1987	137,7	36,2	81,0
1988	155,4	48,1	77,5
1989	178,2	18,1	75,5
1990	203,8	9,5	77,3

Source: *Abstract of agricultural statistics*

prices of agricultural land rose gradually in real terms from 1970 until the early 1980s, they generally declined strongly afterwards.⁴⁶ Real land prices region fell by 45 per cent in the summer rainfall between 1981 and 1990, by 37 per cent in the cattle grazing areas between 1976 and 1990, and by 28 per cent in sheep grazing areas between 1980 and 1990. These declines corresponded to the introduction of more market related interest rates and the reduction of subsidies.

8. CONCLUSION

The agricultural sector experienced a steady decline in its financial performance after 1973. The decline was the result of the cost-price squeeze that exerted considerable pressure on farm incomes. This negative trend, however, was countered by an annual growth in productivity of 4,6 per cent after 1983, which had a positive effect upon land values.

Agriculture has continued to make a major contribution to employment. Reliable data on employment in the homelands is not available, but we may assume that employment in these regions declined. In the White commer-

46. H.D. van Schalkwyk & J. van ZYL, "The South African land market: An analysis of land prices, unpublished mimeograph, University of Pretoria, 1993

cial sector this was not the case. There, the numbers declined until 1983, when the figure was 1,13 million. After that date it became economically rational to substitute labour for capital and by 1987, the last date for which figures are available, there were 1,37 million people employed in the agricultural sector. The ending of interest rate subsidies and tax concessions was responsible for this development, which reversed the pattern of the 1970s and early 1980s.

The agricultural sector also supplied the secondary sector with raw materials. Between 1974 and 1988 the producers' share of consumer expenditure on food declined from 55 to 46 per cent, so that the bulk of this expenditure went to support the other sectors of the economy. According to Van Zyl *et al*, these forward linkages amounted to R9 000 million.⁴⁷ The South African Agricultural Union claims that between 20 per cent and 30 per cent of industrial employment and output occurred in industries based on processing agricultural raw materials. Backward linkages in the agricultural sector led to a further R4 000 million being spent on intermediate inputs. Although the sector declined in the 1980s, it continued to provide the growing population with adequate food supplies, contributed significantly to foreign exchange earnings, provided industry with essential raw materials, made a significant contribution to employment and provided an important market for industrial products.

This does not mean that wealth was distributed evenly, or that agricultural development occurred evenly, but merely that a portion of the total agricultural sector - the White commercial farmers - was primarily responsible for production and distribution. Major changes occurred in this commercial sector as a result of new developments in government policy, that have made farming more market orientated and weakened somewhat the power of the monopolistic marketing boards, while paving the way to end the traditional division along racial lines.

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47. J. van Zyl, H.J.G. Nel & J.A. Groenewald, "Agriculture's contribution to the South African economy", *Agrekon*, 26(1), 1988