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        This paper provides background information to the staff report
on the 1991 Article IV consultation discussions with South Africa, which was
circulated as SM/91/192 on September 16, 1991.

        Mr. Lachman (ext. 6223) or Mr. Bercuson (ext. 8795) is available
to answer technical or factual questions relating to this paper prior to the
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INTERNATIONAL MONETARY FUND

SOUTH AFRICA

Selected Background Issues

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I. Overview and Summary

This background paper to the Staff Report for the 1991 Article IV consultation with South Africa is in the form of a series of studies that examine in detail the main themes raised by that report. 1/ The principal focus of these studies is on the redistributive and growth policies that will be needed in a new South Africa, on the budget options available to effect such policies, and on the opportunities for outward-looking policies in the external sector that would be provided by the eventual elimination of trade and financial sanctions. The remainder of this introductory chapter provides a brief overview of these studies and indicates the main conclusions that are to be drawn.

The poverty profile of South Africa (Chapter II) highlights the basic split currently characterizing the country between the first world living standards enjoyed overwhelmingly by the White minority and the third world conditions of poverty in which the majority of the Black population lives. It also indicates how the reduction of economic growth in the 1980s, which accompanied international financial sanctions and increased domestic uncertainty, resulted in a slowing of the earlier trend toward a more equal distribution of income and led to a sharp rise in the proportion of the Black labor force outside the formal sector of the economy to its present level of over 40 percent. The main conclusion to be drawn is that the dimension of the poverty problem in South Africa is such that redistribution policies alone will not be adequate to address these problems. Rather, what appears to be required is a redistribution policy that is fashioned in a manner consistent with placing the economy on a higher growth path. Only under such conditions could one expect the economy to generate the necessary resources to attend to the needs of the least privileged sectors of society on a sustainable basis.

The production function analysis of the effects of apartheid on income distribution (Chapter III) suggests that a principal factor in the improvement of the non-White income share over the past two decades was the narrowing in the "wedge" between White and non-White wages for jobs with similar skill categories. The main policy conclusion to be drawn from this finding is that further improvements in income distribution as between races in the period ahead will need to derive mainly from improvements in skill acquisition and in employment opportunities for non-Whites rather than from a further compression of the wedge between wages for different race groups.

1/ A full Recent Economic Developments Report on South Africa was produced on the occasion of the 1990 Article IV consultation (SM/90/176). The staff proposes to produce a further such full Recent Economic Developments Report on the occasion of the next Article IV consultation.

The staff's medium-term economic scenarios (Chapter IV) aim at addressing the question of the macroeconomic policies that would be needed to foster rapid growth of output and employment. These scenarios, which were based on the estimation of a production function and the use of a savings and investment framework, suggest that if economic growth were to be raised to around 3½ percent a year--or to the minimum rate that would be required to reduce the level of unemployment given the rapid prospective growth of the labor force--the investment to GDP ratio would need to rise from its present level of 19 percent to around 27 percent. Such an increase in investment would need to be supported by a major domestic savings effort, particularly in the area of public savings, even were South Africa to again become a significant net user of external savings. The basic implication for budget policy would be that if South Africa were to attain a higher growth path, the major part of the required effort to redress social backlogs would need to derive from a reorientation of spending priorities rather than from any significant resort to deficit financing.

The analysis of recent trends in budget spending (Chapter V) in South Africa reveals that over the past several years there has been a basic shift in spending priorities towards social ends. Moreover, a comparison of South Africa's overall level of social spending with that of other countries at a similar stage of development suggests that social spending in South Africa is relatively high by international standards both as a percentage of GDP and as a proportion of total budget outlays. These comparisons would also suggest that the scope for further compressing non-social spending in South Africa is limited. Accordingly, one is led to the conclusion that if the budget is to attend to the social needs of the least privileged groups of society without significant resort to deficit financing or to higher budget revenues, this will have to be done through a basic reordering of social expenditures.

The examination of the per capita level of social spending by different race groups (Chapter V) indicates that despite some progress in recent years, South Africa's budget is still characterized by very marked differences in such spending along racial lines. The staff estimates clearly suggest that equalizing spending levels at the present White level would result in an overall level of social spending dramatically beyond the capabilities of the budget. Moreover, these estimates show that equalizing such spending rates at levels that would be consistent with maintaining budget discipline would result in a substantial decline in benefit rates for non-Blacks but only relatively moderate increases in benefits for Blacks. The corollary of this finding is that redistribution policies will need to be firmly supported by growth-oriented policies if social upliftment is to be effected in a meaningful way and on a sustainable basis.

The comparative analysis of the tax system (Chapter VI) would suggest that the South African overall tax burden and its marginal tax rates cannot be judged to be low by international standards and that the tax burden on the White part of the community would appear to be relatively high even by the standards of the industrialized countries. This would suggest that

raising tax rates in South Africa would heighten disincentive effects to levels that are high by international standards. Accordingly, were revenue collections to be raised, this would need to be done through substantially reducing tax expenditures, through broadening the tax base, and through changing the mix between direct and indirect taxes.

The review of external policies (Chapter VII) in response to the application of trade and financial sanctions since 1985, highlights the increased reliance placed on exchange rate and demand management policies to effect the needed shift in South Africa's external current account balance. Moreover, the review brings out the increased impetus that sanctions gave to inward looking policies in South Africa as reflected by the introduction of an import surcharge, the reintroduction of a dual exchange rate, and the negotiation of a "stand-still" arrangement on commercial debt. The review examines the scope for a shift towards more liberal trade and payment policies as international sanctions are eliminated.

II. A Poverty Profile of South Africa

1. Introduction

Poverty in South Africa can be placed in context most easily by focusing on the bipolar nature of the South African economy--a bipolarity that was maintained until recently by the legal regime referred to as Apartheid. This bipolarity manifests itself in a basic split between the high living standard enjoyed overwhelmingly by the White minority and the condition of poverty in which the majority of the Black population lives. Aggregate social and economic indicators clearly underline these differences. While both GNP per capita and the structure of production classifies South Africa as an upper-middle income country, the benefits deriving from the economy accrue disproportionately to the White minority. 1/ The income levels of the Black population and the social indicators pertaining to this sector of the community--such as life expectancy at birth and infant mortality--are comparable to those of the poorer countries bordering South Africa.

A feature of South African poverty is that it follows the traditional urban/rural split observed in many developing countries. However, in South Africa absolute poverty is concentrated in regions created by administrative fiat--namely the "homelands" that are largely the repository of women, children, and the aged not engaged in the formal sector of the economy. The income per capita in these outer-periphery areas is but a small fraction of that prevailing in the metropolitan areas of the country.

In the 1970s, the Black population made some progress in catching up to the living standards of the White population by moving to the economically active sectors and regions of the economy. In many respects, this was the result of the vigorous growth of the South African economy and its concomitant labor shortages. These enabled Blacks not only to increase their employment (a trend favored by labor-starved White companies) but also to unionize, which allowed them to successfully achieve real wage increases. 2/ However, with the reduction in economic growth throughout the 1980s--associated with a worsening in the investment climate brought about by heightened political uncertainty and the imposition of sanctions against South Africa--Black employment and wage growth were particularly affected, thereby slowing the process of income equalization that had earlier been under way. Thus, GDP growth slowed to around 1½ percent a year

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1/ The World Development Report (1990) records a per capita GNP for South Africa of US$2,290 in 1988, which groups the latter with the upper middle income Latin American countries, Hungary, and the Republic of Korea.

2/ Hofmeyr (1990) and van der Berg (1989) show that Black real wages in mining, which were constant between 1945 and 1970, subsequently increased sharply. The Second Carnegie Inquiry into Poverty (1989) documents a 240 percent increase in real terms of Black wages in mining and quarrying between 1970 and 1985.

in the 1980s, which fell well short of the 2½ percent a year growth in the population. This slowing contributed to increase the proportion of the economically active population in 1989 that was unemployed, under employed, or without employment opportunities in the formal sector of the economy from 25 percent in 1974 to around 42 percent by end 1989.

2. **The interracial distribution of income in South Africa**

Given that incomes in South Africa vary widely by race, discussions of income distribution have mainly concentrated on the distribution of income shares by race. 1/ Income shares by racial group provide some insight into the evolution of South African society. As the tabulation below shows, there has been a steady decline over the past two decades in the share of overall income accruing to the White minority and a corresponding increase in the share of income accruing to the Black majority.

<u>South Africa: Income Shares Over Time</u> 2/
(<u>In percent of total income</u>)

	1960	1970	1980	1988
White	72.5	71.1	64.9	53.9
Asian	2.1	2.4	3.0	3.2
Colored	5.6	6.7	7.2	6.6
Black	19.9	19.8	24.9	36.3

Solely examining the evolution of income shares by racial groups, however, can be misleading as to the degree to which income distribution might be becoming more even, since such measures disregard the different rates of population growth among the various race groups. For this reason, it is more instructive to focus on estimates of the Gini coefficient that provide a more direct measure of income distribution as between the individual members of society. 3/ The Carnegie Second Inquiry into Poverty (1989), quoting de Lange and Van Seventer (1986), reports a Gini

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1/ One issue that has in the past occupied the attention of the authorities has been the so called 'poor White' issue (for a survey see Abedian and Standish 1985). This issue will not be discussed here, not least because the South African government has been attending to this issue since the 1920s and White poverty appears to have been largely eradicated.

2/ Source: Development Bank of Southern Africa.

3/ The Gini coefficient, which is a widely used standardized measure of income distribution, would approach zero in the case of a perfectly even distribution of income and would have an upper limit of one at the opposite extreme.

coefficient of 0.66 for South Africa. Carnegie considers this the most accurate estimate, although it also quotes Devereux (1983), who gives a 0.65 estimate for 1976 and a 0.57 estimate for 1980--a "dramatic" improvement in Devereux's opinion. To put these numbers in perspective, the Gini coefficient for South Africa in 1978 was the highest of any of the 57 countries in the world for which data were available. 1/ Gini coefficients for the developed Western economies generally range between 0.35 and 0.40 with only those economies in Latin America with highly uneven income distributions having Gini coefficients close to those in South Africa. 2/

Using data available from the South African Bureau of Market Research, it is possible to compute a Gini coefficient time series based solely on between-race inequality (see tabulation below). 3/

South Africa: Gini Coefficients Assuming Income Equality Within Racial Groups 4/

Year	Gini Coefficient Personal Income	Gini Coefficient Personal Disposable Income
1960	0.55	0.54
1965	0.56	0.55
1970	0.53	0.51
1975	0.49	0.47
1980	0.50	0.49
1985	0.51	0.47
1987	0.48	0.45

These calculations would support the notion that income inequality in South Africa is overwhelmingly the result of income differentials between the races. In 1980, for example, the amount of inequality between the races generates a Gini coefficient of 0.50 while the total amount of inequality in the economy generates a Gini coefficient of 0.57. These calculations would also suggest that the marked slowdown in growth during the 1980s led to a significant slowing in the pace of income equalization that had been under way in the previous decade. Finally, a comparison of income distribution

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1/ Carnegie Second Inquiry (1989).
2/ McGrath (1990, p.94).
3/ The data on income distribution from the Bureau of Market Research has the advantage over that of McGrath (1990) in that it includes the "independent" homelands after 1980, which makes it possible to examine income distribution on a consistent time-series basis. It is important to include these homelands in any comparison because they tend to contain the poorest segments of the Black population.
4/ Sources: South African Bureau of Market Research and Fund staff estimates.

before and after taxes would suggest a significantly less uneven
distribution after taxes, which would point to a relative degree of
progressivity in the tax system.

In addition to the problems of racial inequality referred to above, the
South African economy is plagued by a spatially distorted distribution of
economic activity. These distortions, which have shown only a marginal
tendency to narrow over the past two decades, are clearly brought out by the
following tabulation that distinguishes output and population between a
metropolitan core area, an inner peripheral area, and an outer peripheral
area. Particularly striking is the fact that as late as 1988 almost
38 percent of the population resided in the outer-peripheral areas, yet this
population accounted for barely 7 percent of the total product.

South Africa: Distribution of Income
Between Regions 1/

	Product		Population		Product Per Capita	
	1970	1988	1970	1988	1970	1988
	(in percent of total)				(in Rand per capita)	
Outer-peripheral area	2.7	7.3	29.7	37.6	325	642
Inner-peripheral area	34.8	32.2	34.1	25.5	3,591	4,161
Metropolitan core	62.5	60.5	36.2	36.9	6,093	5,396
Total	100.0	100.0	100.0	100.0	3,526	3,293

3.   Absolute measures of poverty and the vulnerable in South Africa

Traditionally, poverty has been measured in reference to some absolute
living standard. As reflected in the tabulation below, a number of such
measures have been proposed in the South African context, the main
difference being one of coverage.

1/   Source: Development Bank of Southern Africa.

South Africa: Alternate Measures of Poverty, 1980-85 1/2/

(Rand/month)

	1980	1985	Coverage
Poverty datum line or housing subsistence level	195	345	Food, clothing, fuel/lighting, washing/cleansing, and transport
Minimum living level (MLL)	189	350	As above + tax, medical, education, household
Supplementary living level	240	446	MLL + recreation, personal care, pension, medical

Good time series data on poverty are somewhat fragmented, with data existing only on an impressionistic basis, covering particular periods, regions, or professions. Among the more striking of these estimates is that in 1980 approximately 50 percent of all South African households (including those in the TBVC states) 3/ and 60 percent of all Blacks (if living in the reserves, the rate was 80 percent) lived below the Minimum Living Level (MLL), while in 1989, 40 percent of the population in South Africa (excluding the TBVC) is estimated to have lived below the MLL. A further estimate reported by the Carnegie report is that in 1983/84 poverty ranged from 23 percent to 68 percent (measured as the percent of households earning less than the Household Subsistence Level) in three Black townships in Natal. 4/

Although comprehensive studies by racial group are not available, four groups stand out as the most vulnerable: these are Black children, women (especially widows and wives of migrant workers whose remittances tend not to be dependable), the elderly, and the disabled. As described in moving detail by the Carnegie Inquiry into Poverty, these groups have few assets,

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1/ Source: Carnegie Second Inquiry into Poverty (1989).
2/ These figures are compiled from urban centers and refer to average household sizes (5.45 persons per household). In current U.S. dollar terms, these estimates of minimum living standards ranged from $205 to $255 in 1980 and to between $125 and $160 in 1985. Rural minimum living standards are estimated to be not very different from those in the urban centers.
3/ The Transkei, Bophuthatswana, Venda, and the Ciskei.
4/ Carnegie (1990).

have incomes that are highly susceptible to outside shocks, and do not enjoy the benefit of a dependable safety net. The vulnerable elderly generally fall into two categories. Some are entitled to pensions based on past employment but often they do not receive them for bureaucratic reasons. 1/ A second category relates to those between the ages of 55 and 65 for whom it is hard to find employment but who are not yet eligible for pensions.

An examination of the nature of the vulnerable groups reveals that they generally depend on income transfers for their subsistence since the rural areas of the reserves are simply incapable of economically sustaining the population densities that have been imposed upon them. 2/ Since the rate of excess population migration to the economically active areas was slowed down by various rules and regulations (not all directly connected to apartheid), a system of migrant labor evolved in which the reserves' population became a net importer of consumer goods with these imports financed through remittances from the largely male workers, who were allowed to migrate to the urban areas.

4.   The interracial distribution of social indicators in South Africa

Direct measures of income tend to understate the incidence of poverty because they exclude wealth, certain sources of unrealized income, and the higher costs of living that habitually face the poor. On the other hand, government action often has a stronger equalizing effect on social indicators than it does on income, so that social indicators could actually be less unequal than shown by the data on the distribution of income. The tabulation below summarizes a number of social indicators by racial group for which consistent time series are available.

1/ As an example of such bureaucratic reasons, pensions are denied to people not living in the legally-defined homelands.

2/ Under the apartheid system, the various Land Acts had restricted the areas where Blacks could legally own land to only 13 percent of the country and these areas were generally regarded as being below average in agricultural potential. In addition to a communal share of about 6½ hectares of grazing land, the average arable land holding per household was between 1¼ and 2 hectares in 1985. According to the Urban Foundation, 56 percent of the population in the outer peripheral areas were small-scale landowners with below-subsistence production levels, while 31 percent of the population in these areas were resource-poor non-land holders with no arable land or livestock.

South Africa: Selected Social Indicators 1/

Year	White	Colored	Asian	Black
Life Expectancy at Birth				
(In years)				
1970	68.5	58.0	62.5	...
1979	69.9	61.5	64.8	...
1980	69.5	58.6	65.5	58.5 2/
Literacy				
(Rates of adult literacy)				
1970	98.0	69.0	74.0	...
1979	99.3	84.5	92.4	...
1980	99.3	84.5	92.4	67.0
Infant Mortality				
(Deaths per 1,000 live births)				
1950	35.7	134.3	68.5	165.0
1960	29.6	128.6	59.6	95.0
1970	21.6	133.5	36.4	85.0
1980	13.1	60.7	24.4	70.0
1988	13.2	57.5	17.4	57.4

The social indicators document substantial disparities between the races. These disparities have tended to narrow significantly over the last four decades, partly due to the large initial level of disparity evident in the figures. One should also note that these data do not include the TBVC states after 1980--which could account for a significant part of the observed improvement.

1/ Source: Eckert (1986), Official Yearbook of the Republic of South Africa, and Department of National Health and Population, 1990 Health Trends in South Africa.

2/ 1980 figures for life expectancy are computed at age 1 year.

Literacy indicators show that Blacks lag substantially behind all other races. Data on pupil to teacher ratios in 1985/87 reinforce this claim, showing ratios for Blacks to be more than twice those for Whites, twice those for Asians, and only slightly less than twice those for Coloreds (Trotter, 1990). In 1987, only 65 percent of Black children between the ages of 5 and 19 were at school, compared with over 77 percent for the other racial groupings. Moreover, 1986 data on the highest level of education achieved by race shows that 37.4 percent of Blacks over 20 years old had no education, while only 2.1 percent had more than 12 years of schooling, which compared with over 25 percent for Whites. Black enrollment at all levels of education is growing rapidly and the disparities in expenditures per pupil on a racial basis are narrowing. Nevertheless, in 1990 the expenditure per pupil on Blacks amounted to only R 910, which compared with R 4,090 for Whites, R 2,410 for Coloreds, and R 3,055 for Asians.

5.   South Africa in comparative perspective

This profile has made a number of claims with respect to income and other social disparities within South Africa. But how does South Africa compare to its neighbors? The tabulation immediately below, which is drawn mainly from World Bank data attempts to answer this question.

Comparative Economic Indicators for South Africa and its Neighbors 1/

	Per capita GNP (US$)	PC Daily Calorie Supply	Life Expectancy	Infant Mortality (per 1000)	Adult Literacy (15+, in %)
	1989	1988	1989	1988	1985
South Africa	2,460	3,035	61.3	50.7	85.0
White	6,530	- -	73.0	13.2	99.3
Black	670	- -	57.4	57.4	80.0
Upper middle income countries	3,810	2,980	67.4	45.0	77.7
Namibia	500-1,499	1,889	57.0	65.0	73.0
Botswana	1,600	2,269	67.0	41.0	70.0
Mozambique	80	1,632	49.0	139.0	27.6
Lesotho	470	2,307	56.0	98.0	72.6
Zimbabwe	640	2,232	63.0	49.0	62.3

1/ Source: World Bank Atlas (1990) and World Development Report (1990).

Compared with other upper middle income countries, South Africa does well on the adult literacy indicator, average on the per capita daily calorie supply indicator, and poorly on the health indicators (life expectancy and infant mortality). South Africa is richer and its people eat and read better than their neighbors. However, some of South Africa's poorer neighbors (Zimbabwe and Botswana) enjoy longer life expectancies and lower infant mortality, while Namibia, which is also poorer than South Africa, manages a lower infant mortality rate.

The dual nature of the South African economy becomes evident after disaggregating the South African indicators into White and Black averages. These indicators clearly place the White sector of the South African economy in a different category than either upper middle income countries as a group or any of South Africa's neighbors. On every indicator cited, White South Africa does much better. As regards Blacks, allowing for data uncertainties and the fact that the TBVC states are excluded from these indicators, Black South Africans appear to be doing about as well as an average neighbor. Zimbabwe and Botswana outperform Black South Africa on health (Botswana also does much better on income) although not on literacy. Lesotho does slightly worse, while Mozambique is clearly an extremely poor country and does much worse than Black South Africa on all counts. Although it is possible to question the accuracy of individual indicators, the overall picture is harder to dispute: Black South Africa has done at best only moderately better than its neighbors despite its location near Africa's most dynamic economy.

III. The Effects of Apartheid on the Distribution
of Labor Income

Since the early 1970s, and more especially since the mid-1980s, there has been a progressive easing of the labor market distortions and rigidities that were an inherent part of the apartheid system. Over the same period, there was a significant increase in the share of non-White labor income in total GDP from 26 percent in 1970 to 34 percent in 1989. The present chapter provides an empirical analysis of the changing non-White labor income share that specifically addresses the effects of the diminishing discrimination in labor markets. 1/

The analysis concludes that a principal factor in the improvement in the distribution of labor income over the past two decades was the reduction in the wedge between White and non-White wages for jobs with similar skill characteristics. More specifically, this wedge is estimated to have declined from 90 percent at the beginning of the 1970s to around 14 percent at present. 2/ This finding would suggest that further improvements in income distribution as between races in the period ahead will have to derive mainly from improvements in skill acquisition and in employment opportunities for non-Whites rather than from the elimination of the remaining wedge between wages for different race groups.

1. The basic model

The model was designed to evaluate the historical impact of apartheid on the income accruing to workers in different racial groups. In this regard, the model assumes that two factors have determined the distribution of labor income along racial lines: the changing skill mix of the labor force and a narrowing of racial differentials in pay for similar jobs. Both of these factors are linked to the evolution of the apartheid system during the 1970s and 1980s.

The apartheid system is assumed to have had two main effects on the supply of labor. First, at the pre-market level, educational discrimination is assumed to have distorted the supply of skilled labor and to have restricted the income growth of certain racial groups. Second, at the market level the effective segmentation of the labor market has allowed White workers to gain an economic rent at the expense of workers in the other racial groups. The degree of segmentation had until the mid-1980s been maintained mainly by formal job reservation and by the so called "pass laws" that severely restricted the mobility of non-White labor. With the abrogation of these laws in the mid-1980s, the segmentation that continued

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1/ A byproduct of this analysis is the estimation of a production function, which was used in Chapter IV to examine medium-term scenarios for the South African economy.

2/ This estimate suggests a trend consistent with the more detailed analysis of Knight and McGrath (1987) for the two years 1976 and 1985.

was through informal restrictions. The apartheid system also distorted labor markets through the differential treatment of White and non-White labor organizations.

At the heart of the specification of the model is a production function of the Cobb-Douglas form. Specifically, it was assumed that

$$Y = A \; L^\alpha \; K^{1-\alpha} \; e^{gt} \tag{1}$$

where Y is output, L is aggregate labor input, K is capital input, and A is a scaling constant. The coefficient g represents the rate of growth of multifactor productivity caused by technological progress or improved resource utilization. Under the usual assumptions of profit maximization subject to competitive market conditions, the parameter α represents the share of total income going to labor, with the remaining share $(1-\alpha)$ assumed to go to capital. 1/

Labor input is assumed to be composed of two components: skilled and unskilled labor. 2/ It is assumed that skilled and unskilled labor have a constant elasticity of substitution (CES), which implies that aggregate labor input can be written in the following manner:

$$L = B.(\gamma.LU^\rho \; + \; (1-\gamma).LS^\rho)^{1/\rho} \tag{2}$$

where LU and LS are unskilled and skilled labor, respectively, B is a constant term, the parameter γ is related to the relative marginal productivity of skilled labor to unskilled labor, and the constant elasticity of substitution between skilled and unskilled workers is given by the formula:

$$\sigma = 1/(1 - \rho) \tag{3}$$

Ideally, direct estimates of σ could be obtained by estimation of the implied log-linear relationship between the ratio of skilled to unskilled workers and the ratio of their relative wages. Unfortunately, this course was not open because the required data on relative wages were not available. Instead, the parameters were estimated indirectly utilizing data on labor income shares along racial lines in the following manner.

1/ Historically, the labor share has been fairly constant although there are widely divergent estimates of its level. See the annex to this chapter for details of the parameterization of the production function.

2/ In practice, the labor force is composed of a continuous spectrum of skills. Broadly speaking, the division here classifies professionally qualified workers and managers in the skilled category and the remainder of the labor force in the unskilled category. See the annex to this chapter for a more detailed explanation of the data sources and definitions employed.

The indirect estimation approach assumes that, while White and non-White labor are equally productive within each skill category, the wage rates obtained by White workers includes an element of economic rent associated with apartheid labor restrictions. Thus, the amount of income going to White labor can be written as the sum of White skilled and unskilled labor earnings at their "fair market" wage rate (the wage rate which is equal to their marginal product) adjusted by a markup representing the economic rent associated with apartheid:

$$L_w \, W_w = Z_s \, LS_w \, W_s + Z_u \, LU_w \, W_u, \tag{4}$$

where $L_w \, W_w$ represents the total White wage bill, LS_w and LU_w refer to skilled and unskilled White labor respectively, and W_s and W_u refer to the "fair market" wage for White skilled and unskilled labor. The factors Z represent the economic rents obtained by White workers, and they are assumed to be greater than or equal to one. Non-White labor is assumed to receive the residual value of the total income accruing to labor.

Equation (4) can be rewritten in terms of the shares of total income going to White workers and to non-White workers as follows:

$$\alpha_w = Z_s(LS_w/LS).\alpha_s + Z_u(LU_w/LU).\alpha_u \tag{5a}$$
$$\alpha_n = \alpha - \alpha_w. \tag{5b}$$

where α_w and α_n are the respective share of income going to White and non-White workers--for which official data is available--and α_s and α_u are the respective share of labor income going to skilled and unskilled workers

In order to convert equation (5) into an estimating equation, the unknown values α_s and α_u must be modeled and the wage wedges Z_s and Z_u parameterized. The modeling of α_s and α_u utilizes the following property of a CES function:

$$\alpha_s/\alpha_u = C(LS/LU)^{\sigma^*}, \tag{6}$$

where $\sigma^* = (\sigma - 1)/\sigma$ and $C = (1 - \gamma)/\gamma$. From this expression, relative income shares by skill category can be expressed in terms of available data on the skill composition of employment.

Turning to the wage wedges, it was assumed that the wedge between the wages of White and non-White workers was the same in each skill category and that it has declined steadily over time. Specifically, the following function was used:

$$W_w/W_n = 1 + \delta e^{-\beta t} \tag{7}$$

The coefficient δ measures the markup of White wages over non-White wages in the period where $t=0$ (normalized to 1985 in the estimation), while the coefficient β measures the speed at which the wedge is eroded over time.

Combining these assumptions together, the following equation was obtained,

$$\alpha_{\underline{w}}/\alpha_{\underline{n}} = (1 + \delta\underline{e}^{-\beta\underline{t}}) \left[\frac{(\underline{LU}_{\underline{w}}/\underline{LU}) + (\underline{LS}_{\underline{w}}/\underline{LS})\,\underline{C}(\underline{LS}/\underline{LU})^{\sigma*}}{(\underline{LU}_{\underline{n}}/\underline{LU}) + (\underline{LS}_{\underline{n}}/\underline{LS})\,\underline{C}(\underline{LS}/\underline{LU})^{\sigma*}} \right] \qquad (8)$$

2. Estimation results

Equation (8) was estimated using nonlinear least squares for the period 1970-89 using data for the nonprimary sector. The year 1970 was chosen as the starting point both because this was the earliest period for which consistent data could be obtained and because it marks the approximate start of the erosion of the apartheid system (Terreblanche and Nattrass, 1990). The following results were obtained:

	Value	Standard Error
δ	0.22	0.09
β	0.10	0.02
C	3.42	2.61
$\sigma*$	0.64	0.44

DW = 1.21   RBAR^2 = 0.98   SE = 0.033

The coefficients relating to the erosion of the apartheid wage wedge (δ and β) are relatively precisely estimated, with both coefficients being significant at conventional levels. The point estimate of δ indicates the degree of the wage wedge between Whites and non-Whites due to "apartheid rents" in 1985. At 22 percent, the estimate here corresponds closely to the measure of wage divergence that was attributed to discrimination by Knight and McGrath (1987) in their more detailed study of wage differentials in South Africa. 1/ The coefficient β indicates that this wedge has been declining by 10 percent per annum over the entire sample period, which would imply that the wedge declined from a value of 92 percent in 1970 to under 14 percent by 1990. Knight and McGrath (1987) also present data for wage differentials in 1976; the wedge implied by the estimated equation here, around 50 percent, again corresponds roughly to the estimates in that more detailed study.

1/ The numbers in Knight and McGrath refer to the wage differences between White and Black workers. However, since the other races are a relatively small part of the overall work force, the comparison is still useful.

The coefficients relating to the CES production function, σ^* and C, are less well estimated, with t-statistics slightly below conventional significance levels. The estimated value of σ^* implies an elasticity of substitution between skilled and unskilled labor of 2.76. This relatively high coefficient implies that the expansion of the skilled work force over the estimation period has been associated with a relatively small fall in the relative wages of skilled workers. 1/ This result is consistent with evidence in Knight and McGrath (1987) which indicates little change in relative wages of skilled and unskilled workers between 1976 and 1985.

In view of the relatively imprecise estimate of the elasticity of substitution, experiments were carried out in which different values for σ were imposed on the estimation process. In general, it was found that changing the elasticity of substitution had a relatively small effect on the measured apartheid wage wedge but a relatively large effect on the implied path of relative wage rates. As σ fell toward unity, for example, the relative wage of skilled workers was estimated to have declined sharply during the sample period. Correspondingly, the higher the value of σ, the smaller the fall in relative wages.

3. Analysis of income shares

The estimated model facilitates an analysis of trends in the racial shares of income in the period 1970-89. During this period, the labor income received by non-Whites as a proportion of GDP is estimated to have risen from under 26 percent to nearly 34 percent (Chart 1, upper panel). Simulation analysis shows that the dominant factor in this rise was a loosening of the effects of apartheid as measured by a steadily declining wedge between the wages paid to different racial groups for the same type of work. Indeed, the simulations suggest that if the measured wage wedge in 1970 had not been eroded over the course of the 1970s and 1980s, the non-White labor share might have declined substantially as a proportion of GDP (see Chart 1, lower panel "unchanging apartheid").

The reason that the non-White income share would have tended to decline in the absence of a declining wage wedge is that the skill composition of the non-White labor force did not improve sufficiently rapidly. Although non-White skilled employment grew nearly twice as fast as that of Whites, the level of non-White skilled employment started from such a low base that, in absolute terms, the number of skilled White workers increased by more. Thus, given that skilled wages are estimated at 6-7 times the level of unskilled wages, the income share of Whites would have continued to rise relative to non-Whites in the absence of apartheid changes. Even so, the relatively rapid growth of non-White skilled employment did support non-White income share to some extent: if such growth had been at the same rate

1/ However, because of the relatively rapid growth in skilled employment, the share of labor appropriated by the skilled segment of the labor force rose sharply over the sample period.

as for Whites, non-White income might have been some 4 percent of GDP lower by 1989 (see Chart 1, "slower skilled labor growth").

CHART 1

SOUTH AFRICA

NONWHITE LABOR INCOME IN THE NONPRIMARY SECTOR

(In percent of nonprimary GDP)

ESTIMATION RESULTS

Fitted

Actual

zaltp01a

SIMULATION RESULTS

No wage wedge

Fitted

Slower skilled labor growth

Unchanging apartheid

zaltp01b
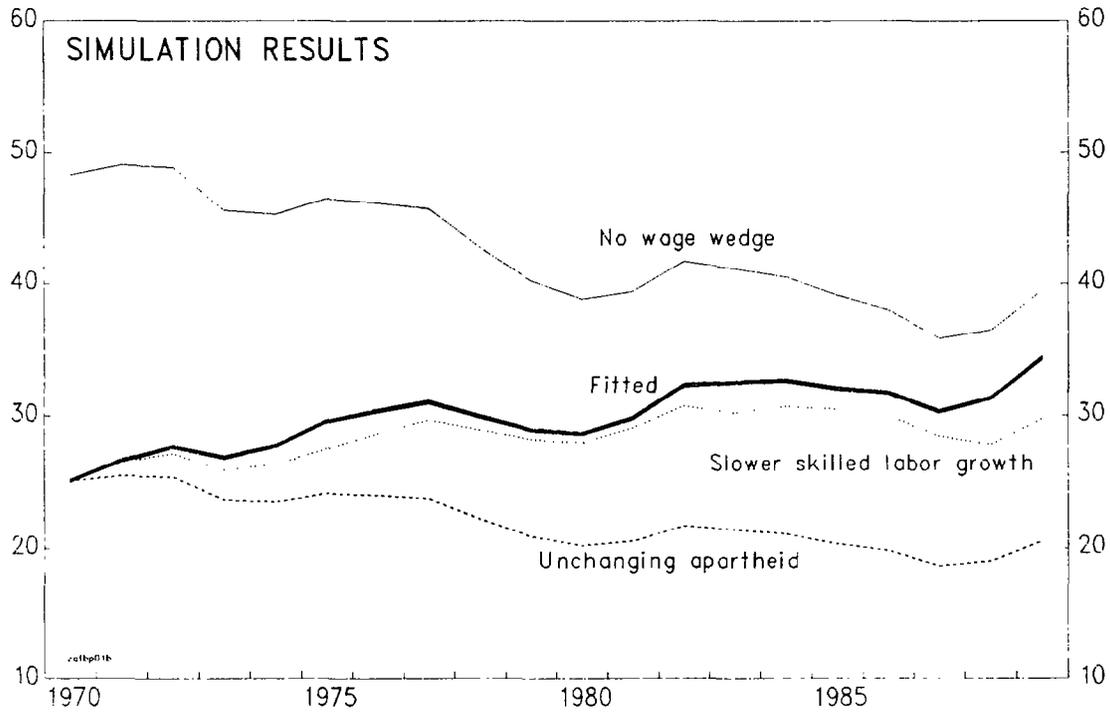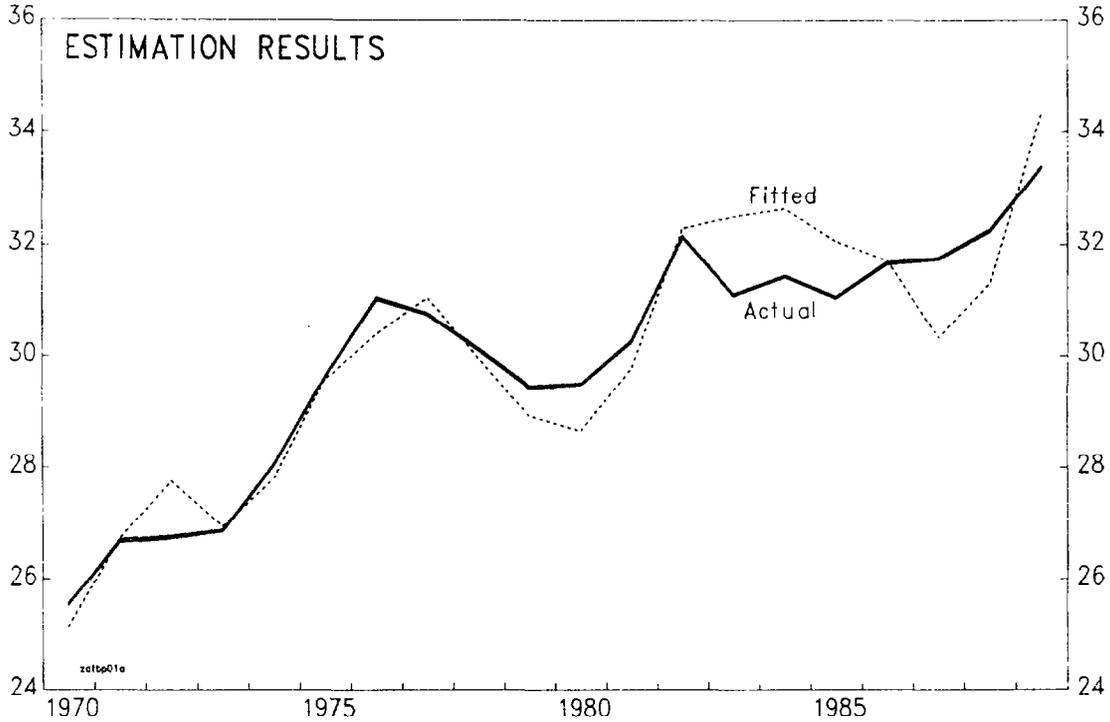
Source: Staff estimates.

Production Function Estimates and Data Sources

1.   Production function estimates

     This section describes the estimates of the remaining parameters of the production function: labor income share (α) and multifactor productivity growth (g). While not directly relevant to the analysis of the distribution of income, the estimated production function is a key element of the model used in the medium-term scenarios described in Chapter IV.

     The parameter α was calibrated from inspection of different estimates of labor's share of total income. 1/ The available data confirms a considerable degree of constancy about labor's income share but there is a wide divergence in estimates of the level. For example, consistent data from South African Labor Statistics suggests a value of around 45 percent-- which would be very low by industrial country standards--while the national accounts estimate for the whole economy is close to 60 percent (Chart 2). The low estimate from the Labor Statistics data probably reflects underrecording of employment. If the employment data is grossed up to reflect recent estimates on a "standardized" basis, the share for the nonprimary sector is around 65 percent. This value was chosen because it is closer to international levels and more consistent with the national accounts.

     Multifactor productivity growth, g, was estimated residually as the "unexplained" growth in nonprimary GDP after accounting for the contributions from capital and labor input. The latter is the skill- adjusted series constructed using equation (2). In general, after adjusting for a gradual rise in skill levels, labor input growth has exceeded that of total employment (Chart 3). Estimated multifactor productivity has been declining, on average, over the last two decades, although since 1983 it has been essentially stagnant. The estimates here correspond closely to official estimates of multifactor productivity which also paint a rather disappointing picture.

2.   Data sources and definitions

     This section contains a brief description of the data used in the estimation of the production function.

     Data on skill levels by racial groups for the nonprimary sector plus mining are available from the manpower surveys, which measure the number of workers in 28 occupations by racial group. These occupations are then aggregated into three types of occupations, high level, middle level and half/unskilled. High level occupations are essentially professional jobs: they include managers, engineers, lawyers, nurses and educationalists. The

---

1/ Income was defined as nonprimary GDP at factor cost.

latter two occupations make up some 40 percent of the total, and are
particularly important for the non-White racial groups. Middle level
occupations represent clerical or skilled manual jobs, while half/unskilled
jobs are not differentiated. In the estimation, the skilled workers were
those in the high level occupations, while the unskilled workers were an
aggregate of the middle and half/unskilled job categories. This appeared to
be the most reasonable division given the need of a modern economy for
highly trained individuals. One concern, however, is that the mix of
employment within these occupations may not be the same across racial
groups; in particular, White workers may tend to have more skilled jobs
within the broad skilled and unskilled job categories, which may cause
biases in the estimation. The surveys were carried out every other year
from 1965 to 1987, after which they moved onto an annual basis; from 1965-
1987 the data for even numbered years were linearly interpolated.

Annual data on renumeration of labor by racial group for the nonprimary
sector between 1970 and 1989 were obtained from South African Statistics,
1991 and earlier issues. The data give employment, total wages and salaries
and wage rates by racial group. Standardized employment series, which were
used in some of the calculations, were also obtained from South African
Statistics, while the national accounts data come from a tape supplied by
the Reserve Bank.

CHART 2

SOUTH AFRICA

LABOR INCOME SHARE - NONPRIMARY SECTOR
(In percent)

MEASURES OF LABOR SHARE 1/

Standardized Employment
(nonprimary)

National Accounts
(whole economy)

Labor Statistics
(nonprimary)

zafbp02a

1970   1975   1980   1985

ESTIMATED LABOR SHARES

Total labor share

White labor share

Nonwhite labor share

zafbo07b

1970   1975   1980   1985
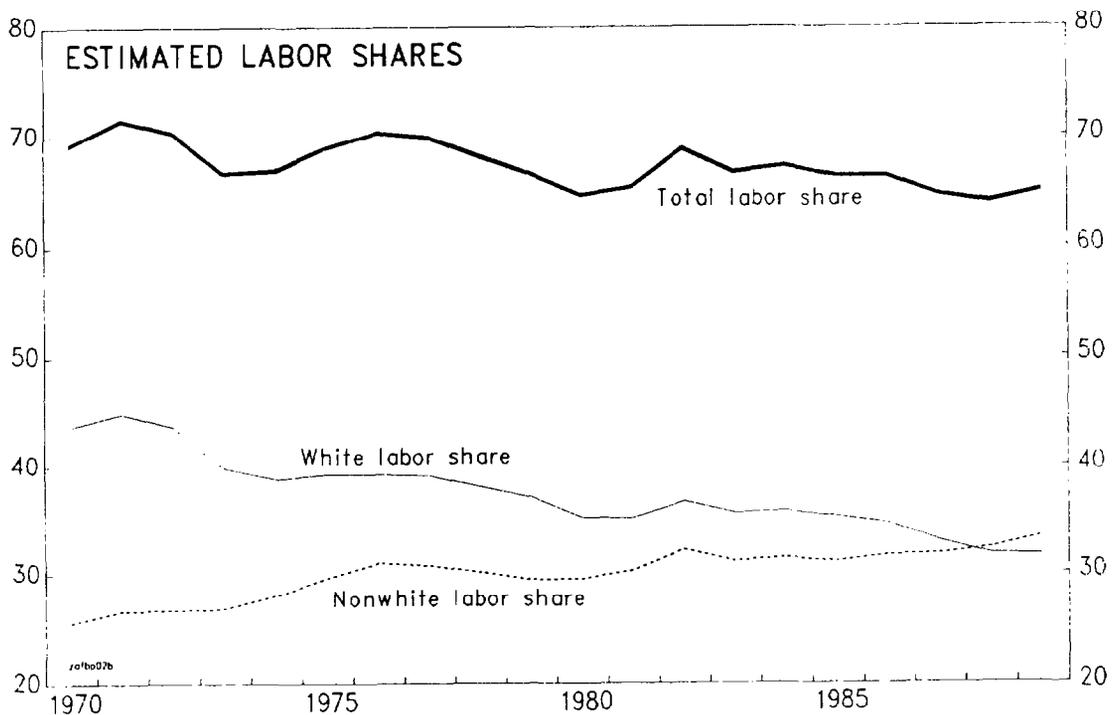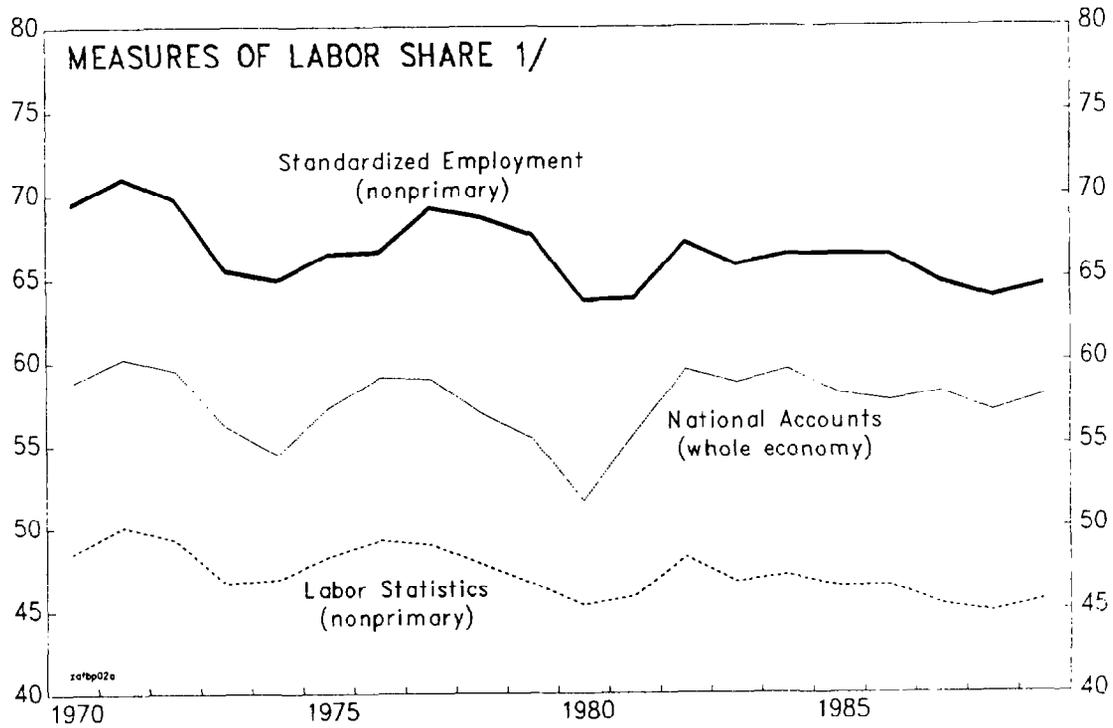
Sources: Staff estimates.

1/ Income from employment as a percent of sectoral GDP at factor cost.

CHART 3

SOUTH AFRICA

LABOR INPUT AND PRODUCTIVITY ESTIMATES, NONPRIMARY SECTOR

LABOR INPUT GROWTH
(in percent)

Skill-adjusted employment

Total employment

MULTIFACTOR PRODUCTIVITY
(1985=100)

Trend 1970-89
-0.2 percent per annum

MULTIFACTOR PRODUCTIVITY
(1985=100)

Official estimate
(private nonagricultural sector)
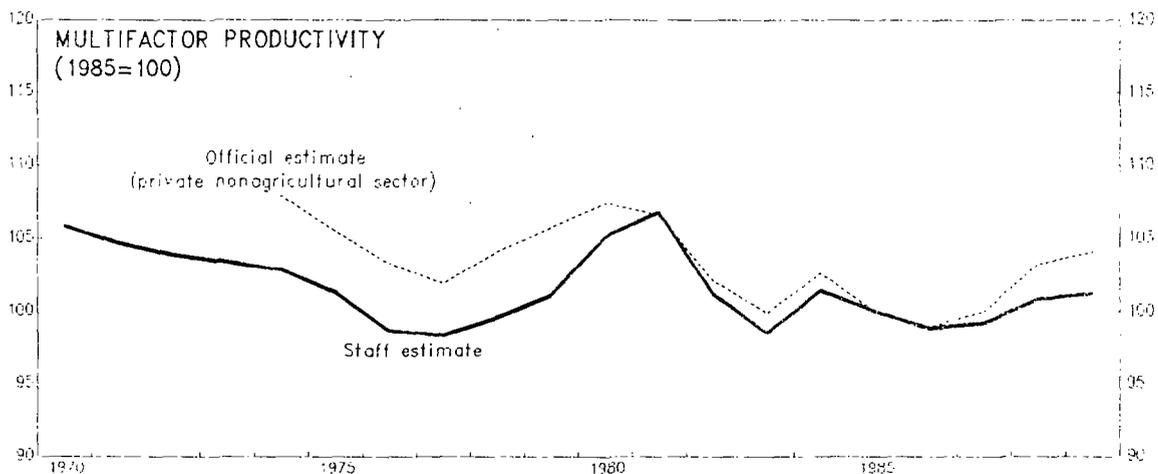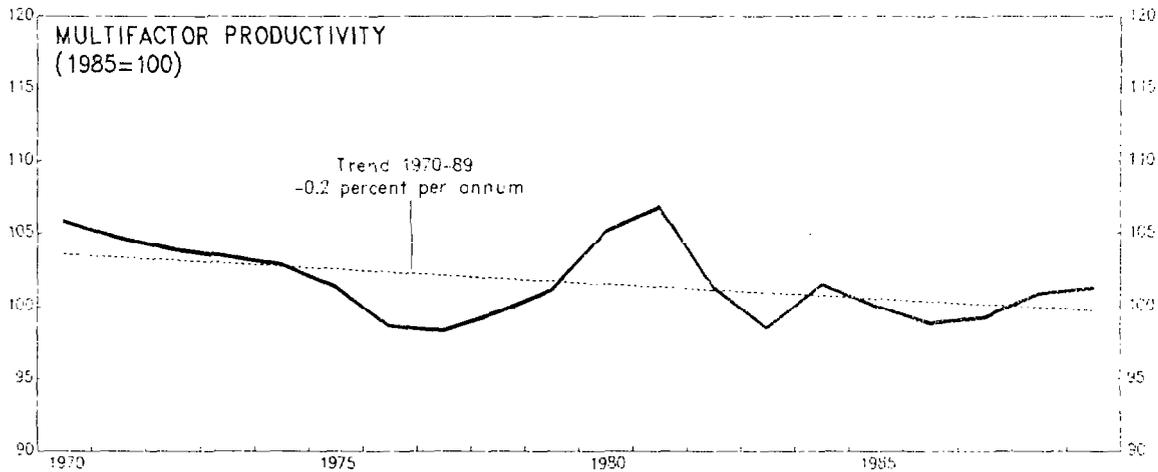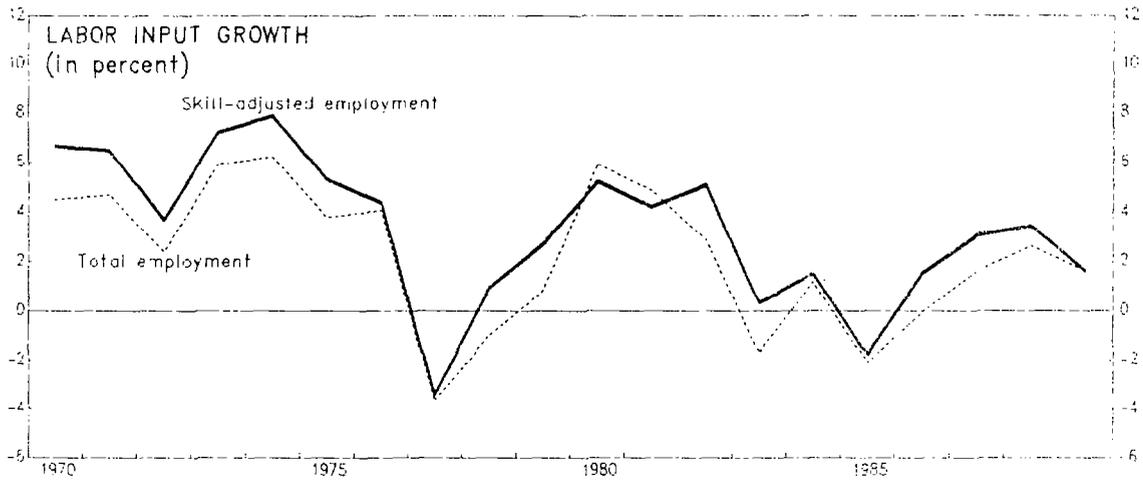
Staff estimate

Sources: Staff estimates; and South African Labor Statistics.

IV. Medium-Term Scenarios

1. Introduction

The urgent need to raise living standards and to improve the distribution of income and wealth in South Africa poses a major challenge to policy makers over the medium term. To meet this challenge, the rate of economic growth will have to rise to a level well above that of the last decade. Unless this is achieved, there is little prospect for reducing the presently very high level of underemployment in the economy or for generating the resources needed for addressing social needs on a sustainable basis.

This chapter provides an analysis of medium-term growth policies based on some illustrative simulations carried out on a highly aggregated model of the South African economy. The conclusions can be broadly summarized as follows: (1) a return to more rapid economic growth will require a substantially higher rate of domestic savings and investment than in the past decade, as well as a reversal of the declining productivity trend of the 1970s and 1980s; (2) the role of government savings in underpinning higher economic growth would appear to be of the essence, which would place clear limits on the scope for expanding overall government spending; and (3) if employment growth is to be fostered to levels sufficient to begin alleviating the presently severe underemployment problem, real wage growth must be contained.

While the quantification of medium-term prospects and policy implications is subject to a wide degree of uncertainty, two clear messages arise from the analysis. First, fiscal resources for spending on the more disadvantaged members of society will have to come mainly from a redirection of fiscal expenditures broadly within the current overall share of expenditures in GDP. Attempts to improve the distribution of income through an expansion of fiscal expenditures are likely to be self defeating. This is because they would either divert resources needed for investment or else they would require tax levels that would introduce strong disincentives to work and to save, thereby lowering economic growth potential. Second, large real wage increases will not over the medium term help to improve overall standards of living or the distribution of income. Instead, they will act to reduce output growth and to raise a steep barrier between those in work and the growing number of underemployed.

2. The analytical framework

The model used to produce the medium-term scenarios has two key elements: (a) a production function that specifies the relationship between output and the factor inputs, capital and labor; and (b) a savings-investment accounting framework that focuses on the question of the needed mobilization of resources by different sectors of the economy to finance any particular level of capital accumulation.

The production function, which is described in more detail in Chapter III above, is of the simple Cobb-Douglas variety that assumes that the elasticities of output with respect to capital and labor inputs are both constant and sum to unity. The elasticity with respect to labor is assumed to be around 0.65, which reflects the estimated share of labor income in the nonprimary sector of the economy. Labor input is in turn assumed to be composed of a skilled and an unskilled component that are aggregated together by using a constant elasticity of substitution formula.

A trend term (multifactor productivity) is also included in the production function to account for growth from sources other than increased labor and capital inputs, including technical progress. At best, multifactor productivity growth was stagnant in the 1980s and productivity is currently estimated to be about 5 percent below its level at the beginning of the 1970s. The poor multifactor productivity performance may reflect a combination of inefficiencies and obstacles to the functioning of free markets and restrictions on the import of new technology from overseas.

The savings-investment identity in the model provides a financing link between the level of fixed investment needed for real growth and the mobilization of resources in the economy. The finance of investment can come from three sources of saving: the domestic private sector, the government, and the foreign sector. The first represents foregone current consumption out of disposable income by individuals and corporations in the economy. The second represents any excess government revenue over current expenditures and transfers. The third represents net capital inflows from abroad which, apart from statistical errors, should be equal to the deficit on the external current account.

The savings-investment identity can be looked at from two perspectives. First, if the sources of saving are given, investment is determined by total saving. Lower saving by one sector, unless offset by higher saving in another, would lead to lower overall saving and hence lower investment. In practice, there are links between saving decisions of different sectors-- e.g., lower private saving may offset, in part, higher public saving through a tighter fiscal stance. However, the precise links are hard to quantify empirically. In the model, the saving-investment identity is used as an adding up constraint to answer questions such as: "assuming that additional foreign and private savings cannot be mobilized, what will be the effects on investment and growth of lower government saving?"

The second perspective would be to begin with a given level of investment and examine the financing implications. Thus, a particular desired growth path will require certain paths for the levels of employment and investment. In turn, the needed investment can only be financed out of available saving. If some sources of saving are constrained to "reasonable" limits (e.g., realistic or prudent current account deficits, tolerable levels of government deficits etc.) then the remaining sources of saving have to take up the residual financing of investment.

3.   The scenarios

The model was used to examine several scenarios for the South African economy which are presented as variants around a main, or baseline, scenario. It should be stressed that neither the main scenario, nor the variants, are forecasts in the sense of representing the "most likely" outcomes. Instead, the scenarios are vehicles for examining the implications of different policies within a consistent framework. It should also be noted that the scenarios have a medium-term orientation (the actual time horizon is 10 years) and no attention is paid to short-run demand-multiplier or cyclical developments. Over a medium-term horizon, it is reasonable to assume that supply side factors are more important determinants of growth than demand conditions.

The scenarios that were developed are based on the assumption that *apartheid is fully dismantled and that structural policies are pursued with* the aim of reducing impediments to the functioning of markets. In addition, monetary policy is assumed to continue aiming at bringing inflation under control, while South Africa is assumed once again to have access to both *international financial markets and to improved international technology.* As a consequence, multifactor productivity is assumed to rebound to an average rate of increase of around ½ percentage point per annum. While the change in multifactor productivity from its historical trend is large, the presumed multifactor productivity growth is not high by international standards.

A further assumption common to all the scenarios is that with the removal of sanctions, South Africa would experience a capital inflow averaging 1¼ percent of GDP a year over the 10 year projection period. This inflow is lower than that which South Africa experienced in the early 1980s (3 percent of GDP) due to the uncertainty associated with political change and to the high demands for global saving. However, by the end of the projection period, the capital inflow is assumed to rise to 2 percent of GDP.

a.   Scenario 1: baseline

The baseline scenario is concerned with the question of the level of domestic savings and investment that would be needed to support a rate of long-term economic growth consistent with both an improvement in living standards and a steady decline in the unemployment rate. With the population expected to grow by over 2¼ percent a year, a meaningful increase in living standards would require GDP growth of at least 3½ percent a year (Table 1). At the same time, the objective of reducing unemployment would

Table 1. South Africa: Medium-Term Baseline Scenario

(In percent, unless otherwise indicated)

	Average 1981-90	1990	Average 1991-2000
Real GDP growth	1.4	-0.9	3.5
Employment growth	0.7	-0.4	3.0
Non-White underemployment rate 1/	41.7	41.7	36.6
Real wage growth	1.4	1.9	0.7
Investment/GDP	23.0	19.3	24.8
External current account/GDP	0.4	2.2	-1.7
Private savings/GDP 2/	23.6	20.9	21.5
Government saving/GDP 3/	-0.2	0.6	1.6
Government revenue/GDP	25.5	28.5	29.6
Government expenditure/GDP	28.1	29.7	30.3
General government balance/GDP	-2.7	-1.2	-0.7
Current government expenditure per capita, 1990 Rand 1/	2,372	2,372	2,568
Miscellaneous assumptions			
Multifactor productivity growth	-0.4	-0.6	0.5
Labor income share	65.9	66.5	67.4
Population growth	2.2	2.0	2.4

Source: Staff estimates.

1/ Estimated value at end of period.

2/ Includes the savings of public corporations and public business enterprises.

3/ Balance on current transactions of the general government on a national accounts basis.

require employment growth of at least 3 percent per annum. 1/ On the basis of the production function referred to above and given the assumed rate of multifactor productivity growth, the aforementioned objectives for growth in output and employment could only be met by a marked improvement in the performance of investment. Specifically, capital accumulation would have to be sufficiently strong to steadily raise the investment/GDP ratio to 27 percent by the end of the period from its current level of 19 percent.

As to real wage growth, all the scenarios were based on the assumption that labor's share of income would rise by ¼ percentage point a year. This was mainly to reflect the undoing of distortionary tax practices that favored the use of capital and artificially boosted corporate earnings. In the baseline scenario, with GDP growth of 3½ percent and employment growth of 3 percent, the drift towards a rising labor share of income would allow an average real wage growth of the order of ¾ percent a year. 2/

As regards the financing of the required increase in investment, a significant portion could be supported by the assumed swing in the external balance from surplus to deficit. However, the increased access to external savings would need to be supported by a continued effort to maintain domestic savings. The baseline scenario assumes, perhaps somewhat optimistically in view of the prospective redistribution of income, that the private sector saving ratio would rise moderately from just under 21 percent of GDP at present to 21½ percent at the end of the projection period. Even with this improvement, the public sector must make a contribution to national saving of roughly 1½ percent of GDP a year, which would represent a considerable improvement over the performance of the 1980s. 3/

The need to maintain public savings at a level sufficient to support the overall domestic savings and investment effort has clear implications for the design of budget policy. The implication, of course, is that the scope for increasing public spending in relation to GDP would necessarily involve an increase in the overall tax revenue burden. However, with the large rise in general government revenue in relation to GDP over the 1980s-- it stood at 28½ percent in 1990--the room to further raise revenues without

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1/ Such employment growth would be consistent with an increase in White employment growth of 0.9 percent per annum, which would leave the White unemployment rate approximately unchanged, and an increase in non-White employment of 3½ percent per annum that would allow for a decline in the non-White rate of unemployment by around ½ percentage point a year.

2/ The real wages of non-Whites might rise a little faster than this, while those of Whites rise somewhat slower, as remaining apartheid distortions are eliminated. See Chapter III for an estimate of the scope for non-White wage catch up.

3/ If public sector investment averages 2½ percent of GDP over the projected period, providing the needed public sector saving would mean a general government deficit of under 1 percent of GDP.

inducing severe disincentive effects may be limited. 1/ Accordingly, if
growth prospects are not to be jeopardized, the major part of the required
effort to address social backlogs would need to mainly derive from a
redirection of budget priorities and from a basic reordering of social
spending as between different race groups. It should be noted, however,
that since GDP is growing more rapidly than the population in the projection
period, a constant public spending to GDP ratio would mean a marked increase
in government spending per person. By the end of the projection period, if
the expenditure to GDP ratio did not change, real per capita current
government expenditure would exceed its 1990 level by nearly 10 percent.

b.   Scenario 2:   A higher fiscal deficit

       As an alternate scenario, government savings are reduced relative to
the baseline case, but there is no corresponding increase in foreign or
private savings. Technological assumptions and real wage growth are the
same as in the baseline case. To illustrate the possible tradeoffs
involved, the government is assumed to raise its current expenditures by one
percentage point of GDP above the baseline case. With no alternative
sources of saving, the investment/GDP ratio must also fall by one percentage
point of GDP. As a result, output and employment growth are both reduced by
0.3 percentage points per annum (see tabulation and Chart 4). Lower
employment growth reduces the decline in the underemployment rate, while
lower GDP growth implies that the higher current expenditures to GDP ratio
actually translates into virtually no higher growth of real per capita
current expenditures than in the baseline case. 2/ In effect, by
appropriating resources for current expenditures, there are less resources
for capital accumulation and less growth to generate resources in the
future.

<div align="center">South Africa: Higher Fiscal Deficit
(in percent)</div>

	Average Growth 1991-2000	Difference From Baseline
GDP growth	3.2	-0.3
Employment growth	2.7	-0.3
Non-White underemployment rate 3/	38.3	1.7
Budget balance/GDP	-1.7	-1.0
Real per capita current government expenditure growth	0.9	0.1

1/ For a fuller discussion of the limited scope to increase tax revenues,
see Chapter VI.
2/ If real wages were to fall relative the baseline case, part of the
employment and growth effects would be offset.
3/ End period figures with end-1990 estimated at 41.7 percent

CHART 4

SOUTH AFRICA

MEDIUM-TERM SCENARIOS
(In percent)

REAL GDP GROWTH

Baseline

Higher budget deficit

Higher real wages

EMPLOYMENT GROWTH

Baseline

Higher budget deficit

Higher real wages

NONWHITE UNDEREMPLOYMENT RATE

Higher real wages

Higher budget deficit

Baseline

REAL PER CAPITA CURRENT GOVERNMENT SPENDING
(Rand, 1990 prices)

Higher budget deficit

Baseline
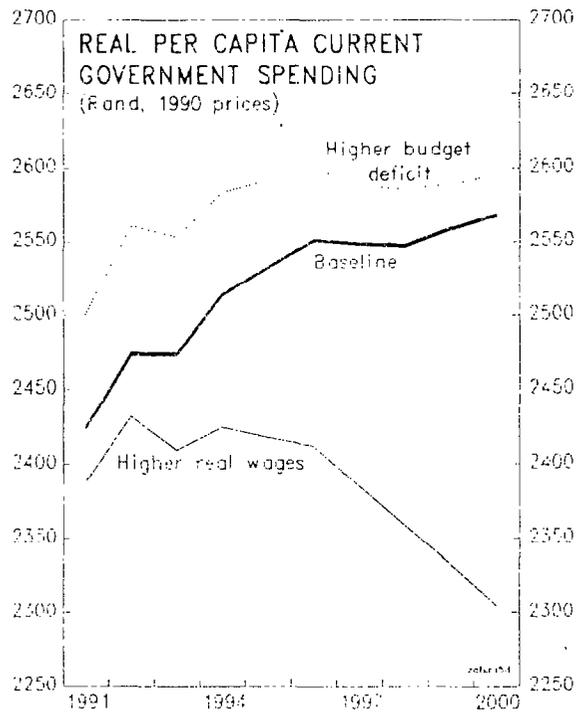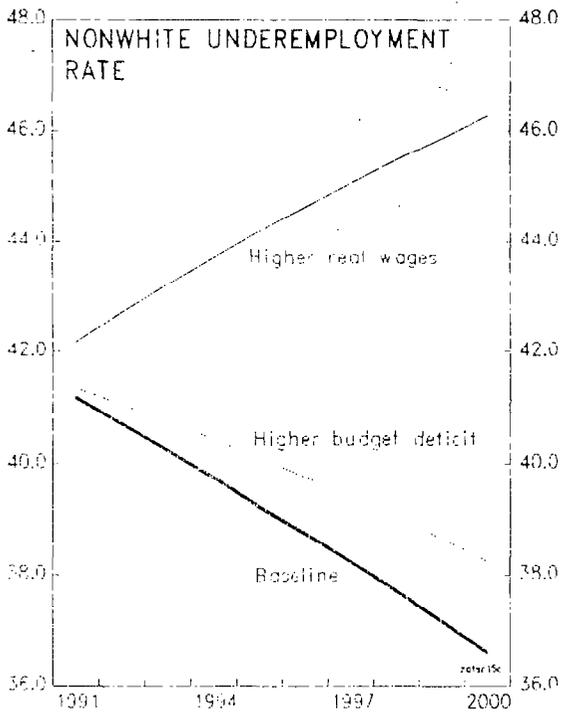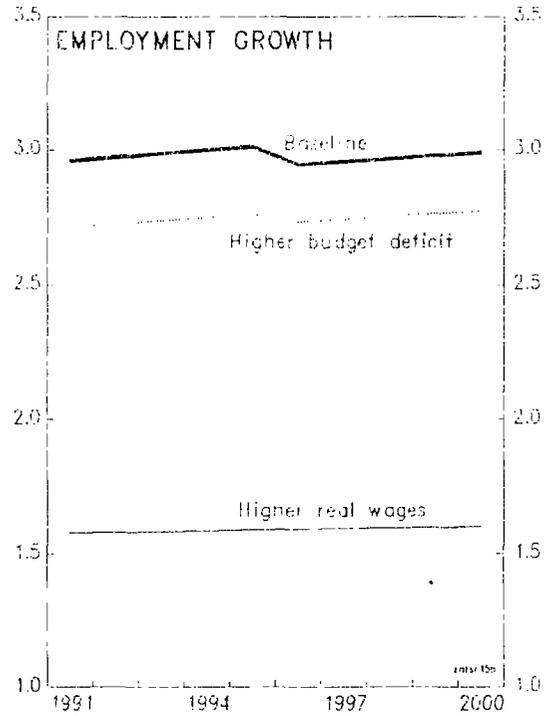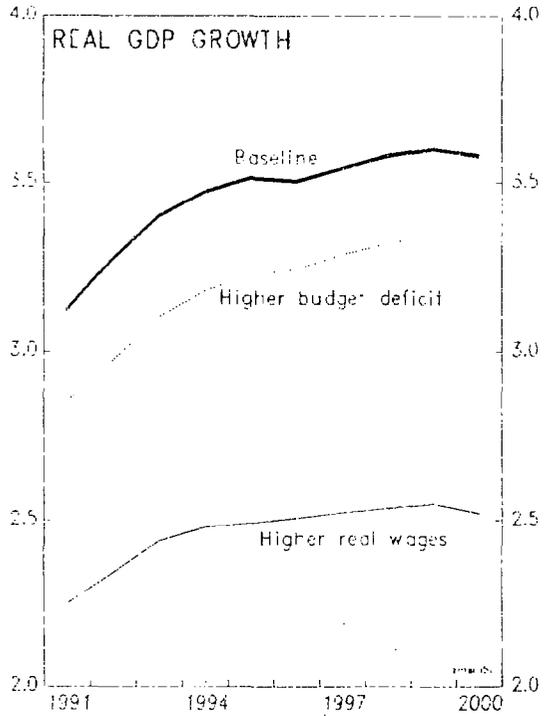
Higher real wages

Source: Staff estimates.

c. <u>Scenario 3: higher real wage growth</u>

A second alternative scenario explores the effect of imposing rapid real wage growth on the economy that would be the result of, for example, increased militancy of the unions. For purposes of illustration, it is assumed here that real wage growth would rise by 1¼ percent a year over the projected period or by ½ percentage point faster than in the baseline case.

The main effect of imposing higher real wage growth is to reduce the demand for labor. On the assumption that the investment performance is similar to the first scenario, the higher real wage growth assumed here would push employment growth down to 1½ percent a year (see tabulation below and Chart 4). As a result, GDP growth would be lowered by 1 percentage point per annum. Lower employment growth also implies that the recent upward trend in the non-White underemployment rate is not arrested: indeed, relative to the baseline scenario, some 1¼ million less jobs are created for non-Whites. A further consequence of lower economic growth is that growth in real government current expenditures is much slower: real current expenditures are nearly 10 percent below the baseline level by the year 2000. In summary, the effect of high real wages could be to raise the inequality of income distribution by both keeping a much larger proportion of the working population underemployed and, through lower economic growth, limiting the scope for fiscal redistributive spending.

<u>South Africa: Higher Wage Growth</u>
(<u>in percent</u>)

	Average Growth 1991-2000	Difference From Baseline
GDP growth	2.5	-1.0
Employment growth	1.6	-1.4
Non-White underemployment rate 1/	46.3	9.7
Real wage growth	1.3	0.5
Real per capita current government expenditure growth	-0.3	-1.1

1/ End period. 1990 estimated at 41.7 percent

V. Social Spending Policy and the Budget

A major challenge to budgetary policy in the new South Africa will undoubtedly lie in the area of social spending. In particular, policymakers will need to address the question of how far and how fast to move to a more equitable pattern of social spending across racial groupings and to extend social services to those who currently do not receive social benefits. This chapter attempts to draw out in a quantitative manner the principal issues facing policymakers in this area.

The first part of the chapter reviews the recent trends in social spending in South Africa and compares the current level of social spending with that prevailing in countries at a similar stage of development. The main conclusion emerging from this analysis is that social spending in South Africa--net of social security payments--has risen to levels that are relatively high by international standards. Correspondingly, the scope for addressing social problems through further raising the share of these expenditures in the budget would appear limited. Rather, a basic reordering of priorities within the present social spending budget would appear to be required if South Africa's social problems are to be addressed without resorting to either deficit financing or to increased fiscal revenues.

The second part of the chapter attempts to quantify, in a medium-term framework, the implication of moving toward equal rates of spending per capita across racial groups in the education, health, and social welfare sectors of the budget while at the same time maintaining overall fiscal discipline. The broad conclusion of this analysis is that a move in such a direction, while likely to result in a substantial decline in benefit rates for non-Blacks, would entail only relatively modest increases in benefit rates for Blacks, especially in view of the rapid population growth of the least privileged sectors of society and the need to incorporate a large part of the population that currently falls outside the present reach of the budget. The corollary of this finding would be that redistribution policies alone will not be sufficient to ensure social upliftment in a meaningful way on a sustainable basis. Rather, redistribution policies will need to be supported by policies aimed at placing the economy on a higher growth path that would both generate employment for a growing population and that would provide the budgetary base for raising the level of social spending.

1. Social expenditure trends in South Africa in an international context

   a. Recent trends

As shown in the following tabulation, there has been a trend increase in the relative share of central government spending devoted to social ends to its present level of around 39 percent. In the past two budgets, in particular, the shift toward social spending--largely on education and health--has been facilitated by curtailing defense spending.

South Africa: Functional Expenditure of the State Revenue Account 1/

(In percent of total expenditure)

	1985/86	1988/89	1989/90	1990/91	Budget 1991/92
Protection services	19.4	22.6	22.9	21.5	20.0
Defense	13.7	15.5	15.2	14.2	11.5
Public services	9.8	10.7	9.7	11.6	12.3
Constitutional					
development	8.3	7.4	5.8	4.5	5.1
Economic services	15.6	14.8	13.3	13.3	11.7
Agriculture	3.5	2.7	2.1	2.0	1.8
Transport	5.0	5.5	4.9	4.7	4.0
Social services	31.3	36.9	38.3	38.8	38.9
Housing	1.8	1.7	1.5	1.6	1.6
Health	7.7	9.3	9.9	10.1	9.7
Education	15.5	17.8	18.6	18.6	19.0
Welfare and social					
security	5.4	5.5	5.8	6.5	7.0
Other (including debt					
service)	23.9	14.9	15.7	14.9	17.1
TOTAL	100.0	100.0	100.0	100.0	100.0

As shown in Table 2, at the general government level, social expenditures in relation to GDP increased by over 2 percentage points between 1983 and 1988. 2/ This rise was largely accounted for by expenditures on education, particularly for the construction and staffing of new schools. The increase in social spending was made possible by a reduction in outlays on transport and communications as several major projects were completed. Spending on defense remained roughly constant as a proportion of total expenditure, while outlays on public order and safety registered some increase. While data are not available for the period after 1988, the shift in spending from defense to social areas at the central government level should also be reflected to a significant degree in the general government accounts.

1/   South African Department of Finance.
2/   The general government in this context includes the TVBC states as well as the central government. Data on a general government basis is only available through 1988.

Table 2.   South Africa: Functional Classification of
General Government Expenditure 1/

(Fiscal years ended March 31)

	1983	1984	1985	1986	1987	1988
	(In percent of GDP)					
Total	29.4	30.7	31.8	33.1	34.6	34.8
Of Which:						
General Government services	2.4	2.7	2.7	2.9	3.1	2.9
Protection services	5.8	5.7	6.0	5.8	6.4	6.8
Defense	4.2	4.0	4.0	3.9	4.3	4.6
Public order and safety	1.6	1.8	2.0	1.9	2.1	2.3
Social services	11.4	11.7	12.1	12.9	13.9	13.6
Education	5.2	5.2	5.5	6.0	6.3	6.4
Pre-primary, primary and secondary	(3.9)	(3.9)	(4.1)	(4.4)	(4.8)	(4.9)
Tertiary	(1.3)	(1.4)	(1.4)	(1.6)	(1.5)	(1.5)
Health	2.9	3.0	3.1	3.1	3.3	3.4
Social security and welfare	1.8	1.9	1.9	2.0	2.1	2.1
Housing and community service	1.0	1.0	1.0	1.2	1.6	1.2
Housing	(0.2)	(0.2)	(0.2)	(0.4)	(0.8)	(0.4)
Recreation and culture/other	0.5	0.5	0.5	0.6	0.5	0.5
Transport and communication	3.0	2.5	2.3	2.5	2.5	2.4

Source: Central Statistical Service, Expenditure by the General Government, 1982/83-1987/88, Statistical News Release P9141, August 1990.
1/   Excludes the sale of goods and services by Government departments.

A potential area where additional resources for social expenditure could be obtained is that of spending on the public administration. Moving to a unified South Africa and consolidating the ten "homelands"--four of which are nominally independent and six of which are "self-governed"--would seem to have scope for savings. Further, within the Republic of South Africa itself, the tricameral parliamentary system and "own affairs" departments for the four main racial groups (Asian, Black, Colored, and White) would seem to offer additional scope for budgetary savings through the elimination of bureaucratic redundancies. 1/

Administrative costs, however, are not easy to measure. While it is clear that consolidation of administrative structures would eliminate certain top administrative positions, such as ministers and director-generals, the potential savings in this area are relatively small compared with total expenditure. At lower levels, the scope for significant savings in terms of personnel or the wage bill is less obvious and difficult to measure. Indeed, more comprehensive and careful administration of social expenditure programs may involve an expansion in the net public sector work force rather than a reduction.

With these important caveats, there may nevertheless be some useful information to be derived from examining the evolution of public wages and salaries relative to GDP, as in the tabulation below. From this tabulation, it would appear that expenditures on wages and salaries at the general government level rose sharply in the early 1980s with the establishment of the homelands. Further, the increase in the wage bill at the central government level was coincidental with the inception of the tricameral system of government. These trends would suggest that with the streamlining of government in a new South Africa, there might be some scope to reduce administrative expenditures. However, as discussed more fully below, international comparisons would suggest that the room for saving in this area may be limited.

1/ Under the apartheid system, the affairs of each racial group are administered by a separate "own affairs" department, with Black "own affairs" being administered under statutes of the White House of Parliament. Thus, the combination of separate administrative structure in each homeland, and for each racial group in the Republic of South Africa, gives rise typically to more than a dozen departments dealing with the same functional area. There are, for example, 18 departments dealing with housing.

South Africa: Public Expenditures on Wages and Salaries 1/

(In percent of GDP)

	Central Government	General Government 2/
1977	5.0	9.0
1978	5.1	9.0
1979	5.1	8.8
1980	4.9	8.4
1981	5.4	9.1
1982	6.3	10.3
1983	6.4	10.6
1984	7.2	11.6
1985	7.0	11.1

b.   International comparisons of expenditure

Although every country is unique, it is nevertheless informative to compare South Africa's expenditure pattern with that of other countries. Such a comparison provides some indication of the scope for further reshuffling of expenditure priorities if spending patterns were to converge to international averages.

As shown in Table 3, general government expenditure in relation to GDP in South Africa in 1987 was at about the same level as in the other upper middle-income countries. At the same time, overall spending on social programs at around 14 percent of GDP in South Africa were somewhat below the average of the other middle-income countries. However, this mainly reflected relatively low expenditures in South Africa on pensions and on social welfare payments. By contrast, South African public spending on education and health was relatively high in rleation to GDP.

In the period under consideration, South Africa's expenditure on education both as a share of total outlays and in relation to GDP, substantially exceeded not only that of middle income countries but also that of the industrial nations. To some extent this reflects the wide variation in the sources of funding for education, particularly in the industrial nations, many of which rely on the private sector for the provision of schooling. A further interesting feature of South African expenditure on education is that it was high by international standards as early as 1982/83, before the issue of social backlogs had come to the fore.

1/   Source: IMF, Government Finance Statistics.
2/   More recent data are not available.

Table 3.   South Africa and Comparator Countries:
Social Program and Defense Expenditures 1/

	In percent of GDP			In percent of total expenditure		
	1978	1982	1987	1978	1982	1987
Total Expenditure						
South Africa	...	29.4	34.6			
Lower Middle Income	17.7	20.4	18.3			
Upper Middle Income	35.6	36.9	34.2			
Industrial Countries	35.7	40.9	40.0			
Education 2/						
South Africa	...	5.2	6.3	...	17.7	18.3
Lower Middle Income	2.9	3.8	3.1	18.4	18.1	17.0
Upper Middle Income	4.0	3.8	4.2	9.9	11.2	14.1
Industrial Countries	4.8	5.2	5.0	10.8	12.9	12.9
Health						
South Africa	...	2.9	3.3	...	9.8	9.8
Lower Middle Income	0.8	1.2	1.2	5.1	5.8	6.2
Upper Middle Income	1.8	2.5	2.6	5.0	6.8	7.6
Industrial Countries	6.5	5.0	5.0	14.5	12.1	12.5
Social security and welfare						
South Africa	...	1.8	2.1	...	6.2	6.0
Lower Middle Income	0.8	2.6	1.9	5.3	11.1	9.2
Upper Middle Income	3.3	7.8	8.7	9.0	20.0	23.0
Industrial Countries	18.3	13.2	11.2	40.7	31.6	27.6
Housing						
South Africa	...	0.2	0.8	...	0.7	1.0
Lower Middle Income	0.1	0.1	0.2	0.5	0.7	1.1
Upper Middle Income	0.6	0.7	0.2	1.4	2.2	1.0
Industrial Countries	1.2	1.5	2.3	2.5	2.6	4.0
Social Programs						
South Africa 3/	...	11.4	13.9	...	38.7	39.0
Lower Middle Income	4.6	7.6	6.4	29.3	35.7	33.5
Upper Middle Income	9.7	14.8	15.7	25.2	40.3	45.7
Industrial Countries	30.8	24.8	23.5	68.5	59.1	57.0
Defense						
South Africa	...	4.2	4.3	...	14.2	13.1
Lower Middle Income	3.0	3.4	2.8	18.6	16.6	15.4
Upper Middle Income	7.2	2.8	2.3	17.1	8.7	8.6
Industrial Countries	2.7	4.8	5.0	6.0	12.3	13.3

Sources: Central Statistical Service of South Africa, <u>Functional Expenditure of General Government</u>; and IMF, <u>Government Finance Statistics</u>.

1/   Fiscal years ending March 31; general government expenditure (based on a sample of 10 middle income and 10 industrial countries for which data was available).

2/   Includes tertiary education.

3/   Includes community service and recreation and culture.

However, this relatively high level masks a large difference in expenditure per capita as between the races.

In relation to GDP, South Africa's spending on <u>health</u> care was relatively constant during the 1980s and significantly exceeded that for the other upper middle income countries. As with education, there is a wide disparity in the provision of health care as between the different race groups with the standard of health care provided for the White population being very high by international standards.

Expenditures on <u>social security and welfare</u> have lagged that of other countries, largely in reflection of the limited social safety net in South Africa. It is interesting to note that general government social security and welfare expenditure tend to be positively correlated with income. Thus, for 1983-87, the share of GDP spent in this area was 2 percent for the lower middle income group, over 8 percent for the upper middle income group, and over 13 percent for industrial countries for which data was obtainable. As a share of total government expenditure, industrial countries spent more than a third on social security and welfare. This would imply that as the disadvantaged groups are brought into the industrial process in South Africa, the resources devoted to this category of spending will likely rise sharply.

The need to meet social backlogs will place great strain on the limited budgetary resources. It is useful, therefore, to compare <u>nonsocial spending categories</u> with those of other countries. The discussion below focuses on defense expenditure and on spending on wages and salaries as two such non-social expenditures that are potential candidates for significant budgetary savings. These savings might flow from the "peace dividend" to be reaped as South Africa's political situation is normalized and from administrative savings to be made as the duplications of bureaucracy along racial lines in the apartheid system are eliminated.

As regards <u>defense spending</u>, South African defense outlays averaged 13 percent of general government expenditure or 4.3 percent of GDP during the 1980s. By comparison, in 1983-87, defense expenditure as a share of GDP in the lower middle income, upper middle income, and industrial countries averaged 2.8 percent, 2.3 percent, and 5.0 percent, respectively. From this point of view, South African defense expenditure exceeds that in the upper middle income group of which it is a member. Using the average of the upper middle income countries as a standard would imply the potential to reduce defense expenditure by about two percentage points of GDP. <u>1</u>/

<u>1</u>/ In this discussion, it would be preferable to consider expenditure on "protective services," i.e., including the police and related activities as well as national defense expenditure. While this data exists for South Africa, there is not enough comparator data available to make a meaningful comparison.

Another area of expenditure, which can be expected to come under scrutiny in a post-apartheid South Africa is <u>administrative costs</u>, which are boosted as a result of duplicated bureaucracies along racial lines. Using spending on wages and salaries as a proxy for such administrative costs, the tabulation below suggests that at the central government level, South Africa's wage bill exceeds that of the industrial and lower middle income countries but falls below that of the upper middle income group. The implication of this comparison may be that even though the current South African system involves duplication of administrative duties, the scope for saving may not be particularly high.

<div align="center">

South Africa: Central Government
<u>Wages and Salaries Expenditures</u> 1/

</div>

	1981	1982	1983	1984	1985
	<u>(In percent of GDP)</u>				
South Africa	5.4	6.3	6.4	7.2	7.0
Lower middle-income countries	5.6	6.0	5.9	5.8	5.8
Upper middle-income countries	10.2	9.1	8.4	7.9	7.5
Industrial countries	3.4	3.5	3.5	3.3	3.3
	<u>(In percent of total expenditure)</u>				
South Africa	22.7	24.2	22.5	25.2	23.1
Lower middle-income countries	30.2	31.6	32.0	31.3	29.9
Upper middle-income countries	28.6	28.4	28.2	30.4	31.5
Industrial countries	12.1	12.0	11.7	11.7	11.3

2.   <u>The implications of equalizing benefit rates in South Africa's social programs</u>

While South Africa devotes a significant share of national resources to meet social needs, the allocation of expenditure is highly uneven across the various racial groupings. In this section an attempt is made to analyze the implications of redressing existing imbalances in the provision of social services and in extending coverage to those who currently do not participate in social programs. The discussion focuses on the main categories of

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1/   Source: IMF, <u>Government Finance Statistics</u>.

spending--education, health, and social pensions. 1/ In addition, the
resource cost entailed in addressing the housing needs of the more
disadvantaged groups of society is examined.

The problems entailed in the highly uneven provisions of social
services is clearly illustrated by examining underlineeducation expenditure. As
shown in the following tabulation, in 1990 per pupil expenditure for Whites
was more than four times as high as it was for Blacks. In addition, the
pupil/teacher ratios in public ordinary schools (primary and secondary) was
sharply higher for non-Whites than for Whites. The tabulation also includes
estimates, based on a methodology first discussed by Van Der Berg, 2/ of
the share of GDP that would be absorbed if spending were equalized at the
per capita rates of the various race groups. With actual education
expenditure in 1990 at 5½ percent of GDP, these estimates clearly illustrate
the potential pressures that will come to bear on the budget as the more
advantaged groups try to protect the existing quality of their education and
the more disadvantaged strive to equalize spending at higher rates. In
particular, it is readily apparent that equalizing per capita spending on
education even at the present Asian and Colored levels, which are
approximately double the average overall level, would be beyond the capacity
of the budget.

1/ The expenditure totals presented in this section are not strictly
comparable to those discussed previously inasmuch as estimates for the TVBC
states are included here. Further, the demographic patterns needed to
analyze benefit rates were not available for the entire budgetary
classification of each spending category, therefore only the relevant subset
will be discussed. For the most part, however, a sizeable proportion of
each social spending category is analyzed.

2/ See for example, S. Van Der Berg, "Meeting the Aspirations of South
Africa's Poor Through Market and Fiscal Processes," Lausanne Colloquium,
July, 1989.

South Africa: Education Indicators Along Racial Lines in 1990 1/

	White	Black	Colored	Asian
Pupils (millions)	1.0	7.7	0.9	0.3
Pupil/teacher	18.6	40.8	23.3	21.7
Expenditure/pupil (rand)	4,087	907	2,406	3,055
Education expenditure for the entire population implied by the group's per pupil spending rate (percent of GDP)	15.4	3.4	9.1	11.5

Given the limited room for increasing social expenditures in relation to GDP, the key policy question to be addressed is how the system of education might evolve over the medium-term as spending rates are equalized. In analyzing this question in the area of education, account has to be taken of the estimated 1½ million children eligible for schooling but currently receiving no formal education. 2/ The authorities have stated that their aim is to achieve a uniform student/teacher ratio of 30:1 and to provide teachers of comparable quality in the public ordinary schools. This would involve an upgrading of the qualifications of teachers at Black schools and some reduction in the post-secondary training of those currently at White facilities.

The staff has prepared a number of estimates to examine the implications of the authorities' targets (see following tabulation). These estimates are based on the assumption that the share of GDP devoted to education will stay at its 1990 level and that over the five year horizon the backlog of those potentially not in school will be reduced by one half. The growth rates of the student population varies across racial groups from an annual rate of increase for Black pupils of 4.4 percent as compared with an annual rate of decline for Asians, Coloreds and White pupils of 0.1, 0.4, and 0.9 percent, respectively. 3/ In order to analyze the implications of equalizing spending rates within the current budget total, benefits are disaggregated into the cost per pupil in terms of teachers' salaries and of other expenditures that would include spending on structures and equipment.

1/ Including public ordinary schools, secondary schools, technical and teacher training colleges.

2/ Estimate prepared by the Department of National Education.

3/ Growth rates of the population groups provided by the Department of National Education.

South Africa: The Education System in 1995

	(Annual growth rate of GDP)		
	3 percent	3½ percent	4 percent
	Level at which per capita education expenditure would be equalized		
	(in 1990 rand)		
Total education expenditure per capita	1,313	1,345	1,377
Per student expenditure on teacher salaries in public ordinary schools 1/	(874)	(874)	(874)
Other expenditure per pupil (in 1990 rand)	(439)	(471)	(503)

	1990 expenditure levels			
	White	Black	Colored	Asian
Total education expenditure per capita by race group	4,087	907	2,408	3,055
Per student expenditure on teacher salaries in public ordinary schools	(1,824)	(504)	(1,125)	(1,485)
Other expenditure per pupil	(2,263)	(403)	(1,283)	(1,570)

The tabulation shows that the more rapid the growth rate of GDP, the greater the amount that can be spent on education while maintaining the relative share of such spending in overall output. However, given the different racial demographics and the need to absorb large numbers of Black pupils presently outside the education system, the calculations show that under reasonable assumptions about growth, the scope for raising education expenditures on Black pupils is relatively limited. Thus, whereas overall education expenditure per capita on Whites would be reduced to one-third of

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1/ Assuming 30:1 pupil teacher ratio and standardized teacher salary of R 26,229 (in 1990 rand).

their former levels, those on Blacks would be increased by only around 50 percent to levels that must still be considered relatively low. Even more striking would be the limited scope for increasing non-teacher expenditures per Black pupil.

The area of <u>health</u> provides a similar challenge to the authorities as does education. However, as the following tabulation shows, per capita public spending on health is less skewed than it is on education as the spending rate on Blacks is roughly one half of that of the other population groups. <u>1</u>/ If it were possible to equalize spending at the White (or Asian) rates, the cost would be 4¾ percent of GDP compared with actual budgetary spending of 2¾ percent of GDP. Thus, equalizing spending over a medium-term horizon within the current budget allocation implies that the non-Black population groups would have to take a large cut in services. As the tabulation shows, even if GDP growth were to average 4 percent a year over the period through 1995 spending rates on the non-Black group would fall by over 30 percent.

<u>1</u>/ In this respect, it is to be noted, however, that medical spending outside the public sector is predominantly devoted toward the needs of the White sector of the community.

South Africa: National Public Health Expenditures

	White	Black	Colored	Asian
Current level of health expenditures				
Per capita spending in 1990 rand	322	147	304	330
Percentage of GDP if per capita expenditure is equalized at group's 1990 rate	4.7	2.1	4.4	4.8

Annual Growth Rate of GDP 1990-95

	3 percent	3½ percent	4 percent
Level at which public health expenditures would be equalized			
Per capita expenditure in 1995 1/ (1990 rand)	215	221	226

As with other categories of social spending, the <u>welfare system</u> is less generous for Blacks than for the other racial groups. For the category of spending discussed here--old age and disability pensions--equalizing benefits at the White rate would consume over 3 percent of GDP, compared with the 1990 budget allocation of 2 percent of GDP (see following tabulation). 2/ The tabulation also shows that even if GDP were to grow by 4 percent a year over the period through 1995, continuing to devote the same relative budget allocation to pensions as in 1990 would entail a sharp reduction in benefit levels of non-Blacks and only a small improvement for Blacks.

1/ The projections assume that the population would grow by 2.3 percent a year (estimates provided by the Department of Manpower).

2/ The large difference that arises between equalizing at the Black and White rates is attributable not only to the difference in benefit rates, but also because as old age pensions are means-tested, a significantly higher proportion of old age Blacks are involved in the program than are Whites.

South Africa: Social Pensions 1/

	White	Black	Colored	Asian

Current level of social pension expenditure

	White	Black	Colored	Asian
Per capita benefit in 1990 (rand)	3,312	1,980	2,700	2,700
Percentage of GDP if per capita expenditure is equalized at group's 1990 rate	3.1	1.8	2.5	2.5

Annual Growth Rate of GDP 1990-95

	3 percent	3½ percent	4 percent

Level at which per capita social pension expenditure would be equalized   2/

	3 percent	3½ percent	4 percent
Per capita expenditure in 1995 (1990 rand)	2,216	2,270	2,326

Unlike other types of social expenditure, until recently the funds available for the provision of housing were very limited. In the past year, off-budget funds totalling R 2 billion (0.8 percent of GDP) were established to develop the necessary infrastructure, secure the plots, and erect structures for the underprivileged. The problem in this area, though, is daunting. The authorities estimate that in 1990 providing acceptable shelter for the entire population would have required in the region of 1½ million new homes. Further, official estimates suggest that migration to urban centers and population growth would increase the needed housing stock by 150,000 a year. The cost of meeting these needs is very high. Based on estimates that infrastructure development and construction costs per house are about R 12,000, reducing the backlog by 10 percent a year, while meeting new orders as they come on stream, would require expenditure on the order of 6 percent of GDP. 3/

1/ Old age and disability pensions.

2/ The elderly population is assumed to grow at 2.4 percent a year. Further, it is assumed that the relative proportion of old people eligible for pensions will remain at its 1990 level.

3/ Based on output growth of 4 percent a year. If GDP were to rise by only 3 percent a year, meeting the housing need would claim 6½ percent of national output.

VI. A Comparative Analysis of the
South African Tax System

A critical issue confronting South African policymakers in the period ahead is the extent to which taxes might be raised to finance an increased level of social expenditure. The main purpose of this chapter is to provide a comparative analysis of South Africa's tax system that would allow one to address this question. The first part of this chapter describes the main elements of the present tax system and provides an inter-racial breakdown of the tax burden. The remainder of the chapter compares the overall tax burden and the various tax rates in South Africa with those of the industrialized and the middle-income countries.

The main conclusion that emerges from this analysis is that the South African overall tax burden and its marginal tax rates cannot be judged to be low by international standards. Moreover, the tax burden on the White part of the community would appear to be relatively high even by the standards of the industrialized countries. This suggests that raising tax rates in South Africa would raise disincentives to levels that are very high by international standards. However, revenue could be raised by improving the efficiency and equity of the tax system. In particular, there would appear to be ample scope for substantially reducing tax expenditures, particularly insofar as they encourage capital deepening, for broadening the tax base, and for changing the mix between direct and indirect taxes.

1.   Aspects of South Africa's tax system

At present, South Africa's tax revenues mainly derive from four sources. In order of importance, these sources are the individual income tax, a general sales tax, the direct taxation of companies other than mines, and the taxation of the mines. The system also includes an estate tax and a variety of excise taxes, but it does not include either wealth taxes or capital gains taxes. Moreover, since March 1990, the double taxation of dividends has been eliminated.

As shown in the following tabulation, the composition of revenues has changed markedly over the 1980s. In particular, as a proportion of total receipts, individual income tax collections and sales taxes have posted strong increases, while mining taxes have declined sharply. The drop in mining tax collections has reflected low international prices--mainly for gold--rising wage costs, and declining ore grades. Non-mining corporate tax payments as a proportion of total revenues were roughly stable over the 1980s, but were a less important source of revenue than they had been in the previous decade. This development was largely due to the compression in corporate profits linked to the combination of slow economic growth of the past decade and rising wage pressures, which acted to squeeze profit margins. Collections from "other taxes" dropped over the decade from 24 percent to 7 percent of total collections as primary reliance was placed on the general sales tax rather than on the specific excise taxes to raise revenues.

Tax Revenue Breakdown by Tax Category for South Africa 1/

(In percent of total taxes)

Year	Individual Income tax	Sales tax	Companies (excluding mines)	Mines	Other	Total
1970	18	0	33	14	34	100
1975	28	0	29	22	21	100
1980	22	14	20	20	24	100
1985	33	27	17	10	12	100
1990	34	29	19	5	13	100

The main features of the four principal taxes may be described as follows:

(a) The individual income tax on married persons is levied progressively on 15 income brackets starting at a 15 percent marginal tax rate for taxable income of less than R 5,000, and ending at 43 percent for incomes higher than R 80,000. 2/ The system provides for personal and old age tax credits of R 1,250 for married persons and R 850 for unmarried persons, and it does exempt certain medical bills and pension contributions. However, mortgage interest payments are not deductible from income taxes although since March 1991 the first R 2,000 of taxable interest income is exempt from tax. Dividends received by individuals from public corporations are also exempt. A further feature of the income tax system is that income tax brackets are not indexed. This has resulted in substantial bracket creep over the 1980s that has permitted a significant increase in income tax collections despite the progressive reduction in marginal tax rates.

(b) A general sales tax at the retail level at a flat rate of 13 percent is presently in effect, but this tax is to be replaced effective September 30, 1991 by a uniform 10 percent value-added tax. 3/ Excluded from the general sales tax were exports, certain basic foods, professional

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1/ Source: Department of Finance, Inland Revenue Statistical Bulletin No.6. RSA 1988, and Budget estimates.
2/ For single persons, taxes are levied on 12 tax brackets starting at 14 percent for taxable income under R 5,000 and ending at 43 percent for taxable income in excess of R 56,000.
3/ For a fuller discussion of both the general sales tax and the proposed value-added tax, see the technical assistance report prepared by the Fiscal Affairs Department of May 16, 1991 on South Africa: Introduction of VAT - Structure, Price Effects, and Protecting the Poor.

services and services that serve as intermediate goods for production purposes. The main weaknesses of this tax were the administrative difficulties in preventing tax evasion and the distortionary effects that this tax gave rise to as a result of a certain degree of tax cascading. These weaknesses are now to be addressed by the introduction of the value-added tax, which is intended to widen the tax base while at the same time reducing evasion and distortions. Exclusions under the proposed value added tax are to be very much more limited than under the present sales tax.

(c) A company tax is levied at a flat rate of 48 percent on taxable income applicable to all non-mining companies. This tax is subject to numerous tax expenditures as a result of which the South African Inland Revenue Service estimates that the effective rate of this tax is probably only on the order of 40 percent. Among the more important of these tax expenditures are capital allowances at the rate of 50 percent, 30 percent, and 20 percent in the first, second, and third years respectively for assets purchased before December 1989, and a uniform 20 percent a year allowance for assets acquired after December 1989. Moreover, tax exemptions are still accorded to companies for their manufactured exports, while preferential tax treatment is accorded to building societies and other financial institutions. These tax preferences are to be phased out progressively in line with the recommendations of the Margo Commission Report. 1/ The basic objective of the Government in respect of the company tax is to phase out remaining tax concessions in a manner that would facilitate the reduction in the nominal rate of the company tax to an eventual 40 percent without losing revenue from this source.

(d) A special tax regime applies for the mining sector that has among its objectives the prolonging of the life of the mines and the promotion of investment in the sector. As reflected in the tabulation below, non-gold mines are at present subject to a system of taxes and surcharges that currently amount to 54½ percent. In line with the Margo Commission Report, the surcharge element of these taxes is progressively being reduced.

1/ Tax Report of the Commission of Inquiry into the Tax Structure of the Republic of South Africa (The Margo Report, 1986).

South Africa: Diamond and Other Mine Tax Rates and Surcharges 1/

(In percent)

	Diamond Mines		Other Mines	
	Tax Rate	Surcharge	Tax Rate	Surcharge
1988/89	45	25	50	15
1989/90	50	12	50	12
1990/91	50	9	50	9
1991/92	48	6	48	6

The gold mines are taxed according to a formula that varies the rate of tax with the relative profitability of the mine in a manner that seeks to encourage the mining of low-grade ores (see tabulation below). In reflection of concerns about the declining profitability of the mines, over the past two years the parameters of the formula have been revised with a view to reducing the tax burden on the mines.

South Africa: Gold Mine Tax Rate Formula 2/3/

(In percent)

	Pre-1966 Gold Mines	Post-1966 Gold Mines
1988/89	$Y = 60(1-.0600/X)$	$Y = 60(1-.0800/X)$
1989/90	$Y = 73(1-.0586/X)$	$Y = 73(1-.0764/X)$
1990/91	$Y = 71(1-.0576/X)$	$Y = 71(1-.0727/X)$
1991/92	$Y = 61(1-.0500/X)$	$Y = 61(1-.0500/X)$

A striking feature of the tax system for the mines is the highly generous depreciation allowances they afford. Currently 100 percent of most capital expenditures are deductible in the first year in which they are effected. These expenditures are generally "ring fenced" in the sense that they can only be set against the income emanating from the particular mine

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1/ Source: South African Department of Finance.
2/ Source: South African Department of Finance.
3/ Symbols: Y represents the calculated tax rate; X represents the ratio of taxable income (excluding losses brought forward from previous years for tax purposes) to gross revenue.

to which they apply, but they can be carried forward to subsequent fiscal years in the event that they are not used.

2. The inter-racial distribution of taxes

Official data on the distribution of taxes by racial groups are only available for direct tax payments. However, van den Berg (1989), using survey data of McGrath, has estimated the distribution of both taxes and social benefits along racial lines for 1975 as summarized in the tabulation below. The staff has updated these estimates for 1987 using available budget data and the most recent estimates of the Inland Revenue on direct tax payments by racial category, and making assumptions as to the distribution of the remaining taxes. 1/

The Inter-racial Distribution of
Taxes and Benefits in South Africa

	Taxes				Benefits			
	In Percent of Total Taxes		In Percent of Per Capita Income for Each Group		In Percent of Total Benefits		In Percent of Per Capita Income for Each Group	
	1975	1987	1975	1987	1975	1987	1975	1987
Asian	2.6	3.2	18.4	25.2	6.0	6.0	...	28.9
Black	16.0	19.8	12.5	17.5	18.0	45.0	...	24.7
Colored	4.4	4.9	12.2	17.2	10.0	14.0	...	30.6
White	77.0	72.1	23.9	35.3	56.0	35.0	...	10.6
	100.0	100.0			100.0	100.0		

The above estimates indicate that even though the composition of taxation has undergone a marked change during the 1980s, the relative distribution of the tax burden by racial group has not changed dramatically. The introduction of the general sales tax did extend the revenue net to the non-White groups, but the impact on the relative tax burden was almost entirely offset by the substantial rise in income taxes--a tax borne largely

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1/ These assumptions were that the general sales tax and the various excise taxes would be distributed in line with income distribution, while the incidence of corporate income taxes was assumed to fall mainly on the White sector with around 28 percent of this tax assumed to be shifted forward into the non-White sector of the community.

by Whites 1/--over the period. Thus, the share of taxes paid by Whites is estimated to have only declined from 77 percent of the total in 1975 to 72 percent by 1987. Over the same period, there was a dramatic reduction in the share of total social benefits received by Whites--from 56 percent of the total in 1975 to 35 percent in 1987--that stemmed from the marked redirection of the Government's budget priorities and that more than offset the relative decline in the White sector tax burden during the 1980s.

3.   South Africa's tax burden by international standards

     In order to assess South Africa's tax burden in relation to that of other countries, two sets of comparisons have been made (Tables 4 and 5). The first compares South Africa's average tax burden by individual tax component over the period 1980-88 with that of both the industrial and the developing countries, while the second compares South Africa's tax burden by race grouping with that of a selected group of countries.

     From Table 4, it would appear that through the 1980s, South Africa's overall tax share at around 21¼ percent of GDP, was approximately in line with that of other middle-income countries. 2/ However, the composition of taxation was very different. In South Africa, individual income tax and corporate income tax collections substantially exceeded those in the other middle-income countries. By contrast, other countries raised substantial amounts of revenue through social security and wealth taxes, whereas South Africa did not.

     Given the very uneven distribution of taxes between different race groups referred to above, it is perhaps more revealing to compare tax burdens and social spending benefits by race group with those prevailing in other countries. As shown in Table 5, it appears that at 32 percent of their respective income, the tax share of the White sector of South Africa is very high by the standards of other middle-income countries and at least comparable to that prevailing on average in the industrialized countries. This comparison becomes all the more striking if one were to look at a "net tax burden" concept, that nets out from the tax burden the various social benefits provided by the budget to the groups being compared. Thus, Table 5 indicates that whereas the net tax burden on Whites in South Africa is

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     1/ Inland Revenue estimates indicate that the White share of total income tax payments declined from 93 percent in 1986 to 83 percent by 1989 as the number of non-Whites paying taxes increased.
     2/ The increase in South Africa's tax burden to around 24 percent of GDP by the end of the period would place it around 2 percentage points of GDP above the average of other middle-income countries.

Table 4. South Africa: Tax Revenue by Type, Compared With Other Groups of Countries,
Average for 1980-88

(In percent of GDP)

| | South Africa | Industrial Countries | Developing Countries | | | | Selected Non-Oil Middle-Income Countries |
			Africa	Asia	Middle East	Western Hemiphere	
Total tax revenue	21.28	36.3	17.32	15.44	15.71	20.58	22.14
Corporate tax	6.23	2.17	2.94	2.57	3.25	3.20	2.80
Individual income tax	5.99	11.07	1.95	1.80	2.30	2.38	1.60
General sales tax, turnover tax, and VAT	4.49	5.37	2.57	2.20	3.54	3.08	3.60
Excise tax	2.29	3.11	1.69	2.43	2.14	1.94	3.00
Import duties	0.80	0.76	5.20	4.71	4.36	3.70	2.38
Export duties	0.04	0.01	0.85	0.72	0.12	0.62	0.88
Other	1.44	13.81 2/	2.12	1.01	--	5.66 3/	7.88 3/

Sources: IMF, Government Finance Statistics and data compiled by the Tax Policy Division of the Fund's Fiscal Affairs department.

1/ The selected non-oil (except Mexico) middle-income countries include, in order of per capita income level: Mexico, Mauritius, Malaysia, Panama, Brazil, Uruguay, Argentina, Korea, Portugal, and Greece. The first five have a per capita income less than South Africa's and the last five a have a per capita income higher than South Africa's.
2/ Mainly social security taxes, but also wealth or property taxes and royalties.
3/ Includes social security taxes, wealth or property taxes and royalties.

Table 5. South Africa: Tax Burden in Comparative Perspective

(In percent of GDP)

	Tax Revenues	Education Expenses	Health Expenses	Social, Welfare and Housing Expenses	Tax Burden (revenues minus expenses)
General Government, 1987					
(Racial shares rescaled by racial income shares)					
Asian	24.27	10.00	3.75	8.75	1.77
Black	13.04	6.23	5.51	4.71	-3.41
Colored	17.68	12.27	3.64	2.88	-11.11
White	32.03	5.40	1.74	1.58	23.31
Total	23.94	6.30	3.30	3.70	10.64
Comparator Countries and Country Groupings					
World	30.37	4.89	5.02	11.38	9.08
Industrial	33.05	5.01	5.42	12.09	10.53
Canada	34.40	5.32	5.96	12.06	11.06
France	41.89	4.63	9.50	20.00	7.76
Germany	39.41	3.71	7.58	20.42	7.70
U.K.	37.07	5.45	5.14	15.81	10.67
U.S.A.	28.15	5.18	4.40	8.79	9.78
Argentina	20.28	4.14	1.46	8.45	6.23
Yugoslavia	26.07	3.43	4.48	9.35	8.81
Singapore	13.45	4.98	1.24	3.79	3.44

Source: IMF, Government Finance Statistics and Staff Estimates.

around 20 percent of their respective income, the corresponding ratio in the average industrial country would be around 10½ percent. 1/

4.   Tax rates by international standards

An alternative but perhaps more hazardous way of comparing tax systems across countries is to look at tax rates rather than tax burdens. Table 6 summarizes a number of features of the individual income tax and the corporate income tax in South Africa and a number of industrialized countries that would facilitate such a comparison. Taking the income and the corporate taxes together, South Africa's tax rates would not appear low even by the standards of the industrialized countries.

From Table 6, it would appear that at 50 percent in 1990, South Africa's corporate income tax rate was clearly at the top end of such rates in the industrialized countries. However, as noted above, the effective rate of this tax in South Africa is reduced to a great extent by a variety of tax allowances and exemptions that would tend to bring South Africa's effective corporate tax rate more in line with those of the industrialized countries.

As to the individual income tax rates, South Africa's top marginal tax rate at 43 percent in 1991, would appear to fall roughly in the middle of the range for the industrialized countries being comparable to the top rates applicable in the United Kingdom, Canada, Australia, and the United States. In addition, the South African individual income tax system is characterized by many more income tax brackets than those prevailing elsewhere. However, in South Africa, the top individual income tax rates would appear to come into effect at a much higher multiple of per capita income than in the industrialized countries as a whole.

1/ This comparison should be tempered by the observation that the Whites in South Africa comprise the bulk of the top quintile of income recipients in the country. The corresponding quintile of income receivers in other countries would not share to any large degree in the social benefits provided by these countries' budgets.

VII. External Policies in the Context of
Trade and Financial Sanctions

The imposition of trade and financial sanctions in 1985 resulted in a marked change in South Africa's external accounts. After a long tradition of being a net user of external savings, the closing of access to international capital markets contributed to a situation where South Africa not only was obliged to rely on its own domestic savings but had to repay foreign capital on a significant scale. In response to this development, the South African authorities increased their reliance upon the exchange rate and upon demand management policies to effect the required shift in the external current account balance. In addition, they significantly intensified the system of trade protection already in effect, reintroduced a dual exchange rate, and negotiated a standstill arrangement on a significant part of their external debt.

This chapter provides a broad overview of external developments since 1985 as well as a description of the policy response to those developments with particular emphasis on trade policy and on resort to capital controls. In the context of the prospective elimination of sanctions, the chapter also focuses on the scope for moving towards a more liberal trade and payments system that might be consistent with both a better allocation of resources and a more export-oriented pattern of development.

1.   A broad overview of external developments since 1985

The most striking development in the external position since 1985 was the swing in South Africa's capital account from being a net importer of capital on the order of 3 percent of GDP a year prior to 1985 to being a significant net capital exporter over the period 1985-90 (see following tabulation). This development primarily reflected the substantially reduced access to new external loans and the increased difficulty in rolling over outstanding maturities following the imposition of international financial sanctions, as well as the increased capital outflows associated with an uncertain domestic environment. As the tabulation below shows, the capital outflow has tended to decline since 1985, to some extent reflecting the fall in South Africa's external debt from 40 percent of GDP in 1985 to around 20 percent in 1990. The decline in the outflow has not been matched by a similar narrowing in the current account surplus, which has permitted a buildup of reserves.

Table 6. South Africa: Selected Countries--Statutory Tax Provisions

	Top Tax Rates	Personal Income Tax Number of Brackets		Income after Top Rate Applies	Corporate Income Tax Rates	
	Latest (1989-91)	Pre- 1986	Post- 1986	1989-91	1985	1990
	(In percent of taxable)	(In numbers)		(As multiple of average per capita GDP)	(In percent of taxable)	
S. Africa	43	18	15	4.5 1/	50	50 2/
Australia	49	5	4	1.6	...	39
Austria	50	11	5	9.1	55	30
Belgium	55	14	4	3.5	45	41
Canada	42-49 3/	...	2	2.2	...	40-44
Denmark	68	...	...	1.4	50	50
Finland	44	...	6	2.5	57	42
France	57	...	26	9.2	50	37
W. Germany	53	...	many	3.6	56	50
Ireland	58	...	2	2.5	50	40
Italy	56	9	8	14.5	...	36
Japan	50	15	6	6.2	...	37.5
Netherlands	70	9	4	7.2	43	35-40
New Zealand	33	5	3	1.5	...	33
Sweden	60	16	3	1.3	57	30
U.K.	40	6	2	4.6	45	35
U.S.A.	35-50 4/	15	2	7.4	51	39
Greece	50	...	8	6.1	49	40
Hungary	...	...	...	...	...	40
Poland	...	...	...	...	...	40
Portugal	40	...	4	5.3	50	40
Spain	56	...	11	7.1	35	35
Turkey	50	...	5	51.8	49	47

Sources: South African Department of Finance; Vito Tanzi (1987); K. Anderson (1990);
and Price Waterhouse (1990).

1/ In relation to per capita income for the Whites. The figure would be of the order
of 11.9 in relation to per capita income for the country as a whole.
2/ Reduced to 48 percent in the 1991/92 budget.
3/ Includes provincial rates.
4/ Including state and local taxes and social security payments. Social security taxes
vary from 7.5 percent to up to 13 percent for the self-employed, while state taxes range
up to 9.3 percent.

South Africa: Current Account Balance and Capital Flows 1/

(In percent of GDP)

	1984	1985	1986	1987	1988	1989	1990
Trade Balance	2.7	10.0	10.8	9.0	6.0	6.0	6.2
Current Account	-2.4	4.1	4.3	3.6	1.4	1.3	2.2
Net Capital Inflow	1.2	-6.8	-3.6	-1.7	-3.1	-1.9	-1.1
Change in Net Reserves	-1.3	-2.6	0.7	1.9	-1.8	-0.5	1.1

The swing in the external current account that was necessitated beginning in the mid-1980s was accomplished to some degree by a substantial depreciation of the currency. 2/ Indeed over the second half of the 1980s the real effective exchange rate was approximately 29 percent more depreciated than it was in the first half of the 1980s (see tabulation below and Chart 5). However, since 1989 the real exchange rate has tended to appreciate modestly as the authorities moved to slow the depreciation of the nominal exchange rate as part of their anti-inflation efforts. Despite the modest real appreciation, as of May 1991 the real effective exchange rate was still 7 percent below its level at the end of 1984.

South Africa: Real and Nominal Effective Exchange Rates 3/
Levels 1985 = 100

	1984	1985	1986	1987	1988	1989	1990
Nominal	146.9	100.0	78.9	78.3	67.5	61.5	58.1
Real	131.8	100.0	92.2	104.1	98.3	98.7	101.6

The other basic strand in the authorities' response to the changed external situation was the maintenance of a restrained demand management policy. Although there was a brief relaxation of policies in 1986 and 1987, over the six years since 1985 real domestic demand was restrained to an average 1 percent a year growth. As described more fully below, these

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1/ Source: South African Reserve Bank.
2/ While nominally South Africa has been pursuing a floating exchange rate policy, in practice the Reserve Bank has operated a system of forward exchange rate cover. The Reserve Bank has used this system to influence the relative attractiveness of borrowing abroad as against borrowing in the domestic market as conditions in the exchange market might dictate.
3/ Source: IMF, International Financial Statistics.

policies were supported by both an intensification of trade protection and by a tightening of capital controls.

The use of the exchange rate and domestic demand restraint has succeeded in effecting a major shift in the current account balance over the past six years (Chart 6). Of particular note in this regard, was the strong performance of non-gold exports. Thus, notwithstanding the application of trade sanctions, since 1985 these exports have grown at an average 10 percent a year or by approximately twice the rate of growth in world trade. 1/ Over the same period, import volume growth was on balance highly restrained as suggested by import volumes in 1990 being barely 2 percent above their corresponding level in 1984.

2.   Trade Policies

    a.   Import protection

South Africa's trade policy has traditionally aimed at import substitution and inward looking development. The application of trade sanctions against the country in the mid-1980s lent considerable impetus to those tendencies. This impetus mainly took the form of the introduction of an import surcharge in 1985 ranging between 10 and 60 percent that was especially directed at the import of luxury goods. Although this surcharge was subsequently reduced to its present level of between 5 and 40 percent, it still contributes importantly to the presently high level of effective protection. The South African Industrial Development Corporation estimates that the manufacturing sector presently enjoys an average rate of effective protection in excess of 30 percent. 2/

The main features of the current system of import protection in South Africa are summarized in Table 7 and in the tabulation below. Aside from the import surcharges already referred to, the system comprises the following basic three elements: (a) ad valorem duties that are relatively low for primary products and for capital goods but that are of the order of 25 percent for semi-manufactured and manufactured goods; (b) a wide-ranging system of formula duties that cover over 20 percent of all tariff lines and that in many cases have an ad valorem equivalent of over 40 percent. These duties, which add a floor price to the pre-existing tariff schedule, are granted on a selective basis to protect domestic producers from the competition from low cost producing countries; and (c) an extensive system of import licensing that affects approximately 20 percent of total imports and that has been used in the context of international trade sanctions to


1/ While direction of trade data since the imposition of trade sanctions are not available, it is believed that a large part of South Africa's recent export growth has taken place in nontraditional markets, including those in Africa.

2/ "Modification of the Application of Protection Policy" Industrial Development Corporation, June 1990.

SOUTH AFRICA
# EXCHANGE RATES OF THE RAND
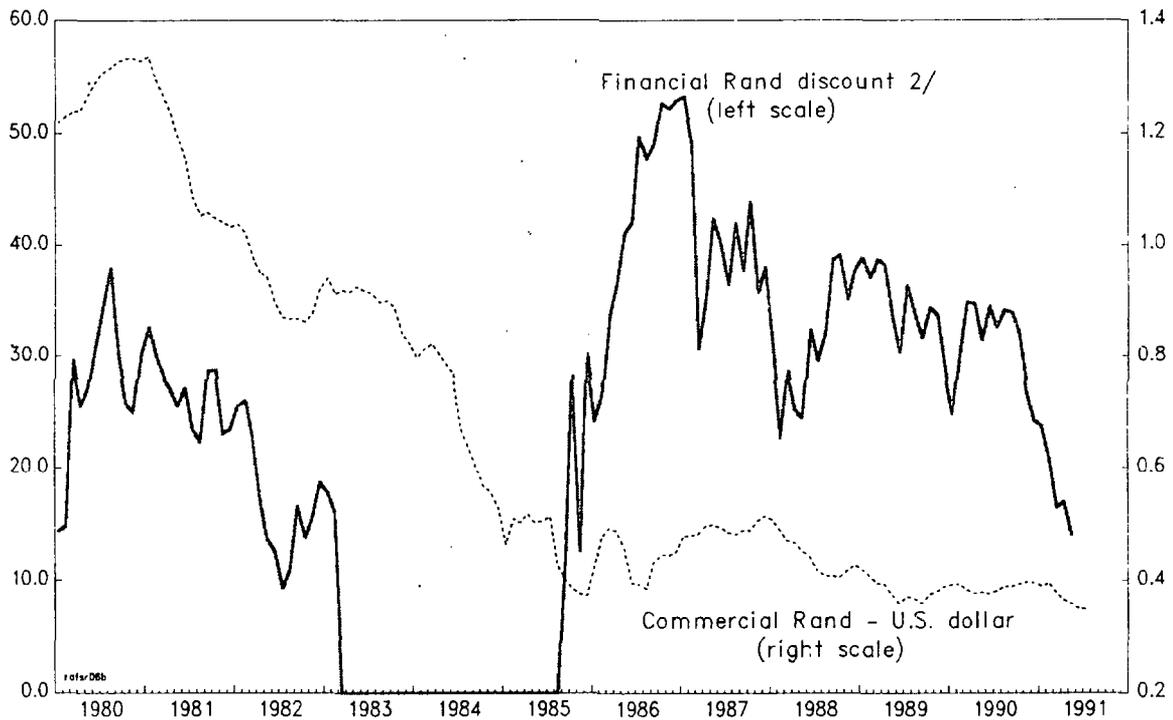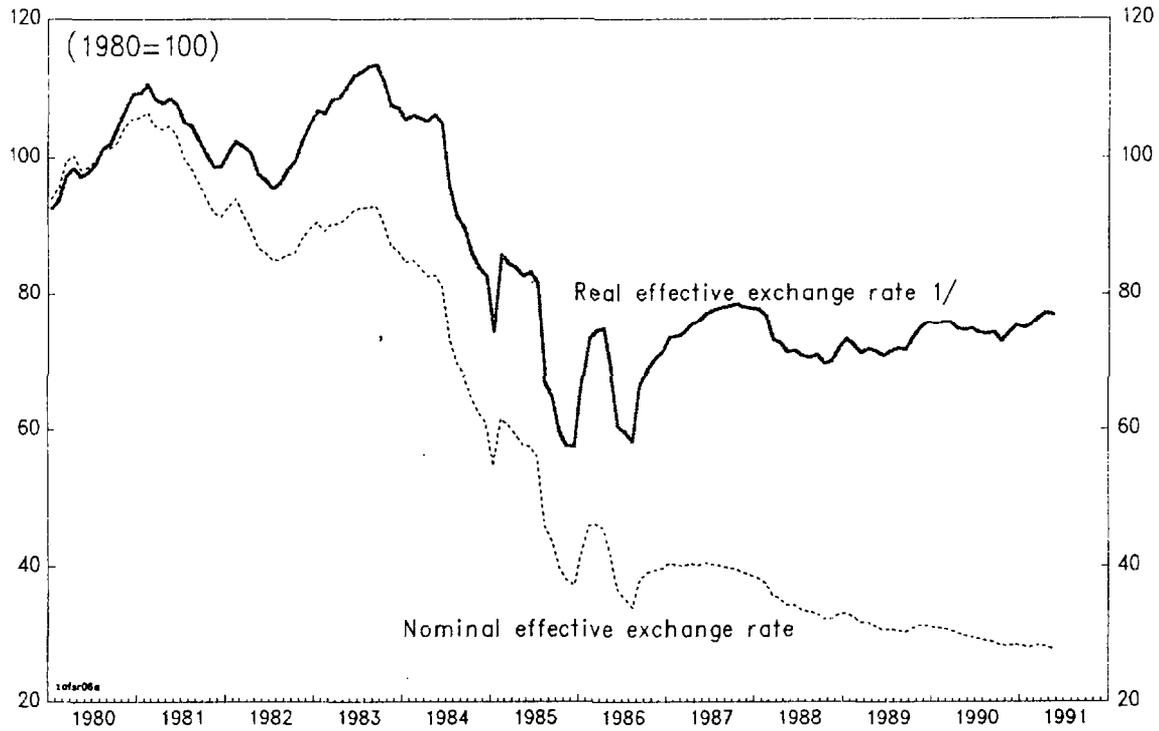
Source: South African Reserve Bank, Quarterly Bulletin; and IMF, International Financial Statistics.

1/ Based on relative consumer prices.
2/ The difference between the prices of the commercial rand and the financial rand as a percent
of the commercial rand. The financial rand was unified with the commercial rand in early 1983
before being reintroduced in 1985 following the introduction of financial sanctions. Figures as
at end of period.

CHART 6

SOUTH AFRICA

SELECTED BALANCE OF PAYMENTS INDICATORS

EXTERNAL CURRENT ACCOUNT
(In percent of GDP)

Merchandise trade balance

Balance on non-factor services

Current account balance

IMPORT AND EXPORT VOLUMES
(Indices, 1980=100)

Non-gold exports

Total exports

Total imports

CAPITAL ACCOUNT DEVELOPMENTS
(In percent of GDP)

Total capital account

Public sector

Private sector
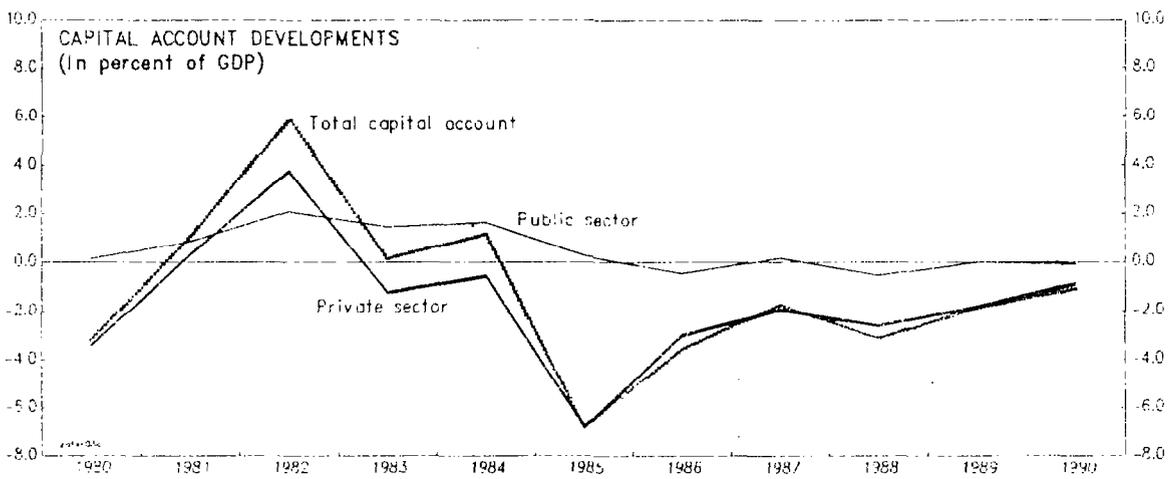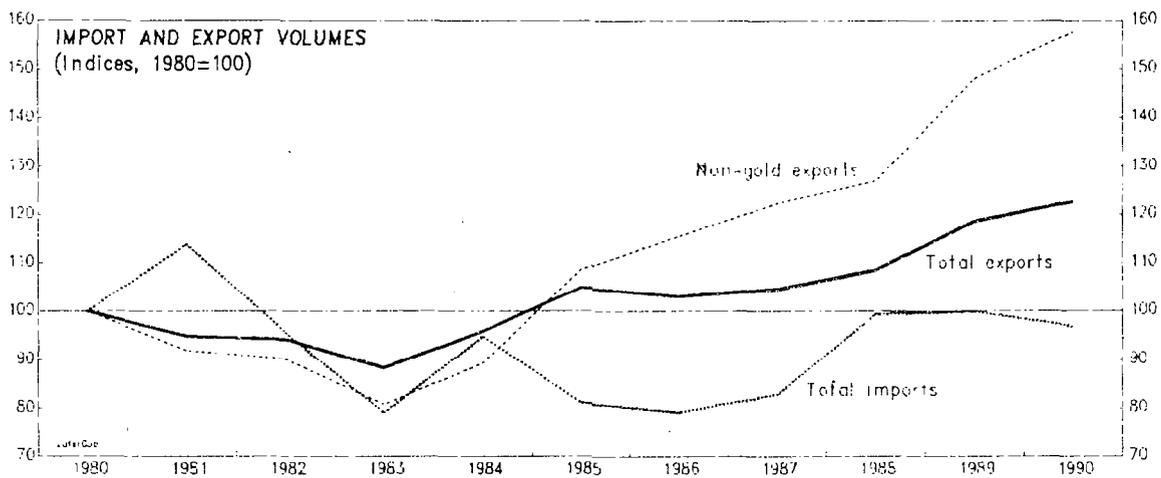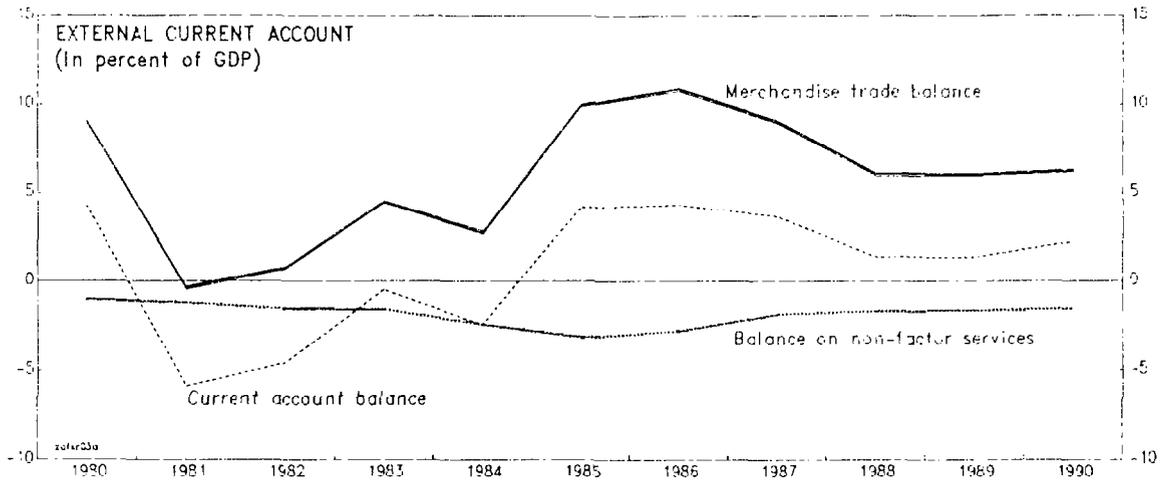
Source: South African Reserve Bank, Quarterly Bulletin

afford administratively more speedy protection than formula duties or tariff protection. This licensing system, which is presently being converted into a system of equivalent tariffs in the agricultural sector where it is most prevalent, is estimated by the Industrial Development Corporation to add around 10 percent to the presently prevailing rates of protection.

Nominal Rates of Protection as of Mid-1990

	Weighted Nominal Tariff	Weighted Import Surcharge	Total Tariff Plus Surcharge
	(In percent)		
Primary products	2.5	0.6	3.1
Processed primary products	12.0	2.5	14.5
Material intensive products	28.3	5.7	34.0
Manufactured products	26.9	13.4	40.3
Capital goods	9.8	10.4	20.2

Source: South African Industrial Development Corporation.

The prospect of an early lifting of international trade sanctions has prompted the government to direct the Industrial Development Corporation (IDC) to review the present system of protection with a view to moving towards a more open trade regime. The preliminary proposals of the IDC are for the adoption of a pre-announced schedule of liberalization over a number of years and for reforms that would reduce the selectivity and increase the transparency of the system. In more specific terms, the main proposals of the IDC may be summarized as follows: (a) A more uniform tariff structure would be established through the eventual elimination of the present system of formula duties, which are to be replaced by more standard anti-dumping procedures. Until the formula duties were scrapped they would be subject to a maximum ad valorem ceiling; (b) the present system of import surcharges would be eliminated within the near future; (c) the pre-announcement of a schedule of reductions in ad valorem duties would take effect over a 5-6 year period. This schedule would envisage a faster rate of tariff reduction for products subject to higher rather than to lower tariffs and it would aim at maximum rates of protection for the manufacturing sector of no more than 30 percent and for other sectors of no more than 15 percent; and (d) the replacement of the selective approach to the granting of import tariffs by an automatic system that would operate within the overall policy framework of moving towards lower levels of protection. As an immediate measure in this direction, the requirement that protection be contemplated only in cases where at least 60 percent of local demand can be met would be

Table 7. South Africa: Structure of Protection in 1990

Tariff in percent	Ad Valorem Duty				Formula Duties				Percentage under Import Control	
	Number of tariff lines	Percent of total tariff lines	Imports Rm	Percent of total imports	Number of tariff lines	Percent of total tariff lines	Imports Rm	Percent of total imports	Tariff lines	Value of imports
0	2,832	29.5	13,015	56.0	--	--	--	--	24.2	18.5
1-10	2,466	25.6	4,954	21.3	3	0.2	5	0.2	17.3	13.8
11-15	922	9.6	1,224	5.3	5	0.3	13	0.6	28.9	34.2
16-20	1,956	20.3	2,484	10.7	95	4.9	127	5.8	22.2	22.1
21-25	743	7.7	664	2.9	58	3.0	51	2.3	21.4	24.4
26-30	505	5.3	544	2.3	308	15.9	94	4.3	18.9	15.0
31-35	75	0.8	77	0.3	80	4.1	104	4.7	10.3	16.5
36-40	100	1.0	253	1.1	61	3.2	67	3.0	25.5	38.1
Above 40	16	0.2	27	0.1	1,319	68.4	1,742	79.1	31.7	37.9
TOTAL	9,615	100.0	23,242	100.0	1,929	100.0	2,203	100.0	22.9	20.4

Source: South African Industrial Development Corporation.

eliminated with a view to avoiding the further establishment of uncompetitive product lines.

b.   Export promotion

During the 1980s a variety of incentives were introduced to promote exports. These included most notably generous and variable export marketing allowances through Section 11(b) of the Income Tax Act and subsidized electricity rates for the beneficiation of mineral exports. In 1990 it was announced that these subsidies were to be phased out by 1992 and to be replaced by a more transparent General Export Incentive Scheme (GEIS). This scheme provides direct subsidies on the domestic component of exports according to the degree of manufacture of the export at rates along the lines indicated in the tabulation below.

South Africa: Rates of Subsidy Under the
General Export Incentive Scheme

(in percent)

Primary products	--
Beneficiated primary products	7.5
Material intensive products	12.5
Manufactured products	25.0

As part of its proposal to liberalize the trade system, the IDC is recommending that the GEIS be phased out as import tariffs are reduced. However, the IDC proposal is conditioned upon more active use being made of the exchange rate and on a substantial reform of the tax system that would enable South African exporters to compete on more equal terms with that of its competitors. In the latter respect, the IDC lays particular stress on the need to reduce the company tax rate from its present level of 48 percent to below 40 percent.

3.   Capital controls

As regards the capital account, the South African authorities responded to the imposition of financial sanctions by substantially tightening the system of capital controls already in place. This tightening mainly took the form of the reintroduction of the financial rand system and the negotiation of a number of standstill arrangements that rescheduled that part of South Africa's external debt that was frozen in 1985.

a.   The financial rand system

In September 1985, the authorities reintroduced the financial rand system, that had earlier been eliminated in 1983, with a view to protecting the country's foreign exchange reserves from capital outflows arising from disinvestment transactions. Under this system, all foreign disinvestment in

equities are financed at the financial rand rate rather than at the more attractive commercial rand rate. At the same time, as an inducement to new foreign investment, nonresidents are authorized to purchase local currency at the financial rand rate to finance investments in quoted securities and, with the specific approval of the Exchange Control Department, in nonquoted shares. 1/ The basic intent of the system is that disinvestment does not affect the country's foreign exchange holdings since the sale of financial rand by some nonresidents is offset by corresponding purchases by others.

The differential between the financial exchange rate and the commercial exchange rate has fluctuated widely over the past five years mainly in reflection of changing foreign perceptions of the country risk of investing in South Africa (see Chart 5). The discount reached a peak of over 50 percent at end 1986 at the height of the political unrest. Since the new political initiatives at the beginning of 1990, the discount has narrowed substantially to fall to below 10 percent in July 1991 following the lifting of trade sanctions by the United States. The authorities have indicated that it is their intention to eventually unify the exchange rate but they would do this only once there was solid evidence of an enduring strengthening of the capital account.

b. The debt standstill arrangements

In response to the decision by a number of major commercial bank creditors at end-July 1985 that they would not roll over maturing loans to South Africa, the Government announced a temporary debt moratorium pending the renegotiation of the terms of that debt. This debt standstill applied to around US$13½ billion or 57 percent of South Africa's outstanding external debt at that time, but it excluded trade credits, debt guaranteed by foreign governments or export agencies, and debt contracted directly by the Reserve Bank. The moratorium did not apply to interest payments on the debt which were made on schedule throughout the period.

In March 1986, agreement was reached on a First Interim Arrangement through July 1987. 2/ This agreement envisaged the repayment of 10 percent of the debt, the option to roll over that debt or else to convert it into a government deposit, and the option to exit from the net through the conversion of short-term debt into medium-term maturities with prescribed maximum interest rates. Two subsequent Interim Arrangements were agreed upon in March 1987 and October 1989 with terms similar to that of the first Interim arrangement, but they extended the exit option to allow

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1/ In August 1990, with a view to reducing abuses in the system, purchases in non-quoted shares were henceforth to be permitted only for investment in fixed investment rather than for the funding of working capital and current expenditure requirements.

2/ A fuller description of the terms of these interim arrangements is provided in "South Africa's Foreign Debt and the Standstill, 1985-90" by Jonathan Leape of the LSE Center for the Study of the South African Economy.

affected debt to be converted into property or equity at the financial rand rate.

In reflection of repayments under the interim arrangements, as well as the exercise of the various exit options, it is estimated that by end-1993, at the time the Third Interim Arrangement expires, only US$5 billion or around 25 percent of South Africa's external debt will remain within the net. The South African authorities have indicated that with the reopening of international capital markets, it is their intention to cease reliance upon these interim arrangements and negotiations to that end will be undertaken at a time closer to the expiry date of the present arrangement.

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