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To: Members of the Executive Board

From: The Acting Secretary

Subject: Subject: <u>South Africa - Selected Economic Issues</u>

This paper provides background information to the staff report on
the 1994 Article IV consultation discussions with South Africa, which was
circulated as SM/95/3 on January 9, 1995.

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INTERNATIONAL MONETARY FUND

SOUTH AFRICA

Selected Economic Issues

Prepared by a staff mission consisting of
Mr. L. Lipschitz (head-AFR), Mr. A. Jaeger (FAD),
and Messrs. J. Gordon, P. Doyle, and A. Farah (all AFR) 1/

Approved by the African Department

January 17, 1995

<div align="center">Contents   Page</div>

1/ The paper also reflects contributions by Mr. D. Orsmond (FAD).

Contents   Page

Contents   Page

Text Tables

Contents   Page

Contents   Page

South Africa - Basic Data

Area and population

Area	1.22 million square kilometers
Population (1993)	39.6 million
Population growth rate (1993)	2.3 percent
Employment in nonagricultural sector (1993)	5.1 million

IMF position (November 30, 1994)

Quota	SDR 1,365.4 million
Fund holdings of rand (in percent of quota)	145
Holdings of SDRs (in millions)	0.9
Exchange rate	R 1 = US$0.2815

National Accounts	1993 In millions of rand at current prices	1989	1990	1991	1992	1993
		(Percentage change at constant prices)				
Private consumption	230,630	2.7	2.9	-0.7	-1.7	0.5
Public consumption	79,047	4.0	2.3	2.3	1.5	1.8
Gross fixed investment	58,837	6.5	-2.3	-7.4	-5.3	-3.4
Total domestic demand 1/	370,921	3.0	-0.8	-0.7	-1.3	1.4
Exports	91,013	5.4	1.7	-0.1	1.1	6.0
Imports	76,155	0.3	-5.8	2.1	5.3	7.0
Gross domestic product	383,071	2.4	-0.3	-1.0	-2.2	1.1

Central government finances 2/	(In millions of rand)				
Revenue	66,755	70,151	76,644	81,707	95,162
Expenditure	68,280	77,339	90,595	110,556	122,559
Balance	-1,525	-7,188	-13,950	-28,849	-27,396
(in percent of GDP)	-0.6	-2.5	-4.4	-8.3	-6.9

Balance of payments	(In millions of U.S. dollars)				
Merchandise exports	21,937	23,539	23,288	23,624	24,104
Of which: net gold 3/	(7,299)	(7,024)	(7,094)	(6,437)	(6,805)
Merchandise imports	16,881	16,775	17,163	18,194	18,327
Services and transfers, net	-3,734	-4,707	-3,884	-4,048	-3,993
Current account balance	1,322	2,057	2,241	1,382	1,784
Net long-term capital	-231	-39	-627	-530	-83
Net short-term capital (including errors and omissions)	-1,079	-645	-154	-758	-4,515
Net capital 4/	-1,310	-685	-780	-1,288	-4,598
Overall balance 5/	12	1,373	1,461	94	-2,814
Gross official reserves (year-end; in millions of dollars)	2,097	2,422	2,973	2,984	2,678
(in months of imports)	1.2	1.4	1.7	1.7	1.4

Monetary aggregates	(Percentage change over previous period)				
Broad money (M3), year end	22.3	12.0	12.3	8.0	7.0

Prices and wages					
Consumer prices, year average	14.7	14.4	15.3	13.9	9.7
Remuneration per worker, year average (in nonagricultural sector)	18.3	17.2	16.1	15.4	10.6

Sources: South African Reserve Bank, Quarterly Bulletin; International Monetary Fund, International Financial Statistics; data provided by the South African authorities; and staff calculations.

1/ Excludes statistical discrepancy.
2/ Department of Finance data. Fiscal year begins April 1. Figures are for total revenue.
3/ Includes net changes in gold holdings of the Reserve Bank and other banking institutions.
4/ Excluding short-term liabilities relating to reserves.
5/ Net of reserve-related liabilities, SDR allocations, and valuation adjustments.

I. Recent Economic Developments

South African GDP is expected to grow by 2.0 percent in 1994 (Table 1). This is below the rate of growth of the population (2.3 percent) and of the labor force (2.7 percent), but it nevertheless marks the second successive year of positive growth after a severe recession. The third quarter of 1994 was the seventh consecutive quarter of positive growth in nonagricultural GDP and the sixth consecutive quarter in which the trade surplus decreased. 1/ These data suggest that the recession which began in 1989 had run its course by the end of 1992. The recovery to date has not been strong and remains vulnerable to political developments, but the economy is at least now in an upturn.

A year ago, what seemed most remarkable about the 1989-92 recession was the absence of labor hoarding at its onset (see SM/93/255); firms had started to shed labor as soon as the recession began, causing labor productivity to rise for its duration. This feature made the 1989-92 recession unlike any other in South Africa's recent history (Chart 1). What seems most remarkable now about the 1989-92 recession is that although it has ended, firms have continued to shed labor; the most recent data show a further 4½ percent reduction in employment since end-1992. By contrast, real GDP will soon exceed its 1989 level.

The current inability of the South African economy to create jobs is unprecedented in degree, but its origins predate the recent recession. The rate at which the formal sector has been able to absorb labor has deteriorated progressively over the last three decades: whereas more than 60 percent of the increase in the labor force was able to find jobs in the 1970s, this rate fell below 20 percent in the 1980s and turned sharply negative in the recent recession (Table 2). The consequence has been a dramatic increase in the proportion of the labor force without formal employment: the rate of formal joblessness--the most frequently cited unemployment statistic in South Africa--has more than tripled since 1975, reaching an estimated 44 percent in 1993.

The unemployment problem is the key focus in this paper. Subsequent chapters focus on selected issues including saving behavior, the functioning of the labor market, the social safety net, effective tax rates, corporate control and monopoly, and credit constraints faced by small business. Each topic is of interest in its own right, but owes its immediacy to the imperative of the search for solutions to the unemployment problem; this search, of necessity, will touch many aspects of the South African economy. The remainder of this chapter summarizes economic developments over the past year.

1/ Except when indicated otherwise, the performance of the agricultural sector is excluded when discussing trends; in 1993, agricultural activity was recovering from the drought of the previous year, and, over the past twelve months it has been highly volatile.

Table 1. South Africa: Selected Economic Data, 1989-94

	1993 (In millions of rand at current prices)	1989	1990	1991	1992	1993	1994 Proj.
		(Percentage change at constant prices)					
National accounts							
Private consumption	230,630	2.7	2.9	-0.7	-1.7	0.5	2.0
Public consumption	79,047	4.0	2.3	2.3	1.5	1.8	4.0
Gross fixed investment	58,837	6.5	-2.3	-7.4	-5.3	-3.4	5.7
Total domestic demand 1/	370,921	3.0	-0.8	-0.7	-1.3	1.4	3.7
Exports of goods and services	91,013	5.4	1.7	-0.1	1.1	6.0	1.7
Imports of goods and services	76,155	0.3	-5.8	2.1	5.3	7.0	10.0
Gross domestic product	383,071	2.4	-0.3	-1.0	-2.2	1.1	2.0
		(Percentage change)					
Prices and wages							
Consumer prices		14.7	14.4	15.3	13.9	9.7	...
Consumer prices (end of period)		15.6	14.4	16.0	9.5	9.7	10.0
GDP deflator		17.2	15.1	13.5	12.4	11.1	9.6
Remuneration per worker 2/		18.3	17.2	16.1	15.4	10.6	...
		(In billions of U.S. dollars)					
Balance of payments							
Merchandise exports (non-gold)		14.6	16.5	16.2	17.2	17.3	17.8
Gold exports		7.3	7.0	7.1	6.4	6.8	7.0
Merchandise imports		16.9	16.8	17.2	18.2	18.3	20.5
Services and transfers, net		-3.7	-4.7	-3.9	-4.0	-4.0	-4.6
Current account balance		1.3	2.1	2.2	1.4	1.8	-0.2
(In percent of GDP)		1.4	1.9	2.0	1.2	1.5	-0.2
Long-term capital, net		-0.2	-0.0	-0.6	-0.5	-0.1	--
Short-term capital, net 3/		-1.1	-0.6	-0.2	-0.8	-4.5	1.3
Capital account balance		-1.3	-0.7	-0.8	-1.3	-4.6	1.3
Net international reserves		2.2	2.6	3.6	3.4	1.7	2.8
In months of imports		1.2	1.5	2.0	1.9	0.9	1.3
		(In billions of rand)					
Fiscal 4/							
Revenue		66.8	70.1	76.6	81.7	95.2	105.8
Expenditures		68.3	77.3	90.6	110.6	122.6	135.1
Deficit before borrowing		-1.5	-7.2	-13.9	-28.8	-27.4	-29.3
(In percent of GDP)		-0.6	-2.5	-4.4	-8.3	-6.9	-6.6
		(Percentage change)					
Monetary aggregates (end-period)							
Broad money		22.3	12.0	12.3	8.0	7.0	14.0
Bank credit to private sector		20.2	15.7	14.5	8.7	9.7	...
Exchange rates							
Period average							
U.S. dollars per rand		-13.3	1.3	-6.3	-3.2	-12.7	-8.7 5/
Nominal effective rate		-8.8	-5.6	-6.2	-6.0	-8.9	-9.9 5/
Real effective rate		0.4	2.9	3.8	3.8	-2.7	-4.3 5/
End-period							
U.S. dollars per rand		-6.2	-1.0	-6.6	-10.2	-10.1	-5.6 6/
Nominal effective rate		-4.8	-8.7	-6.4	-4.6	-8.5	-9.7 5/
		(In percent)					
Interest rates							
Discount rate (end-period)		18.0	18.0	17.0	14.0	12.0	13.0
Treasury bill rate (period average)		16.8	17.8	16.7	13.8	11.3	10.5 6/
Government bond yield (10-years and over; end-period)		15.8	16.0	16.7	14.9	12.3	16.9 5/
Prime rate (period average)		19.8	21.0	20.3	18.9	16.2	15.5 6/

Sources: Data provided by the South African authorities; IMF, International Financial Statistics; and staff estimates.

1/ Excludes statistical discrepancy.
2/ Nonagricultural sector.
3/ Includes errors and omissions of current as well as capital account.
4/ Fiscal year beginning April 1; figures for 1994/95 are budget estimates.
5/ Through October.
6/ Through November.

CHART 1
SOUTH AFRICA

NONAGRICULTURAL OUTPUT AND EMPLOYMENT, 1967-94
(Indices, 1990=100)
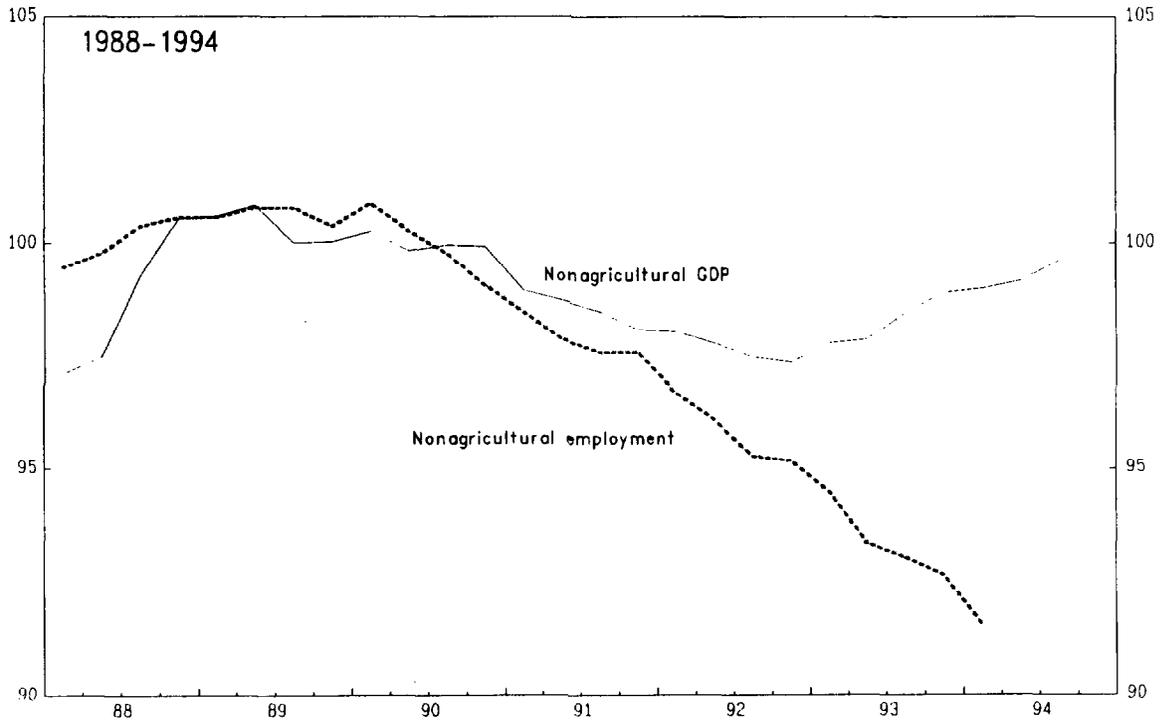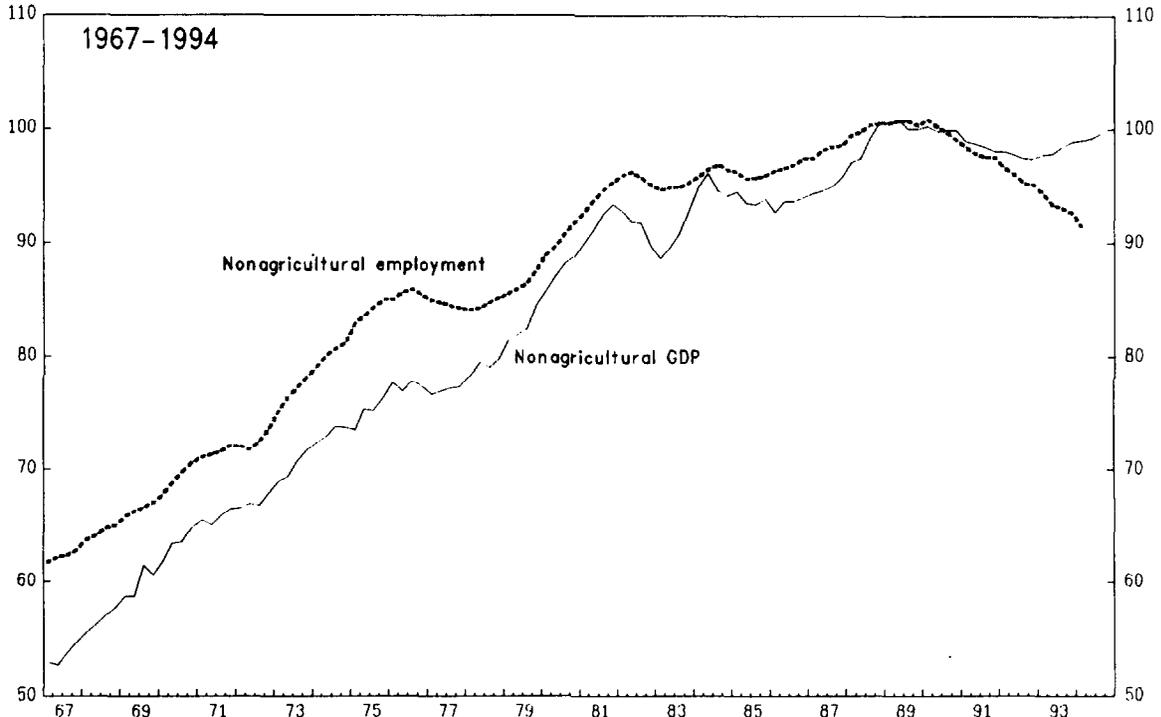
Source: South African Reserve Bank, Quarterly Bulletin.

Table 2. South Africa: Formal Sector Labor Absorption and Unemployment, 1961-93

Period	Average annual increases in:		Absorption rate 1/ (percent)	Unemployment rate 2/ (percent)	Participation rate 3/ 4/ (percent)	Nonemployment rate 4/ 5/ (percent)
	Standardized formal employment (thousands)	Economically active population (thousands)				
1961-65	141	148	95.3	11.6	...	...
1966-70	162	168	96.2	10.6	...	...
1971-75	133	211	62.8	14.2	...	...
1976-80	147	244	60.2	17.6	53.2	56.1
1981-85	57	311	18.2	26.9	53.0	61.2
1986-90	45	364	12.4	35.7	57.7	62.9
1991-93	-117	412	-28.4	44.0	58.4	67.3

Sources: Data provided by the South African authorities; and staff estimates.

1/ First column divided by second column, expressed as percentage.
2/ Proportion of economically active population without formal employment; end of period.
3/ Economically active population divided by population of working age; end of period.
4/ Staff estimate based on data provided by the authorities.
5/ Proportion of population of working age without formal employment; end of period.

1. Real sector developments

After a cumulative fall of 3.5 percent between 1989 and 1992, GDP at market prices grew by 1.1 percent in 1993 (Appendix Table 1). The major contribution to growth came from the turnaround in the inventory cycle, with positive investment in inventories recorded for the first time since 1989. Private consumption expenditure remained subdued in 1993, rising by only 0.5 percent; by contrast, public consumption grew by 1.8 percent in 1993 (although at a slower pace than during the recession). Gross fixed investment fell in 1993 for the fourth year in succession, primarily as a consequence of lower parastatal investment (Appendix Table 2).

Net exports in 1993 were buoyed by continued strength in manufactured exports and recovery from the drought, and, in contrast to 1991 and 1992, made a positive (albeit small) contribution to GDP growth. Thus external *transactions remained a use rather than a source of domestic savings and* contributed negatively to the financing of domestic investment (Appendix Table 3). Government dissaving also increased in 1993, so that investment had to rely to an even greater extent on private domestic saving. 1/ Higher private saving came primarily from the corporate sector, although personal saving also rose as a proportion of disposable income (Appendix Table 4). Net investment increased slightly, but remained barely positive in 1993. 2/

In 1994, the economy was buffeted by political uncertainty related to the elections and by a spate of midyear strikes. Nonetheless, the latest available data suggest that the recovery has emerged intact: GDP (seasonally adjusted) is estimated to have grown at an annual rate of 2.6 percent in the third quarter. The prime contributor to growth in 1994 was fixed investment: the stimulus came from both private investment in large resource-based projects, 3/ and a recovery in parastatal investment. However, with imports surging at an unprecedented rate and a weak performance by exports (see Section 4 below), net exports are likely to have made a negative contribution of 1½ percentage points to growth in 1994.

1/ As noted in SM/93/255, recent saving data are distorted by below-the-line budget transfers between the Government and the civil service pension funds; these transfers--which are intended to reduce under-funding--were large in 1993. In comparison with the situation that would prevail under a pay-as-you-go system, they have the effect of inflating household saving at the expense of government saving.

2/ Long-term trends in saving and investment are described in Chapter II.

3/ Investment in a number of large mineral-beneficiation projects, including Alusaf (aluminum) and Columbus (stainless-steel), was facilitated by tax concessions given under Section 37e of the Income Tax Act. These concessions took the form of accelerated depreciation allowances. The Section 37e scheme was terminated in 1993.

On the supply side of the economy, the major source of growth in 1993 was a revival of agricultural activity after the 1992 drought (Appendix Table 5). Despite constituting less than 5 percent of total value-added, the agricultural sector contributed half the growth in GDP at factor cost recorded in 1993. The recovery of nonagricultural activity--led by mining (Appendix Table 6), electricity and water, and transport and communications--was considerably less spectacular; nonagricultural GDP rose by only 0.6 percent in 1993. Moreover, with the construction sector contracting for the third year in a row and no growth recorded in manufacturing (Appendix Table 7), industry remained depressed.

Despite relatively normal weather conditions, agricultural activity remained unstable in 1994. Nonagricultural value added, by contrast, continued to record low but positive growth, with seasonally adjusted annualized rates of growth of 0.4 percent, 0.7 percent, and 1.8 percent in the first three quarters of 1994, respectively. Within the nonagricultural economy, mining activity was weak--one explanation is that lower grade gold and platinum deposits were worked on account of higher prices, but industrial action also seems to have reduced output.

Manufacturing activity initially remained subdued in 1994, although capacity utilization began to increase in the second quarter and by the third quarter, value added in manufacturing was growing by 1.8 percent (annualized). There was encouraging growth in both the construction and electricity sectors in 1994. Tertiary activity also grew strongly, principally on account of the financial services, and transport and communications sectors.

Employment losses, both during the recession and in the period since, have been enormous: 150,000 jobs disappeared in the gold mining sector between 1988 and 1993 (representing a 30 percent reduction) and a similar number of losses were recorded in manufacturing (a 10 percent reduction). Overall, nonagricultural employment fell by 6.7 percent between 1988 and 1993 (Appendix Table 8). If the public sector is excluded, 1/ the picture is even bleaker: at the end of 1993, private nonagricultural employment was 9.4 percent lower than it had been five years previously.

The free fall in employment, which began with the recession, appears, at least initially, to have continued into 1994; the most recent data available show further job losses in the first quarter, amounting to 1.2 percent of end-1993 employment, with the mining sector especially hard hit. The only bright note in the first quarter of 1994 was that manufacturing employment (seasonally adjusted) rose by almost 2 percent over end-1993.

1/ Employment by the public authorities rose slightly over 1989-93, but there were divergent trends within the sector: employment by public business enterprises dropped by 22 percent over this period while employment by general government rose by 5 percent.

Unemployment data, which show that 44 percent of the labor force lacks formal employment should be interpreted with care, particularly as the same data indicate a 12 percentage-point rise in this rate over the past five years (and that less than 20 percent of the labor force was jobless as recently as 1980). There are a number of methodological issues concerning the unemployment data, including questions about why the participation rates used to estimate the economically active population have risen in recent years despite the dearth of employment opportunities. But it is clear that the major part of the jump in formal joblessness is genuine and is borne out by the trend in the nonemployment rate, which is the proportion of the population of working age without formal employment (see Table 2). The nonemployment rate--which is impervious to estimates of participation rates--has risen by 4-5 percentage points over the past five years (and by 11 percentage points between 1980 and 1993).

In essence, the unemployment data reflect some simple arithmetic about the South African economy: between 1988 and 1993, there was almost no growth in formal employment, whereas growth of the population (of working age) averaged 2½ percent per annum. The same point can be made by examining GDP growth data: with the labor force rising by about 3 percent per annum and labor productivity increasing by up to 1 percent--and with unchanged relative factor prices--GDP growth has to amount to 4 percent to keep unemployment constant. However, GDP growth was 4 percent or more in only two of the last ten years (1984-93) and five of the last twenty (1974-93), whereas it was 4 percent or more in 12 out of 13 years between 1961 and 1973.

Nevertheless, there is more to the slowdown in job creation than low GDP growth: indeed, capital intensity has risen appreciably since 1980. The obvious explanation for this trend is that it was dictated by rapidly rising labor costs, both in the direct sense, [1] and in the indirect sense, in that industrial relations were deteriorating markedly. [2] These developments are correlated in time with the growing strength of trade unions (see Chapter III). But other factors were also important. In the second half of the 1980s, the repeal of the apartheid labor laws reduced the cost of adjusting employment levels and made firms less inclined to hoard labor during a cyclical downturn. The Government also played a role in promoting capital intensity, both through investment in strategic industry (Sasol, Mossgas) and more recently through Section 37e tax concessions (see Chapter V, which compares effective tax rates on labor and capital).

The rise in formal joblessness described above would be less cause for concern if the informal sector had been rapidly absorbing labor. Indeed, apartheid implied major constraints on informal activity and some argue that

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[1] Unit labor costs continued to grow more rapidly than prices in general right through the recession; it was only in 1993 that employment losses began to translate into productivity gains of sufficient magnitude to arrest the rate of growth of unit labor costs (see Appendix Table 9).

[2] Strike activity mushroomed in the 1980s, partly for political reasons.

its demise has allowed the informal sector to take off. The available data, however, are not supportive of the thesis that the informal sector has compensated for the decline in formal sector labor absorption. Certainly parts of the informal sector (such as the taxi industry) have flourished since the 1980s. But recent survey evidence suggests substantial unemployment even after account is taken of informal activity. 1/ Survey data indicate that about 70 percent of economically active South Africans currently work in some capacity--whether it be formal or informal, regular or casual, full-time or part-time--and that one sixth of those working would like more work. This implies an aggregate unemployment rate (rather than a formal joblessness rate) of about 30 percent and an underemployment rate some 10 percentage points higher. 2/ These statistics suggest that even if the informal sector has grown substantially over the past ten years, it cannot have compensated for the drop in the rate of formal sector labor absorption.

The downward path of inflation continued through 1993. Producer price inflation reached a historic low point of 5 percent in the year through the third quarter (Appendix Table 10). Consumer price inflation--which at the beginning of 1993 was at its lowest level in twenty years--was nudged upward in April by the effects of a 4 percentage point increase in the rate of value-added tax (VAT); by year-end it had returned to single digits with the underlying rate of inflation at about 8 percent.

Price developments in 1994 were less promising and both producer and consumer price inflation picked up during the year. Two influences on inflation are particularly noteworthy: a high rate of food price inflation during the year and a rapid nominal depreciation of the rand in the first half of the year. Food prices--and in particular, the price of meat, which rose as farmers reduced supply to the market in order to restock herds in the wake of the drought--boosted the level of inflation in 1994. But the consumer price index exclusive of food also began to accelerate during the year (Chart 2); by November, nonfood inflation had caught up with overall inflation.

The effect of the rand depreciation on inflation is difficult to discern, given that the rate of change of both the imported and domestically produced components of the producer price index picked up at the same time. This could be interpreted as indicating that the depreciation had an immediate impact throughout the economy, except that, as noted above, food price inflation was simultaneously increasing for other reasons.

1/ Characteristics of informal sector enterprises are discussed in Chapter VII.

2/ These results are from SALDRU (1994), but are similar to CSS (1994), which is the October 1993 household survey.

CHART 2
SOUTH AFRICA

PRODUCTION AND CONSUMER PRICES, 1990-94
(12 month percentage change)

PRODUCTION PRICES

Goods produced in South Africa

Total

Imported goods

1990   1991   1992   1993   1994

CONSUMER PRICES

CPI

CPI
(excluding food)

1990   1991   1992   1993   1994
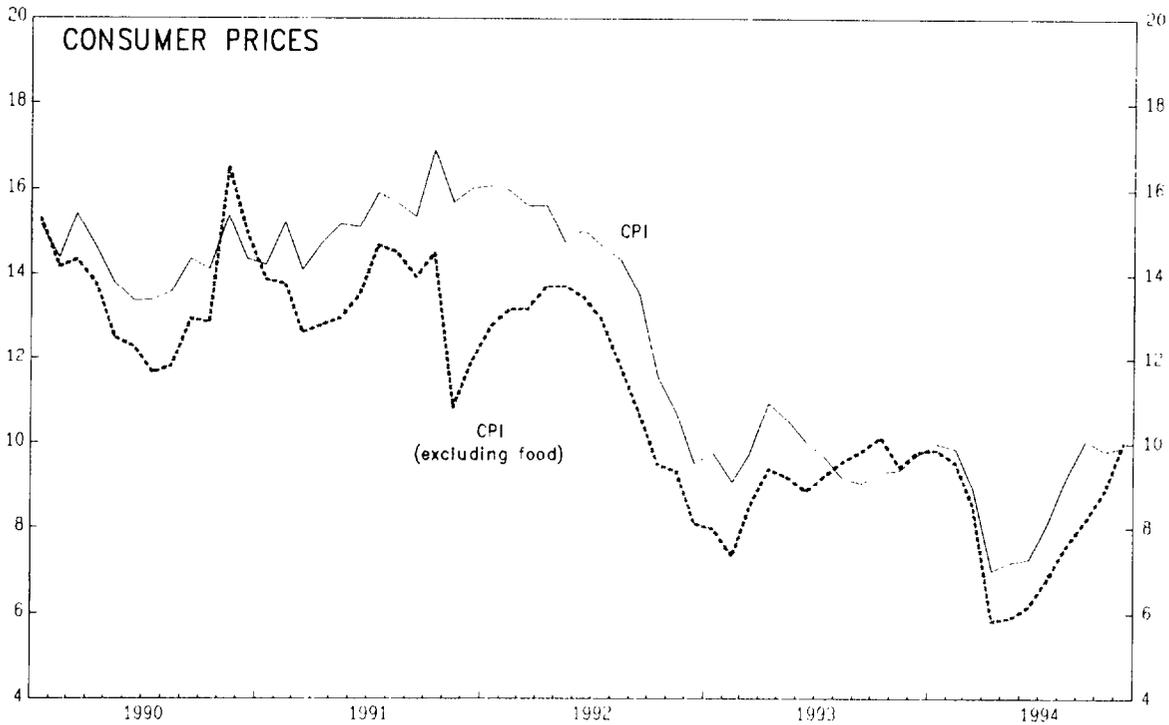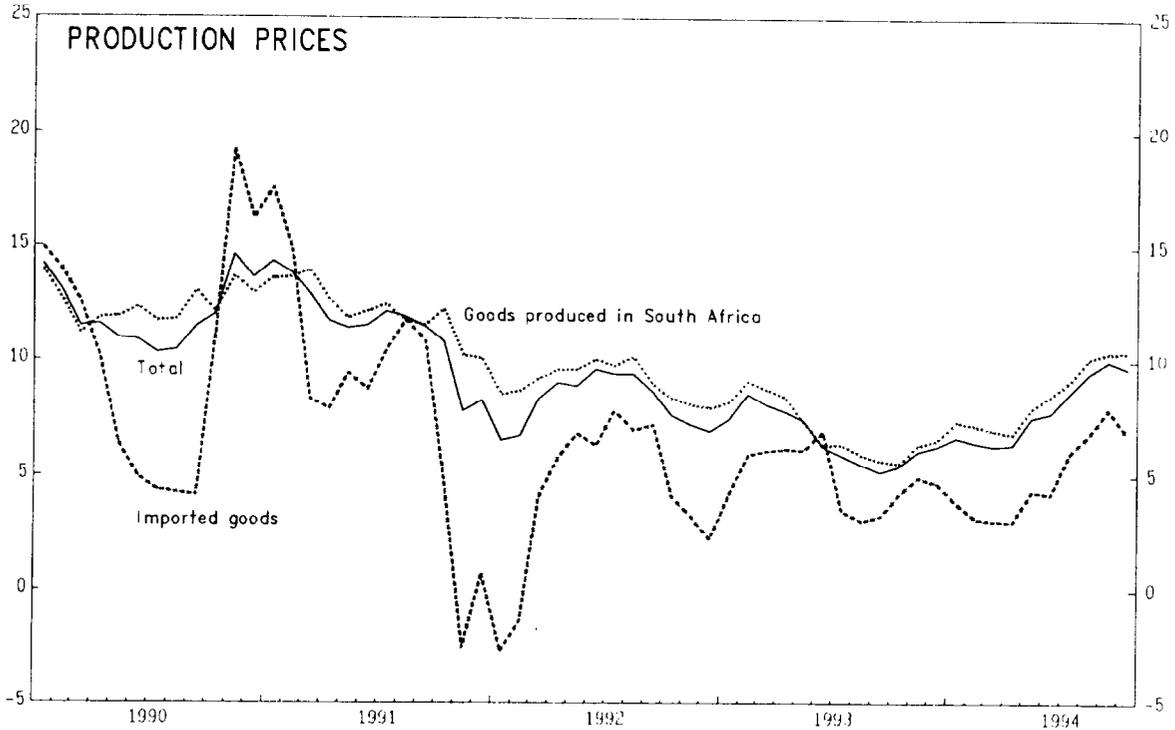
Source: South African Reserve Bank, Quarterly Bulletin.

2.   Fiscal policies

The fiscal position of the Central Government, which worsened sharply between 1989/90 and 1992/93, has improved significantly over the last two years, despite continued expenditure pressures. 1/ The deficit (excluding extraordinary revenue) rose from 2 percent of GDP in 1989/90 to 8½ percent in 1992/93 (Appendix Table 11; Chart 3). While the recession accounted for part of the deterioration of public finances, the cyclical deficit component in 1992/93 is estimated by staff at only about 1.5 percent of GDP, indicating that most of the rise in the deficit reflected structural factors. 2/ The fiscal stance firmed in 1993/94, as reflected in a decline of the deficit (excluding extraordinary revenue) to 7.3 percent of GDP despite continued weak growth, and the 1994/95 budget targets a further decrease of the deficit to 6.6 percent of GDP.

Central government revenue (excluding extraordinary revenue) declined by 1.5 percentage points of GDP between 1989/90 and 1993/94 (Appendix Tables 12 and 13). While overall income tax collections fell by 1 percentage points to 12 percent of GDP over the period, the buoyancy of corporate and individual income taxes differed significantly. Corporate taxes on mining fell sharply, declining from 1 percent of GDP in 1989/90 to 0.2 percent of GDP in 1993/94, reflecting, inter alia, lower gold mining profits as gold prices stagnated but costs of mining operations rose steadily. 3/ A concomitant decline in corporate taxes on nonmining companies was due not only to the recession but also to a cut in the corporate tax rate from 48 percent to 40 percent in 1993/94, which was only partly compensated by the introduction of a new 15 percent tax on distributed dividends (Secondary Tax on Companies, or STC).

1/ The fiscal year begins April 1. The 1994/95 budget introduced a major change in methodology regarding the treatment of the former homelands, which also led to revisions of historical series on central government revenue, expenditure, and deficits. Tax revenue previously diverted to the former homelands is now included in the revenue data of the new National Revenue Account and the expenditure which that revenue financed now appears as a transfer to a lower tier of government: this increased both the revenue and the expenditure side of the budget (by 1.3 percent of GDP in the 1994/95 budget), with no effect on the deficit. Moreover, homeland expenditure previously financed by overdraft facilities now also appears as a transfer from the central government budget. This change has resulted in increases in central government deficits (by 0.5 percent of GDP in the 1994/95 budget).

2/ See SM/93/255, Chapter III, for a discussion of the calculation of structural and cyclical components of the central government deficit.

3/ As recently as 1986/87, corporate taxes on mining contributed about 2.5 percent of GDP to revenue. Gold mining is subject to a special tax dispensation (see Lachman and Bercuson, 1992).

CHART 3
SOUTH AFRICA
GOVERNMENT FINANCES, 1989/90-1994/95
(In percent of GDP)

BUDGET 1/2/

Expenditure

Ordinary revenue

MAIN COMPONENTS
OF REVENUE 1/2/

Income taxes

General sales taxes/VAT

MAIN COMPONENTS
OF EXPENDITURE 2/3/

Education

Protection
services

Health and
welfare

GOVERNMENT DEBT 1/4/

Total

Domestic
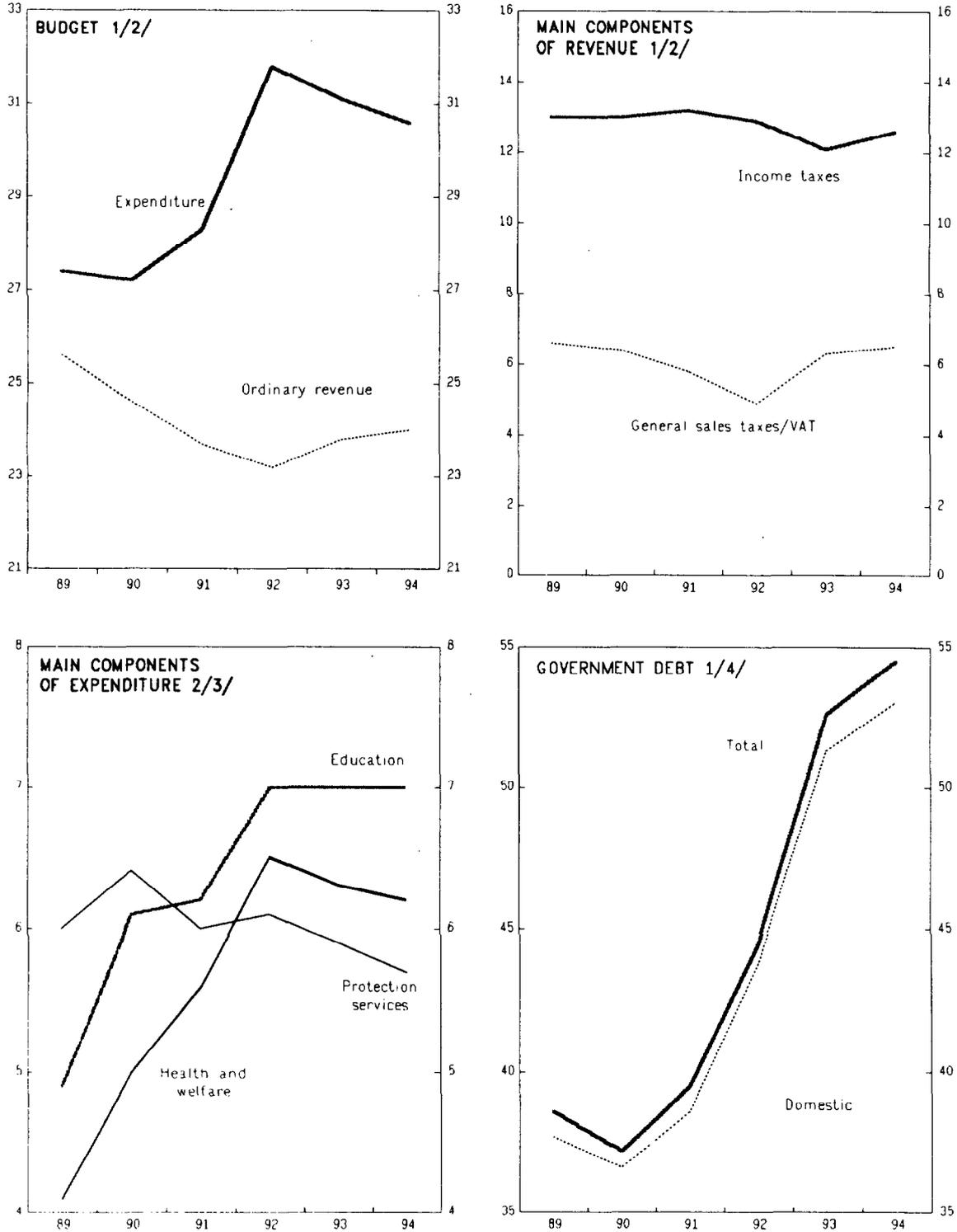
Sources: South African Reserve Bank, Quarterly Bulletin; and Department of Finance.

1/ Central Government.
2/ Fiscal year beginning April 1; budget estimate for 1994/95.
3/ General government.
4/ End of fiscal year.

In contrast to corporate taxes, individual income tax collections rose by some 1½ percentage points of GDP between 1989/90 and 1993/94, largely because of inflation-induced bracket creep. As regards indirect taxes, the replacement of the general sales tax with the VAT at a rate of 10 percent in September 1991 caused a significant decline in revenue, which, however, was fully reversed by the increase in the VAT rate to 14 percent in the 1993/94 budget. Extraordinary revenue accrued unevenly over the period, reflecting privatization revenue of 1 percent of GDP in 1989/90 and, in more recent years, the proceeds from sales of strategic oil reserves. 1/

Central government expenditure rose by 4.5 percentage points of GDP between 1989/90 and 1992/93. However, the sharp upward trend in expenditure was arrested in 1993/94 when expenditure fell by more than a half percentage point to 31 percent of GDP (Appendix Table 11 and Chart 3; also see Appendix Table 14). Of the expenditure increase between 1989/90 and 1993/94, 1½ percentage points reflected higher interest payments, while the remainder was due mainly to higher spending on education, health, welfare, and other social services. A breakdown of general government expenditure by function indicates an increase of spending on social services of some 4½ percentage points of GDP over this period (Appendix Tables 15 and 16).

The significant increase in social spending between 1989/90 and 1993/94 reflects chiefly a shift in policy under the previous Government toward providing black South Africans with more equal access to services: growth of appropriations for nontertiary education and primary health care outpaced growth of the other main spending categories in the health and education budgets, and racial disparities in payments of social pensions and other social assistance payments were abolished on September 1, 1993. 2/ Defense expenditure has fallen by almost 1½ percentage points of GDP since 1989/90. However, most of the defense savings have been diverted to internal protection services, mainly the police, leaving the costs of overall protection services unchanged at 6 percent of GDP.

The Central Government's debt-GDP ratio, which stood at 38.1 percent at the beginning of 1989/90, rose to 52.5 percent at the end of 1993/94. However, the increase in the debt ratio can be fully accounted for by fiscal

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1/ A drive to privatize public enterprises was initiated by the previous government in 1988. However, after only two state-owned companies had been sold, it came to a stop in 1991. Recently, the Government has indicated that privatization of state assets may again be considered.

2/ Chapter IV discusses the fiscal implications of the social assistance system.

transactions that were not reflected in above-the-line deficits. 1/ Two major categories of transactions that increased outstanding debt, without being reflected in above-line deficits, can be identified from financing data compiled by the Reserve Bank (Appendix Table 17). First, the provision of forward cover for foreign borrowing through the Reserve Bank has resulted in significant losses. Upon realization, these losses are recorded in the Reserve Bank's Gold and Foreign Exchange Reserve Contingency Account but have no immediate effect on the Government's fiscal accounts. 2/ Second, actuarial underfunding of state pension funds led to special below-the-line transfers totaling R 11.3 billion between 1989/90 and 1993/94. 3/ Two other types of transactions also added to the stock of debt without being reflected in above-the-line deficits. Some government stock was issued at coupon rates below market interest rates, resulting in a discount on government paper. As debt statistics are compiled at book values, the discounts add to the stock of outstanding debt although they are not reflected as part of below-the-line financing. Finally, debts of the former homelands, which resulted from overdraft facilities and were guaranteed by the Central Government, amounted to R 15.4 billion by the end of 1993/94 and were incorporated into the central government debt register.

The first budget of the new Government, which was presented in June 1994, 4/ projects a deficit of 6.6 percent of GDP for 1994/95. Total expenditure growth is projected to remain below the growth rate of nominal GDP, despite transition cost overruns, related to the April election, of 0.5 percent of GDP. Expenditure savings were anticipated primarily in the areas of economic services (transport and communications, and export promotion). On the revenue side, the 5 percent surcharge on imports of

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1/ Over the period March 1989 to March 1994, the debt of Central Government increased by R 127 billion (including debts incurred by the former homelands). Of this increase, about R 50 billion represented the effect of below-the-line (off-budget) transactions. If these transactions had not taken place, the debt-GDP ratio would have remained roughly constant, implying that the average size of above-the-line deficits was roughly consistent with a stable debt-GDP ratio between 1989/90 and 1993/94.

2/ At a later stage--after the losses have been realized--the Government regularizes its position with the Reserve Bank by issuing it paper as reimbursement. This transfer is shown below the line in the fiscal accounts as adding to the government's borrowing requirement (Appendix Table 17); it never appears above the line in the fiscal accounts. The transfer has the effect of reducing the balance in the Gold and Foreign Exchange Contingency Reserve Account, but it does not affect the stock of government debt since this is inclusive of the balance in that account (Appendix Table 18).

3/ As of March 31, 1993, actuarial underfunding of state pension funds was still estimated at 40 percent of contingent government liabilities or 8.5 percent of 1994/95 GDP. In addition, a state guarantee covers actuarial underfunding of one of the parastatal pension funds (Transnet), estimated at about 20 percent of contingent liabilities, or 4 percent of 1994/95 GDP.

4/ The budget is ordinarily presented in March, but the 1994/95 budget was delayed by the elections.

capital and intermediate goods was removed effective June 1994, which is expected to reduce revenue by about 0.3 percent of GDP on a full-year basis. The corporate tax rate on undistributed profits was cut from 40 percent to 35 percent, while the STC rate was increased from 15 percent to 25 percent. The resulting reduction in net revenue is estimated at 0.1 percent of GDP. However, the cut in the corporate tax rate also widened the gap between the top marginal income tax rate (43 percent) and the tax rate on net income from incorporated activities (now 35 percent) and has the potential to encourage tax arbitrage. The budget also made inflation-related adjustments to specific excise duties and allowed for a modest amount of fiscal drag. Finally, to finance transition costs, the budget introduced a temporary surcharge of 5 percent on annual personal and corporate incomes exceeding R 50,000, projected to yield 0.6 percent of GDP in 1994/95 and 0.2 percent of GDP in 1995/96.

The budget provides for an allocation of R 2.5 billion (0.6 percent of GDP) to the newly established Reconstruction and Development Program (RDP) fund, which was financed by an equivalent reduction of planned allocations to spending departments. The RDP fund allows rapid mobilization of resources for special initiatives to redress inherited inequities. It is envisaged that the amounts to be made available to the RDP fund will increase by R 2.5 billion in each budget over the next five years. More broadly, a White Paper on the RDP released in November 1994 proposed a fundamental reorientation of present expenditure priorities; it is expected that zero-based budgeting will be used as a lever to ensure that all expenditure allocations are consistent with RDP objectives.

Programs in each of the critical social sectors--health, education, housing, and land reform--are currently being formulated. Plans appear to be most advanced in housing, where an impressive consensus has been forged: a housing accord was signed in October 1994 by all players in the housing market including the Government, the construction industry, the trade unions, the financial institutions, and even the homeless. The housing program, as currently envisaged, will consist of a one-time subsidy scheme-- eventually benefiting up to 300,000 families a year--and mortgage indemnities against political risk to facilitate private sector financing of low cost housing. The electricity parastatal, Eskom, has also embarked on an ambitious electrification program.

The issue of restitution for those dispossessed of their land under apartheid is being addressed with the establishment of a Lands Court, but the potential budgetary cost is small compared with that of achieving the ANC's original land redistribution objectives; land redistribution, however, does not appear to be currently prominent on the political agenda. 1/ Progress in health and education is difficult to judge. The Government has introduced free health care for pregnant women and for children under six

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1/ ANC, African National Congress.

years, but this initiative was not part of a fully developed health strategy and the cost implications are largely unknown. Education reform is a political imperative, but little concrete has yet been achieved.

In June 1994, an independent tax commission was appointed (the Katz Commission) to conduct a review of selected aspects of South Africa's tax structure and, in particular, to provide recommendations for tax changes to be included in the 1995/96 budget. The Commission's interim report was submitted to the Government in late November 1994. As regards the personal income tax system, the report recommends, inter alia, elimination of discriminatory tax treatments based on gender and marital status, elimination of child rebates, reducing the number of brackets of the standard tax schedule from 10 to 5, a flat rate of 9 percent income tax on annual taxable income up to R 30,000 and an increase of the top marginal rate from 43 percent to 45 percent, tighter caps on tax-exempt pension fund contributions, and streamlining of the tax collection system for low-income earners. The Commission estimates the annual budgetary costs of the proposed personal income tax reform package at about R 3 billion or 0.7 percent of GDP.

On company taxation, the report advises, inter alia, investigation of alternative methods of dividend taxation with a view to eventually replace STC by an imputation system, the elimination of non-resident shareholders' tax for foreign investors controlling a minimum of 25 percent of a company, and the introduction of a presumptive tax on company gross assets, with an estimated yield per year of about R 500 million or 0.2 percent of GDP. The report strongly advocates preserving the present VAT system, in particular it argues against extending the present list of zero-rated goods and against introducing a multiple VAT rate system. Finally, the report identifies considerable scope for strengthening tax administration and tax collection. Recommended measures to this effect include endowing revenue authorities with more flexibility regarding their budget and wage structure, modernization of computer facilities, improved tax assessment and audit procedures, and enhanced taxpayer education. The report also recommends reducing compliance costs of small and medium-sized enterprises but advises against special tax incentives for these enterprises. The potential revenue gains from administrative reforms are gauged by the Commission at about R 5 billion or 1 percent of GDP.

Data for the first half of 1994/95 suggest that the deficit target for 1994/95 is likely to be met. Expenditure overruns of about R 1.5 billion or 0.3 percent of GDP, are more than balanced by a projected overperformance of revenue, currently estimated to amount to about 2.3 billion, or 0.5 percent of GDP. However, the sharp rise in interest rates has led to higher-than-projected discounts on government stock, which at R 7 billion for the first six months of 1994/95 already exceed the level budgeted for the whole year by R 3 billion. Of the R 2.5 billion allocated to the RDP fund, only about R 1.9 billion is projected to be actually spent in 1994/95.

3. Monetary policies

After several years of sustained and successful effort to reduce inflation, monetary policy through 1994 was buffeted by a series of shocks, including uncertainty ahead of the elections in April and speculation of an imminent liberalization of foreign exchange controls from August onward. These shocks greatly complicated the task of distinguishing noise from underlying evidence of the development of the stance of monetary policy. But as 1994 progressed, the signs that the monetary stance had eased, and that inflation was likely to accelerate, became clearer.

Monetary policy was tightened substantially during the period 1988-89 (Chart 4), when the discount rate was increased progressively from 9.5 percent to 17 percent, where it remained until March of 1992). The guidelines set for the growth of M3 1/ were progressively reduced, from 14-18 percent in 1989, to 6-9 percent in 1993. M3 growth remained within its guideline ranges--after exceeding them in 1989--with its growth rate trending downward (see Chart 5). 2/ Inflation, however, did not respond until 1992, when it fell from over 16 percent to 10 percent.

From mid-1993 to early 1994, monetary developments were dominated by uncertainty arising from the political transition. There were two monetary consequences of this uncertainty. First, the narrow monetary aggregates (see Chart 5 and Appendix Table 19) grew rapidly both in absolute terms and in relation to the broader aggregates, and second, there were large unrecorded net outflows in the balance of payments.

Reserve money 3/ grew at an annualized rate of over 45 percent in the first quarter of 1994, increasing the ratio of cash in circulation outside banks to bank deposits from 5.2 percent to 5.5 percent. Despite the increased demand for cash, banks did not raise or reduce their holdings of cash relative to deposits, indicating that the increased demand for cash on the part of the general public was handled smoothly. M1 also grew rapidly, in the last quarter of 1993 and in the first of quarter of 1994, after having remained broadly unchanged since the third quarter of 1992. In large part, these developments reflected a "liquidity preference" on the part of bank depositors in the context of the uncertainty ahead of the political transition, but other factors may also have been at work. The increased demand for cash could be attributed to ongoing adjustment to the continuous fall in nominal interest rates on bank deposits since 1990, and the rapid

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1/ The guidelines refer to the average of month end M3 in the fourth quarter of a given year compared with its average in the fourth quarter of the previous year.

2/ The outturn in 1991 is distorted by regulatory changes. Once these are corrected for, M3 growth was within its target range for that year.

3/ Reserve money is defined here as notes and coin in circulation outside the Reserve Bank, plus excess reserves of the commercial banks held with the Reserve Bank. Up to March 1994, coin was a liability of the Government, but since then has become a liability of the Reserve Bank.

CHART 4
SOUTH AFRICA

INTEREST RATE DEVELOPMENTS, 1987-94
(In percent)
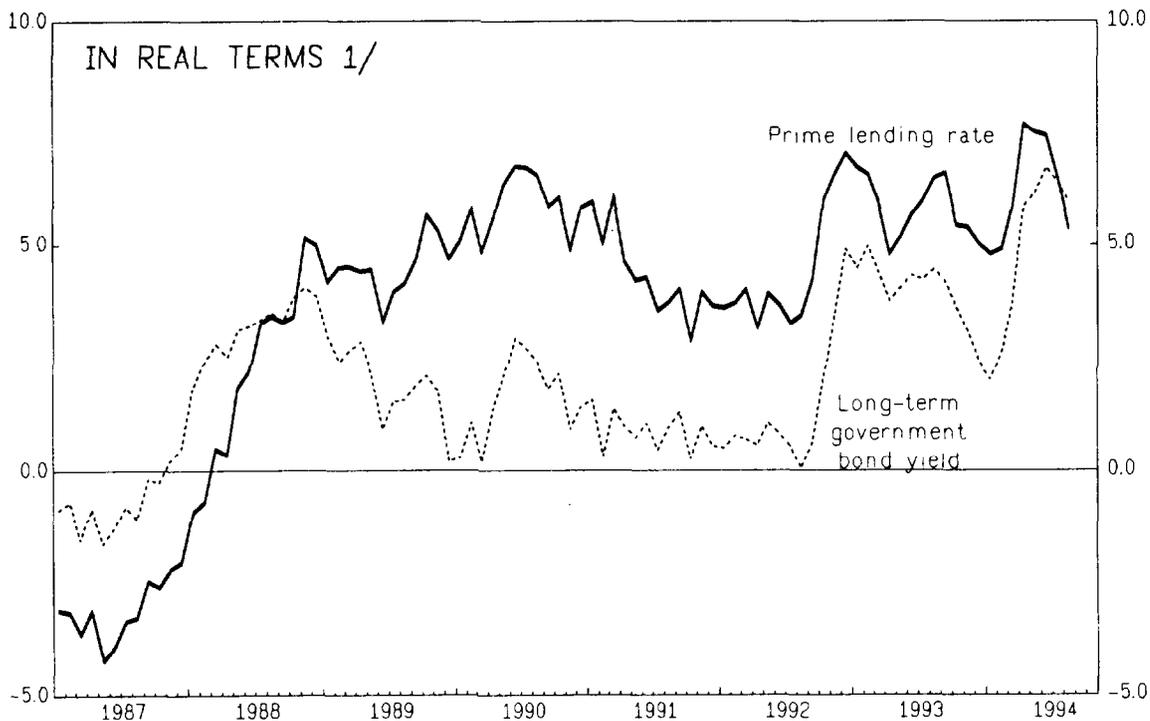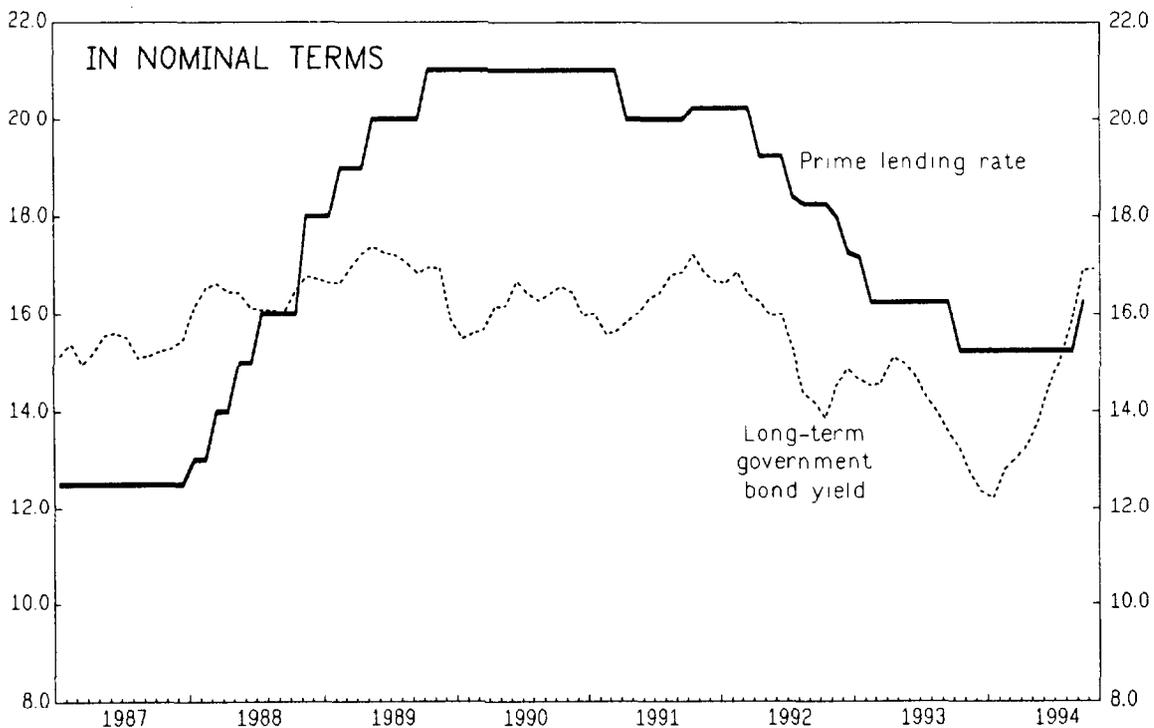
IN NOMINAL TERMS

Prime lending rate

Long-term
government
bond yield

1987   1988   1989   1990   1991   1992   1993   1994

IN REAL TERMS 1/

Prime lending rate

Long-term
government
bond yield

1987   1988   1989   1990   1991   1992   1993   1994

Sources: South African Reserve Bank, Quarterly Bulletin; and IMF, International Financial Statistics.

1/ Deflated by the 12 month CPI.

CHART 5
SOUTH AFRICA
SELECTED MONETARY INDICATORS, 1989-94
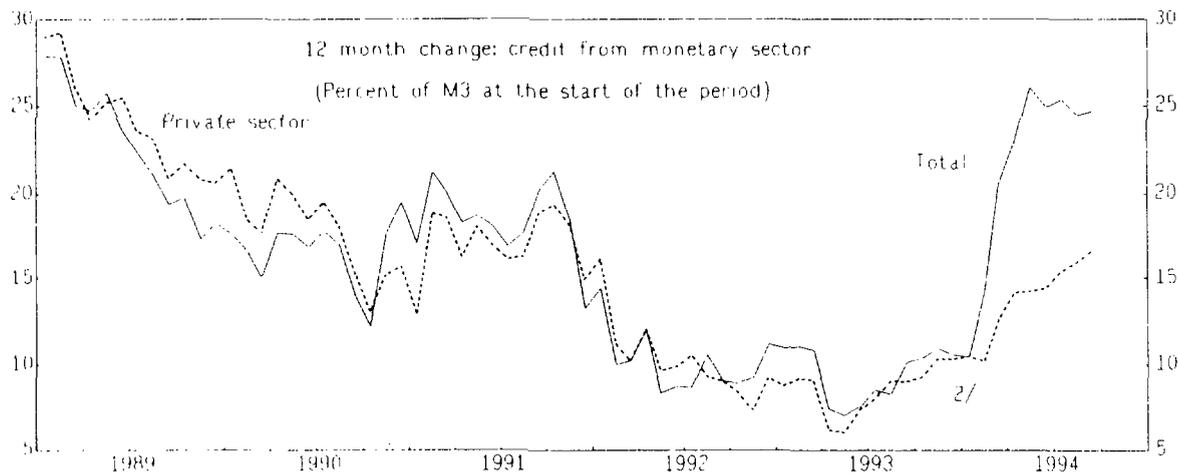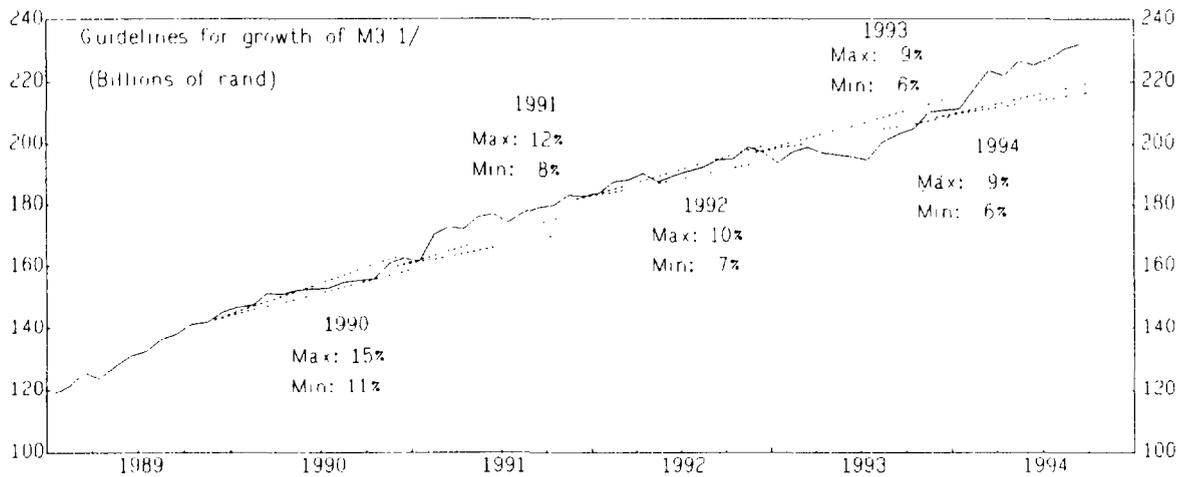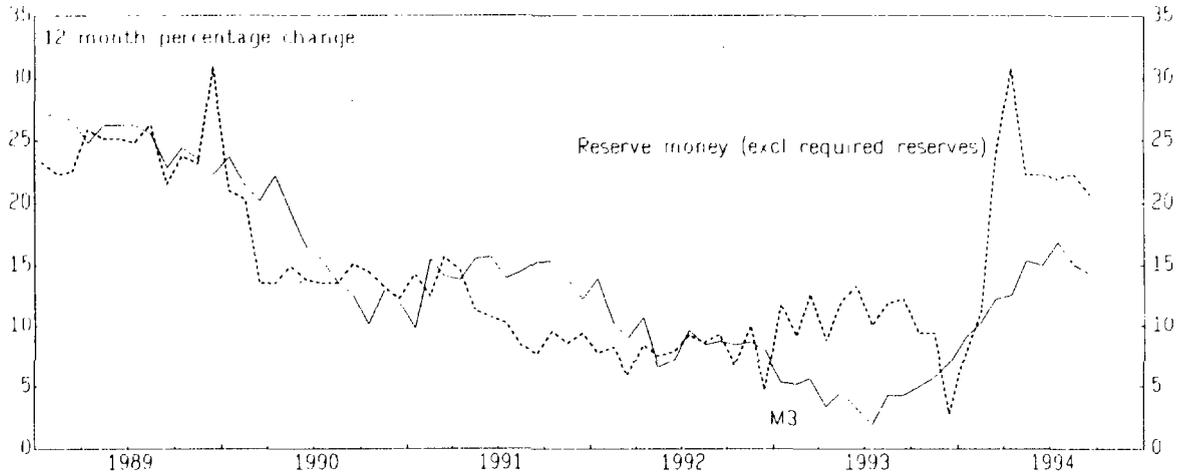
Source: South African Reserve Bank, Quarterly Bulletin.

1/ Base of guidelines is average of the fourth quarter (seasonally adjusted).
2/ Total credit is inflated in March 1994 by a shift of accrued forward losses
from other items net into net credit to Government.

growth of the deposits component of M1 may also have been encouraged by the reduction in reserve requirements on short-term relative to those on long-term deposits that occurred progressively over the period after May 1993.

Net short-term outflows of the nonmonetary private sector, including unrecorded net capital flows, were running at somewhat over R 1 billion a month in the second half of 1993 (see Section 4 below). This reduced substantially the net foreign reserves of the Reserve Bank.

The Reserve Bank appeared to interpret both sets of events as transitory factors related to the political transition, rather than as signs of a weakening of the stance of monetary policy. On this basis, the monetary authorities acted to support the rand through the second half of 1993. When the paucity of reserves made this no longer feasible, rather than endanger the nascent recovery by raising the discount rate, the authorities allowed a 7-percent depreciation against the U.S. dollar between the end of 1993 and May 1994.

In April 1994, it appeared that these monetary developments were indeed transitory responses to political uncertainty. Once the participation of all parties in the election was secured, yields on ten-year government paper fell by a full percentage point, remaining at that level until mid-May, and sentiment in the foreign exchange markets improved. But the improvement in market sentiment proved short-lived; by early June, long yields were back at pre-election levels, the stock of reserve money continued to grow after the first quarter--albeit at much slower rates--rather than falling back, and the strengthening of sentiment in the foreign exchange markets proved fragile. The rand appreciated somewhat, but this only partly reversed the earlier depreciation. In hindsight, it seems that the first quarter monetary accommodation of pressures ahead of the election ultimately represented a relaxation of the underlying monetary stance.

There were signs, however, from developments in the broad monetary and credit aggregates that the monetary stance was easing even before the relaxation in the first quarter of 1994. Stimulated in part by developments in the real economy--real GDP in the fourth quarter of 1993 was 4.8 percent above the fourth quarter of 1992--M3 was rising rapidly through 1993. However, this underlying development was obscured by overfunding of the budget that occurred in mid-1993, which artificially depressed broad money and raised its velocity in the latter part of the year. 1/ As surplus government deposits were run down in the third and fourth quarters, M3 began to increase rapidly, though this acceleration only became visible in the 12-month growth rates in the first quarter of 1994. Thereafter, the 12-month

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1/ Government paper in excess of immediate funding requirements was sold in the primary market to the domestic nonbank sector at the end of the second quarter of 1993. The purchases were largely funded by reductions in the nonbanks' claims on banks. These transactions depressed M3 from mid-1993. To address the consequent liquidity squeeze, the proceeds were held in government accounts with the commercial banks.

rates rose substantially above the 1994 guidelines for M3, of 6-9 percent, peaking at 16.8 percent in July 1994, before falling to 14.4 percent in November.

These developments in broad money had their counterparts in falling net foreign assets and rapid growth in credit to nongovernment (See Appendix Tables 20 and 21). Net credit to nongovernment grew at annualized rates of 12 percent and 17 percent in the third and fourth quarters of 1993, respectively, and by a further 13 percent in the first quarter of 1994, after a period of being unchanged.

Net credit to government from the monetary sector increased by nearly R 14 billion in the first quarter of 1994. The data are inflated by R 7.5 billion of government securities issued to the Reserve Bank in compensation for realized losses on forward currency contracts. 1/ The first quarter data also reflect the continued reduction in surplus government deposits with banks--reflecting the earlier overfunding described above--and a switch in the term structure of government funding. The Government switched to funding with short-term paper, anticipating that long-term rates would fall from the levels implicit in the yield curve at the time. Banks, the main purchasers of short-term government paper, took up most of the new issues. Government net borrowing from nonbank domestic sources dropped correspondingly.

By midyear, the signs of nascent inflationary pressures had become clear: broad money was growing well in excess of its guidelines, the 12-month growth rates of bank credit to the private sector were accelerating toward 15 percent, both consumer and producer price inflation rose from their low points in April, and imports were rising sharply. Special factors partly account for the magnitudes of these measures. The 12-month growth of M3 exaggerated underlying growth owing to the depression of the base in mid-1993, which was due to the overfunding that had occurred at that time, and to the subsequent reacquisition of claims on banks by the nonbank sector. 2/ As noted in Section 1 above, the inflation indices partly reflected the behavior of food--and especially meat--prices. And the growth of imports reflected a number of unusual influences described in Section 4 below. But even allowing for these special factors, the evidence of increased inflationary pressures was clear.

1/ Prior to this, the realized losses had been reported as part of "Other items net" in the Reserve Bank's balance sheet, and not as part of net credit to government, even though they were in fact liabilities of the Government to the Reserve Bank. This transaction also artificially inflates the total credit expansion data for this period. The fiscal implications of this transaction are discussed in Section 2.

2/ Claims by nonbanks on banks rose from 18.6 percent of M3 in September 1993 to 21.2 percent of M3 in June 1994.

As the signs of the underlying strength of the impulse from monetary policy became better appreciated, yields on long-term government paper began rising--from their mid-May trough of a little over 12 percent to over 15 percent by mid-August (Appendix Table 22). Though this paralleled rising yields worldwide over this period, the spread of long South African paper over equal term U.S. Government paper widened steadily.

In mid-August, the markets anticipated an imminent abolition of the financial rand, driving yields on ten-year government paper up from 15 percent to 17 percent virtually overnight, with similar increases in other long-term paper. This reaction effectively compensated foreign investors for the loss of the implicit subsidy they received under the Financial Rand system, and it reflected the expectation that abolition would weaken the commercial rand. Yields have remained at these elevated levels despite the favorable ratings obtained from the international rating agencies in September, 1/ despite the successful global bond issue in December, and despite the efforts of the Reserve Bank to counter speculation of imminent abolition of the Financial Rand. The latter included setting four preconditions for abolition (see Section 4 below).

Following publication of the August consumer price index--which showed inflation exceeding 10 percent--and the sharp deterioration in the August trade balance, the Reserve Bank raised the discount rate from 12 percent to 13 percent. This was the first increase in the rate since 1989. It had been widely anticipated and thus did not substantially influence long-term rates.

4. The external sector

The external current account surplus increased from 1.2 percent of GDP in 1992 to 1.5 percent of GDP in 1993 (Appendix Tables 23-25 and Chart 6). Imports, especially of machinery and capital equipment, grew strongly during 1993, and import volumes increased by almost 7 percent (Appendix Table 26). The rise in imports was more than compensated for, however, by a robust export performance, a reflection primarily of the higher price of gold, but also of the end of the drought and increased exports of manufactures. The volume of exports of goods and nonfactor services rose by 6 percent in 1993, well above the growth of both domestic demand and merchandise imports in partner countries.

In the services accounts, the most striking developments in 1993 were a large jump in travel payments and a fall in dividend and profit payments to nonresidents (Appendix Table 27). Travel payments climbed as South Africans began to reintegrate themselves internationally; this was partly offset by a rise in travel receipts. The factors underlying the fall in payments of

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1/ In October 1994, Moody's gave South African sovereign debt an investment grade rating of Baa3, while Standard and Poor's rated this debt at below investment grade, BB, but with a positive outlook. Subsequently, Nippon Investor Services gave this debt an investment grade rating of BBB.

CHART 6
SOUTH AFRICA

SELECTED BALANCE OF PAYMENTS INDICATORS, 1980-93
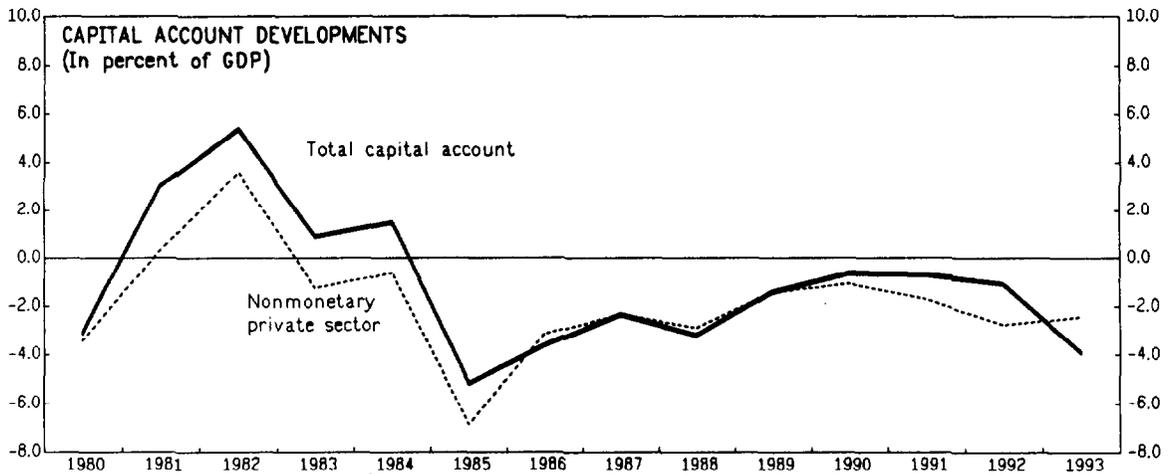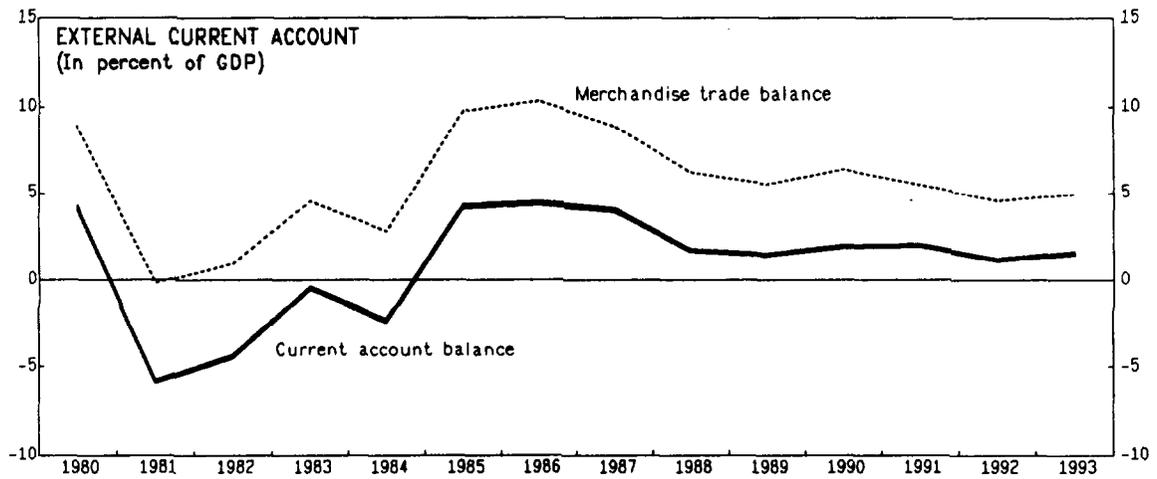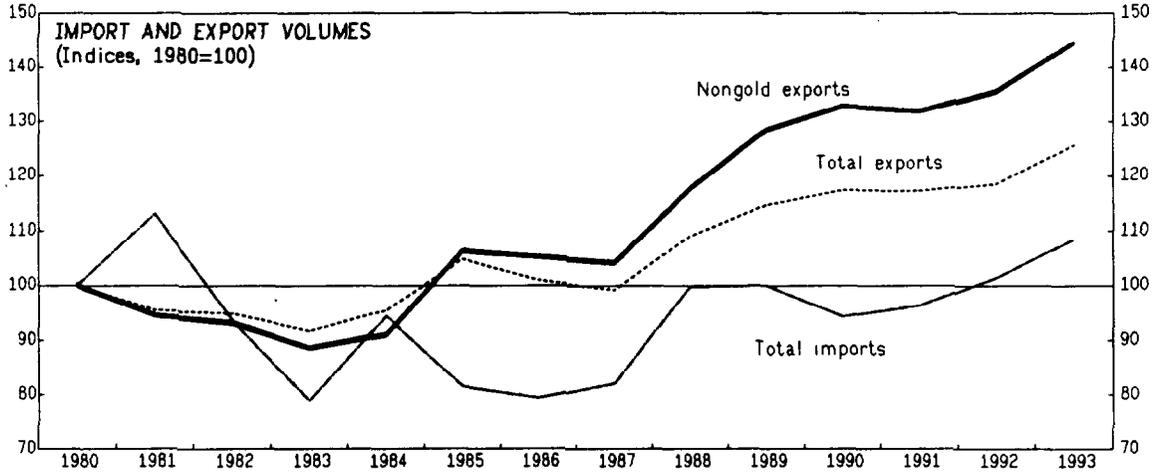
Source: South African Reserve Bank, Quarterly Bulletin.

dividends and profits to nonresidents in 1993 are less clear, although the introduction of the tax on dividend distributions in March (the STC; see Section 2 above) may have played a role; it did not reflect a switch in Financial Rand portfolios since nonresidents were net purchasers of equities in 1993. Nonresidents were also net purchasers of bonds in 1993: nevertheless, and despite considerable short-term borrowing by the Reserve Bank, interest payments to nonresidents were almost unchanged in U.S. dollar terms over 1992.

The outlook for the external current account in 1994 appears to have been almost universally misread. Whereas most observers had projected a surplus of around 2 percent of GDP for 1994, the latest available data indicate that the current account will certainly be in deficit. The dramatic turnaround in the current account in 1994 reflects both a flood of imports--which in nominal terms were 31 percent higher in the third quarter of 1994 than in the third quarter of 1993--and sluggish exports. It is possible that August and September imports were artificially high because importers had speculated that there would be a step depreciation of the rand following exchange rate unification. Alternatively, imports could have been distorted by large capital imports associated with the Section 37e mineral-beneficiation projects. Indeed, the October statistics showed more modest import growth; however, the import surge continued apace in November and it now seems likely that import volume growth for 1994 as a whole will be about 10 percent.

Export performance has been disappointing in 1994, particularly in light of the termination of trade sanctions and the significant real effective depreciation of the rand during the year (see discussion below). Notable areas of weakness included diamonds and manufactured goods such as transport equipment. In addition, gold export volumes fell sharply in 1994. Nongold export volume growth will fall short of the growth of both world demand and trade in 1994: with the economy recovering, this poor export performance is consistent with the hypothesis that South African manufacturers treat foreign sales as a residual after satisfying domestic demand.

The capital account of the balance of payments worsened dramatically in 1993, with the deficit increasing by $3.3 billion over 1992 (Appendix Table 28). Isolating the components of the capital account that contributed most to this deterioration is complicated by the fundamental shifts in Financial Rand portfolios that have occurred over the past two years. Thus, for example, the balance on the short-term capital account of the monetary sector switched from a net inflow of $1.1 billion in 1992 to a net outflow

of $1.0 billion in 1993, but this can be almost entirely accounted for by movements in Financial Rand deposits over this period (which increased by R 3.7 billion in 1992 and decreased by R 3.6 billion in 1993). 1/

Financial rand transactions aside, the dominant influences on the capital account in 1993 appear to have been further reductions in South Africa's foreign debt--the debt remaining within the standstill arrangement 2/ fell by $1.1 billion during the year--and illegal capital flight. The latter appears to have been predominant in the second half of the year when the average monthly balance on the nonmonetary private short-term capital account (which includes errors and omissions) was an outflow of R 1 billion.

The evidence suggests that the illegal capital outflow continued into 1994, but began to moderate after the election. By the second half of the year, the capital account had turned around, recording a net inflow of $1.5 billion in the third quarter, which exceeded the outflow in the first half of the year; for 1994 as a whole the capital account is likely to be in surplus for the first time since 1984. Capital inflows in 1994 have been predominantly short term. The major recipient has been the monetary sector, which had recorded a net inflow of short-term capital of almost R 7 billion by end-September. Part of this is simply a function of a further change in Financial Rand deposits--which increased by R 3 billion in the first three quarters--but the remainder represents short-term borrowing by South African banks overseas. Renewed access after the final debt agreement and favorable costs of borrowing induced the commercial banks to seek finance abroad: nonofficial short-term foreign liabilities of the monetary sector rose by R 7 billion in the first nine months of 1994.

In 1994, there was also a sharp pickup in short-term inflows to the private nonmonetary sector. This arose partly from the apparent diminution of illegal capital flight. The remainder of the increase probably reflects increased trade finance available directly to firms and simply mirrors the growth in imports. Another positive development affecting the capital account in 1994 was the rolling over of about 50 percent of the repayments of standstill debt scheduled for 1994. Finally, long-term inflows in 1994 were boosted by the $750 million sovereign debt issue in December.

1/ The other side of these transactions includes, inter alia, a net outflow of long-term capital from the private sector via equity sales of $0.8 billion in 1992 and a net inflow of long-term capital to the private sector via equity purchases of $0.9 billion in 1993.

2/ In 1985, South Africa imposed a moratorium ("standstill") on repayments of private debt to foreign commercial banks and subsequently negotiated a series of interim agreement with creditor banks providing for repayment of principal. In September 1993, South Africa and its bank creditors concluded the 1994 Debt Arrangements, which normalized the debt which remained within the standstill. See SM/93/255 for more details.

The foreign debt of South Africa fell further in 1993, to $16.7 billion by year end (Appendix Table 29), compared with $17.3 billion at end-1992 and $23.7 billion at end-1985 (the year in which the debt standstill was declared). Rand-denominated debt held by foreigners, the only category of foreign debt that has increased in recent years, is estimated to have amounted to a further $9 billion at end-1993.

The large capital account deficit recorded in 1993 translated into a sizable loss of reserves during the year and the Reserve Bank shored up gross reserves by drawing on its credit lines; by year-end net reserves had dropped to $1.7 billion, compared with $3.4 billion at end-1992 (Appendix Table 30). 1/ In 1994, net reserves continued to worsen until the election and were negative in May. Subsequently, however, the capital account has improved more rapidly than the current account has deteriorated, permitting the Reserve Bank to repay some of its borrowing. Net reserves had risen to about $1 billion by end-September.

The nominal effective exchange rate depreciated by 8.9 percent in 1993, leading to a real depreciation of 2.7 percent for the year (Appendix Table 31 and Chart 7). In 1994, the rand at first fell rapidly against the U.S. dollar and by July, the nominal effective exchange rate was 13 percent more depreciated than at end-1993. In the second half of 1994, however, the combination of a rekindling of inflation and a constant rand-dollar exchange rate led to a partial erosion of the real depreciation recorded by July. The real effective exchange rate for 1994 is likely to be 3-4 percent more depreciated than in 1993.

The financial rand appreciated against the U.S. dollar--from R 4.86 at end-1992 to R 4.39 at end-1993--but continued to be highly volatile. The financial rand discount decreased from 37 percent to 21 percent over the same period. In 1994, the financial rand continued to strengthen and by the fourth quarter the discount was in the 10-15 percent range. The authorities have been quite explicit about the conditions necessary for the abolition of the financial rand. One of these preconditions--a successful return to international bond markets--was met in December with the sovereign debt issue. However, as is clear from the discussion above, the other three preconditions--a narrowing of the financial rand discount to below 10 percent, a comfortable reserve position, and a decrease in Financial Rand deposits--have yet to be completely satisfied.

5. Trade reform

For at least the last seventy years, the South African trade regime has been inward oriented. Beginning in the 1920s, import substitution was seen as an instrument of industrial development and protective barriers were

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1/ Reserves were boosted in December 1993 by a drawing of SDR 614 million under the Fund's compensatory and contingency financing facility (CCFF); net reserves at end-1993 were only $0.9 billion if this is netted off as a liability.

CHART 7
SOUTH AFRICA

COMPETITIVENESS, 1984-94
(Indices January 1984 = 100)
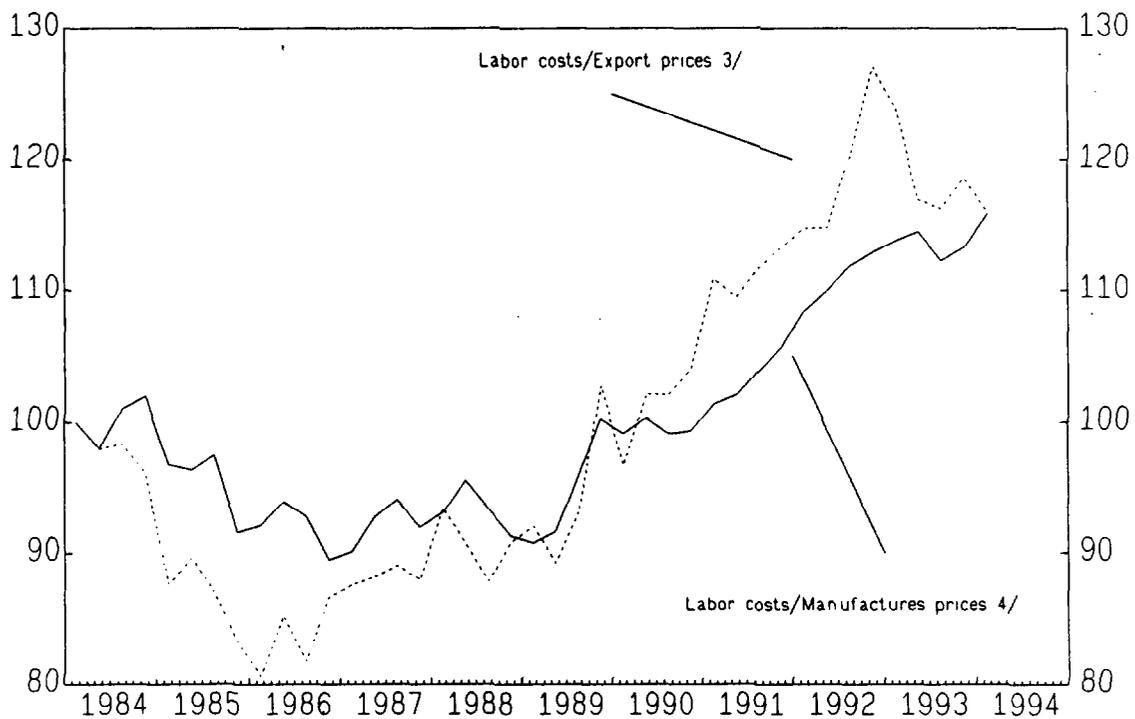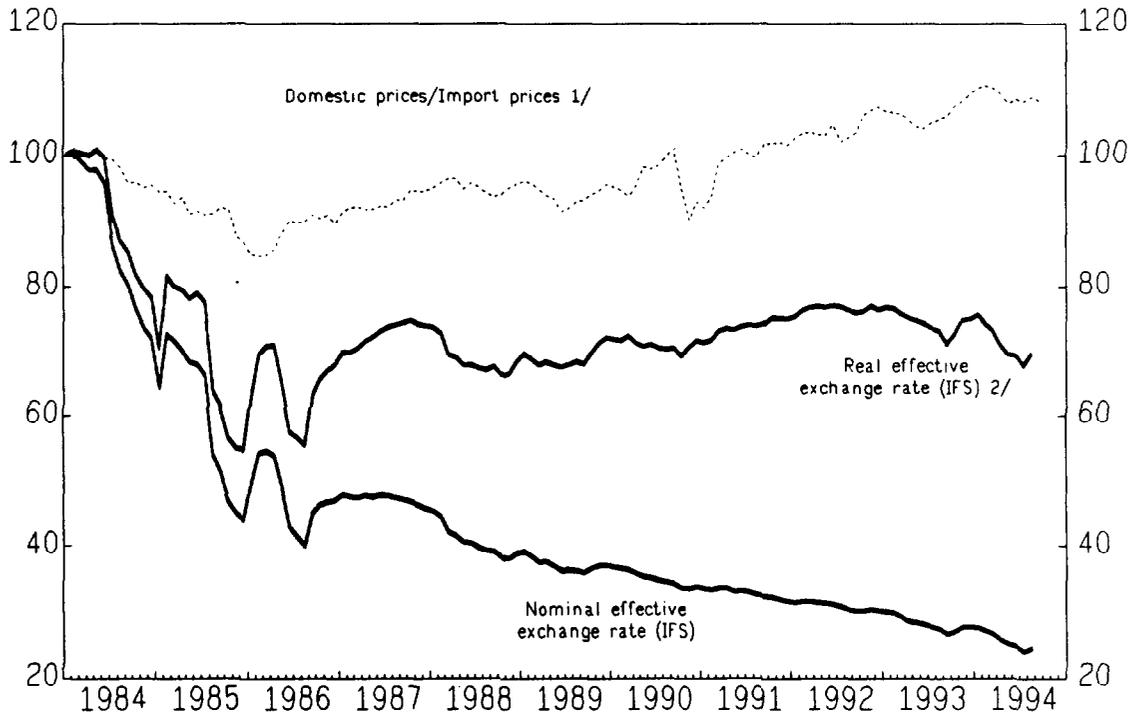
Domestic prices/Import prices 1/

Real effective
exchange rate (IFS) 2/

Nominal effective
exchange rate (IFS)

Labor costs/Export prices 3/

Labor costs/Manufactures prices 4/

Sources: South African Reserve Bank, Quarterly Bulletin: and IMF International Financial Statistics.

1/ The prices of domestically produced goods divided by the prices of imported goods in the PPI.
2/ Based on relative consumer prices using the Commercial Rand exchange rate.
3/ Unit labor costs in the non agricultural sector divided by nongold export prices.
4/ Unit labor costs in the manufacturing sector divided by manufactures prices.

erected to that end. The instruments of the protection system included quantitative restrictions, custom duties, formula duties, 1/ and the institutionalization of mechanisms which enabled a multitude of interest groups to lobby for special treatment as and when the need arose. The cumulative result has been an extraordinarily complex and fluid tariff structure. 2/ In addition to serving industrial policy, import controls were also seen as safeguarding the external position of the country.

Over time, the import-inhibiting bias of the trade policy regime came to be appreciated and in the early 1970s, there was a shift toward some promotion of exports. 3/ However, the restrictive import regime was not relaxed and, in 1985, following the widespread implementation of sanctions against South Africa, import controls were reinforced. 4/

The basic design for a more outward-oriented trade policy was first formulated by the Industrial Development Corporation (IDC) in 1990. After a comprehensive review of the trade system, the IDC recommended a package of trade reform measures to be implemented within a coherent macroeconomic framework--including prudent fiscal policies and a realistic and stable real exchange rate. The main elements of the IDC's recommendations included the simplification and the gradual reduction of tariff protection, the replacement of formula duties by effective anti dumping measures, the elimination of import surcharges, and the improvement of the duty drawback and rebate system for exports--so as to provide exporters access to inputs at world market prices, while at the same time phasing out the General Export Incentive Scheme (GEIS). 5/

Even before the formation of the Government of national unity and the lifting of economic sanctions, a change had begun with respect to South Africa's views about international economic relations. This change, and the perception that the past inward-oriented trade policy had been inimical to

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1/ Formula duties are in principle intended to prevent dumping. They are usually defined to be a specified ad valorem duty plus the difference between a reference price and the FOB price; the cost to the importer is thus at least equal to the reference price.

2/ See SM/93/255 for a description of the complexity of the tariff structure.

3/ In 1972, after recommendations by the Reynders Commission, the authorities introduced tax allowances for marketing assistance incurred in connection with export efforts.

4/ Import surcharges were introduced in 1985, primarily for balance of payment reasons. They are at present 15 percent on most consumer goods and 40 percent on luxury goods.

5/ The GEIS was introduced in April 1990 with a view to promoting South African exports and to offsetting price disadvantages that exporters were perceived to face in international markets. The GEIS provides a financial subsidy to exporters based on the value of their exports, degree of processing, local content of export goods, and South Africa's export competitiveness as measured by the real effective exchange rate.

growth, have resulted in the authorities' acceptance of the notion that growth--and in particular growth of employment--will require trade in manufactures and services and an outward-oriented trading regime. The authorities used the opportunity of the Uruguay Round of the GATT to pursue their trade liberalization agenda.

On the basis of the IDC's recommendations, and consultation within the National Economic Forum, South Africa submitted offers for agricultural and industrial products to the Uruguay Round of the GATT. After bilateral negotiations, its offers were accepted by other participating countries in December 1993. The agricultural offer consisted of the tariffication of all quantitative restrictions on agricultural products and the reduction of the base rate tariff equivalent by a minimum of 15 percent individually (and by 36 percent on average over the next six years as required by the GATT). 1/ In addition, agricultural subsidies, which in any case have declined sharply in recent years, are to be reduced further. The new agricultural tariff schedule is expected to be completed by April 1995.

The industrial products offer provides for a substantial increase in the degree to which tariff lines are to be bound under the GATT agreement (from 55 percent of tariff lines to 98 percent), conversion of all outstanding quantitative restrictions on imports to equivalent ad valorem rates, and reduction of all bound tariff rates by an average of one third over five years. The authorities are also unilaterally planning a complete overhaul of what had been an exceptionally complex system: there will be a sharp reduction in the number of tariff lines, and tariff rate ceilings will be standardized at bands of 0, 5, 10, 15, 20, and 30 percent. In addition, tariff rates will escalate with the level of processing, with lower rates applied to primary products and inputs for manufactures and higher rates applied to manufactured and consumer goods. Furthermore, under the trade reform program, formula duties are to be replaced by measures consistent with the anti-dumping and subsidies codes of the GATT agreement. The new industrial tariff schedule is expected to be completed by November 1995.

It is envisaged that certain sensitive industries--motor vehicles and components, textiles and clothing, and electrical products--will receive special treatment in the trade reform process. While the reduction in bound tariff levels for these industries will be more than the average one third reduction for other industries, the phase-down period is eight years for motor vehicle and electrical products and ten years for textiles and clothing. The maximum ad valorem rate at the end of the phase-down period will be 50 percent for motor vehicle products and 45 percent for textiles and clothing. The longer phase-down period is expected to provide enough time for these industries to adjust from very high levels of protection to international competition.

1/ In general, most of agricultural products had been subject to quantitative restrictions (and often outright bans for some products, including maize).

The South African authorities began to reform the trade system prior to the GATT agreement, which came into effect on January 1, 1995. As noted in Section 2 above, in June 1994, the import surcharge of 5 percent on capital and intermediate goods was removed. In September 1994, custom duties on imports of fully assembled motor vehicles were reduced to 80 percent from 100 percent and the 15 percent import surcharge on motor vehicles was abolished. Furthermore, in September 1994, it was announced that GEIS, which contravenes GATT, would be revised.

Table 3:   Current and Future Net Payout Levels under GEIS

Period	Category 1/		
	2	3	4
		(In percent)	
Current	2.5	3.0	15.5
4/1/95-3/31/96	--	3.0	14.0
4/1/96-3/31/97	--	2.0	12.0
4/1/97-12/31/97	--	--	10.0
After 1997	--	--	--

Source: Data provided by South African authorities.

The revised GEIS, which will come into effect on April 1, 1995, will have the following characteristics: (i) the guaranteed minimum net benefit level for Category 2 of 2.5 percent will be abolished immediately (see Table 3); 2/ (ii) the maximum net benefit levels for categories 3 and 4 will be phased out over two years and nine months; (iii) certain products falling under Category 3 will be shifted to Category 2, owing to the primary nature of these products; (iv) the cutoff point for qualifying for the full incentive under each category will be reduced from 75 percent to 60 percent

1/ Categories are based on the degree of processing; Category 1 for primary products (which get no GEIS), Category 2 for beneficiated products, Category 3 for material-intensive products, and Category 4 for manufacturing products.
2/ The GEIS formula at present implies a negative subsidy for Category 2 and the minimum of 2.5 percent is currently binding.

local content in order to increase competitiveness by enabling exporters to purchase a larger amount of imported inputs and components duty free ; (v) the exchange factor will remain in the formula, but, if it reduces the *net benefit to a lower level than is recommended, the lower level of net* benefit will apply; and (vi) GEIS subsidies will become taxable as income of the recipient as of March 1, 1995.

With the gradual phasing out of the GEIS, the authorities are considering introducing alternative export support measures consistent with the GATT agreement. These include the provision of financing to exporting firms and the improvement of the duty drawback and rebate scheme so that the tariff system does not disadvantage South Africa's exporters in their ability to purchase material inputs and components at world market prices. To this end, the authorities have recently introduced an export guarantee scheme amounting to R 20 million for exporters who have limited access to financing; also the pre- and post-shipment export financing scheme of the IDC--which provides soft loans to small- and medium-sized export firms--has been extended to all exporters. Furthermore, the authorities are considering export measures for the sensitive industries--textiles and clothing, and motor vehicles and components--discussed above.

In response to the formation of a Government of a national unity in May 1994, South Africa has received Trading Preferences from some developed countries. In May 1994, the United States granted South Africa GSP (Generalized System of Preferences) status. In this program approximately 4,300 South African agricultural and semifinished products will be allowed to enter the U.S. duty free. The European Community (EU) granted South Africa GSP-facilities for the period covering August 1, 1994 to the end of 1994. The details of a new GSP that will come into effect in January 1995 are currently being worked out; some EU members including France would like to see a reduction of the number of South African products eligible for GSP status. On October 5, 1994 Canada granted South Africa Generalized Preferential Tariff facilities that are applicable to about 5,000 products. These products can enter Canada at most-favored-nation rates combined with certain additional tariff reductions. On May 6, 1994 Norway granted South Africa "Receiver Country" status under the Norwegian Customs Preference Arrangement for developing countries. This program will exempt South African exports, with the exception of certain agricultural and textile products, from import tariffs. Japan has also announced willingness to provide trading preferences to South African exports.

Members of the Lomé convention have agreed formally to set up a Task Force to study the implication of South Africa membership: if admitted, all South African exports would, in principle, be allowed to enter the European Union duty-free. The Task Force is expected to submit its report to the Joint Council of Ministers in February 1995.

South Africa joined the South African Development Community (SADC) on August 29, 1994 and is a party to the recent SADC proposal to establish a permanent secretariat charged with the synchronization of industrial and

trade policies of member countries. 1/ Recently, Ministers from Botswana, Lesotho, Namibia, Swaziland, and South Africa met to launch a comprehensive review of the current Southern African Customs Union (SACU) agreement, which was drawn up in 1969 and amended in 1977; a Task Force was set up to review the agreement. Its terms of reference are wide and it is expected that all aspects of the agreement--including the revenue sharing formula--will come under scrutiny. The Task Force is expected to report to ministers in March 1995.

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1/ See SM/93/255 for a discussion of economic, trade, and financial arrangements within the region.

II. Saving in South Africa

1. Introduction

It is widely acknowledged that a sustained increase in South Africa's economic growth will require an increase in the level of investment. However, given recent saving trends, the means to fund higher investment are much less clear. Relative to the 1960s and 1970s, personal saving has fallen, offset in part by an increase in corporate saving; the government sector has switched from being a net saver to a net dissaver; and, since the mid-1980s, the external sector has consistently recorded a net capital outflow. In these circumstances, understanding the factors that lie behind movements in the level of saving in South Africa, and thereby the potential to fund an increase in the level of investment, has become an important policy issue.

This chapter focuses on the trends and determinants of external and private saving in South Africa. In Section 2, trends in national saving and its components over the last three decades are discussed. In Section 3, the relationship between national saving, external saving, and investment in South Africa is explored. During the 1960s and 1970s, foreign saving played a significant role in funding investment. In contrast, after the imposition of sanctions in 1985, South Africa recorded a relatively steady level of external outflows. Whether, in the post-apartheid era, external saving will again be an important means of funding investment will depend on how conducive policies are to providing an adequate rate of return.

Section 4 outlines likely explanations for the decline in the level of personal saving in South Africa in the 1980s, focusing on the decline in per capita real income, declining income inequality, and an easing of liquidity constraints associated with financial deregulation. The simultaneous sharp increase in contractual saving has been at the expense of discretionary saving and can in part be explained by the considerable tax advantages available for contractual forms of saving. These tax arrangements do not appear to have increased total personal saving.

In Section 5, the trends and determinants of corporate saving are discussed. The tax system is shown to have generally encouraged an increase in corporate saving rather than the distribution of corporate income as dividends. A final section draws together the chapter's conclusions.

2. Saving trends between 1960 and 1993

Although the aggregate ratio of national saving to GNP in South Africa has until recently been fairly stable, the components of national saving have been volatile. Table 4 shows the ratio of various saving aggregates to GNP between 1960 and 1993. During the 1960s, 1970s, and 1980s, gross national saving in South Africa generally fluctuated between 22 percent and 26 percent of GNP: the exception was the period of the gold price boom--gross national saving reached 36 percent of GNP in 1980 (Chart 8).

Table 4. South Africa: Saving Ratios, 1960-93

(In percent of GNP)

Year	Gross national saving				Depre-ciation	Net national saving				External saving
	Total	Personal	Corporate	General Government		Total	Personal	Corporate	General Government	
1960	23.1	6.3	9.9	6.9	11.2	11.8	4.1	3.1	4.7	-0.7
1961	25.5	10.8	9.1	5.6	11.3	14.2	8.6	2.2	3.4	-3.8
1962	25.5	12.4	9.3	3.8	11.0	14.5	10.2	2.6	1.7	-5.6
1963	26.2	9.9	9.0	7.3	10.7	15.5	7.9	2.4	5.1	-2.4
1964	24.4	6.9	10.5	7.0	10.7	13.7	4.9	4.0	4.9	1.5
1965	23.1	7.1	9.8	6.2	10.9	12.2	5.0	3.1	4.1	5.0
1966	23.7	8.7	9.7	5.3	11.3	12.5	6.5	2.8	3.1	1.3
1967	25.0	8.7	8.7	7.6	11.0	14.0	6.5	2.0	5.5	3.0
1968	25.7	9.7	8.9	7.1	11.1	14.7	7.5	2.2	5.0	0.1
1969	23.6	6.9	9.6	7.1	10.7	12.9	4.8	3.1	5.0	3.1
1970	21.5	6.5	8.7	6.3	11.1	10.4	4.3	1.9	4.2	7.7
1971	23.6	9.9	8.9	4.7	11.6	12.0	7.7	1.9	2.4	8.0
1972	25.8	10.5	9.9	5.3	12.1	13.7	8.2	2.5	3.0	1.0
1973	26.1	6.5	11.5	8.0	11.4	14.7	4.3	4.5	5.8	0.9
1974	26.5	6.6	11.8	8.1	11.3	15.2	4.4	4.9	6.0	4.3
1975	26.6	8.7	11.7	6.2	13.0	13.6	6.0	3.7	3.9	7.0
1976	24.2	6.0	13.7	4.5	14.5	9.7	2.9	4.7	2.0	5.8
1977	29.0	10.2	14.4	4.4	15.2	13.8	7.0	4.9	1.9	-0.7
1978	29.2	7.7	16.2	5.2	15.6	13.6	4.4	6.6	2.5	-2.6
1979	33.8	10.1	19.1	4.7	15.5	18.4	6.9	9.5	2.0	-5.7
1980	36.1	9.2	20.5	6.4	13.7	22.4	6.4	12.0	4.0	-4.4
1981	28.6	4.0	19.2	5.4	14.3	14.3	1.2	10.2	2.9	6.2
1982	21.8	4.1	14.5	3.1	15.6	6.2	1.0	4.7	0.4	4.6
1983	26.5	4.3	19.2	3.0	16.2	10.2	1.0	8.9	0.3	0.5
1984	23.6	5.7	16.4	1.5	15.7	7.9	2.6	6.4	-1.2	2.5
1985	25.8	7.3	16.8	1.7	16.8	9.0	3.8	6.0	-0.8	-4.4
1986	24.7	5.6	17.8	1.4	18.1	6.6	1.9	5.9	-1.2	-4.6
1987	23.4	6.4	16.6	0.4	17.5	6.0	2.8	5.3	-2.2	-4.2
1988	23.5	5.9	16.2	1.4	16.8	6.8	2.4	5.5	-1.1	-1.8
1989	23.5	5.6	16.3	1.6	16.6	6.9	2.1	5.7	-0.9	-1.5
1990	20.4	4.2	15.0	1.2	16.2	4.2	0.7	4.2	-0.7	-2.0
1991	19.5	4.5	14.6	0.3	15.5	3.9	1.1	4.3	-1.5	-2.1
1992	17.2	5.8	15.2	-3.8	15.1	2.2	2.4	4.6	-4.9	-1.2
1993	17.6	6.5	15.5	-4.3	14.5	3.2	3.1	5.5	-5.4	-1.6

Sources: South African Reserve Bank, Quarterly Bulletin, September 1994; supplementary data provided by the authorities.

CHART 8
SOUTH AFRICA

GROSS AND NET NATIONAL SAVING, 1960-93

(In percent of GNP)

Gross national saving

Net national saving
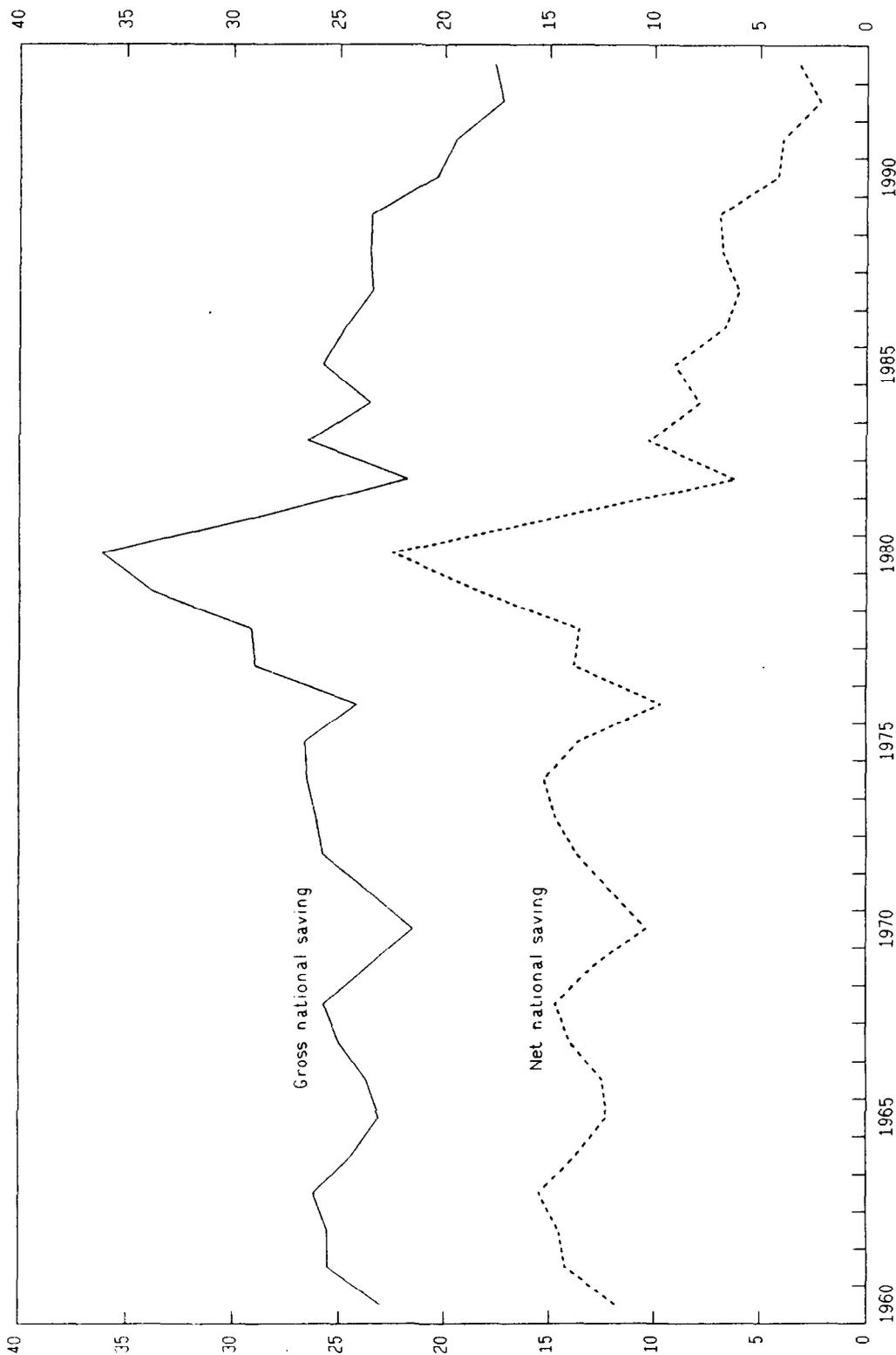
Source: South African Reserve Bank, Quarterly Bulletin.

From 1990, gross national saving declined sharply, and in 1992--at
17 percent of GNP--gross national saving reached its lowest level for the
whole period.

Personal saving averaged 8½ percent of GNP during the period 1960 to
1980 (Chart 9), and then declined sharply to an average of 5½ percent in the
1980s. The secular decline in gross personal saving was offset by an upward
trend in corporate saving. Between 1960 and 1975, gross corporate saving
averaged around 10 percent of GNP (Chart 9); it jumped to over 20 percent in
1980 during the gold price boom, and even after falling back, averaged
16 percent of GNP over 1984 to 1993.

Until the mid-1970s, gross general government saving averaged
6½ percent of GDP, or one fourth of national saving (Chart 9). After 1975,
general government saving decreased and, since 1992, the government sector
has been dissaving around 4 percent of GNP. The operational saving position
of the Government--which abstracts from the inflation component of
government interest payments--has shown a similar trend. 1/

Finally, depreciation, measured at replacement cost, was around
11 percent of GNP between 1960 and 1975 (Chart 9). It rose rapidly
thereafter, reaching a maximum of 18 percent in 1986. This increase has
been attributed to the rising average capital intensity of South Africa's
production techniques (due in part to investment undertaken from the mid-
1970s by public corporations and to the increasing capital intensity of the
gold mining industry), and to the real depreciation of the rand which
increased the replacement cost of capital, most of which is imported
(Jacobs, 1992). From 1987 onward, depreciation as a share of GNP fell
back--to 15 percent in 1993--in line with the real appreciation of the rand
between 1988 and 1992.

1/ Private saving is typically measured as the difference between the
estimate of gross national saving and general government saving. This
biases upward recorded private saving since government interest payments
compensate in part for inflation and are effectively an amortization of
government debt (Blejer and Chu, 1988). To account for this effect, the
operational saving position adds to recorded government saving the inflation
component of government interest payments, and corresponding adjustments
could be made to private saving. In the specific case of South Africa, the
inflation component of government interest payments--calculated as the
inflation rate times the stock of government debt--has increased only
gradually, from around 3 percent of GNP in 1973 to around 5 percent in 1993.
Since the consequent trend over time in recorded government saving and the
operational saving position are similar, this issue is not addressed
further.

CHART 9
SOUTH AFRICA

SAVING AND DEPRECIATION, 1960-93
(In percent of GNP)

PRIVATE SAVING RATIO

Gross corporate saving

Gross personal saving

GOVERNMENT SAVING RATIO

Gross operational position

Gross government saving

DEPRECIATION RATIO

Total depreciation

Corporate depreciation

Personal depreciation

Government depreciation
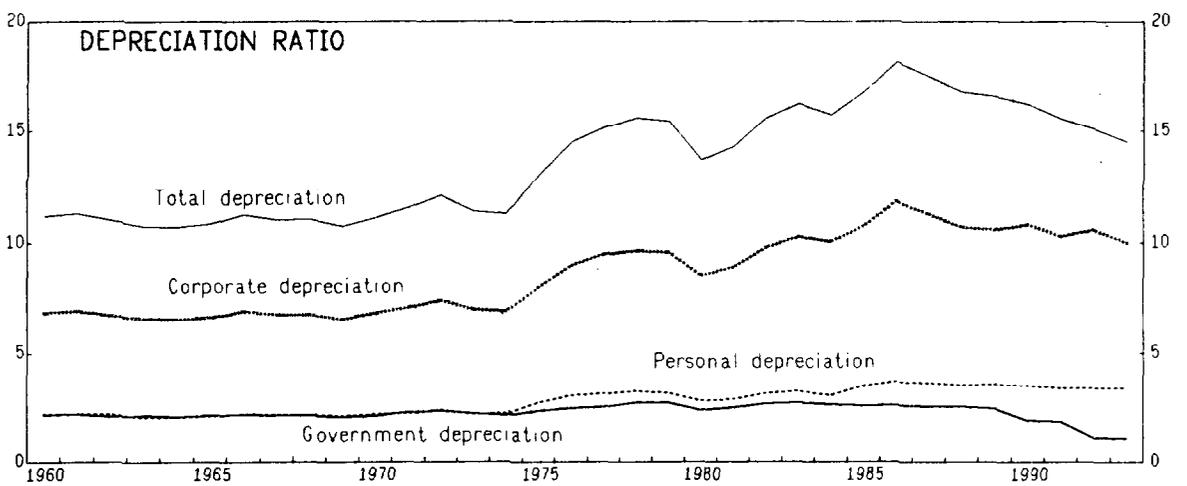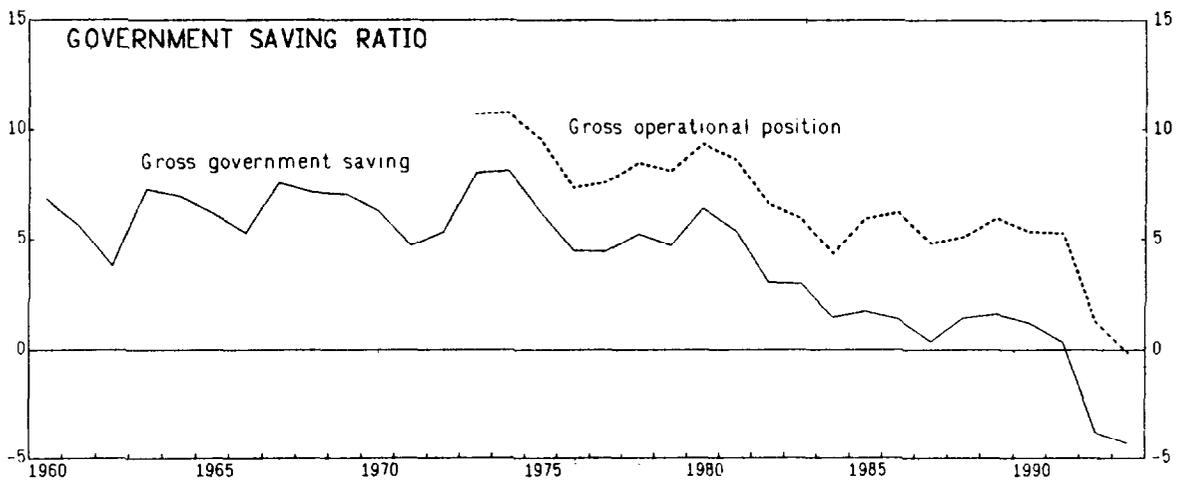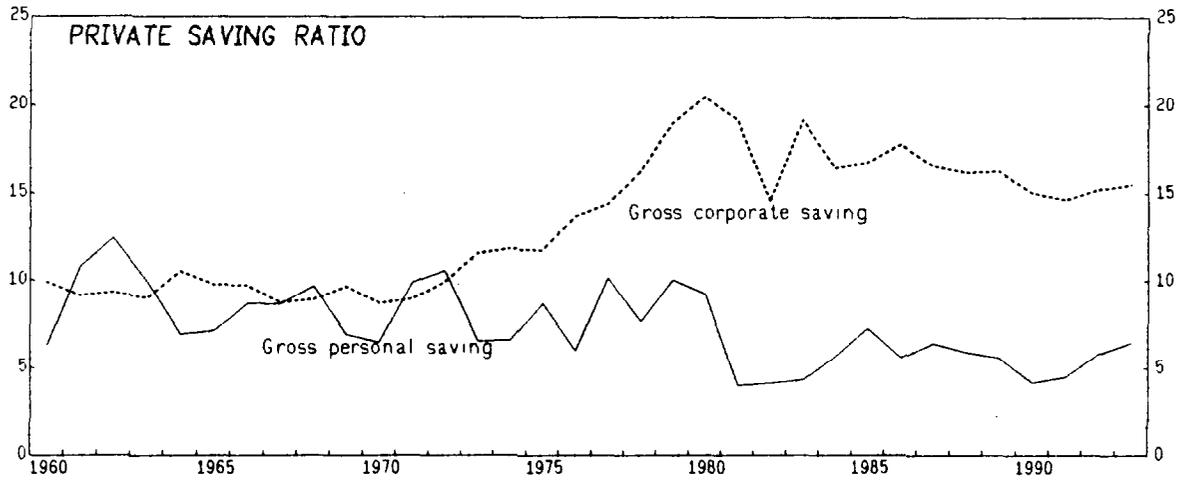
Source: South African Reserve Bank, Quarterly Bulletin.

3. Relationship between national saving and investment

The extent to which total investment can deviate from national saving depends on the availability of foreign saving, defined as the negative of the current account balance. 1/ While in a closed economy investment must be fully financed from domestic sources, in an open economy movements in national saving can be largely independent of movements in investment, provided external saving is available to cover the difference.

Table 5 and Chart 10 show South Africa's gross national saving, gross investment, and external saving as a share of GNP between 1960 and 1993. Between 1960 and the early 1980s, national saving and investment were not strongly correlated. During that period, imbalances between national saving and investment were reflected in what were often large and volatile changes in external saving. Indeed, the level of investment exceeded national saving in most of the period 1960 to 1985, with the gap financed by external inflows.

After 1985, when financial sanctions were imposed on South Africa, the external sector consistently recorded a net outflow. Since that time, there has been a close positive relationship between movements in national saving and in investment, particularly after 1987 when the level of external outflow stabilized at around 1½ percent of GNP. 2/ As one consequence of this development, the recent decline in national saving in South Africa has been accompanied by a simultaneous decline in investment, which fell from 26 percent of GNP in 1984 to just 16 percent by 1992, a level barely sufficient to cover total depreciation.

These observations can be supported through regression analysis. In particular, the following equation was estimated: 3/

$$\Delta \left(\frac{I}{Y}\right)_{(t)} = \alpha + \beta \, \Delta \left(\frac{S}{Y}\right)_{(t)} + \epsilon_{(t)}$$

1/ Following the Standard System of National Accounts (SNA), the focus here is on national, rather than domestic, saving.

2/ In South Africa, the recorded level of national saving has probably been biased downwards due to capital flight undertaken through misinvoicing, especially since 1985. Misinvoicing reduces the recorded size of the current account surplus. When private saving is measured as the residual between investment on the one hand and government saving less foreign outflow on the other, the effect of misinvoicing has been to underrecord the level of private saving.

3/ Feldstein and Horioka (1980) used a similar approach to test for capital mobility in OECD countries during the period 1960 to 1974. They concluded that movements in external saving were not sufficient to allow investment to be independent of national saving. Subsequent work indicated this relationship weakened after 1980 as, inter alia, the pace of financial liberalization intensified (Frankel, 1991; Feldstein and Bacchetta, 1991).

Table 5. South Africa: Saving and Investment Ratios, 1960-93

(In percent of GNP)

Year	Gross national saving	Gross domestic investment 1/			External saving
		Total	Private	Public 2/	
1960	23.1	22.4	13.8	8.6	-0.7
1961	25.5	21.7	12.9	8.9	-3.8
1962	·25.5	20.0	11.7	8.2	-5.6
1963	26.2	23.8	14.8	8.9	-2.4
1964	24.4	25.9	16.5	9.4	1.5
1965	23.1	28.1	16.4	11.6	5.0
1966	23.7	25.0	13.4	11.6	1.3
1967	25.0	27.9	16.7	11.3	3.0
1968	25.7	25.8	15.1	10.8	0.1
1969	23.6	26.7	16.1	10.6	3.1
1970	21.5	29.2	16.9	12.3	7.7
1971	23.6	31.6	18.8	12.7	8.0
1972	25.8	26.7	13.0	13.7	1.0
1973	26.1	27.0	15.0	12.0	0.9
1974	26.5	30.8	18.9	11.9	4.3
1975	26.6	33.6	17.4	16.1	7.0
1976	24.2	29.9	13.3	16.7	5.8
1977	29.0	28.3	13.3	15.0	-0.7
1978	29.2	26.5	13.0	13.5	-2.6
1979	33.8	28.1	14.4	13.7	-5.7
1980	36.1	31.8	17.7	14.1	-4.4
1981	28.6	34.7	20.8	13.9	6.2
1982	21.8	26.4	14.1	12.2	4.6
1983	26.5	27.0	15.3	11.7	0.5
1984	23.6	26.0	15.8	10.2	2.5
1985	25.8	21.3	11.0	10.3	-4.4
1986	24.7	20.1	11.1	9.0	-4.6
1987	23.4	19.3	12.2	7.0	-4.2
1988	23.5	21.8	14.8	7.0	-1.8
1989	23.5	22.0	13.9	8.0	-1.5
1990	20.4	18.4	12.3	6.1	-2.0
1991	19.5	17.4	11.5	5.9	-2.1
1992	17.2	16.1	10.8	5.2	-1.2
1993	17.6	16.1	11.5	4.5	-1.6

Source: South African Reserve Bank, Quarterly Bulletin, September 1994.

1/ Including inventories.
2/ Gross investment of public authorities and corporations.

CHART 10
SOUTH AFRICA

NATIONAL SAVING, INVESTMENT, AND EXTERNAL INFLOW, 1960-93

(In percent of GNP)
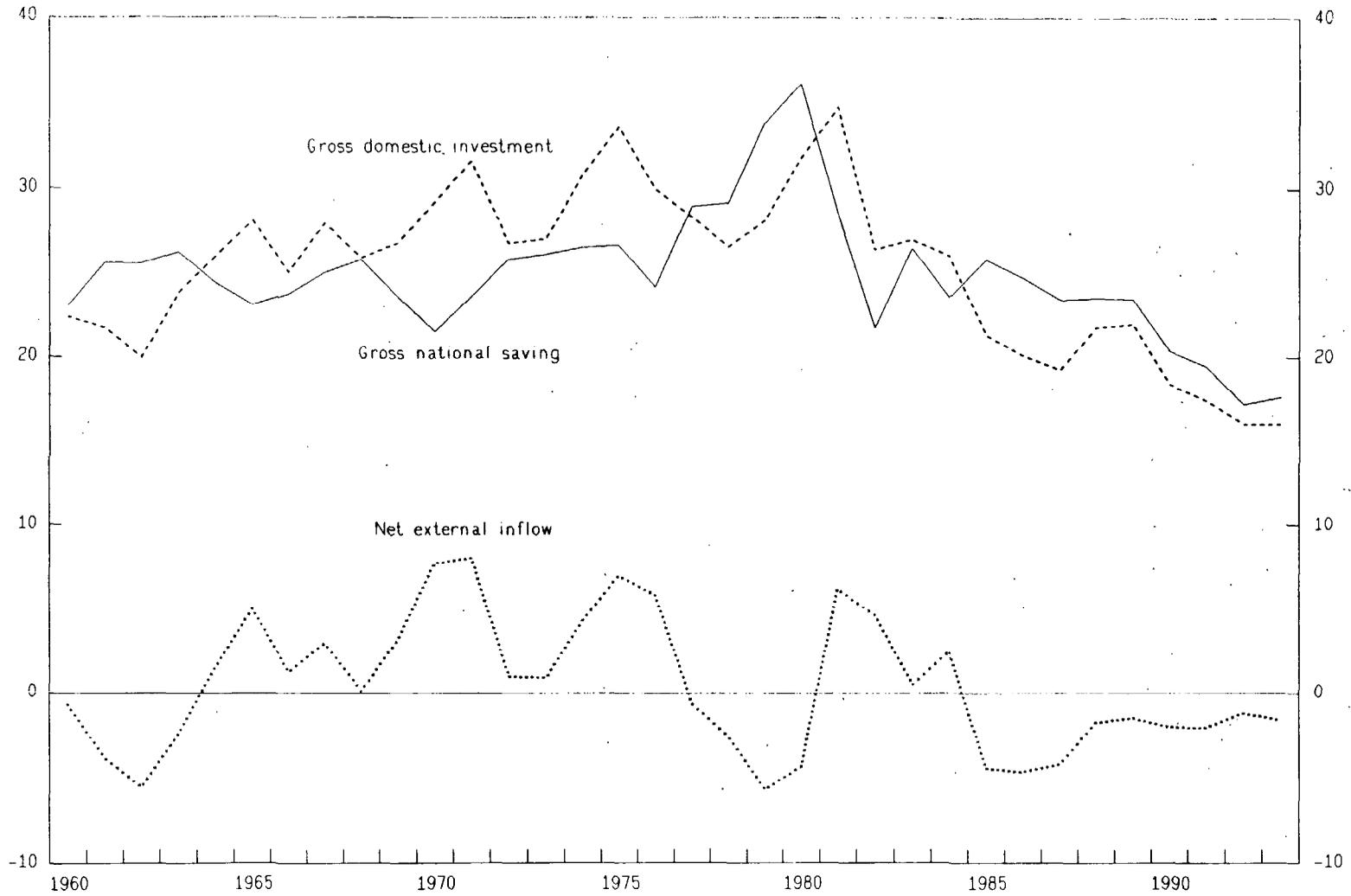
Source: South African Reserve Bank, Quarterly Bulletin.

where (I/Y) is the ratio of gross investment to GNP and (S/Y) the ratio of gross national saving to GNP using annual data in the periods 1961 to 1985, and 1986 to 1993. 1/ A beta-coefficient that is not significantly different from unity indicates that changes in the national saving and investment ratios during the period are highly correlated, which may suggest that external saving is not sufficiently flexible to enable a wide deviation in the level of national saving from that of investment, while a coefficient that is close to zero may suggest the opposite conclusion. 2/ The results are as follows (standard errors are shown under the coefficients):

Period 1961-85:

$$\Delta \left(\frac{I}{y}\right) = \begin{array}{cc} -0.06 & + 0.14 \\ (0.67) & (0.21) \end{array} \Delta \left(\frac{S}{y}\right)$$

R2-adj: 0.00 DW: 2.02 F-stat: 0.44
Correlation coefficient: 0.13

Period 1986-93:

$$\Delta \left(\frac{I}{y}\right) = \begin{array}{cc} 0.57 & + 1.19 \\ (0.48) & (0.31) \end{array} \Delta \left(\frac{S}{y}\right)$$

R2-adj: 0.66 DW: 2.23 F-stat: 14.69
Correlation coefficient: 0.85

For the period 1961 to 1985, the coefficient on the saving ratio was insignificantly different from zero and significantly different from one, while for the period 1986 to 1993, the coefficient on the saving ratio was significantly different from zero and insignificantly different from one. 3/

These results indicate that during the period 1960 to 1985, external saving played an important role in funding investment in South Africa. In particular, in the face of changes in the level of national saving, external saving responded in a manner that enabled South Africa to maintain its investment path. In contrast, between 1986 and 1993, the results suggest that the steady level of external outflow constrained changes in investment to equal changes in national saving. The recent ending of apartheid offers an opportunity for external capital flows to return to the role they played for the quarter century before 1986, when external saving was a source of financing investment in South Africa. Whether external saving will respond

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1/ The variables are expressed in first differences to increase the likelihood that they are stationary.

2/ An alternative interpretation is that the government adjusts its own saving to target the level of the current account. See Bayoumi (1990).

3/ The results for the equation between 1986 and 1993 should be regarded with caution due to the short sample period.

in such a manner will depend on whether new investment possibilities are expected to earn a sufficient rate of return, which underscores the importance of a relative price structure and corresponding level of competitiveness that are conducive to an investment-led expansion of output.

4. Issues concerning personal saving

The saving trends presented in Section 2 indicated that personal saving as a share of GNP in South Africa decreased sharply in the 1980s relative to its level during the 1960s and 1970s. At the same time, individuals appear to have increased their share of contractual compared to other forms of saving. 1/ 2/ In particular, contractual saving increased from around 5 percent of GNP in 1970 to a high of 15 percent in 1991 (Table 6 and Chart 11). 3/ Discretionary saving has shown the opposite trend, declining from around positive 5 percent of GNP in 1971 to negative 10 percent in 1991--as the net flow of credit to the personal sector exceeded the net increase in their deposits--before rising to negative 5 percent in 1993.

There are several likely factors to explain the decline in the overall level of total personal savings in South Africa in the 1980s. First, with the almost 20 percent decline in per capita income and subsequent increase in unemployment over the decade, under the permanent income hypothesis, the level of personal saving would be expected to decrease if individuals

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1/ Contractual saving is defined, as in the Mouton Report (1992), as the net current income of private and public pension and provident funds and of long-term insurers. This is not strictly correct since the net current income of long-term insurers includes income from life insurance; however, the data do not permit a division between net current income from the life insurance business and that from other forms of business undertaken by long-term insurers. Typically, two thirds of the business of life insurers represents contributions for pension funds and for retirement annuity plans. Mortgage and hire-purchase payments are classified under discretionary saving. Data for contractual saving are available from 1970.

2/ There are two types of contractual saving funds in South Africa: provident funds, which pay a lump sum benefit on retirement; and pension funds (private or public) and retirement annuity plans, which pay part of their benefits in a lump sum and the balance via periodic payments. In South Africa, one third of total private pension and retirement annuity benefits may be commuted into a lump-sum benefit; under the Income Tax Act, there is no restriction on public pension benefits that can be commuted into a lump-sum benefit. Members of provident funds are generally employees covered by industry agreements and in certain State enterprises (e.g., Telkom, Transnet), while members of retirement annuity plans are generally the self-employed and employees wishing to supplement their pensions. Total membership in contractual saving funds has grown rapidly, from 2 million in 1970 to almost 6.5 million members in 1992 (Mouton Report, 1992).

3/ Since 1990, the Government has made a series of special contributions to offset the underfunding of the official pension funds. In addition, it has significantly increased its payroll contribution rate.

Table 6. South Africa: Personal Saving Ratios, 1970-93

(In percent of GNP)

Year	Contractual Saving 1/				Discretionary personal saving (gross)	Total personal saving (gross)
	Pension & Provident Funds	Long-Term insurers	Official pensions	Total		
1970	1.6	1.9	1.3	4.7	1.7	6.5
1971	1.7	2.0	1.3	5.0	4.9	9.9
1972	1.7	2.0	1.4	5.1	5.4	10.5
1973	1.7	2.1	1.4	5.2	1.3	6.5
1974	1.8	2.2	1.2	5.2	1.4	6.6
1975	2.1	2.2	1.4	5.6	3.1	8.7
1976	2.3	2.4	1.5	6.1	-0.1	6.0
1977	2.3	2.5	1.5	6.3	3.8	10.2
1978	2.3	2.6	1.7	6.6	1.0	7.7
1979	2.5	2.9	1.5	6.9	3.2	10.1
1980	2.4	3.0	1.5	6.8	2.4	9.2
1981	2.7	3.4	1.6	7.8	-3.7	4.0
1982	3.2	3.8	1.8	8.7	-4.6	4.1
1983	3.3	4.2	1.9	9.4	-5.1	4.3
1984	3.2	4.4	1.9	9.6	-3.9	5.7
1985	3.2	4.3	2.5	10.0	-2.7	7.3
1986	2.6	4.7	2.5	9.8	-4.2	5.6
1987	2.9	5.8	2.6	11.3	-4.8	6.4
1988	2.8	5.9	2.8	11.5	-5.6	5.9
1989	2.8	5.9	3.0	11.8	-6.2	5.6
1990	2.6	6.3	5.5	14.4	-10.2	4.2
1991	2.6	6.0	6.3	14.9	-10.4	4.5
1992	2.9	6.0	3.9	12.8	-7.0	5.8
1993	2.6	5.8	3.1	11.4	-5.0	6.5

Source: South African Reserve Bank, Quarterly Bulletin, September 1994.

1/ Calculated as current receipts minus current expenditure of
   contractual savings institution.

CHART 11
SOUTH AFRICA

COMPONENTS OF GROSS PERSONAL SAVING, 1970-93
(In percent of GNP)

Contractual saving

Total personal saving

Discretionary saving
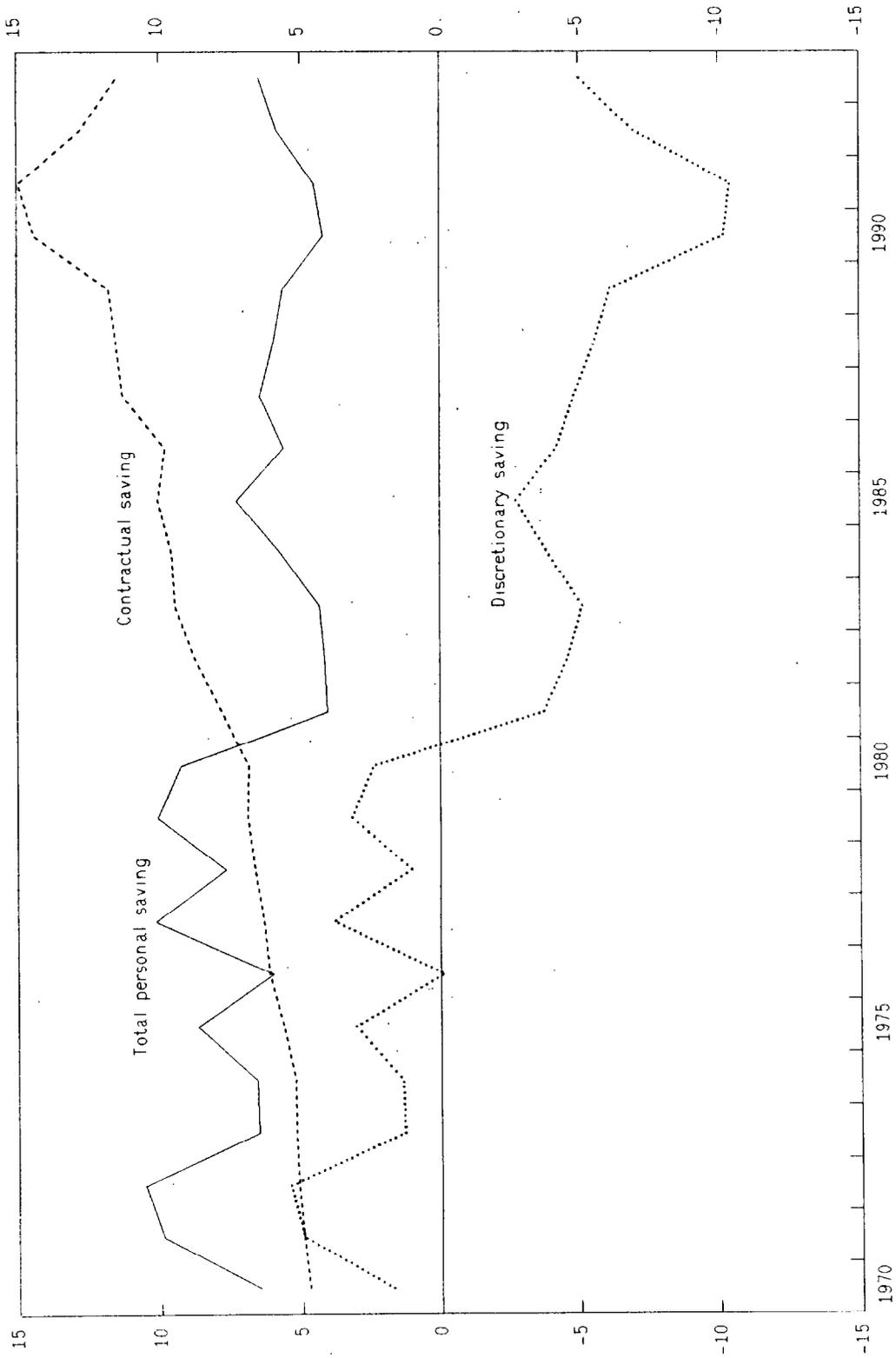
Source: South African Reserve Bank, Quarterly Bulletin.

perceived that the level of actual income had fallen relative to permanent income. 1/ Second, income inequalities have slowly been reduced, and household income for the poorest groups has been supplemented by increases in the value and take up rate of the social pension during the 1980s. 2/ Third, liquidity constraints that had been binding were eased from the early 1980s (van der Walt and Prinsloo, 1993). 3/

Turning to the composition of personal saving, the growth of contractual saving at the expense of other forms of saving seems to have been mainly a function of the favorable after-tax returns available for contractual forms of saving. The after-tax return from bank deposits for an individual paying the highest marginal tax rate fell from negative 6½ percent in the 1970s to negative 7½ percent in the 1980s, before increasing somewhat to negative 5½ percent in the early 1990s (Table 7), periods during which capital controls prevented residents from investing abroad. In contrast, the after-tax return from contractual forms of saving has been considerably higher since, while not uniform, each offers three tax advantages over discretionary forms of saving (summarized in Table 8). First, contractual saving institutions can continually reinvest their income--all of which is tax-free--until the accumulated earnings are withdrawn, which enables them to earn a return on income that would otherwise have been taxed away had it accrued directly to individuals. Second, employer and often employee contributions are not taxed at the time of payment (subject to a maximum) and lump-sum pension payments are also not taxed (subject to a maximum); that portion of the contributions made to contractual funds which is paid out in lump-sum form is therefore never subject to tax. Third, for the balance of the benefit received, there can be a substantial difference between the tax rate that would have been paid at the time the contribution was made and the tax rate paid when a pension is received, since the tax code provides for a favorable tax-free threshold

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1/ This result was supported by background statistical work.

2/ If, as seems likely, marginal propensities to consume are higher for relatively poorer groups, and/or if there is an income threshold below which saving is zero, then a redistribution of income toward relatively poorer groups will decrease the aggregate quantity of saving (Gersovitz, 1988). The sparse data on the distribution of income in South Africa suggest that, since 1960, per capita income has increased for the poorest groups at a rate faster than that for more wealthy groups, with the Gini coefficient declining from 0.630 in 1961-72, to 0.615 in 1973-78, 0.600 in 1979-84, and 0.595 in 1985-91 (data provided by the Central Economic Advisory Service, Pretoria).

3/ In particular, before the early 1980s, there were several restrictions on the overall growth of credit to households: (i) selective direct quantitative credit controls were imposed on banks between 1967 and 1972 and between 1976 and 1980; (ii) deposit rates were controlled between 1965 and 1980 (which had the effect of channelling funds outside the banking system); and (iii) maximum statutory lending rates were imposed until 1983.

Table 7. Rate of Return on Contractual Saving, Bank Lending,
and Deposit Rates, 1970-93 1/

(In percent)

| Year | Contractual saving | | Interest rates | | | Inflation |
	Pension & Provident Funds	Long-Term insurers	One year bank deposits	After tax return 2/	Mortgage lending rate	rate (CPI)
1970	6.4	6.2	7.5	4.0	9.0	5.7
1971	6.8	6.3	7.5	4.0	9.0	6.5
1972	7.2	6.3	7.0	2.4	9.0	6.1
1973	7.7	6.9	7.0	2.0	8.5	9.6
1974	8.1	7.1	9.5	3.2	10.5	11.4
1975	8.8	7.9	9.5	3.5	12.0	13.4
1976	9.4	8.1	9.5	3.5	12.0	11.1
1977	9.2	8.3	9.5	3.2	12.0	11.2
1978	10.0	8.3	8.5	2.9	12.0	11.2
1979	10.7	9.1	7.0	2.8	11.5	13.1
1980	11.4	9.4	8.0	3.6	11.0	13.8
1981	12.5	10.3	11.5	5.8	14.2	15.3
1982	13.1	11.1	15.0	7.5	16.2	14.6
1983	13.0	10.9	16.0	8.0	18.8	12.2
1984	13.0	11.0	18.0	9.0	20.0	11.6
1985	13.1	11.3	14.5	7.2	18.2	16.4
1986	9.9	10.3	9.5	4.4	14.0	18.5
1987	11.9	9.4	10.5	5.2	12.5	16.2
1988	12.5	9.6	14.5	7.2	17.0	12.7
1989	13.2	10.8	17.0	8.5	20.8	14.7
1990	12.0	11.2	16.5	9.1	20.8	14.4
1991	11.2	9.2	15.5	8.7	20.0	15.3
1992	12.4	7.1	12.0	6.8	16.8	13.9
1993	10.8	7.5	11.0	6.3	15.2	9.7

Sources: South African Reserve Bank, Quarterly Bulletin, September 1994; and staff calculations.

1/ Rate of return calculated as gross investment income divided by total assets (valued at market prices) at end-December of previous year.
2/ Calculated as nominal rate times 1 minus the top marginal personal income tax rate, including surcharges.

Table 8. South Africa: Taxation of Contractual Saving Institutions, 1992

	Private pension fund	Public pension fund	Provident fund	Retirement annuity
Maximum employee contribution that is tax free	7½% 1/	No limit	None	15% 2/
Maximum employer contribution that is tax free	20%	No limit	20%	n.a.
Lump sum allowed	1/3	No limit	All	1/3
Tax-free lump sum allowance	Varies 3/	All	Varies 3/	All
Income earned taxed	No	No	No	No
Annuities taxed	Yes	Yes	n.a.	Yes
Early withdrawal lump sum allowed	Yes	Yes	Yes	Not before age 55
Early withdrawal amount taxed	Yes	No	Yes	n.a.

Source: Assembled from data within the Mouton Report (1992).

1/ Highest of R 1,750 per annum or 7½% of pensionable income.
2/ Highest of R 1,750, R 3,500 less pension contributions, or 15% of nonpensionable income.
3/ Depends on highest maximum salary and number of years of contributions.

for pensioners (e.g., the threshold for a married pensioner without dependents was R 24,881 in 1993/94 compared with R 12,501 for a married person under the age of 64 without dependents). 1/

To illustrate the attractiveness of contractual saving, Table 9 compares contributing R 100 directly to a contractual institution in 1980 and withdrawing the benefit in 1990, with receiving R 100 as income in 1980 and depositing the after-tax balance in a bank deposit (i.e., depositing R 45, since the highest marginal income tax rate in 1980 was 55 percent). 2/ In this example, the after-tax nominal rate of return on bank deposits would have been negative 1 percent compared with a return of positive 12 percent and 11 percent for pension funds and long-term insurers, which indicates the substantial incentive for agents to have undertaken contractual saving during this period.

Further, agents will be willing to contribute the maximum amount to contractual institutions that qualifies for favorable tax treatment and, if necessary, to borrow from banks and other institutions to maintain their level of consumption--regardless of developments in the level of total personal saving--provided the expected return from contractual saving is greater than the expected cost of borrowing. Although lending rates, such as the mortgage rate, have typically been higher than the nominal return on contractual saving (see Table 7), the tax-free status of contributions to contractual saving institutions has provided an incentive to undertake this form of saving, even if financed by discretionary dissaving (see again example in Table 9). 3/ The removal of interest and credit controls in the early 1980s increased the possibility for agents to intermediate between contractual and discretionary saving. The data suggest that in recent years--as a result of financial innovation--intermediation has occurred

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1/ Since pensionable salaries are not subject to a cap for tax deductibility purposes, this tax deferral mechanism is of most value to high-income earners.

2/ For simplicity, it is assumed that one third of the total pension benefit in 1990 was taken as a tax-free lump sum, and the balance was paid as an annual pension. The estimates assume that the individual faces the highest marginal rate in 1980 and is 65 years of age in 1990. As is readily apparent from the table, by 1990, the after-tax value of the contractual saving (between R 275 and R 325 for pension funds depending on the size of the pension and hence the average tax rate, and between R 235 and R 275 for long-term insurers) would have been substantially higher than the bank deposit (R 90).

3/ In particular, an agent that chose in 1980 to invest R 100 in a contractual institution would have had to borrow only R 45 to maintain the same level of consumption, since if this income had not been contributed to a contractual institution R 55 would have been taxed away in 1980. Assuming for convenience that no mortgage principal or interest was paid until 1990, the level of repayment due in 1990 (around R 220) would have been substantially less than the 1990 value of the pension fund investment.

Table 9.   South Africa: Illustrative Example of the Relative Return
from Bank Deposits and from Contractural Saving 1/

(In rands)

	After-tax value of saving held in bank deposit	Value of saving held in pension funds	Value of saving held with long-term insurers	Cost of mortgage loan
1980	45.0	100.0	100.0	45.0
1981	47.6	112.5	110.3	51.4
1982	51.1	127.2	122.5	59.7
1983	55.2	143.8	135.9	70.9
1984	60.2	162.5	150.8	85.1
1985	64.5	183.8	167.9	100.6
1986	67.4	201.9	185.2	114.7
1987	70.9	226.0	202.6	129.0
1988	76.0	254.2	222.0	151.0
1989	82.4	287.8	246.0	182.4
1990	89.9	322.3	273.6	220.3

After tax value of deposit or pension benefit when total personal income in 1990 is:

Under R 25,000	89.9	322.3	273.6	
Under R 30,000	89.9	312.2	265.0	
Under R 40,000	89.9	295.5	250.8	
Under R 50,000	89.9	283.2	240.4	
Under R 60,000	89.9	274.6	233.1	

Average effective rate of return on R 100 received in wages in 1980 and deposited with
a bank or in a contractual fund (in percent per annum):

	-1.1	12.4	10.6	

Source: Staff calculations.

1/   Interest return used to calculate the afcer-tax annual interest from bank
deposits and the return from contributions to contractual funds are shown in Table 7.

primarily through the use of housing assets: 1/ in effect, households have reshuffled their wealth portfolios, decreasing their wealth held in one form of asset (equity in housing) in order to reap the considerable returns available from holding wealth in another form of asset (saving in contractual funds).

Nonetheless, the increase in contractual saving has been insufficient to arrest the decline in overall personal saving since the early 1980s, and the favorable tax arrangements available for contractual saving do not appear to have had a net saving-creating effect. Several commentators have, therefore, discussed whether policies should be changed to discourage the growth of contractual saving in South Africa, as they have been in several other countries (cf. Kahn, 1992, and Vittas, 1994). Possible reforms include the elimination of tax preferences for contractual saving, the imposition of a tax on investment income and/or personal assets over a specified limit, or the capping of eligible pensionable income (as in most industrial countries). The Mouton Report generally argued against substantial changes to the existing approach noting that many countries have relied on tax concessions to build a viable private retirement system, thereby decreasing the possible future cost of the aged to the State. The Mouton Report did, however, argue for an equalization of tax arrangements between different types of contractual funds.

5. Determinants of corporate saving

After-tax corporate profits can either be distributed as dividends, with potential increases in recorded personal saving, or retained as corporate saving. As noted previously, the ratio of gross corporate saving (including that of public enterprises) increased from around 10 percent of GNP in 1965 to 15 percent in 1993. Meanwhile, corporate dividend payments to the noncorporate sector declined from 8 percent of GNP in 1965 to around 2 percent from 1977 onwards (Chart 12).

Since private corporations are ultimately owned by the household sector (often by way of the pension funds), total corporate saving can be considered a form of personal saving. Indeed, if households regard an increase in corporate saving as a store of household wealth in equity and a perfect substitute for other forms of saving, then an increase in private corporate saving should prompt a commensurate fall in personal saving.

The tax regime can exert an important influence on the decision for agents to earn income within a corporation. Between 1960 and 1984, the top marginal individual income tax rate exceeded the company tax rate, with the difference ranging from between 4 percent and 31 percent (Table 10): this differential provided a substantial incentive for agents to earn income within a corporation rather than as an individual. Since 1984, however, this incentive has been reduced since the personal income tax rate has

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1/ Mortgage loans averaged 3½ percent of GNP between 1980 to 1991, and increased to 7 percent in 1992 and 1993.

CHART 12
SOUTH AFRICA

CORPORATE SAVING, DIVIDENDS, AND ROYALTIES, 1960–93
(In percent of GNP)

Gross corporate saving

Net dividend payments

Net rent and royalties
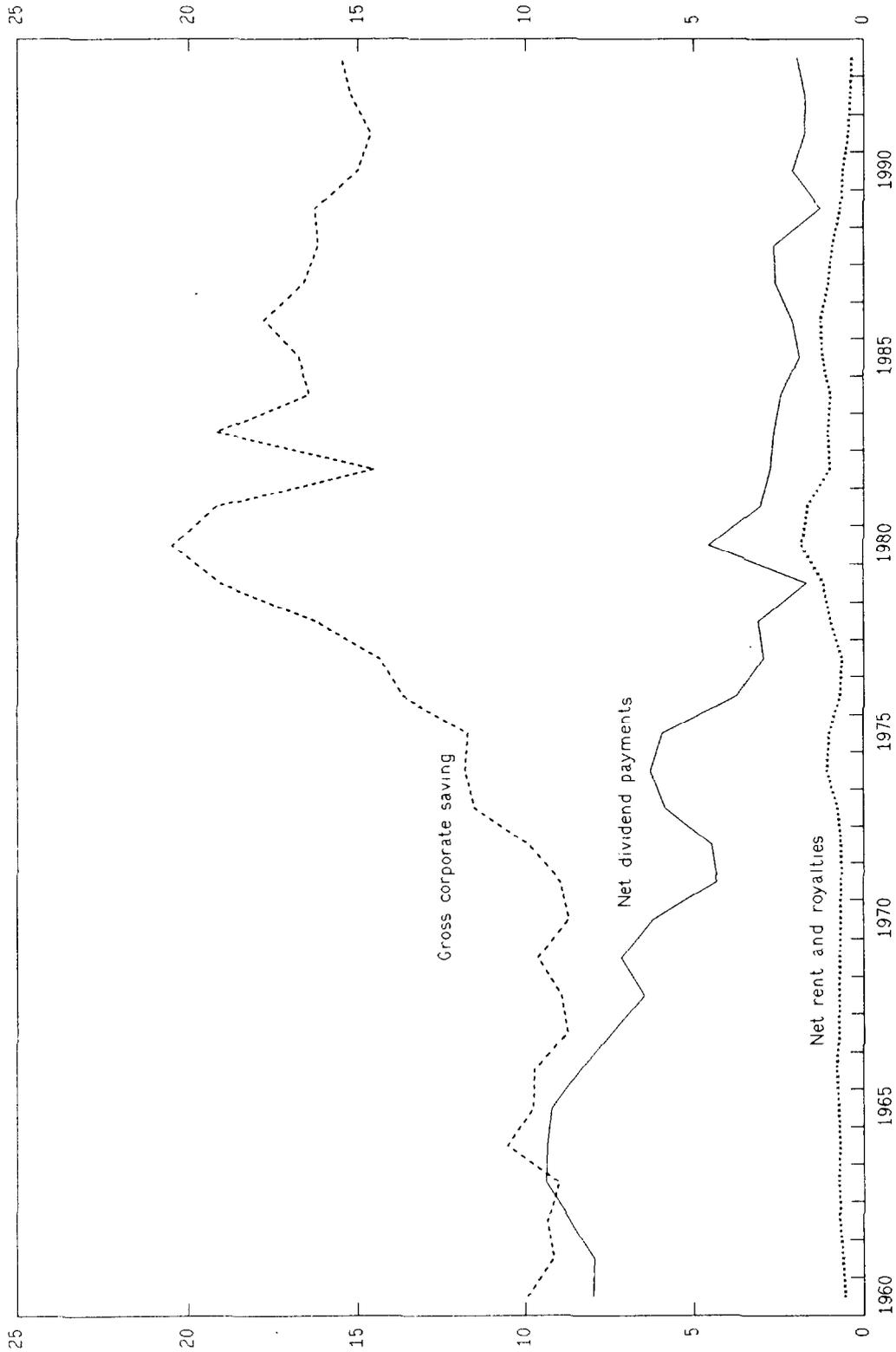
Source: South African Reserve Bank, Quarterly Bulletin.

Table 10.   South Africa: Relationship Between Corporate and
Personal Income Taxes, 1960-95

(In percent)

Fiscal Year ending in:	Corporate tax rate 1/	Personal tax rate 1/	Difference	Tax rate paid on dividends 2/
	(1)	(2)	(1)-(2)	(3)
1960	30.0	47.5	17.5	31.7
1961	30.0	45.0	15.0	30.0
1962	30.0	45.0	20.0	33.3
1963	30.0	50.0	20.0	33.3
1964	30.0	47.5	17.5	31.7
1965	31.5	47.5	16.0	31.7
1966	31.5	47.5	16.0	31.7
1967	36.7	50.0	13.3	33.3
1968	36.7	50.0	13.3	33.3
1969	36.7	50.0	13.3	33.3
1970	40.0	47.3	7.3	31.5
1971	40.0	47.3	7.3	31.5
1972	40.0	66.0	26.0	44.0
1973	41.0	72.0	31.0	48.0
1974	41.0	66.0	25.0	44.0
1975	41.0	63.0	22.0	42.0
1976	41.0	63.0	22.0	42.0
1977	43.0	66.0	23.0	44.0
1978	43.0	66.0	23.0	44.0
1979	42.0	60.0	18.0	40.0
1980	42.0	55.0	13.0	36.7
1981	42.0	50.0	8.0	33.3
1982	42.0	50.0	8.0	33.3
1983	46.2	50.0	3.8	33.3
1984	46.2	50.0	3.8	33.3
1985	50.0	50.0	--	33.3
1986	50.0	53.5	3.5	35.7
1987	50.0	50.0	--	33.3
1988	50.0	50.0	--	33.3
1989	57.5	50.0	-7.5	33.3
1990	56.0	45.0	-11.0	--
1991	50.0	44.0	-6.0	--
1992	48.0	43.0	-5.0	--
1993	48.0	43.0	-5.0	--
1994	40.0	43.0	3.0	13.0
1995	40.0	46.3	6.3	20.0

Sources: Margo Report (1986); Budget statements; and staff calculations.

1/   Including surcharge.
2/   Between 1960-89, calculated as two-thirds of the personal income tax
rate including surcharge.   Since 1991, dividends are exempt from personal
income tax.   However, from 1993, companies were subject to a tax on
distributed dividends net of the tax paid (the Secondary Tax on Companies or
STC).

generally been equal to or below the corporate income tax rate; it was only in the March 1993 Budget that the corporate tax rate was cut so that it was again below the top individual rate.

Further, tax arrangements can also affect whether income that is earned within a corporation is distributed or retained as corporate saving. South Africa's dividend tax rate has varied substantially over time. Between 1960 and 1990, one third of dividends received by individuals were tax free, with the balance taxed at the individual marginal rate; between 1990 and 1993, all dividends received by individuals were tax free; and more recently dividends have been subject to the Secondary Tax on Companies (STC), set at 15 percent of the net of tax dividend in the fiscal year 1993/94 and raised to 25 percent for 1994/95. Table 10 shows that with these arrangements the effective tax paid on dividends as a percentage of post-tax income to an individual subject to the highest marginal tax rate varied between 30 percent and 44 percent between 1960 to 1989. Hence, since capital gains on equities are effectively tax free, a substantially lower rate of overall tax was paid when corporate profits were retained rather than distributed to households, which is consistent with the decline in the level of dividend payments paid to the noncorporate sector since 1965. 1/

Table 10 also indicates that while the STC has reintroduced the tax on dividends, the rate still remains below the pre-1990 level. Nevertheless, the STC provides an incentive to decrease dividend payments even further to individual investors in favor of an increase in corporate saving. The effect of the STC is yet to be seen, but to the extent that it causes more profits to be retained in companies, it may not assist efforts to "unbundle" enterprises in South Africa.

6.   Conclusions

The most important point made in this chapter is that national saving and investment moved independently of each other between 1960 and 1985. This suggests that, with appropriate macroeconomic fundamentals, foreign saving may once again play a substantive role in funding investment in the South Africa. In particular, if the rate of return to investment is sufficiently attractive, external saving by way of foreign direct investment or foreign borrowing by domestic agents may be able to fund a higher level of investment even without a significant pickup in national saving. This underscores the need for South Africa to work toward a relative price structure and level of competitiveness that are conducive to external capital flows.

Several other conclusions emerge from this study. First, the sharp decline in personal saving in the 1980s in part appears to have been related to the deviation in current to trend income. As the economy recovers, so

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1/ These results mirror the findings in Chapter V that the marginal effective tax rate is lowest if investment is financed from retentions rather than through new share issues.

too might the ratio of personal saving to GDP, and thereby the level of
national saving. Second, the rapid increase in contractual saving in the
1980s appears to have largely been at the expense of discretionary saving
rather than being additional to total personal saving. The after-tax rate
of return of contractual saving has been substantial relative to both the
return from discretionary forms of saving and to the cost of borrowing.
Households appear to have substituted between contractual and discretionary
forms of saving--following the relaxation of credit and interest rate
controls from the early 1980s. Third, tax incentives to retain corporate
profits have been quite substantial, which is consistent with the sharp
decline in net dividend distributions from the corporate sector since 1965.

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III. The Labor Market

1. Introduction

Unemployment is a central economic problem in South Africa. In 1993, 44 percent of the labor force was unable to find work in the formal sector and the official unemployment rate for October was 29 percent, or 3.6 million persons. 1/ Of the 3.6 million unemployed in 1993, half were between 15 and 29 years old, and three fifths had been without work for more than a year. Few of the unemployed have access to unemployment insurance, and there is no publicly provided unemployment assistance.

The White Paper on Reconstruction and Development states that "The fundamental goal of the RDP is an employment-creating, labor-absorbing economy which will ultimately lead to full employment." A key element in achieving this goal is understanding why unemployment is so high now.

This chapter discusses the key features of the labor market, including its institutional structures, in order to shed some light on this question. It relates the data and the institutional structures to a number of common propositions about the roots of South African unemployment. It thus builds upon the analysis of unemployment contained in the 1993 Selected Economic Issues Paper (SM/93/255), pp. 29-37.

2. Employment and unemployment

There are two key measures of unemployment: the proportion of the labor force without employment in the formal sector--the "formal employment gap" (FEG)--and the "official measure" of unemployment. The two measures reflect different definitions of employment and the labor force. The FEG is simply the labor force less formal sector employment, expressed as a proportion of the labor force--it thus takes no account of employment in the "informal sector". 2/ The official unemployment rate includes employment in the informal sector also. The FEG adopts the "strict" definition of the labor force; this excludes persons who declare a desire to work, but who make no job search efforts--the so-called "discouraged workers." The official measure uses the "expanded" definition of the labor force, which includes those who declare a desire to work but who engage in no job-search efforts. Estimates of the FEG are available from 1960 onward, while the official rate of unemployment was measured for the first time in October 1993, in the October Household Survey (OHS).

1/ This excludes the TBVC States--Transkei, Bophuthatswana, Venda and Ciskei--which were treated as independent states when the rate of unemployment was measured in October 1993.

2/ The formal sector is defined as firms that are enumerated by the employer surveys of the Central Statistical Service.

Chart 13 shows the population, labor force, formal employment and FEG since 1960. It shows that the FEG began to rise in the mid 1970s, but accelerated from the early 1980s. Chart 14 highlights the developments in formal sector employment underlying the FEG. It shows that employment growth outside government slowed in the 1970s, and stopped in the early 1980s. This coincided with stagnation in employment in the secondary sector and in unskilled employment. 1/ However, employment in government, the tertiary sector (which includes government), and higher skilled occupations continued to grow until the late 1980s.

Chart 15 shows that during the 1980s, when the FEG was rising, the real wages of black people were also rising in most parts of the manufacturing sector, including those with the lowest average income levels. 2/ The average real wage of employed black people rose faster than that of white people throughout the 1980s. In the same period, vacancy rates for unskilled labor remained low, with vacancy rates for skilled labor being substantially higher.

Some of the rise in FEG since the 1960s--and possibly a sizable part-- has been absorbed into the informal sector. Although historical data are limited, 3/ they do suggest a rapid expansion of the informal sector during the 1980s. According to the OHS (which excludes the TBVC States), 2.4 million black people were employed on their own account in the informal sector in 1993, compared with total black employment of 5 million. This source also suggests that wage rates in the informal sector are substantially lower than those in the formal sector. It implies that the monthly contribution to GDP per person working in the informal sector is some R 680, compared with average monthly wages of R 1500 for black people

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1/ This classification of skills is based on the Manpower surveys. These define unskilled employment as that which requires at most a short in-house training period (2 weeks) and primary school level literacy and numeracy. Many persons employed in these occupations exceed these educational requirements. The data show that the share of unskilled employment in total employment was a little over 60 percent until the 1970s, when it began falling slowly and steadily to a little under 60 percent in 1980. Thereafter, it fell more rapidly to 50 percent in 1990.

2/ In Chart 15, wages are deflated by an index of subsistence known as the Household Subsistence Level, which is described in Appendix 1. It moves closely with the low income consumer price index.

3/ Unofficial estimates of the trends in employment and value added in the informal sector have been based on various measures, including the discrepancy between the output and expenditure estimates of GDP and on the behavior of notes and coin. Many official impediments to informal sector activities were relaxed during the 1980s and anecdotal evidence is suggestive of a mushrooming of activity consequent upon this relaxation. The OHS contains the current official estimate of employment and value added in the sector.

CHART 13
SOUTH AFRICA

LABOR FORCE AND FORMAL SECTOR EMPLOYMENT, 1960-94
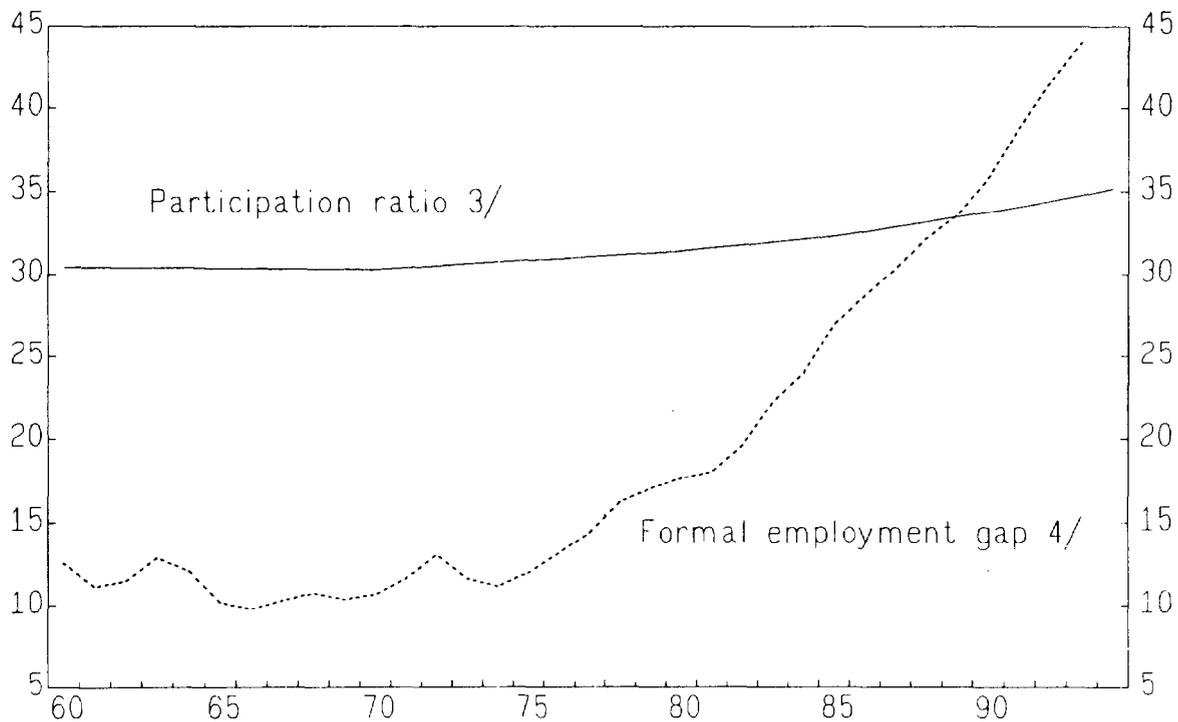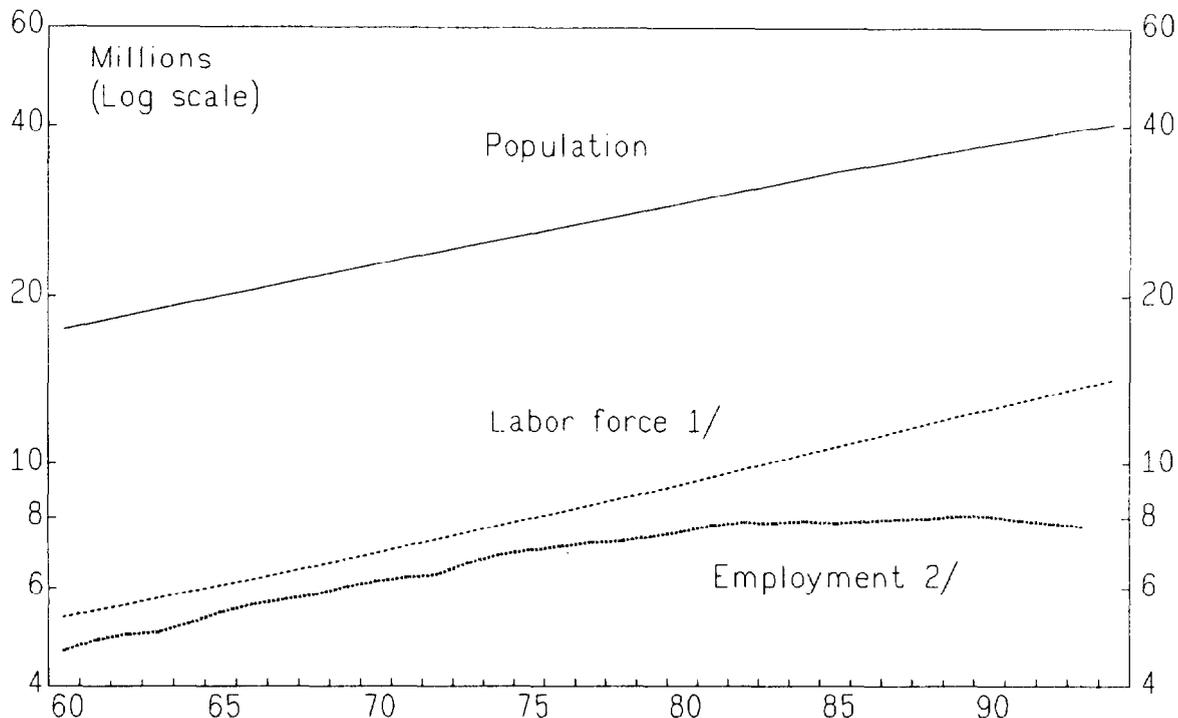
Sources: South African Labor Statistics 1994; Bureau for Market Research; Statistical Service.

1/ According to the "strict" definition which excludes "discouraged workers".
2/ Standardized employment in the formal sector.
3/ Labor force divided by the population.
4/ Percentage of the labor force outside the formal sector.

CHART 14
SOUTH AFRICA

FORMAL SECTOR EMPLOYMENT, 1960-93
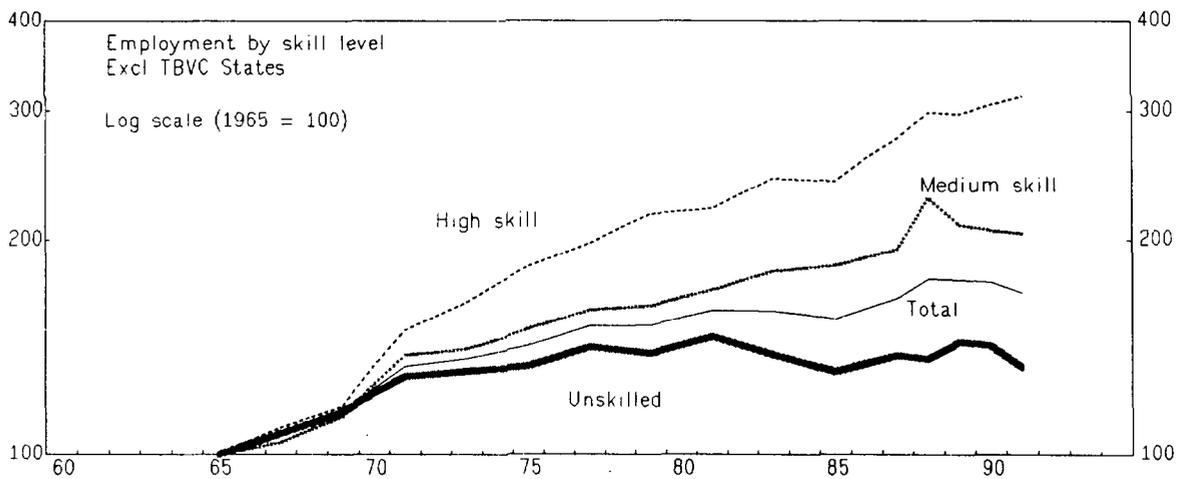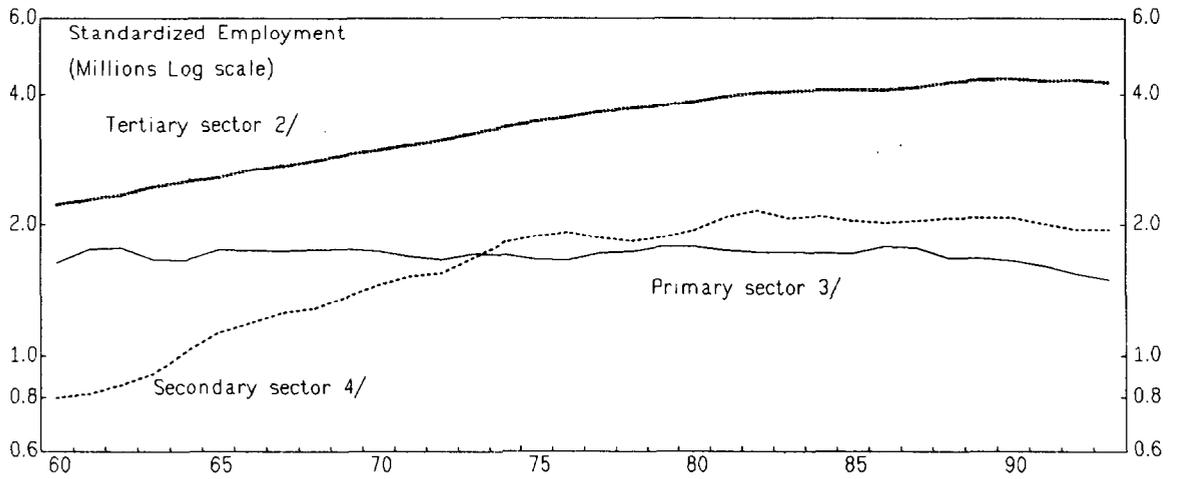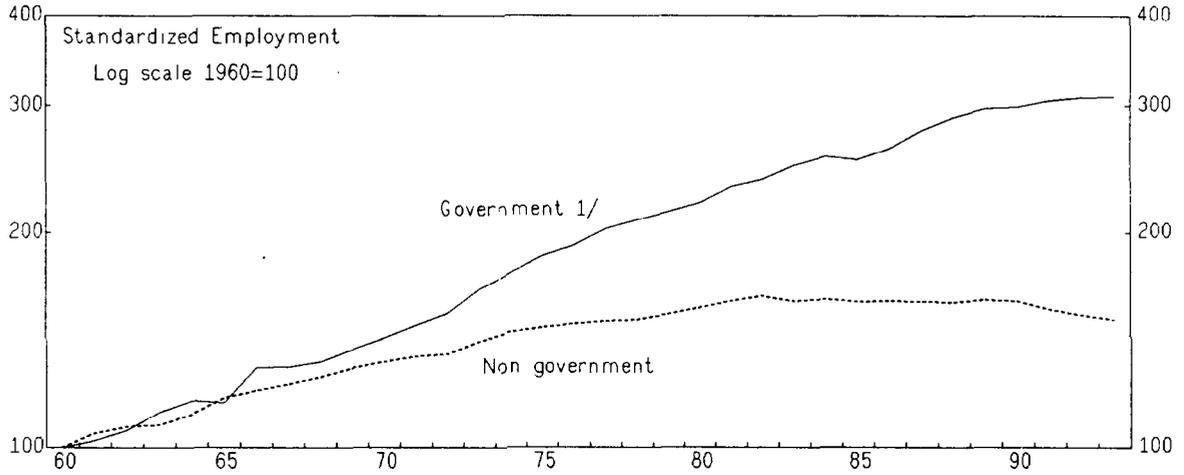
Sources: South African Labor Statistics 1994; Institute for Futures Research.

1/ Central, provincial, and local government.
2/ Transport, finance, communications, government, and domestic service.
3/ Agriculture and mining.
4/ Manufacturing, electricity, and construction.

CHART 15

SOUTH AFRICA

AVERAGE BLACK WAGES RELATIVE TO SUBSISTENCE, 1984-92
MANUFACTURING 1/

Low average wage sectors.
(Log scale 1984=100)

Sectors 2/
— A -- B C
D -- E ... F

Mid-range average wage sectors.
(Log scale 1984=100)

Sectors 2/
— G -- I ....J
K -- L . N

Upper range average wage sectors.
(Log scale 1984=100)
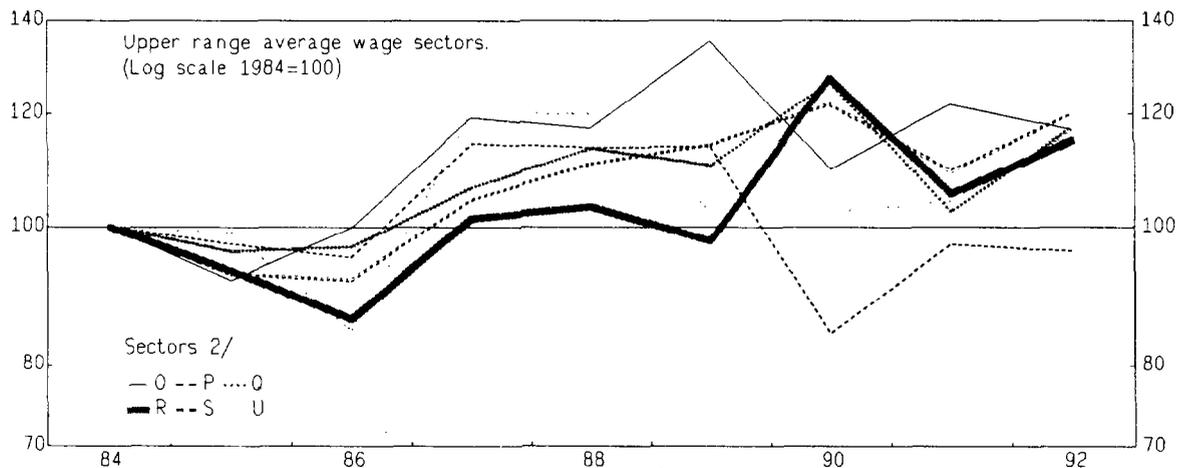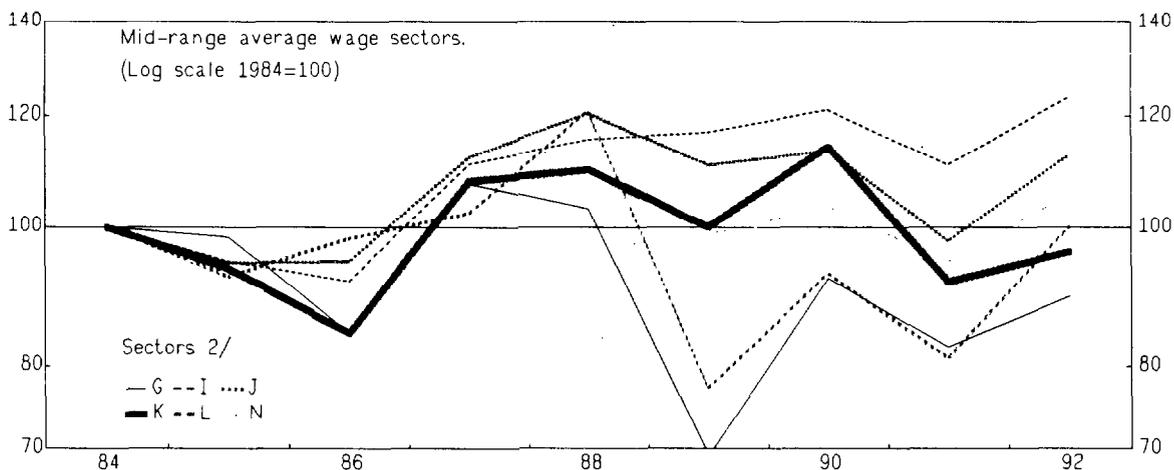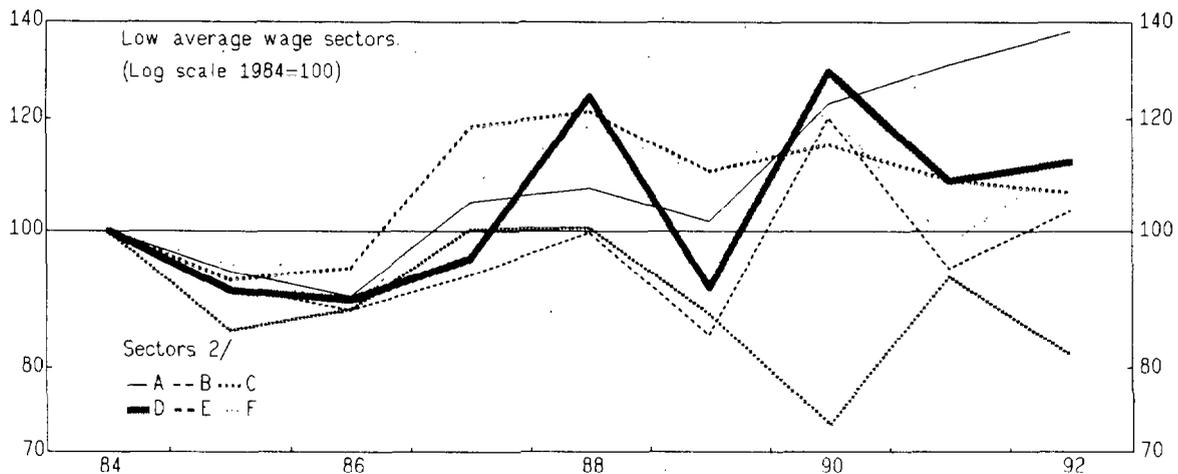
Sectors 2/
— O -- P ....Q
R -- S U

Sources: Central Statistical Service; and Institute for Planning Research. University of Port Elizabeth.

1/ Subsistence is measured as HSL-6 each March.

2/ Sector legends are as follows:
A: Clothing B: Leather. C: Footwear. D: Wood products. E: Textiles. F: Non metal minerals.
G: Furniture. I: Food. J: Plastic. K: Metal goods. L: Other manufacturing. N: Electrical.
O: Beverages. P: Professional. Q: Paper goods. R: Machinery. S: Iron and Steel. U: Rubber.

in formal sector manufacturing in the third quarter of 1993, and R 950 a month for black people employed in formal sector construction in the same period.

The OHS conducted in October 1993 measured the official rate of unemployment. 1/ These data are some of the first to provide a clear indication of the characteristics of the unemployed. Among the most notable characteristics are the following:

*   Half are under 30 years old;

*   Three fifths have never held a previous job;

*   Some two thirds have been seeking work for over a year;

*   The overwhelming bulk have below standard 10 education;

*   Half do not engage in job search activities--they are the so-called "discouraged workers."

The OHS does not report unemployment rates by region. However, data from the Development Bank, based upon the OHS, suggest that while there are considerable regional variations in the rate of unemployment--from 50 percent in the Northern Transvaal to 17 percent in the Western Cape--it is high in all regions. Data on unemployment rates by age are not published in the OHS. However, staff calculations using the labor force data published elsewhere 2/ suggest that the OHS found unemployment rates among those under 20 years old of over 50 percent, nearly double the average unemployment rate for all age groups. 3/

3.   Why are South African unemployment rates so high?

Unemployment in South Africa has certain marked features, including the relentless rise in the FEG in the 1980s alongside evidence suggesting that real wage rates were rising, and the prominence of the long-term and young unemployed in official unemployment in 1993. These help to identify its roots, but there are gaps in the official data which complicate efforts to account for its increase precisely.

1/ Even though the OHS in 1993 suffers from the defect that the TBVC states are excluded, its findings on unemployment rates are close to those of the SALDRU survey which included the TBVC states. This was a large household survey undertaken by a consortium of foreign donor and private domestic research organizations in 1993. See SALDRU 1994.

2/ South African Labor Statistics 1994.

3/ Unemployment rates are 47 percent for those between 20 and 24 years of age, 32 percent for those between 25 and 34, 20 percent for people between 35 and 54, and 15 percent for those between 55 and 64 years old.

The severity of unemployment--by either measure--and the survey evidence that many unemployed have been without work for long periods despite a desire to work would indicate that the bulk of unemployment at present is neither voluntary nor frictional. The fact that the FEG has risen steadily for 15 years to its current level indicates that little of the current stock of FEG is cyclical--the bulk is structural. Both the OHS evidence that the unemployed are predominantly unskilled, and the evidence that unskilled employment has stagnated since the late 1970s indicate that the roots of the problem are to be found in the structural features of the market for unskilled labor.

Moving beyond these conclusions, however, to identify exactly what underlies the high structural unemployment of unskilled labor is not straightforward. The involuntary nature of the unemployment and the evidence of rising real wage rates over the 1980s naturally directs attention to impediments to downward real wage adjustment. The fact that the FEG has been high and rising for so long narrows that focus down to accounts of wage rigidity that operate in the medium- to long-term, and away from accounts of short-term wage rigidity such as those sometimes thought to underlie business cycles.

The published labor market data, however, are often insufficiently disaggregated to distinguish unambiguously between alternative accounts of impediments to real wage adjustment over the medium term. Furthermore, the wage setting institutions and the behavior of the main participants within them defy simple generalizations. In light of these constraints, the following sections discuss three impediments to real wage adjustment over the medium term that commentators have suggested might be important in South Africa: the notion that wages for unskilled labor in the formal sector are so low that they cannot fall any further, the growing strength of trade unions, and the mechanics of the wage determination system.

4.   A floor on unskilled wages in the formal sector

One aspect of the substantial economic inequalities in South Africa is that wages for unskilled labor in the formal sector are generally low. It has been suggested that unskilled wage rates may be so low that employers have been reluctant to reduce them further, despite the incentive to do so provided by rising unemployment of unskilled labor. One version of this argument traces employers' reluctance to reduce real wages to workers' nutritional requirements; if wages fall below a level necessary to provide adequate nutrition to workers, the physical productivity of labor declines. 1/ If the real wages of unskilled labor were generally at such a floor in South Africa, then this might account for the failure of real wages to adjust despite the rising FEG in the 1980s.

1/   See Bliss and Stern (1978).

One approach to assessing the potential role of this factor in South Africa would be to compare unskilled wage rates directly with a measure of "minimum subsistence income." However, such an exercise requires that "subsistence" can be measured in absolute terms, and it is not clear that this can be done satisfactorily. 1/ An alternative approach is to assess the potential role of this factor indirectly, examining wage behavior (as opposed to the wage levels). If wage rates for unskilled labor had reached a nutritional floor, they should remain unchanged relative to subsistence thereafter, neither rising (given high unemployment) nor falling, and they should closely reflect regional differences in the costs of subsistence.

The wage data for the manufacturing sector shown in Chart 15 show average wages for black people deflated by the Household Subsistence Level for a household of six low-income persons (HSL-6). For most sectors, these series were rising during the 1980s. This may reflect, in part, some progression of black people up the skill ladder during this period, so these data do not give unambiguous information about the evolution of wage rates for unskilled labor.

The upper panel in Chart 16, however, shows wages for unskilled labor in selected industries deflated by the same subsistence basket. These industries are chosen because they report wage rates by skill level to the Central Statistical Service. Unskilled wage rates in the metal and engineering industries, as well as in civil engineering were rising strongly relative to subsistence in the 1980s. Even in the building industry, wage rates deflated by HSL-6 rose by over 10 percent between 1980 and 1984, despite the rising FEG since the mid-1970s. While the data for domestic service appears to show little change relative to subsistence, both its components--for full- and part-time domestic servants--move substantially relative to HSL-6 in the 1980s, falling for full-time and rising for part-time domestic servants. 2/ What direct evidence there is from official sources on unskilled wage rates contradicts the nutritional floor account of downward wage inflexibility underlying the rising FEG.

The lower panel in Chart 16 shows the minimum wages for unskilled labor as required by Wage Boards, all deflated by HSL-6. Wage Boards are statutory bodies which set minimum wage rates for unskilled labor. In 1991, the 27 Wage Board rulings then in force applied to between 500,000 and

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1/ A nutritional floor on wages for a household depends inter alia on household size and composition, on the number of income earners, on the incidence of income in kind, on own production by the household, on the pattern of consumption by the household, on the pattern of intra and inter household transfers, and on the mean and variance of all these characteristics amongst the unskilled labor force. Furthermore, the relevant concept is not the "actual" nutritional floor, as might be defined by nutritionists, but what employers perceive to be the floor.

2/ However, the concept of wages relative to subsistence is more troublesome for domestic workers than for others, since domestic workers receive payments in kind to cover part of their subsistence needs.

CHART 16
SOUTH AFRICA
AVERAGE WAGES FOR UNSKILLED LABOR, 1980-92
Relative to Subsistence 1/

Average wages

Log scale (1980=100)

Metal and engineering

Civil engineering

Building industry

Domestic servants

Selected Wage Board Minima

Log scale (1984=100)

General
unskilled
workers

Security
services

Bread and
confectionary

Commercial
distributive
trade
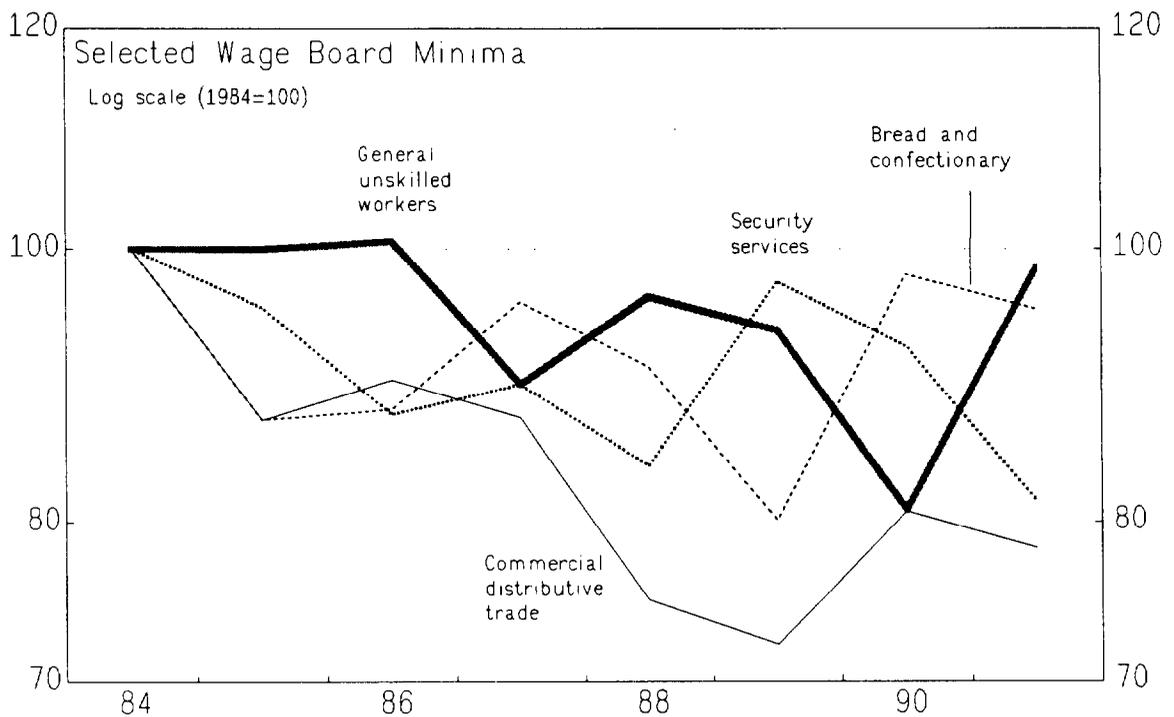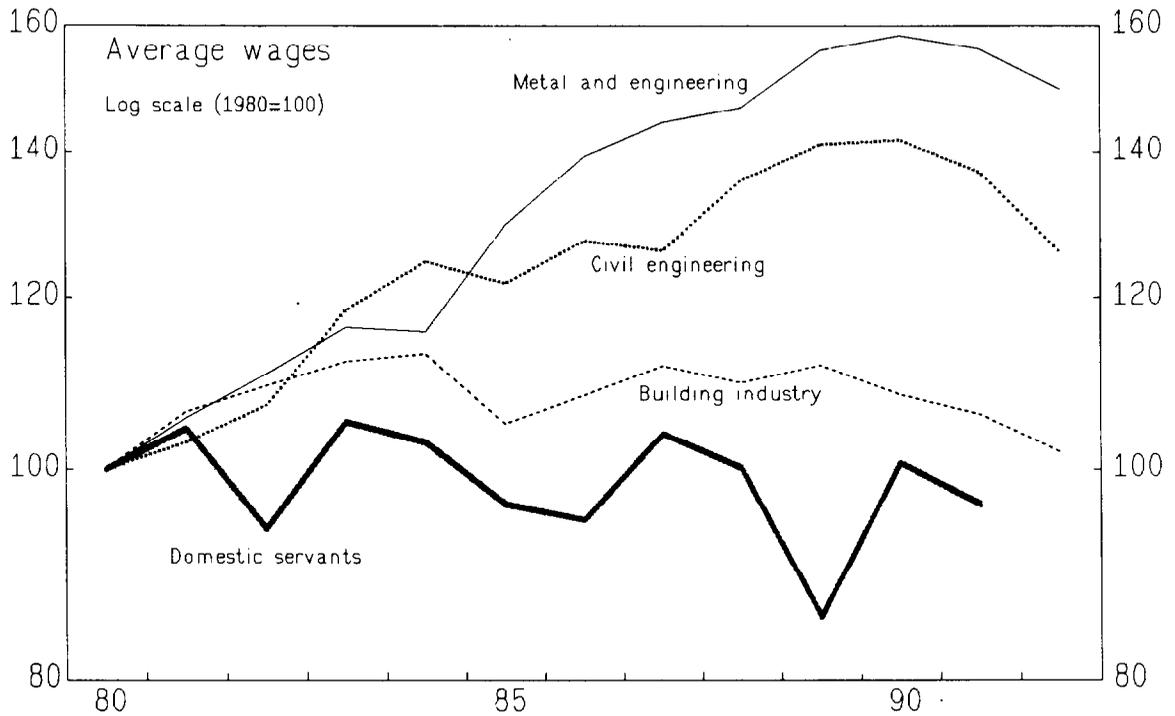
Sources: South African Labor Statistics 1994; Barker (1992); Institute for Planning Research, University of Port Eliz

1/ Wages deflated by the household subsistence level for a household of six low income persons.

700,000 workers. The chart shows the conservative stance taken by such Boards, since in most cases, minimum wages fell relative to HSL-6 during the 1980s, sometimes substantially so. This evidence rules out the possibility that the evidence of rising wages for unskilled labor relative to HSL-6 during the 1980s merely reflects the impact of minimum wage requirements as set by the Wage Boards.

The Peromnes surveys of manufacturing firms, cited by Hofmeyr, 1/ supplement the data on unskilled wage rates published by the Central Statistical Service. These show that between 1985 and 1990, the average annual rate of growth of black male wages deflated by the low income consumer prices index 2/ was 3.2 percent for unskilled labor, the highest rate of increase for any skill level. This pattern broadly matches that for female unskilled wage rates. These data therefore suggest that the evidence of rising unskilled wage rates provided by the official published data are not unrepresentative. The combined evidence of rising wage rates for unskilled labor throughout the 1980s is difficult to reconcile with the nutritional wage hypothesis.

The relation between wages and subsistence costs by region is also difficult to reconcile with the nutritional wage floor hypothesis. Chart 17 shows HSL-6 for all centers surveyed, between September 1989 and September 1993, with centers ordered according to their relative cost of subsistence in 1989. These data show that the regional variations in the cost of subsistence are marked, and, with some exceptions, are relatively stable over time.

The absence of data on unskilled wage rates by region made a direct examination of the relationship between average unskilled wages and regional subsistence costs impossible. Accordingly, the following exercise examined data on average wages for all workers in the manufacturing sector--using data for 1988, the latest year for which the necessary regional wage data are available. For each subsector within manufacturing, the average wage relative to the HSL-6 was calculated for each regional center. The weighted average of these ratios in each subsector was then calculated, weighted by black employment in each subsector in each region. This indicates the subsector average of wages relative to subsistence costs, and was defined as

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1/ See Hofmeyr (1993).
2/ The low income CPI is based on the consumption patterns of low income households. Its movements are usually close to those of the HSL-6.

CHART 17

SOUTH AFRICA
HSL-6 IN REGIONAL CENTERS, 1989-93
in current rand. 1/

September 1993

September 1991
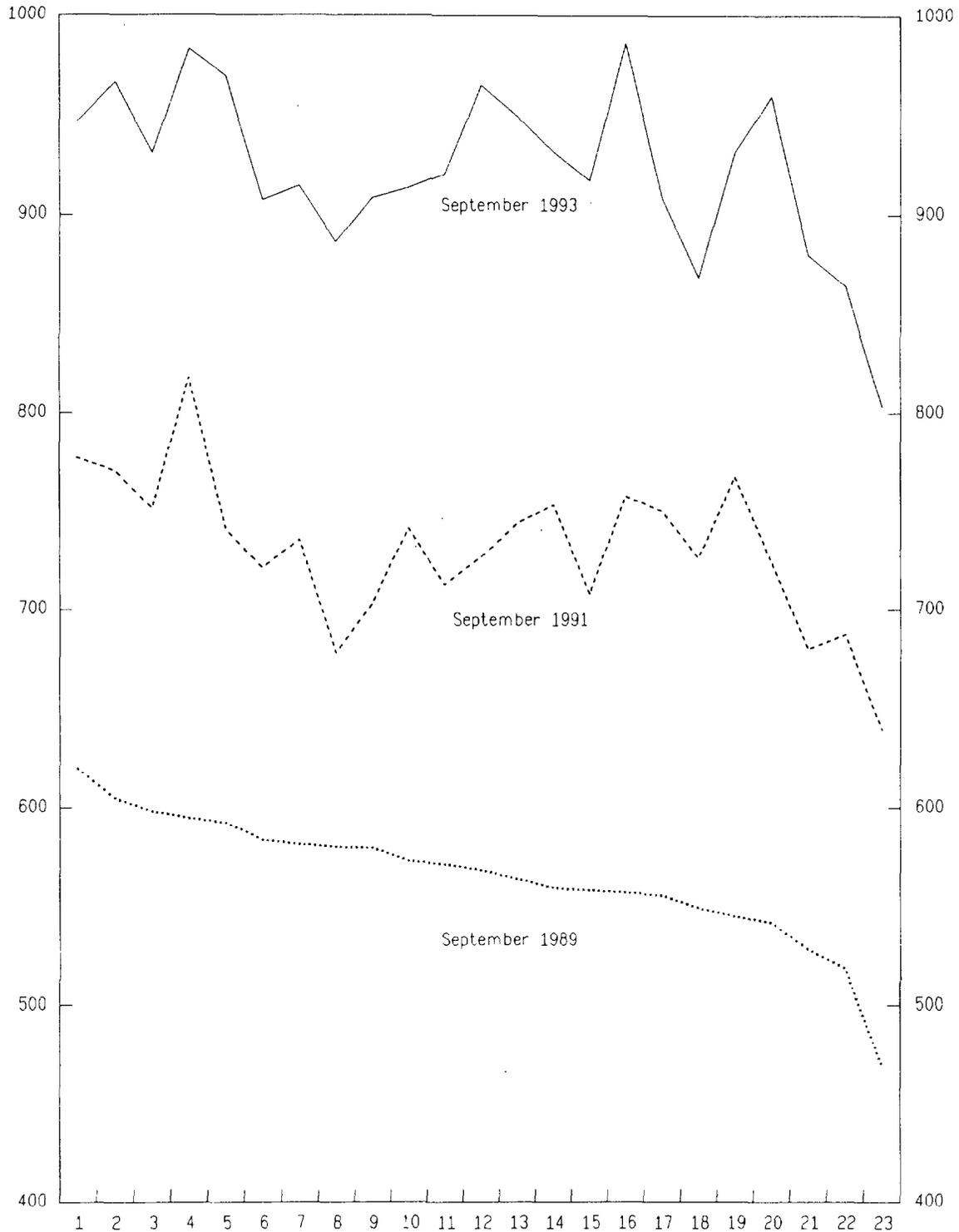
September 1989

Source: Institute for Planning Research University of Port Elizabeth.

1/ Centers are ordered according to the cost of household subsistence (HSL-6) in September 1989.

1: Boksburg.   2: Jo'burg.   3: Germiston.   4: Kimberly.   5: Benoni.   6: Krg'dorp.
7: Cape Town.   8: Mossel bay.   9: George.   10: Springs.   11: Vaal Triangle.   12: Pretoria.
13: Brakpan.   14: Durban.   15: E. London.   16: Brits.   17: Uitenhage.   18: Qs'town.
19: Pt. Elizabeth.   20: Bloem'tn.   21: K. William's Town.   22: P'maritzburg.   23: Peddie.

100. Finally, the percentage deviation of each regional center from this weighted average was calculated for each subsector, giving a measure of the regional dispersion of average wages relative to HSL-6. 1/

The results of this exercise are shown in Chart 18. The bars indicate the highest and lowest deviations of average wages from the subsector average of wages relative to HSL-6. The stars indicate the regional centers which account for more than 5 percent of subsector employment. The sectors have been ordered, so that those sectors with the lowest average wage relative to HSL-6 appear on the left, increasing toward the right. The weighted average of each subsector's average wage relative to HSL-6 is noted along the horizontal axis--for sub sector A (clothing), average wages are 90 percent of HSL-6. This ordering is an attempt to show those sectors where the unskilled workers dominate on the left hand side of the chart. 2/

The data suggest high rates of regional variation--of around 40 percentage points around each sub sector's weighted average--even just focusing on those regions that account for more than 5 percent of subsector employment. There is some suggestion in the data of a diminution of dispersion in sectors with lower average wages, but sectors A-C--clothing, leather products, and footwear--employed only 23,000 black people in 1988, compared with black employment in all manufacturing of some 471,000 in the same year, and have plants in only a few regional centers. Hence, this suggestion of more compressed regional dispersion in the lower income subsectors does not appear to be significant.

Clearly, this data on regional wages is less than ideal: it includes skilled labor, so part of the high variation may reflect the dispersion of skilled wages within each subsector. Nevertheless, if there is a nutritional floor on the wages of unskilled workers, then it is not apparent from these data, with the possible exception of the very lowest income sectors.

The weight of the evidence from wage behavior is against the nutritional floor hypothesis account of wage inflexibility in the formal sector during the 1980s. This conclusion is buttressed by the evidence that wages in the informal sector are substantially below those in the formal

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1/ Consider the following illustrative example. In a subsector, average wages in three regions are 100, 150 and 200 rand a month, while HSL-6 in all three regions is 150. If employment in all three regions is the same, the weighted average of the three ratios of average wages to HSL-6 in each region would be 1. The percentage deviation of each region's ratio from the weighted average for the whole sector would be -33, 0, and + 33, respectively. On Chart 18, this would be shown as 67, 100, and 133.

2/ Space constraints prevent the display of the results for all sub-sectors in manufacturing in Chart 18. The sectors not shown are those with relatively high wage rates, but they show the same degree of wage dispersion as the sub sectors shown.

CHART 18

SOUTH AFRICA

WAGE DISPERSION AROUND SUBSISTENCE, IN 1988
IN MANUFACTURING 1/

Subsector average wage/subsistence

SUBSECTOR 2/
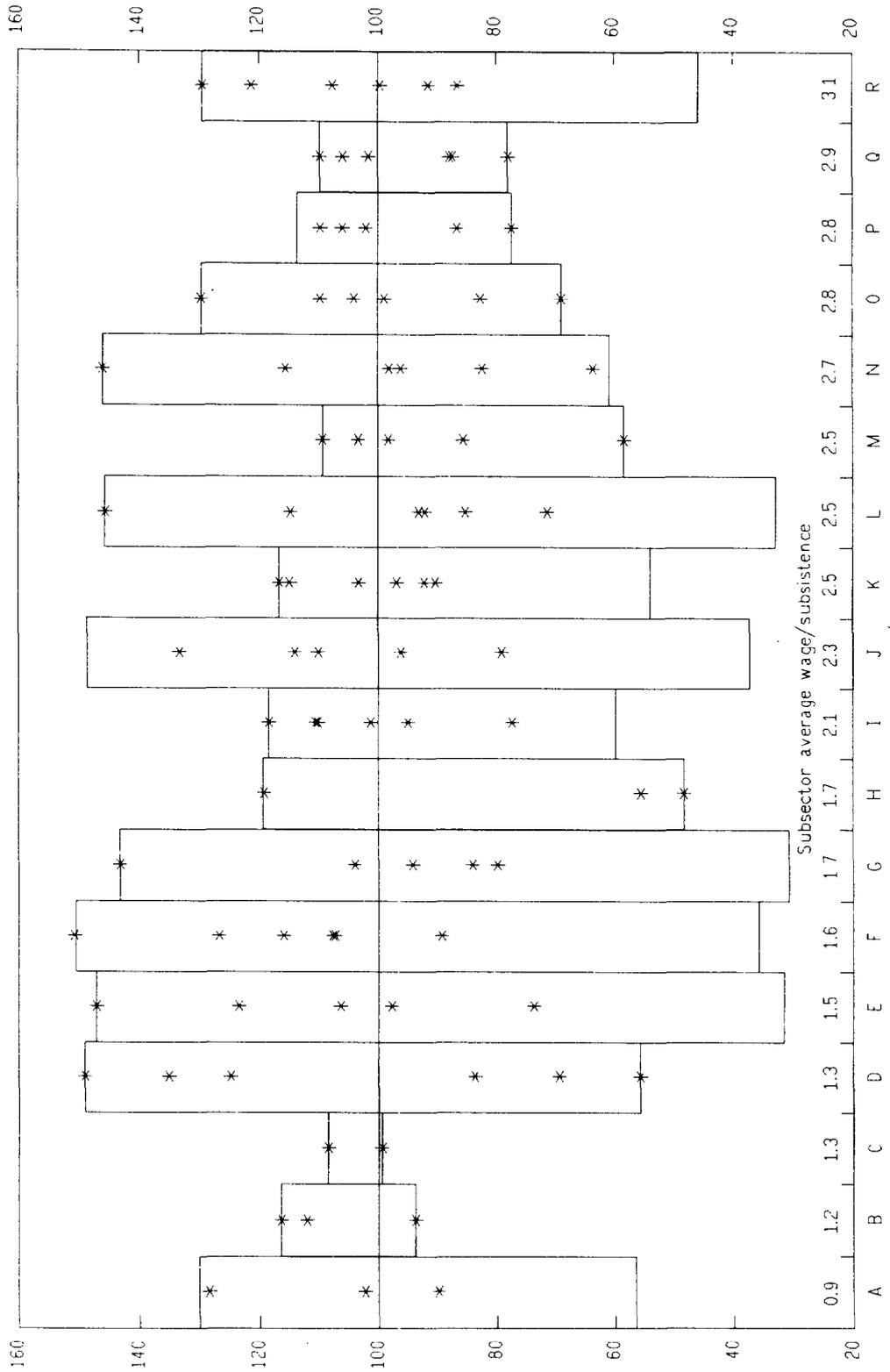
Sources: South African Labor Statistics 1994; Institute for Planning Research, UPE.

1/ Subsistence is measured as the average of HSL-6 in March and September.
2/ Sector legends are as follows:
A: Clothing B: Leather. C: Footwear. D: Wood products. E: Textiles. F: Non metal minerals.
G: Furniture. H: Pottery. I: Food. J: Plastic. K: Metal goods. L: Other manufacturing.
M: Vehicle parts. N: Electrical. O: Beverages. P: Professional. Q: Paper goods. R: Machinery.

sector, that young people are disproportionately represented among the unemployed (despite their lesser familial responsibilities), and that unskilled employment has stagnated since the late 1970s. All these cast doubt on this account of downward wage inflexibility underlying the rising FEG.

5.   The rise of trade unions

An alternative account the failure of real wages to adjust to the rising FEG in the 1980s emphasizes the growth of trade unions. Efforts to unionize the black labor force go back to the 1920s. But these efforts did not make a substantial impact on labor market behavior until the 1970s, when union growth was spurred following by the 1972-3 strike wave in Natal and in the Cape. The strikes stimulated the establishment of several new trade unions, the direct antecedents of the modern unions in South Africa.

Following the emergence of black union activity in the 1970s, the Industrial Conciliation Amendment Act of 1979 radically changed official treatment of black trade unionism: it recognized black people as employees, thereby incorporating them into the statutory wage negotiating structures (discussed below), it withdrew restrictions on mixed-race unions, it repealed most job reservation by racial group, and it made a number of other notable changes including the establishment of the Industrial Court.

The rise in the FEG is correlated with the growing economic strength and legal standing of black trade unions. Membership in registered trade unions 1/ rose from 677,000 in 1977 to 1,879,000 in 1987, with the Manpower Commission estimating that a further 240,000 members belonged to 88 unregistered unions in 1987, bringing total union membership to around 2.1 million or over half of those employed in the formal sector outside government. 2/ By 1993, total registered union membership had risen further, to 2.5 million persons. The largest of the union federations, COSATU, represents almost entirely unskilled and semi skilled workers; its membership stood at some 1.2 million persons in the late 1980s. The number of registered strikes rose from 101 in 1979 to 1,148 in 1987.

The link posited between growing union legal and economic strength and the FEG data has one key merit: it provides an account of the timing of the acceleration in the FEG in the late 1970s, and of its continued rise during the 1980s. But it does not stand alone as an account of the rising unemployment: some countries have had large trade unions and low unemployment rates, such as the former West Germany and Austria, which makes clear that union behavior is at least as important as the degree of unionization in determining the link between unionization and unemployment. Furthermore, the fact remains that, union membership of some 2.5 million people in 1993 compares with labor force estimates of some 15 million

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1/ Until 1979, no black unions were registered, though many existed.
2/ SALDRU's estimates of union membership are somewhat higher for the beginning of 1988; they estimated it at 2.6 million.

people. If union behavior lies at the heart of the rising FEG, then it is highly leveraged, even recognizing the much higher degree of unionization of the employed labor force. This has prompted suggestions that the economic power of unions in the 1980s has not rested solely on their improved legal standing and membership, but has been buttressed by other factors. Two such factors that have been suggested are the monopoly power of the producers with which the unions were negotiating, and the international support unions received as part of the sanctions campaigns against the former regime.

It has been suggested that employers enjoying monopoly power in goods markets made concessions to union claims more readily than employers in competitive goods markets, because concessions by monopolists merely represent transfers of part of the economic rent; they do not threaten the viability of the enterprise. However, the role of this factor in the rising FEG cannot be assessed. Notwithstanding the prominent monopoly producers that can be readily identified, the extent of monopoly power in goods markets is not well established, 1/ and the available data do not permit a decomposition of wage data by the monopoly power of employers.

Multinational firms operating in South Africa became increasingly subject to international pressures for political reform in South Africa during the 1980s. In seeking to follow guidelines such as the Sullivan principles, some made substantial concessions to union pressures for recognition and for wage increases, and there appears to have been a "demonstration effect" on locally owned companies. This may, in part, account for the particularly substantial real wage gains secured for unskilled labor in the metal and engineering industries shown in Chart 16. Nevertheless, the contribution of these factors to rising FEG rates throughout the 1980s is unclear.

While unionization appears to account for the timing of the rise of the FEG, and for its relentless rise in the 1980s, the leverage that union power obtained is difficult to account for. However, a third set of factors that may have accounted for the leverage that union power enjoyed in the labor market concerns the institutions of wage determination. These issues are discussed below.

6.   The structure of pay bargaining

There are a variety of structures governing pay determination. These vary across sectors and firms. In the cases of the mining sector and Government, wage determination predominantly involves centralized direct negotiations between employers and union representatives. Agriculture and domestic service are largely not unionized, while the informal sector is totally ununionized. Wage Boards--Statutory bodies reporting to the Ministry of Labor--have powers to determine minimum wage rates in sectors in

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1/ The evidence on monopoly power in goods markets is discussed in Chapter VI. See Nickell et al (1994) for an analysis of these issues in the United Kingdom.

which there is no union representation. However, other sectors--notably
manufacturing--which are highly unionized, often use what are known as
Industrial Councils (ICs) to determine wages, conditions, and disputes
settlement.

ICs are formed at the voluntary initiative of both employer and
employee representatives. Each constitutes a negotiating forum with
established disputes procedures. ICs set minimum wage rates for each skill
category in each industry. These rates obtain legal standing and may be
enforced in the courts, though some exemptions are granted to specific firms
on appeal. There were 86 IC agreements in force in 1993. 1/ 2/

IC agreements set floors on wages for all firms covered by the IC. ICs
rarely determine actual wage rates, or percentage increases in wage rates;
these are determined in plant level bargaining that occurs subsequent to IC
agreements. 3/ Wages can be substantially above the IC minima: in the
iron and steel industries, for example, the current wage rates for unskilled
workers are commonly 15-20 percent above the IC wage floors for their skill
levels, while for artisans, the actual wage rates are commonly 50-60 percent
above the IC wage floors for artisans. There is, however, wide dispersion
in behavior in this regard between sectors and firms.

In the period after 1979, the black unions tended to focus their
efforts on plant level negotiation, and in the process, the gap between IC
wage minima and actual wages tended to widen. IC wage agreements came to be
perceived as the starting point in wage negotiations, rather than as the
principal substance of those negotiations. This accounts for the evidence
that the pay for unskilled labor has risen more rapidly than the IC minima
during the 1980s. This is most apparent in the metal and engineering
sector, where the IC rates for unskilled labor in iron and steel and in the

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1/ ICs were first established by the Industrial Conciliation Act of 1924.
From 1988, teachers or lecturers employed in institutions fully or partly
state funded were brought under the ambit of the IC system.

2/ The Industrial Council (IC) structure into which the black unions were
incorporated in 1979, along with other labor legislation, provides a number
of legal restrictions on unions. Strikes (and lockouts) are illegal if
implemented before the established disputes settlement process has run its
course, if they relate to matters already settled in a current IC agreement,
or if the case is submitted to voluntary arbitration. The legislation also
requires that strikes must be preceded by a secret ballot in which a
majority of the trade union members supported the action. (Similar rules
apply to lockouts.) Ballots cannot be held until a 30-day cooling off
period has elapsed. Strikes are always illegal in essential services--
power, light, water, sanitation, passenger transport, and fire extinguishing
services "within the area of a local authority".

3/ However, the iron and steel industry is moving to establish a direct
link between the percentage increases agreed for IC wage floors for each
skill category, and the percentage increases in actual wages that are paid
to employees in those skill categories.

motor industry remained broadly unchanged relative to HSL-6 while average wages rose strongly. In the building industry, the IC floors on wages for unskilled labor fell relative to HSL-6, while average rates of pay rose. Accordingly, plant level negotiation, rather than IC agreements, seems to underlie the evidence of rising wage rates for unskilled labor in the face of the rates during the 1980s.

Despite the apparent importance of plant level negotiations in wage determination in firms that use ICs, there are three mechanisms within the IC structures which may leverage union power, and strengthen their hand in plant level negotiations. First, wages and conditions negotiated at IC level are enforced not only in those firms which are directly represented on the IC, but they can also be enforced by law in firms that are not represented. This extension is determined on a case-by-case basis by the Ministry for Labor at the request of the IC. It is approved if the parties on the IC are viewed as being "sufficiently representative" of the sector as a whole. 1/ Second, the floors that ICs set on wages are applied uniformly throughout the country; they take no account of regional disparities in the costs of subsistence. This, compounded by plant level wage negotiations, may account for the wide dispersion of wages relative to subsistence shown in Chart 18. Not only might this discourage greater regional decentralization of industrial activity, but it may reinforce the bargaining position that unions are able to achieve in the "core" producing regions of each industry. Finally, neither IC nor Wage Board wage floors take any account of age--an unskilled worker who is 16 years old has the same IC and Wage Board wage floor as another of 60. This may leverage union power by reducing the power of unemployed unskilled youth to bid themselves into work. In a population so much of which is relatively young, and where such a large share of the unemployed are young, this mechanism may be important in leveraging union power.

7.   Participation, youth unemployment, and rural-urban migration

The suggestion that real wages became increasingly inflexible downwards in the formal sector during the 1980s occurred in a context where participation rates were rising, where youth unemployment was increasing, and where controls on rural-urban migration were substantially eased. This section discusses the role of each factor in raising the FEG.

1/ A variety of measures have been used to determine whether or not an IC is sufficiently representative, most notably the share of employees that employers on the IC employ, and the number of employers as a proportion of all employers in an area or sector--to assess the representativeness of employers--and the share of employees represented by the trade unions on the IC--to measure the representativeness of the unions. When extension has been granted, it applies not only to existing firms in the industry, but also to any subsequent entrants while the IC agreement is in force.

Increases in the participation rate (Chart 13)--a result of falling participation rates for males and rising participation rates for females-- and growing social tensions were both notable features of labor market developments in recent years. Downward inflexibility of unskilled wages meant that the FEG bore the brunt of the burden of adjusting to both developments; those unable to secure work in the formal sector were forced into the informal sector, or into open unemployment. However, the rise in the participation rate was not substantial, and in that sense it accounts for a relatively small part of the rise in the FEG.

As the FEG rose, there is some evidence that young people were disproportionately affected. A tracer survey of two cohorts of standard-10 school leavers from schools in the Johannesburg and Pretoria areas--the classes of 1984 and 1988--conducted in 1992 1/ found that after leaving school, unemployment rates--defined in the same way as the official unemployment rate--are high, but they fall steadily over the subsequent years. In 1992, the unemployment rates for the class of 1984 were 17.8 percent and 24.4 percent for males and females, respectively, compared with 43.1 percent of and 65 percent for the class of 1988 (see Table 11). When the researchers compared the class of 1984 with that of 1988 for a given number of years in the labor force, the latter experienced considerably higher rates of unemployment. 2/

The results from the OHS are consistent with the tracer survey data: clearly, youth unemployment rates are substantially higher than those for other age groups. The pattern of youth employment--high rates immediately after leaving school but falling steadily over time--may account for the otherwise puzzling dominance of long-term unemployment alongside evidence that few of the unemployed have held a previous job; many of the long-term unemployed may be relatively young persons.

Conventional models of rural-urban migration 3/ predict that the increases in formal sector real wages rates raise the incentive for rural residents to migrate to urban areas, by raising the expected income from migrating. As a consequence, urban unemployment rates rise as recent migrants seek work. It is sometimes suggested that this may account, in part, for the rising FEG. However, this is unlikely. As a purely statistical point, the definition of the labor force in the FEG includes all persons engaged in subsistence agriculture, but subsistence agriculture is excluded from the formal sector employment data. Hence, migration from subsistence agriculture cannot account for the rising FEG. Even the relaxation of influx control laws in the mid-1980s, which made migration to urban areas substantially easier, occurred after the FEG began to rise. Finally, empirical surveys of migrant behavior in Africa and elsewhere

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1/ See Bennell and Monyokolo (1992).

2/ It should be noted that students that have attained standard 10 education represent an educational elite among black people.

3/ See Harris and Todaro (1969).

- 73 -

Table 11.   South Africa: Activity of 1984 and
1988 Standard 10 School Leavers in 1992

	1984		1988	
	Male	Female	Male	Female
Activity (In percent)				
Employed	66.3	58.6	40.4	23.7
Wage full-time	61.6	52.9	33.5	19.3
Wage part-time	0.5	2.6	2.9	3.3
Self-employed	4.2	3.1	4.0	1.1
Post secondary education	14.7	6.9	26.0	22.4
University	10.6	3.2	11.5	6.7
Technikons/teachers college	3.2	3.7	10.7	11.1
Private institutions	0.9	--	3.8	4.6
Rewriting matriculation full-time	0.5	0.5	1.7	2.3
Housewife/child care/ outside the labor force	--	11.5	--	6.5
Unemployed	14.4	18.9	30.6	44.1
Active job seeker	8.8	12.6	20.8	26.9
Discouraged job seeker	5.6	6.3	9.8	17.2
Other	4.6	3.6	2.6	1.2
Dead/sick	3.2	2.1	2.0	0.9
In prison	0.5	1.0	0.3	0.3
Overseas	0.9	0.5	0.3	--

Memorandum items:

Labor force - including discouraged
  job seekers

Percent of sample in the labor force	80.7	77.5	71.0	67.8
Percent of the labor force employed	82.2	75.6	56.9	35.0
Percent of the labor force unemployed	17.8	24.4	43.1	65.0

Labor force - excluding discouraged
  job seekers

Percent of sample in the labor force	75.1	71.2	61.2	50.6
Percent of the labor force employed	88.3	82.3	66.0	46.8
Percent of the labor force unemployed	11.7	17.7	34.0	53.2
Sample sizes	-403-		-760-	

Source: P. Bennell and M. Monyekolo, 1992.

suggest that in most cases, migrants only move to urban areas after first having obtained some assurance of employment there, usually through informal information networks. 1/

8.   Synthesis and conclusions

While the current unemployment of skilled labor may have a substantial cyclical element, the unemployment of unskilled labor is overwhelmingly structural. This conclusion is underlined by the prolonged stagnation of unskilled employment. The roots of this problem appear to lie in the growth of union leverage for employed insiders in plant level wage negotiations. Its consequences have been particularly injurious for the young, for those forced into informal employment, and for those of the unemployed with limited or no support from their families.

Nevertheless, there is much that is unclear about unskilled unemployment. The relative roles of the IC structures and union behavior cannot be unambiguously disentangled using the official data in those sectors and firms where ICs apply, and wage and employment behavior in sectors and firms outside IC structures is an area where further work is necessary. Both problems limit the conclusions that can be drawn about how to address the unemployment problem. But the discussion does suggest some guidelines that the new government might follow in its approach to unemployment:

*   There is a clear need for upgraded training, both in the education
     system and for adults. Firms are most likely to fund programs of
     firm-specific training, and these might also be the quickest to
     yield benefits. But training is typically slow to produce results
     discernible at the level of the general economy.

*   Consideration should be given to differentiating wage minima by
     age as part of the attempt to address youth unemployment. The
     Netherlands provides a model for this: minimum wage legislation
     there provides a steeply inclined schedule rising with age, and
     the full minimum wage is only payable to those over 22 years old.
     The ratio of youth to total unemployment in the Netherlands is
     among the lowest of the industrial countries. 2/ Such a
     schedule could be incorporated both into the Industrial Council
     agreements, into Wage Board rulings, and into public sector wage
     scales.

*   Industrial Council agreements should explicitly recognize regional
     differences in the cost of living in the wage floors they set as
     part of an effort to achieve a better reflection of regional

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1/   See Banerjee (1984) and Epstein (1969).
2/   See Moghadam (1994).

living costs in wages. As the first stage in the wage
determination process, IC agreements constitute a useful
forum where this initiative could be taken.

*   The mandatory extension of Industrial Council agreements to firms
      that are not represented on the councils--commonly smaller firms--
      should be terminated. If firms that are not party to IC
      negotiations wish to adopt IC wages and conditions, they should be
      able to do so, but on a voluntary basis.

*   Despite the evident caution exercised by the Wage Boards in
      setting minimum wages in the past, it is clear that their wage
      rates are binding in many cases. Given the severity of the
      present unemployment problem, the conservative stance of the Wage
      Boards should, at the very least, be maintained.

But these specific steps should not obscure the need for a greater
responsiveness on the part of unions at plant level to the needs of
unemployed unskilled labor. The impact of the measures noted above in
addressing the unemployment problem would be substantially enhanced if plant
level negotiations actively incorporated them. Clearly, the call made by
President Mandela at the COSATU conference in 1994 for wage agreements to
reflect the need to stimulate job growth is well placed.

The Household Subsistence Level

This measure has been calculated by the Institute for Planning Research at the University of Port Elizabeth on a consistent basis since 1972.

This data set shows the monthly cost of a basket of basic commodities for households of different sizes and compositions in up to 23 different mainly urban centers, and it is calculated in March and September of each year.

The Household Subsistence Level for a household of six low-income persons is used here because that is roughly the average size of low income households for the period being studied. More recent data suggest that average household size for low income groups has fallen to five persons. This reduces the household subsistence level by over 10 percent below that for a household with six persons--the exact decline depending on whether one removes an adult or a child from the household composition used for constructing the subsistence level.

From September 1994, the consumption bundle used for the calculation was changed--the first time this has happened--on the basis of new nutrition scales from the Ministry of Health. This reduced the level of the low income subsistence index further. (See Fact Paper 98 for details on this change to the basket.) This change, along with that suggesting a diminution in average household size, illustrates the problems with defining subsistence levels in absolute terms.

The nutritional component of the basket used up to September 1994 (and therefore in all exercises in this chapter) was defined by the Ministry of Health, based on Food and Nutrition Board, NRC USA 1974. The researchers producing the index indicate that since the basket is based on the needs of U.S. residents, the requirements of South Africans may be somewhat overstated by the index.

The clothing component is taken from Suttner (1966), with adjustments for children on a sliding scale according to age. Other items in the basket include fuel, lighting, cleaning materials, heating, rent, and commuting transport costs.

The basket excludes, notably, medical and education expenses, holidays and entertainment, insurance, depreciation of household assets, and noncommuting transport costs.

Prices are surveyed in supermarkets. Special discounts are ignored, and where goods are sampled several times in one area, the mid-price charged for the good is used.

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IV. **Fiscal Implications of the Social Assistance System**

1. **Introduction**

South Africa's social assistance system provides significant poverty relief for the elderly, for persons with disabilities, and for poor children; but it lacks a notable social assistance program for the unemployed. 1/ Reflecting the priorities of the apartheid period, the social assistance system was shaped largely by the priorities of whites, and eligibility rules discriminated against nonwhites, but in particular against blacks. With effect from September 1993, however, racial disparities in respect of social assistance payments were eliminated. Thus, social assistance spending has been one of the fastest growing expenditure categories in recent years and is projected at 3 percent of GDP in the 1994/95 budget. 2/

As in other areas of expenditure, fundamental reform may be needed to realign the social assistance system with changed priorities. However, reform discussions have barely begun. 3/ The RDP White Paper, for example, only calls for improving the delivery and targeting of the present elements of the social assistance system. Accordingly, this chapter focuses on the fiscal viability of existing social assistance programs, in particular, on the social pension system and the child grant system.

Government-backed pension systems have come under increasing strain throughout the world. 4/ Nevertheless, a recent report on South Africa's pension system, the _Mouton Report_ (1992), recommended preserving the present social pension system as the first tier of a future two-tier pension system, where the second tier would rely on private market-supplied pension schemes. However, the _Mouton Report_ did not address the issue of the long-term fiscal sustainability of the social pension system, an issue that has an important bearing on the need for timely reform. As regards child grants, the fiscal implications of the present system deserve close attention because take-up rates of formerly discriminated population groups could rise significantly putting potentially unsustainable spending pressures on the social assistance budget.

Section 2 describes the quantitative and institutional characteristics of the social assistance system against the backdrop of the overall social safety net. Section 3 provides demographic information. Section 4 analyzes

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1/ The state-run Unemployment Insurance Fund (UIF) pays unemployment benefits to insured formal sector workers for a duration of up to six months. The majority of the unemployed, however, have no employment history.

2/ Between 1990/91 and 1994/95, average total expenditure growth is estimated at 14 percent, while average growth of spending on social assistance is estimated at 22.5 percent.

3/ A survey of issues is provided by van der Berg (1994).

4/ See the recent World Bank study, _Averting the Old Age Crisis_ (1994).

projections of trends in spending on social pensions over the period 1995-2030 based on a long-run simulation model. Section 5 draws on available information on child grant take-up rates for different races to gauge the fiscal consequences of equalized access to child grants.

The main conclusion for the social pension system is that South Africa's present system does not represent a budgetary "time bomb." According to the baseline projection results, spending on social pensions may rise from about 1½ percent of GDP in 1995 to 2 percent of GDP in 2010 and further to 3 percent of GDP in 2030. Thus, over the next 15 years, the combined revenue increases or expenditure cuts needed to avert an increase in the budget deficit due to the dynamics of social pensions amount to about ½ percentage point of GDP. To illustrate, an increase of the VAT rate by 1 percentage point increases budget revenue by about ½ percentage point of GDP. Alternative simulation scenarios indicate that spending on social pensions could well be kept below the baseline projection results if the qualifying age for men and women is equalized at 65 years and/or if unemployment falls significantly over the projection period. The comparatively favorable fiscal outlook for South Africa's social pension system mainly reflects the small present share of elderly persons in the total population combined with slow population aging over the projection period, and the assumption that increases in pension rates are modest, rising no faster than average nominal wages.

By contrast, the analysis of the child grant system suggests that significant fiscal pressures may emerge, even in the short run, if the currently very low take-up rates among blacks rise rapidly. Illustrative calculations indicate that if take-up rates for blacks increase to the level of present take-up rates for coloureds, spending on child grants could increase by 1 percent of GDP. Thus, while, the need for fundamental reform of the social pension system may not be pressing, at least from a narrow fiscal perspective, a reconsideration of the child grant system--its reform or its financing--may be required to avert unsustainable expenditure pressures on the social assistance budget.

2. Characteristics of the social assistance system

Social assistance expenditure in the 1994/95 budget is projected at 3 percent of GDP (Table 12), equivalent to about 9 percent of total government expenditure. Expenditure data on different social assistance programs are sketchy, owing mainly to the extraordinary opaqueness of the administration system. 1/ In particular, there is no breakdown of social

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1/ Lund (1993, p. 6) reports that in 1993 there were 17 different social assistance administrations, which in turn were coordinated by 3 separate administrations.

Table 12. South Africa: Social Assistance Expenditure in 1994/95 Budget

	Former provinces 1/	Former TBVC states 2/	Former self-governing territories 3/	Total
	(In millions of rand)			
Social pensions	3,396	...	...	6,500
Disability pensions	1,375	...	...	2,200
Child support grants 4/	683	...	...	...
Other 5/	970	...	...	...
Total	6,424	3,506	3,700	13,630

Memorandum item:				
	(In percent of GDP)			
Social assistance expenditure	1.4	0.8	0.8	3.0

Source: Department of State Expenditure.

1/ Cape, Natal, Orange Free State, Transvaal.
2/ Bophuthatswana, Ciskei, Transkei, Venda.
3/ Gazankulu, Kangwane, Kwandebele, Kwazulu, Lebowa, Qwaqwa.
4/ Parent and child grants but excluding foster care and special care grants.
5/ Includes war veteran pensions, foster care and special care grants, payments to welfare organizations, community services, and drug treatment centers.

assistance spending available for the former homelands. 1/ The available data indicate that social pensions constitute by far the most important assistance program, accounting for about 50 percent of total spending, followed by disability pensions with a spending share of about 15 percent.

The key component of social assistance, the social pension system, was introduced as a noncontributory system in the 1920s to protect the standard of living of elderly whites. Access to the system was gradually extended to other race groups, and, since September 1993, discrimination on the basis of race has been removed. The qualifying ages for a social pension are 60 years for women and 65 years for men. Actual receipt of an old-age pension is tied to a means-test, which, effective October 1, 1994, establishes the following relationship between annual social pension amount (P) and annual income level of applicant (Y):

$$P = \max(4,680 - bY, 0) \quad \text{where} \quad \begin{array}{l} b=0 \quad \text{for } 0 \leq Y \leq 1,080 \\ b=1 \quad \text{for } 1,080 < Y. \end{array}$$

Applicants with annual incomes up to the income threshold of R 1,080 receive the maximum pension of R 4,680 a year. If annual income exceeds R 1,080 but remains below the income exclusion level of R 4,680, a clawback rate of 100 percent applies at the margin. 2/ If an applicant is married, the income of the spouse will be added to the applicant's income, and, to determine the means-test income, the sum of the two incomes will be divided by 2. Accordingly, an elderly couple may receive up to double the maximum old age pension even if the annual income of one of the spouses exceeds the income threshold of R 1,080. Social pension beneficiaries also receive free medical treatment, including hospitalization and medication, at provincial hospitals.

Relative to available measures of minimum living standards, the maximum social pension appears to be sizable. For example, estimates of low-income household subsistence levels in urban areas for a family of six (two adults and four children) as of March 1994 averaged to about R 11,600 a year, and the cost component allocated to children accounted for about 50 percent of total costs. 3/ Thus, these data indicate that, for example, a household consisting of two persons collecting social pensions will have income well in excess of household subsistence levels. Indeed, the data are consistent with the common observation that intergenerational linkages assure that the benefits of social pensions extend beyond the immediate recipients. Also,

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1/ The new regional dispensation consolidated the former provinces and homelands into nine provinces. The 1994/95 budget was drawn up on the basis of the old regional dispensation because the administrations of the new provinces are still in a formative stage.

2/ The clawback rate is only 80 percent for blacks.

3/ Based on data compiled by the Institute of Planning Research, University of Port Elizabeth, Fact Paper No. 96, March 1994.

in many cases, social pensions are reported to provide the only reliable income stream and source of access to credit for typical three-generation rural families.

The present social pension system exhibits several flaws. First, the present means-test causes a classic poverty trap because it discourages efforts to provide for retirement and/or to earn income during retirement at relatively low income levels. 1/ Second, the different qualifying ages for women and men are inconsistent with the Interim Constitution's provision against discrimination on grounds of gender. Third, the administration of social pensions has been described as lacking sufficient resources to ensure efficient and equitable delivery. 2/ And fourth, the purchasing power of social pensions may vary between urban and rural households.

The means-test for persons applying for disability pensions is identical to that for social pensions. Disability pensions are payable to beneficiaries below retirement age. Disabled persons above retirement age may apply for a social pension. Child support grants are paid out in two forms, a parent grant to the mother (the maximum is R 4,680 a year) and child grants (the maximum for each child is R 1,452 per year). Thus, child support grants are also relatively generous if compared with the data on household subsistence levels reported above, in particular if recipients live in rural areas. The means-test for child support grants is identical to the old-age pension means-test except that the full household income is used to determine the grants. The last feature of the means-test adds a perverse incentive--on top of usual disincentives to work and save--to form single-parent families.

The social assistance system is supplemented by two major social insurance funds. 3/ The Unemployment Insurance Fund (UIF) provides insurance for most formal sector employees against temporary earning losses from unemployment, illness, and maternity payable at 45 percent of weekly earnings for up to six months. The Workmen's Compensation Fund offers insurance against earning losses from work injuries. Since June 1994, children aged below six years, lactating mothers, and pregnant women are targeted to receive free health care benefits. This new program added a major categorical transfer in kind to the social safety net, the cost of which has not yet been fully ascertained.

3.   Demographic background

Demographic structure is an important determinant of social assistance spending. Moreover, changes in demographic structure over the long run may entail significant expenditure pressures. Table 13 shows population data for South Africa for the period 1990-2030 taken from the World Bank's World

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1/   van der Berg, 1994, pp. 35-39.
2/   Lund, 1993, p. 19.
3/   Expenditure of social insurance funds was about R 2.2 billion (0.6 percent of GDP) in 1993/94.

Table 13. South Africa: Demographic Projections, 1990-2030

	1990	1995	2000	2010	2020	2030
Total population (thousands)	37,959	42,514	47,248	56,701	64,921	72,448
Age groups as a percentage of total population						
0 to 14 years	39	38	36	33	28	24
15 to 19 years	11	10	10	10	9	8
20 to 39 years	30	30	30	32	33	33
40 to 59 years	15	16	17	18	20	23
60 to 75 years	5	5	5	6	7	9
75 years and above	1	1	1	1	2	3
Old age dependency ratio	7	7	7	8	9	12
$\dfrac{65 \text{ and above}}{15 \text{ to } 64 \text{ years}}$ x 100						
Youth dependency ratio	68	65	61	52	42	36
$\dfrac{0 \text{ to } 14 \text{ years}}{15 \text{ to } 64 \text{ years}}$ x 100						
Fertility rate	4.1	3.7	3.3	2.5	2.1	2.1
Life expectancy at birth (both sexes)	61	62	65	68	70	73
Net migration rate	--	--	--	--	--	--

Source: Bos et. al. (1994).

Population Projections 1994-95. On the projections in Table 13, population
growth in South Africa will slow from a little over 2 percent a year in the
1990s to about 1 percent a year toward the end of the projection period.
The old-age dependency ratio, defined as the ratio of over-65-year-olds to
persons of working age (15- to 64-year-olds), stood at 7 percent in 1990 and
suggests that South Africa's social assistance system presently supports a
relatively small elderly population, as is the case in most developing
countries. In contrast, old-age dependency ratios in industrial countries
typically amount to about 20 percent, roughly three times the estimate for
South Africa. At the same time, South Africa's old-age dependency ratio is
projected to remain stable until about 2010. After 2010, owing to falling
fertility levels and rising life expectancy, the old-age dependency ratio is
projected to rise to 12 percent by the year 2030.

The demographic data in Table 13 also highlight the large share of
young persons in the population. The youth dependency ratio, defined as the
ratio of persons younger than 15 years to persons of working age, is
estimated at 68 percent in 1990, almost 10 times the size of the old-age
dependency ratio. While the youth dependency ratio is projected to decline
over the long term, it will nevertheless exceed the old-age dependency ratio
by large margins over the projection horizon.

Long-run population projections are surrounded by considerable margins
of uncertainty. In South Africa's case, migration and the effects of AIDS
on mortality rates could cause significant deviations from the population
scenario summarized in Table 13. The Mouton Report (1992, pp. 71-75)
discusses estimates showing that the impact of AIDS could slow medium-term
population growth significantly. According to the estimates, the effects of
AIDS on the population structure would mainly affect the sizes of the
working-age and young-age populations but have only a small effect on the
size of the elderly population. The main impact of AIDS, as far as the
social assistance system is concerned, may well occur at the level of the
child grant and foster care system. As regards the migration factor, the
population scenario in Table 13 is based on the technical assumption of zero
net migration.

4.   Fiscal implications of the social pension system

The model used for projecting social pension expenditure is described
in Appendix II. The basic macroeconomic assumptions underlying the
projections are summarized in Table 14. The real GDP growth projections are
based on a Cobb-Douglas production function. Real GDP growth is driven by
balanced growth in employment and capital plus an assumed rate of multi-
factor productivity growth of 1 percent a year. 1/ The employment growth
projection derives from the working-age population projection combined with

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1/ The implicit assumption of a constant instead of an increasing
capital-labor ratio is clearly unrealistic for a typical developing country.
On the other hand, South Africa's capital-labor ratio is already relatively
high and may not increase substantially over the projection period.

Table 14. South Africa: Macroeconomic Assumptions, 1995-2030

(In percent)

	1995-00	2000-10	2010-20	2020-30
Inflation rate	8.0	8.0	8.0	8.0
Nominal wage growth	9.0	9.0	9.0	9.0
Real GDP growth	3.7	3.5	3.1	2.6
Employment growth	2.7	2.5	2.1	1.6
Unemployment rate 1/	45.0	45.0	45.0	45.0
Labor force participation rate	75.0	75.0	75.0	75.0
Population growth	2.1	1.8	1.4	1.1

Source: Staff estimates.

1/   Proportion of labor force without formal employment.

assumptions on labor force participation rates and unemployment rates. In the baseline scenario, the proportion of the labor force without formal employment is kept constant at a level of 45 percent over the projection horizon. An alternative scenario with declining unemployment is also considered below. The rate of inflation is projected to remain constant at an annual rate of about 8 percent. As the share of labor in output is assumed to remain constant, nominal per worker wage growth is equal to the inflation rate plus the rate of multi factor productivity growth. Average social pension benefits are assumed to be indexed to the average nominal wage, although one scenario explores the implications of indexing social pension benefits instead to price inflation.

Six scenarios were simulated for the period 1995-2030. The results of the simulations are summarized in Table 15. The baseline scenario assumes that the existing social pension system remains unchanged over the projection horizon. The portion of elderly persons eligible for a social pension is also kept constant, a conservative assumption given positive per capita GDP growth over the projection period. On the other hand, it is conceivable that the number of poor old persons in the population will grow more quickly than the number of persons with adequate retirement means. The projections assume that these two effects on the eligibility ratio cancel out. The take-up ratio of the system is projected to increase over time, reaching 100 percent in 2010, as administration of old-age pension benefits becomes more efficient and equitable. While a take-up ratio of 100 percent is likely to overstate actual take-up by some margin, it appears to be prudent to base the projections on the assumption that full take-up is reached over time.

In the baseline scenario (Scenario 1), social pension expenditure, which starts at a level of 1.6 percent of GDP in 1995, rises to 2 percent of GDP in 2010 and further to 3.0 percent of GDP in 2030. Thus, most of the projected increase in old-age pension expenditure takes place after 2010, reflecting the acceleration of population aging toward the end of the projection period.

Scenario 2 assumes that the present means-test is eliminated. Equivalently, the eligibility ratio increases to 100 percent starting in 1995. Elimination of the means-test increases old-age pension expenditure by about ½ percentage point of GDP in 1995, and additional annual social pension costs of about 0.7 percentage point of GDP accrue by the end of the projection period. Scenario 3 is based on the assumption that the retirement age for men and women is unified at the age of 60 years in 1995. With men in the 60- to 64-years age group also eligible for an old-age pension, the costs of the system would increase by about ¼ percentage point of GDP. Scenario 4 assumes equalization of the retirement age at 65 years. The cost reduction effect is slightly larger than the cost increase in the second scenario, because the female cohort of 60- to 64-year-olds is larger than the comparable male cohort. Finally, Scenario 5 considers the effect of a decline in the unemployment rate. Unemployment is assumed to decline linearly to a rate of 25 percent over 1995-2005 and to remain constant thereafter. Declining unemployment is associated with higher employment

Table 15. South Africa: Social Pension Expenditure
Projections, 1995-2030

	1995	2000	2010	2020	2030
Baseline assumptions					
Eligibility ratio	80.0	80.0	80.0	80.0	80.0
Take-up ratio	85.0	95.0	100.0	100.0	100.0
Annual budgetary social pension cost 1/					
Scenario 1: Baseline projection	1.6	1.9	2.1	2.4	3.0
Scenario 2: Elimination of means-test	2.0	2.3	2.6	3.1	3.7
Scenario 3: Equalizing retirement age at 60 years	1.9	2.2	2.5	2.9	3.4
Scenario 4: Equalizing retirement age at 65 years	1.2	1.4	1.6	1.9	2.4
Scenario 5: Declining unemployment rate scenario 2/	1.6	1.6	1.6	1.8	2.2
Scenario 6: Indexation of pensions to price inflation	1.6	1.8	1.8	1.9	2.1

Source: Staff estimates.

1/ In percent of GDP.
2/ Assumes linear decline of unemployment rate--that is, proportion of the labor force without formal jobs--from 45 percent to 25 percent over 1995-2005.

growth and, accordingly, higher real GDP growth. The lower unemployment rate is assumed not to affect other baseline assumptions. Scenario 5 indicates that higher GDP growth could have a sizable effect on the cost burden of the social pension system. By 2010, social pension expenditure is about ½ percentage point of GDP below the baseline scenario. Scenario 6 illustrates that indexing social pension benefits to price inflation instead of nominal wage growth could dampen costs considerably, at least after 2010.

The scenarios in Table 15 assume that the average old age pension benefit remains constant as a percentage of the average wage over the entire projection horizon. But even relatively small one-time adjustments of the social pension relative to the average wage could result in sizable increases of the short- and long-term fiscal costs of the system. For example, increasing social pensions by 5 percent relative to average wages increases the costs by some 1 percentage point of GDP in the short run and 1½ percentage points of GDP in the long run.

5.   Fiscal implications of child grant system 1/

Until the recent removal of racial discrimination, payments of child support grants were largely restricted to the nonblack part of the population. As a consequence, take-up rates for child support grants by blacks are currently very low. It is likely that take-up rates by blacks will rise quickly, and, given the relative generosity of child grant benefits, significant fiscal pressures on social assistance spending could result. Unfortunately, gauging the fiscal consequences of a rise in take-up rates by blacks is hampered by poor data. Nevertheless, rough calculations appear to indicate that the current system is not fiscally viable.

Table 16 presents estimates of expenditure on child support grants based on available data on take-up rates in 1993 but reflecting 1994 population projection data and grant amounts as of October 1994. Under these assumptions, total expenditure on child support grants would amount to about R 1.1 billion, or 0.2 percent of GDP. However, as Table 16 indicates, this estimate is premised on the assumption that take-up rates of blacks remain extraordinary low relative to those for coloured and Asian persons.

To illustrate the potential fiscal pressures if take-up rates rise, an alternative calculation was performed assuming that take-up rates of blacks rise to that of coloureds. Under this assumption, the costs of the child grant system would increase to R 5.4 billion, about 1 percentage point of GDP higher than the costs reported in Table 16. This much higher estimate of child grant costs may nevertheless represent a lower limit for actual cost increases because coloured families, on average, have fewer children and higher incomes than black families.

1/   This section partly draws on van der Berg (1994).

Table 16. South Africa: Estimated Costs of Child Support
Grants Based on 1993 Take-up Rates

	Whites	Asians	Coloureds	Blacks	All races
Population 1/	5,184	1,035	3,449	31,430	41,098
Population aged 0-14 years as a percent of total	22	31	34	41	38
Take-up rates 2/					
Parent grants	2	15	19	1	3
Child grants	5	26	49	4	8
Number of grants					
Parent grants	9,850	15,111	65,186	34,574	124,720
Child grants	25,920	27,013	169,846	110,006	332,286
Expenditure 3/	83.7	109.9	551.0	321.5	1,066.2

Sources: Department of National Health and Population Development; South
African Labor Statistics 1994; van der Berg (1994, Table 2.3); and staff
estimates.

1/ In thousands; projections for 1994.
2/ Number of grants per thousand of population based on van der Berg (1994,
    Table 2.3).
3/ In millions of rand.

It is not clear whether the authorities in circumstances of a much higher take-up of child support grants would seek simply to finance the cost by cutting expenditure elsewhere, or would choose to reform the child support system. Reform options would include reducing benefit levels, tightening the means-test, or lowering the qualifying age for children (currently, child grant benefits may be claimed up to age sixteen), or a combination of these options. At the same time, expanding nutritional programs for children could provide an alternative means of achieving at least some of the objectives of the child grant system at significantly lower cost.

Were a new social assistance scheme for unemployed persons to be introduced, it would likely cause even greater fiscal stress than that currently threatened by the child grant system. For example, assuming that there are 3 million persons not covered by the UIF, that the take-up rate for unemployment grants is 80 percent, and that the payment of a monthly unemployment grant benefit is equal to the present parent grant of R 390 per month, the annual cost would amount to R 11.2 billion or 2.5 percent of GDP, almost the size of the present total social assistance budget.

6.   Conclusion

The analysis of this chapter brings out quite clearly that allowing significant take-up of child grants at present grant rates would lead to considerable pressure on the budget. On the other hand, the demographics are such that the present social pension system is probably affordable in the long-run. Finally, given the large number of unemployed and the likelihood of high take-up rates, the fiscal scope for introducing a social assistance scheme for unemployed persons appears to be extremely limited.

South Africa: Elements of Social Safety Net

(As of November 1, 1994)

1. **Old-age, disability, survivor pensions**

   Coverage: Noncontributory benefits for all residents.

   Source of funds: General budget revenue.

   Eligibility conditions: For old age benefits, age limits are 60 years for women and 65 years for men. For disability benefit, permanent incapacity for self-support or blindness. For survivor benefit, care for dependent children by surviving or deserted spouse. Special survivor benefit for maintenance of orphaned child.

   Benefits: Based on means-test, old age pension of up to R 390 per month or R 4,680 per year. Maximum old age pension is paid up to an annual income of R 1,080. For annual income above R 1,080 and up to R 4,680 the clawback rate of the means-test is 100 percent (80 percent for blacks). Income of spouses is cumulated and divided by 2. An aged couple may therefore receive up to double of R 390 a month. Constant-attendance allowance of R 64 for handicapped persons. Disability and survivor pensions are based on the same means-test and may amount to up to R 390 a month.

2. **Child support grants**

   Coverage: Noncontributory benefits for all residents.

   Source of funds: General budget revenue.

   Eligibility conditions: Insufficient earnings to maintain child. Application restricted to women. Grants apply until a child reaches the age of 16 but may apply for two additional years of schooling.

   Benefits: Based on means-test, parent's allowance of up to R 390 a month and child allowance of up to R 121 a month. Identical means-test as for old-age pensions except that a husband's income is added to applicant's income.

3. **Unemployment, sickness, and maternity benefits**

   Coverage: Compulsory insurance system for employees earning R 63,648 a year or less. Scheme excludes domestic servants, homeworkers, and temporary workers who are employed for less than 8 hours or less than one full working day in any calendar week.

   Source of funds: Employee and employer contributions of 1.0 percent of insured's earnings. Government contribution of 25 percent of contributions paid by employees and employers with a maximum of R 7 million per year.

Eligibility conditions: For unemployment benefits, 13 weeks of contribution during last 52 weeks, capable of and available for work, and proof of efforts to obtain work. For sickness benefits, 13 weeks of employment during 52 weeks preceding the date on which a period of sickness is deemed to have commenced. For maternity benefits, 13 weeks of employment during 52 weeks preceding expected date of confinement or date of birth as the case may be.

Benefits: Unemployment benefits of 45 percent of weekly earnings, payable up for up to 26 weeks. Sickness and maternity benefits of 45 percent of weekly earnings, payable for 26 weeks.

4.   Work injury benefits

Coverage: Compulsory insurance scheme operated by public carrier for employees earning R 55,068 a year or less. Scheme excludes domestic servants and casual workers.

Source of funds: Employer pays insurance premium varying with risk.

Eligibility conditions: No minimum qualifying period.

Benefits: Temporary disability benefits of 75 percent of earnings up to R 4,589 a month. Permanent disability pension equal to 75 percent of earnings up to R 4,589 a month. Widow/widower pension of 40 percent of pension of deceased. Medical benefits provided for maximum of two years.

5.   Free health care benefits

Coverage: Children younger than six years of age, lactating mothers, and pregnant women. Old-age, disability, and survivor pensioners. Insured workers qualified for unemployment, sickness, and maternity benefits.

Source of funds: General budget revenue or medical insurance for those on medical aid.

Eligibility conditions: See information on coverage under items 1 and 3.

Benefits: Free medical treatment, including hospitalization and medication, at provincial hospitals.

6.   Miscellaneous other benefits

Foster care grants for children of R 274 a month. Special foster care grants of R 390 a month for disabled children. Nutritional programs administered largely through nongovernmental organizations and school feeding programs.

Description of Social Pension Projection Model

Social pension expenditure (SPE$_t$) is the product of the average annual pension benefit (B$_t$) and the number of pension beneficiaries (NB$_t$):

$$SPE_t = B_t NB_t. \tag{1}$$

The average monthly pension benefit in the first year of the projection period, 1995, is assumed to amount to R 426, a figure derived from the assumptions of about 1.5 million old age pension beneficiaries and estimated social pension expenditure of R 7.5 billion in 1995. After 1995, the social pension is assumed to be indexed to nominal wage growth ($\Delta W_t/W_t$):

$$\Delta B_t/B_t = (\Delta W_t/W_t) \tag{2}$$

In Scenario 6, pensions are indexed to price inflation ($\Delta P_t/P_t$) instead of nominal wage growth.

The number of pension beneficiaries is estimated as the number of old persons (ON$_t$) that have reached retirement age multiplied by the proportion of old persons eligible for a means-tested old-age pension (EL$_t$) times the proportion of eligible old persons who actually collect the pension (TU$_t$):

$$NB_t = ON_t EL_t TU_t. \tag{3}$$

The product of eligibility ratio and take-up ratio in 1995 is projected to amount to about 0.7 in 1995, calculated as the ratio between pension beneficiaries (1.5 million) and the number of old persons who have reached retirement age (2.1 million). The take-up ratio is assumed to reach about 0.85 in 1995, an assumption that determines the eligibility ratio at about 0.80 in 1995.

To project real growth of the economy, a Cobb-Douglas production function is used. Using a growth-accounting framework, real output growth ($\Delta Y_t/Y_t$) can be written:

$$\Delta Y_t/Y_t = \alpha(\Delta L_t/L_t) + \beta(\Delta K_t/K_t) + \gamma, \tag{4}$$

where L$_t$ is employment, K$_t$ is the capital stock, γ denotes multi factor productivity growth, and α and β are the shares of output received by labor and capital, respectively. In the simulations the labor share is fixed at 0.70 and the capital share at 0.30. Employment is derived as the product of the working age population (WN$_t$), the labor force participation rate (LFPR$_t$), and the employment rate (1-U$_t$), where U$_t$ is the unemployment rate:

$$L_t = WN_t LFPR_t (1-U_t). \tag{5}$$

Over the projection horizon, labor force participation rate and unemployment rate are fixed at 75 percent and 40 percent, respectively. An alternative scenario with declining unemployment is also considered.

Finally, assuming a constant capital-labor ratio $((\Delta L_t/L_t)=(\Delta K_t/K_t))$, the growth rate of the average nominal wage is given by:

$$\Delta W_t/W_t = \Delta Y_t/Y_t + \Delta P_t/P_t - \Delta L_t/L_t, \tag{6}$$

where $\Delta P_t/P_t$ is the exogenous inflation rate.

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V. Effective Tax Rates on Labor and Capital

1. Introduction

The Government's medium-term fiscal plans envisage a more or less constant central government tax take of about 24 percent of GDP for the period 1994/95 to 1998/99; this stance reflects concerns that South Africa's tax burden may already be high by international standards. 1/ While there is broad political agreement to refrain from permanent increases in the overall tax burden, there is much less consensus on the desirable thrust of reform to achieve the appropriate balance and structure of taxation. In this context, the balance and structure of taxes on labor and capital have come under particularly close scrutiny. 2/ The present tax system is widely held to favor capital-intensive over labor-intensive production activities and to provide for low effective tax rates on capital, despite relatively high statutory tax rates. Furthermore, it has been argued that the burden of labor taxation falls overwhelmingly on persons earning annual incomes of R 20,000-80,000, and that the system of capital income taxation tilts the playing field in favor of particular investment projects through special incentives. 3/

This chapter analyzes effective average and marginal tax rates on labor and capital with the aim of providing empirical evidence on relative tax burdens and, in particular, on the variation of effective marginal tax rates on labor and capital. Section 2 briefly explains the concepts. Section 3 provides a historical analysis of average effective tax rates on labor and capital, based on macroeconomic data, while Sections 4 and 5 examine marginal effective tax rates on labor and capital, using microeconomic data.

Effective average tax rates on labor have risen sharply since the early 1970s, whereas effective average tax rates on capital have varied considerably over time albeit around a relatively stable mean. Until the early 1990s, the average tax burden on capital exceeded the average tax burden on labor by a significant margin. To the extent that any of the incidence of the increase in labor taxation has been on capital, the rising

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1/ For a comparative analysis of the tax burden and various tax rates in South Africa with those in industrial and in middle-income countries, see Lachman and Bercuson (1992), Chapter VI. The central government tax-GDP ratio excludes social security taxes--which are small in South Africa, however, as many social insurance services are provided through private sector schemes--own tax revenues of provinces, and taxes collected by local governments. The general government tax-GDP ratio in 1993/94 amounted to about 26 percent of GDP.

2/ Most recently by the Katz Commission on Taxation, see Chapter I, Section 2.

3/ See, inter alia, White Paper on Reconstruction and Development," Ministry in the Office of the President, p. 38, 1994, and Reducing Poverty in South Africa: Options for Equitable and Sustainable Growth, p. 3, The World Bank, 1994.

relative tax burden of labor is likely to have favored more capital-intensive production activities and may have contributed to the sharp rise in unemployment described in Chapter III. Nevertheless, recent studies showing that the efficiency costs of capital taxes by far exceed the efficiency costs of labor taxes would caution against increasing the present tax burden on capital income. 1/

The analysis of marginal effective tax rates on labor and capital under the present tax code indicates a wide dispersion of tax rates. In particular, marginal effective tax rates on labor increase sharply at relatively low annual remuneration levels between R 20,000 and R 50,000. Marginal effective tax rates on capital are sensitive to inflation, the type of investment project (equipment or structures), the mode of financing investment projects (debt, new shares, retained earnings), and the tax status of the provider of investment funds (private households, tax-exempt institutions). The chapter concludes that tax reform should focus on mitigating the distortions caused by the wide variation of marginal effective tax rates on labor and, in particular, on capital.

2. Effective tax rates: Concepts

Taxes on labor and capital drive wedges between pre- and post-tax prices of labor and capital. The effective tax rate on a factor service is defined as the ratio of the tax wedge to the before-tax price of the factor service. 2/ As regards labor services, wedges between the pre-tax wage relevant mainly to labor demand decisions and the post-tax wage relevant chiefly to labor supply decisions may be caused by direct taxes on labor (mainly social security contributions), individual income taxes, and consumption taxes. While social security contributions and individual income taxes represent direct deductions from the pre-tax wage, consumption taxes diminish the value of a given pre-tax wage by reducing the purchasing power of labor earnings. Tax wedges on capital services measure the difference between the pre-tax return of an investment and the post-tax return accruing to the investor. Capital tax wedges reflect statutory tax rates on capital income and other provisions of the income tax code, in particular provisions for depreciation allowances and for inflation accounting or the lack thereof. In practice, there can be a wide variety of average and marginal effective tax rates related, for example, to the progressivity of income tax schedules and the personal characteristics of taxpayers.

This study of allocational distortions originating in the South African tax system is limited in scope. Three potential extensions of the analysis are notable: first, the measurement of excess burdens--losses of economic

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1/ See, inter alia, Lucas (1990) and Jorgenson and Yun (1993).

2/ For a more formal discussion of tax wedges and effective tax rates, see Appendix I. For evidence on effective tax rates in industrial countries, see King and Fullerton (1984), McKee, Visser, and Sanders (1986), OECD (1991), and Mendoza, Razin, and Tesar (1993).

welfare above and beyond the government's tax take; second, the estimation of labor and capital price wedges introduced by budgetary transfers, subsidy programs including export promotion schemes, and regulations; and third, estimates of who ultimately bears the burden of taxes, i.e., tax incidence.

There are two basic approaches to the calculation of effective tax rates on labor and capital. Traditionally estimates of effective average and marginal tax rates have been based on a combination of information on statutory tax rates, provisions of tax codes, and, in the case of effective tax rates on capital, assumptions on economic behavior. However, the complexity of tax codes may make the construction of realistic effective tax rates difficult, and the relevance of an estimated effective tax rate based on the circumstances of a particular individual may be limited at the level of aggregate macroeconomic variables. Alternatively, effective average tax rates may be calculated using actual tax payments and data on tax bases from the national accounts. 1/ This approach does not require detailed information on the operation of the tax system and is particularly suitable for tracking changes in tax wedges over longer periods of time. On the other hand, macroeconomic data may not be informative on marginal effective tax rates (if taxes are not proportional) and may pose difficult measurement problems. For example, estimated tax rates may reflect tax evasion or mismeasurements of labor and capital income in the national accounts.

3. Average effective tax rates based on macroeconomic data

The construction of average effective tax rates on labor and capital and the sources for the data series used in the construction are described in Appendix II. Table 17 reports effective tax rates on labor and capital in South Africa averaged over the period 1971-93 and selected subperiods. Chart 19 plots the estimates. The average effective tax rate on labor combines information on labor and consumption tax collections and wage remuneration and consumption data from the national accounts to estimate the average tax burden on labor services. Estimates of the average effective tax rate on capital were constructed both for total capital income and for corporate income. Total capital income as measured in the national accounts is a heterogenous aggregate, which includes corporate profits, interest income, rent incomes, and income from self-employment. Estimates of the average effective tax rate on corporate capital income may therefore provide useful additional information on the capital income tax system.

The plots in Chart 19 show that average effective tax rates on labor have trended sharply upwards since the early 1970s, although the effective tax burden on labor appears to have stabilized between 1988 and 1993. Chart 20 plots the average effective tax rate on labor and two of its components, the average effective tax rates on labor remuneration and on consumption. The series in Chart 20 suggest that both components of the

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1/ The calculation of effective average tax rates based on macroeconomic data has been proposed by Lucas (1990).

Table 17. South Africa: Effective Average Tax Rates
Based on Macroeconomic Data

Time range	Effective average tax rates		
	Labor	Capital	Corporate capital
1971-93	19.2	29.0	27.6
1971-80	13.9	28.3	25.8
1980-90	21.5	30.7	28.3
1990-93	26.7	26.3	31.5
Memorandum items: 1/			
United States	28.9	43.0	...
Japan	24.6	33.0	...
Germany	45.1	25.0	...
United Kingdom	35.8	56.0	...

Source: Staff estimates.

1/ Period 1965-88. Derived from estimates reported in Mendoza, Razin, and Tesar (1993), Tables 2 and 3, p. 94.

CHART 19
SOUTH AFRICA
Average Effective Tax Rates, 1971-93
(In percent)

Average tax rate on capital

Average tax rate on corporate capital

Average tax rate on labor
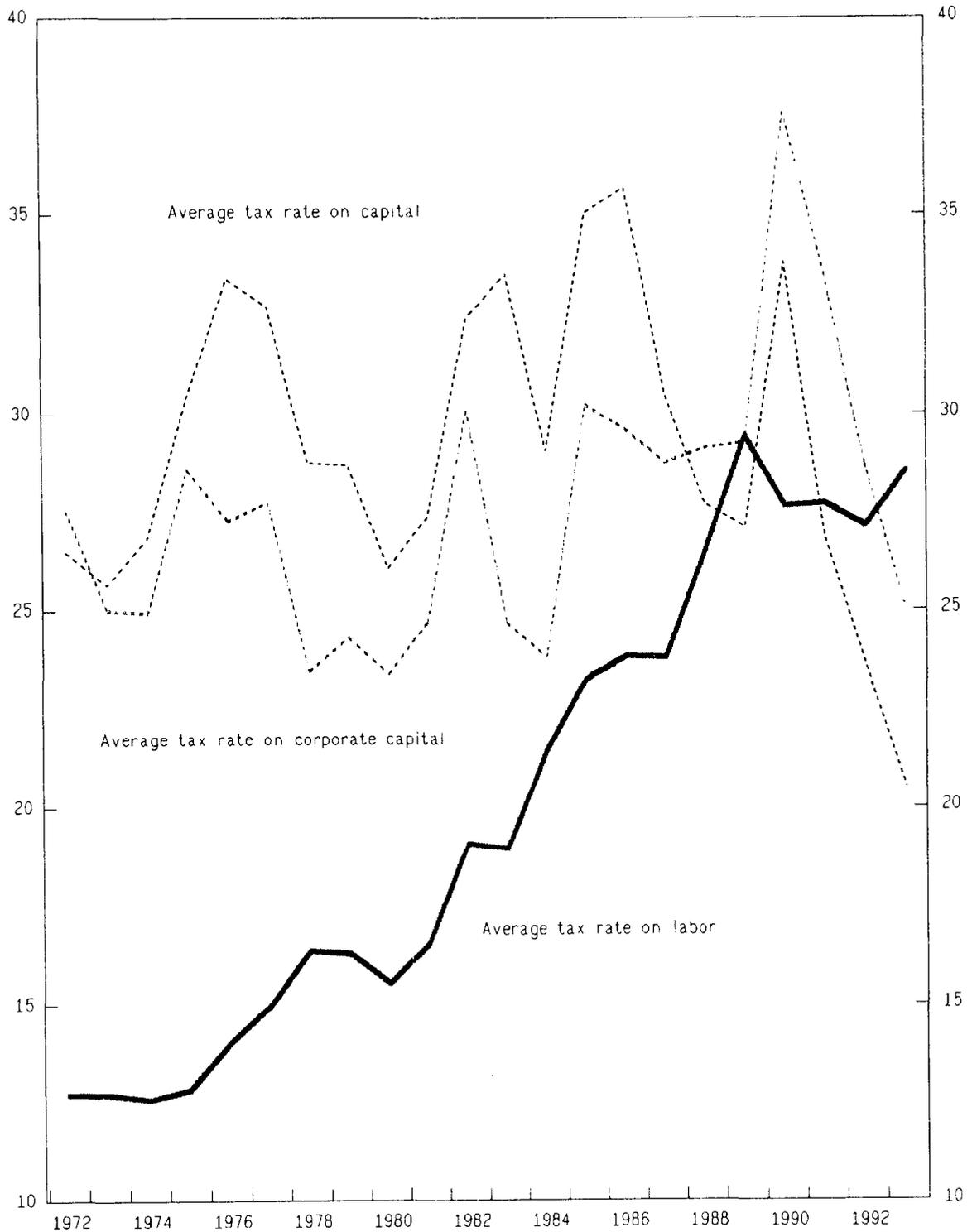
Source: Staff estimates.

CHART 20
SOUTH AFRICA

Average Effective Tax Rate on Labor, 1971-93

(In percent)
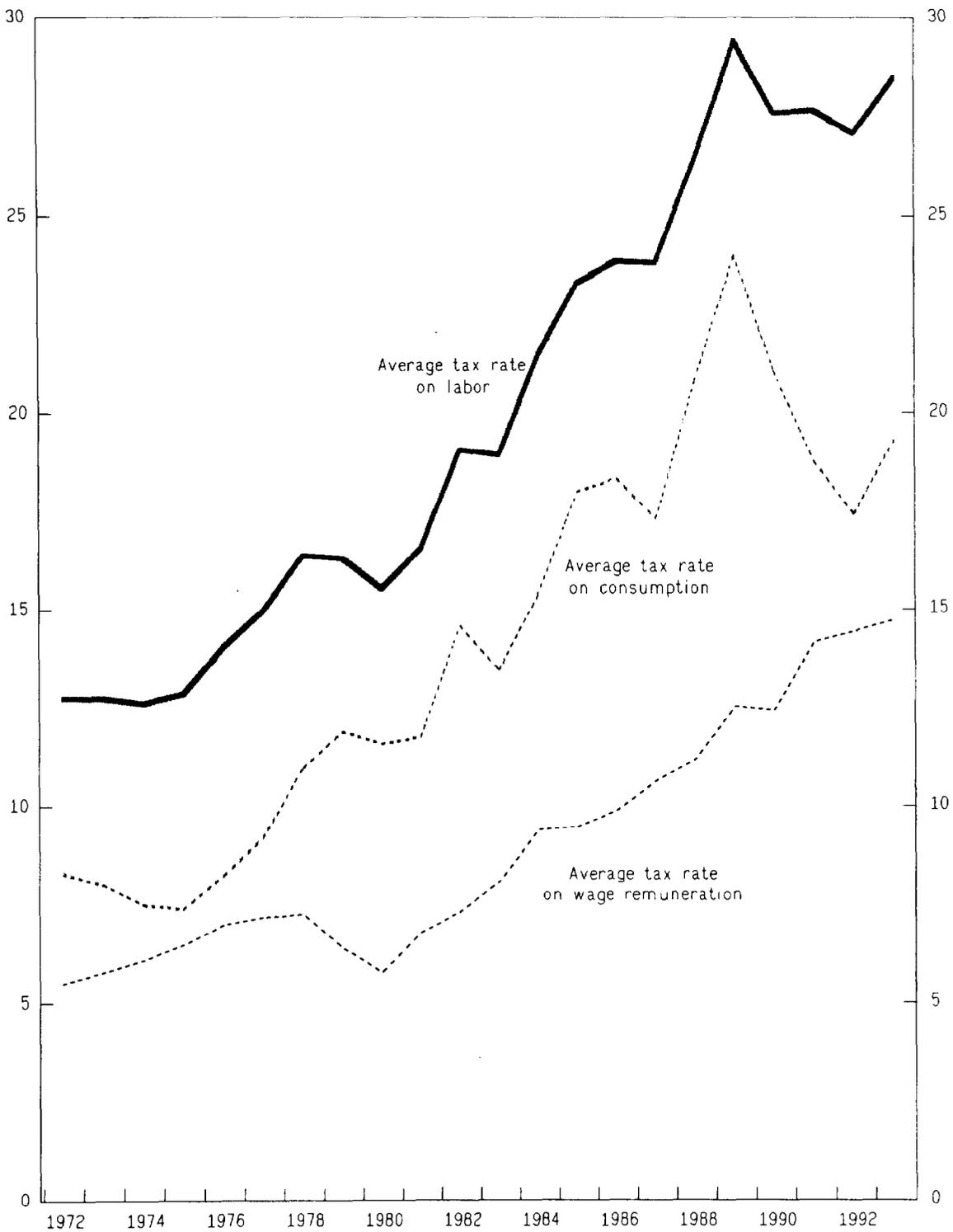
Source: Staff estimates.

average effective tax rate on labor have contributed to the significant rise in the tax burden on labor. Evidence on average effective tax rates for other countries is available for selected industrial countries. Estimates for the United States, Japan, Germany, and the United Kingdom, reported as memorandum items in Table 17, suggest that the average tax burden on labor in South Africa is high, in particular in view of the fact that the level of average effective tax rates on labor in most countries reflects substantial social security contributions. 1/ By contrast, in South Africa social security contributions are small and only payable for workers below certain wage remuneration levels. Most typical social insurance services--including health care, accident, and retirement benefits--are provided through private sector schemes (see description of social safety net in Chapter IV). To illustrate, adding up premium contributions to private and official pension funds in 1993/94, total pension contributions amounted to about 6½ percent of GDP. Using the hypothetical assumption that all pension insurance schemes would be converted into state-run social security schemes, this amount would add about 10 percentage points to the estimates of the effective tax rates on labor in Table 17, resulting in average tax burdens on labor that are comparable to levels observed for industrial countries. 2/

Average effective tax rates on capital income and corporate income varied considerably over time and usually exceeded the average effective tax rate on labor by a significant margin (Chart 19). However, more recently, there has been a significant decline in the average effective tax rate on capital, which is likely to reflect a range of factors: the deep recession; the sharp fall of tax collections on mining profits; the discretionary cuts in the rate on corporate tax (including surcharge) from 57.5 percent in 1988/89 to 40 percent in 1993/94, which were only partly compensated by the introduction of a Secondary Tax on Companies (STC) on distributed dividends; and tax concessions provided through Section 37e of the Income Tax Act. 3/ On the other hand, since the mid-1980s a number of special capital tax incentives have been removed or reduced, including investment allowances, accelerated depreciation, building investment allowances. Given this range of factors and the observation that large short-run variations in the average effective tax rate are not unusual, it is not clear whether the recent decline in the average effective tax rate on capital signals a permanent lowering of the tax burden or a temporary lowering that will be partly or fully reversed as the economy recovers.

1/ The March 1994 Fiscal Review reports that social security contributions in 1990 for an average of industrial countries amounted to 9 percent of GDP and to 4.1 percent of GDP for an average of middle-income countries.

2/ The average tax rates referred to include both employee and employer social security contributions.

3/ Section 37e tax concessions, which were abolished during 1993/94, provided for accelerated depreciation and deduction of interest for large-scale "mineral-benefication projects" before projects went on stream.

While the evidence from macroeconomic data indicates that the average effective tax rate on capital income has been fairly stable over the last 20 years, it also clearly suggests that the average tax burden on labor has risen significantly, and may now exceed the average tax burden on capital. Part of the perception that the South African tax system favors capital as a production factor may therefore be more reflective of the sharp relative rise in the tax burden on labor rather than a policy-induced lowering of the tax burden on capital. At least from the point of view of economic efficiency, the appropriate mix of taxes on labor and capital should depend on the relative efficiency costs of labor and capital taxes. In this regard, several studies of excess burdens caused by taxes have concluded that the efficiency cost of capital income taxation by far exceeds the efficiency cost of labor taxation. 1/ The conclusions of these studies-- coupled with the evidence from this section that average effective tax rates on labor and capital are presently at roughly similar levels--would appear to militate against a policy of significant rebalancing of labor and capital tax burdens.

4. Effective tax rates on labor

In 1993, the average effective tax rate on labor based on macroeconomic data amounted to about 26 percent. However, this average tax rate may mask considerable variation in average effective labor tax rates across different wage remuneration levels. This section provides estimates of marginal effective labor tax rates at different wage income levels based on micro information about the tax system. In addition, it also reports estimates of average effective tax rates on labor at different income levels.

Table 18 shows calculations of average and marginal tax rates on labor at four annual wage remuneration levels (R 10,000, R 20,000, R 50,000, and R 100,000), reflecting the tax code applicable in fiscal year 1994/95. Specifically, unemployment insurance is levied at 2.0 percent of the insured's earnings but applies only to workers with an annual income of R 63,648 or less. Additionally, Regional Service Councils levy a payroll tax of about 0.3 percent. The calculation of marginal and average individual income tax rates is based on income tax relief parameters for a married worker with two children. Finally, average and marginal tax rates on consumption are assumed to be equal and not to differ across remuneration

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1/ For the U.S. tax system after the Tax Reform Act of 1986, Jorgenson and Yun (1993, p. 20) calculated a marginal excess burden on corporate income of $0.84 per $1 raised in tax revenue, compared with an excess burden of $0.49 per $1 for taxes on labor remuneration.

Table 18. South Africa: Marginal and Average Effective Tax Rates on Labor at
Different Remuneration Levels Based on 1994/95 Tax Code

| | Annual pre-tax remuneration | | | | | | | |
| | R 10,000 | | R 20,000 | | R 50,000 | | R 100,000 | |
	Marginal rate	Average rate	Marginal rate	Average rate	Marginal rate	Average rate	Marginal rate	Average rate
Unemployment insurance	2.0	2.0	2.0	2.0	2.0	2.0	--	--
Payroll tax 1/	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Individual income tax 2/	--	--	21.0	6.4	41.0	19.6	43.0	30.9
Surcharge on income tax	--	--	--	--	3.3	3.3	3.3	3.3
Consumption taxes	17.6	17.6	17.6	17.6	17.6	17.6	17.6	17.6
Effective tax rate 3/ on labor	16.9	16.9	34.8	22.4	54.6	36.4	54.6	44.3

Source: Staff estimates.

1/ Regional Services Council services levy (average).
2/ Married taxpayer with two children.
3/ Sum of the five tax rates divided by 1 plus the consumption tax rate. For
explanation of methodology, see Appendix I.

levels. The effective consumption tax rate estimate of 17.6 percent corresponds to the average effective tax rate on consumption expenditure in 1993. 1/

At the lowest annual remuneration level reported in Table 18 (R 10,000), average and marginal effective tax rates on labor coincide at about 17 percent, reflecting the complete exemption of remuneration from individual income tax. 2/ The marginal effective tax rates on labor increases substantially at higher remuneration levels. For example, the marginal tax rate more than doubles, from about 17 percent to about 35 percent, as remuneration levels increases from R 10,000 to R 20,000. At annual remuneration of R 100,000, the marginal effective tax rates is 55 percent, or more than three times the level at R 10,000. Average effective tax rates on labor increase more moderately than marginal rates at low remuneration levels but they edge up sharply as taxpayers move to higher income tax brackets.

The evidence on effective tax rates on labor suggests two noteworthy conclusions. First, at wage remuneration levels typical for low-income workers, tax wedges are almost exclusively due to consumption taxes. Second, marginal effective tax rates on labor reach a maximum at a relatively low remuneration level and thereafter remain constant.

5. Effective marginal tax rates on capital

This section analyzes variations in marginal tax rates on domestic capital investments, employing the approach developed by King and Fullerton (1984). The King-Fullerton approach draws on data on statutory capital income tax rates and on the provisions of the income tax code to estimate the wedge between the required pre-tax rate of return needed to make the project a worthwhile investment and the post-tax rate of return accruing to investors providing funds for the project. Table 19 sets out key capital income tax parameters based on FY 1994/95 tax laws. Nonmining companies are taxed at a statutory rate of 35 percent plus a temporary surcharge of 5 percent; the latter is scheduled to be phased out at the end of FY 1994/95 and is therefore unlikely to affect long-term investment decisions. The value of distributed dividends is subject to a 25 percent withholding tax (Secondary Tax on Companies). 3/ Dividends are exempted from individual income tax. Interest income is fully taxed but a special annual tax credit of R 2,000 on interest income applies. For the purpose of the effective

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1/ This assumes a life-cycle perspective from which consumption taxes are in general proportional. In static terms, however, a value-added tax is likely to be regressive with respect to income and evidence provided by Fourie and Owen (1993) indicates that this is indeed the case in South Africa despite the zero-rating of essential foodstuffs.

2/ A married worker with two children is exempted from individual income tax up to an annual income level of R 13,553.

3/ Nonresident shareholders are assessed an additional 15 percent tax withholding tax on dividends.

Table 19. South Africa: Capital Income Tax
Parameters Based on Tax Code as of FY 1994/95

Corporate tax rate (nonmining companies)	35 percent
Temporary surcharge on corporate tax rate	5 percent
Withholding tax on distributed dividends 1/	25 percent
Withholding tax on dividends to nonresidents	15 percent
Personal income tax rates:	
Dividends	--
Interest income	43 percent
Surcharge on interest income	3.3 percent
Capital gains	--
Asset lifetimes for tax purposes:	
Machinery and equipment	5 years
Structures	20 years
Depreciation methods:	
Machinery and equipment	Straight line
Structures	Straight line
Inventory valuation method	FIFO
Investment allowance	--
Investment tax credit	--
Rates of economic depreciation	
Machinery and equipment	12.5 percent
Structures	2 percent

1/ Secondary Tax on Companies (STC).

marginal tax rate calculations, it is assumed that the private household providing the funds to finance the marginal investment project is subject to the top marginal income tax rate of 43 percent. Alternative calculations will assume that the provider of funds is a tax-exempt institution. There is effectively no capital gains tax in South Africa.

Depreciation allowances for tax purposes are calculated according to the straight line method, assuming asset lifetimes of 5 years for machinery and equipment and 20 years for structures. 1/ The rates of economic depreciation quoted in Table 19, 12.5 percent for machinery and equipment and 2 percent for structures, are based on estimates used by the South African Reserve Bank to construct capital stock estimates. The valuation of inventories uses the first-in, first-out (FIFO) accounting principle. There are currently no investment allowances or investment tax credits available to investors.

A brief description of the King-Fullerton approach to the calculation of marginal effective tax rates capital is provided in Appendix III. Table 20 displays marginal effective tax wedges and marginal effective tax rates for investment projects financed by savings of private households. The marginal effective tax wedge measures the difference (in percentage points) between the required real pre-tax rate of return and the real post-tax rate, whereas the marginal effective tax rate expresses the tax wedge as a percent of the required real pre-tax rate of return. Both indicators are reported because the marginal effective tax rates may be difficult to interpret if the required real pre-tax rate of return is small. 2/

The starting point of the calculations is an arbitrary assumption for the real pre-tax interest rate an investor can earn in the capital market. The results reported in Table 20 are based on a real pre-tax interest rate of 4 percent. Accordingly, in the absence of capital income taxation, a worthwhile marginal investment project would have to yield at least 4 percent (net of economic depreciation). At the same time, the investor in the capital market would receive the full 4 percent real interest rate and there would be a zero tax wedge. Panels A and B in Table 20 show the marginal effective tax wedges and rates, respectively, for investments in equipment and structures at three different inflation rates and based on the assumption that the ultimate provider of funds is subject to the top marginal income tax rate of 43 percent. The results broadly indicate that investments financed by new share issues (assuming the present STC rate of 25 percent) bear the highest marginal tax burden, followed by projects

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1/ However, depreciation allowances for agricultural and mining investments are significantly more generous. Agricultural machinery and equipment may be written off at 50 percent, 30 percent, and 20 percent over three years. Mining equipment may be written off fully in the first year, although the depreciation allowances are ring-fenced.

2/ When the required pre-tax rate of return is negative, the absolute value was used as the denominator to calculate the marginal effective tax rate.

Table 20.   South Africa: Marginal Effective Tax Rates on
Capital Based on 1994/95 Tax Code 1/

	Inflation rate (in percent)		
	--	5	14.8 2/
A. Effective marginal tax wedges 3/		(In percentage points)	
Equipment			
Debt	0.7	1.5	2.5
New shares	1.0	2.1	3.8
Retentions	0.4	0.7	0.9
Structures			
Debt	0.8	1.3	1.4
New shares	1.2	2.0	2.8
Retentions	0.4	0.4	-0.4
B. Effective marginal tax rates 4/		(In percent)	
Equipment			
Debt	26.0	86.4	323.3
New shares	30.8	90.1	763.5
Retentions	13.2	73.7	37.9
Structures			
Debt	26.8	85.0	73.2
New shares	33.6	89.7	586.7
Retentions	15.8	64.9	-10.4
Memorandum items:		(In percentage points)	
Tax wedges for projects financed by new share issues at zero STC			
Equipment	0.4	0.7	0.9
Structures	0.4	0.4	-0.4

Source: Staff estimates.

1/ Based on real interest rate of 4 percent.
2/ Average inflation rate of producer prices over 1985-93.
3/ Difference (in percentage points) between required pre-tax
rate of return and post-tax rate of return received by investor.
4/ Tax wedge as a percent of required pre-tax rate of return. If the
required pre-tax rate of return is small, the size of the effective marginal
tax rate may not be informative.

financed by debt, and projects financed by retained earnings. To illustrate tax discrimination introduced by the STC, Table 20 also reports marginal effective tax rates for projects financed by new share issues under an STC rate of zero. The STC increases the required pre-tax rate of return on projects financed by new share issues relative to projects financed by retained earnings because it lowers the post-tax dividend yields on shares. Accordingly, removing the STC would remove the current tax discrimination between projects financed by new shares and retained earnings and equalize effective tax rates across the two sources of finance. 1/

The marginal effective tax burden also varies significantly with inflation. For zero inflation, marginal effective tax rates are close to or below the statutory corporate tax rate of 35 percent, mainly reflecting the fact that depreciation rates for tax purposes are considerably more favorable than economic depreciation rates (Table 19). Positive inflation rates generally raise effective marginal tax wedges, mainly because the household's real post-tax rate of return from savings declines owing to the taxation of nominal interest returns. However, in the case of structures financed by retained earnings, the required pre-tax rate of return declines by even more than the household's post-tax rate of return, leading to an effective tax subsidy at higher inflation rates.

The scope for variations of marginal effective tax wedges and rates increases considerably if investment funds are provided by tax-exempt institutions (Table 21). For projects financed by debt, the marginal effective tax rate calculations indicate a significant tax subsidy as interest on debt is deductible as cost at the firm level while the costs of equity can not be deducted. At the same time, tax wedges on projects financed by new share issues widen significantly relative to the calculations without tax exemptions, reflecting the fact that projects financed by new share issues have now to compete with the higher alternative real post-tax returns available to tax-exempt investors through debt instruments.

The calculations of marginal effective tax burdens on capital presented in this section are only illustrative of the wide variation of marginal capital tax rates that may occur under the present capital income tax system. But the findings of this section do bring out the favored tax treatment of investment financed by retained earnings if investment is financed by private households. 2/ This feature of the capital tax structure may explain the absence of a developed market for corporate fixed-interest securities. If the STC is to be abolished and, for example, replaced by an imputation system with full tax credit (such that dividends are deductible against profits for corporate tax purposes), retained

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1/ Introducing a capital gains tax would introduce a new form of tax discrimination by raising the required pre-tax return on projects financed by retained earnings.

2/ See Chapter II for an analysis of the implications of the capital income tax system for corporate savings behavior in South Africa.

Table 21. South Africa: Marginal Effective Tax Rates on Capital if
Investment Funds are provided by Tax-Exempt Institutions 1/

		Inflation rate (in percent)		
		--	5	14.8 2/
A. Effective marginal tax wedges 3/		*(In percentage points)*		
Equipment	Debt	-1.0	-2.3	-4.8
	New shares	1.9	4.1	7.8
	Retentions	0.7	1.4	2.5
Structures	Debt	-0.9	-2.5	-5.8
	New shares	2.3	4.7	8.3
	Retentions	1.0	1.6	2.3
B. Effective marginal tax rates 4/		*(In percent)*		
Equipment	Debt	-33.3	-134.6	-618.9
	New shares	31.7	50.4	66.1
	Retentions	14.1	25.6	38.0
Structures	Debt	-28.4	-157.9	-312.3
	New shares	36.5	54.1	67.6
	Retentions	19.2	29.1	36.2

Source: Staff estimates.

1/ Based on real interest rate of 4 percent.
2/ Average inflation rate of producer prices over 1985-93.
3/ Difference (in percentage points) between required pre-tax
rate of return and post-tax rate of return received by investor.
4/ Tax wedge as a percent of required pre-tax rate of return. If the
required pre-tax rate of return is small, the size of the effective marginal
tax rate may not be informative.

earnings would still be tax favored because the top marginal income tax rate
exceeds the corporate tax rate. The findings also indicate that debt
financing provided by tax-exempt institutions results in substantial tax
advantages, in particular at high inflation rates, as it combines the
advantage of deductibility of debt interest costs with the advantage of a
full interest income-tax exemption for the provider of funds.

It is likely that incorporating further details regarding special tax
incentives--for example, for agriculture and mining or specific tax
provisions for foreigners or for Section 37e projects--would add to the
impression of a highly tilted playing field for capital investments. While
some variation in effective capital tax rates may be unavoidable even in a
well-designed capital income tax system--in particular at the inflation
rates historically observed in South Africa--there appears to be ample scope
to reduce the present degree of variation. Key options in this regard
include the use of indexation to mitigate the effects of inflation,
reconsideration of STC, and reducing the scope for channeling savings to
investment projects through tax-exempt institutions.

Tax Wedges and Effective Tax Rates: Concepts

To define effective tax rates on labor and capital, consider a stylized economy that levies four types of taxes: (i) a direct tax on labor remuneration at effective rate t_L; (ii) an individual income tax at effective rate t_Y; (iii) a tax on profits at effective rate t_P; and (iv) a tax on consumption at effective rate t_C. Denoting the pre-tax wage by W, the tax wedge on the use of labor ($WEDGE_L$) is defined

$$WEDGE_L = W - W[(1-t_L)(1-t_Y)]/(1+t_C). \qquad (1)$$

The labor tax wedge measures the difference between the pre-tax wage relevant to labor demand decisions and the post-tax wage relevant to labor supply decisions. Expressing the labor tax wedge as a ratio to the pre-tax wage gives "the effective tax rate on labor" (ETR_L)

$$ETR_L = WEDGE_L/W \simeq [(t_L+t_Y+t_C)/(1+t_C)]. \qquad (2)$$

In practice, there is a variety of effective tax rates on labor related, inter alia, to the degree of progressivity/regressivity of labor and consumption taxes and/or to personal characteristics of tax payers.

Denoting the pre-tax return on capital by R, the tax wedge on the use of capital ($WEDGE_K$) is defined

$$WEDGE_K = R - R[(1-t_P)(1-t_Y)]. \qquad (3)$$

Thus, the capital tax wedge measures the difference between the pre-tax return of an investment and the post-tax return accruing to an investor. Expressing the capital tax wedge as a ratio to the pre-tax return yields "the effective tax rate on capital"

$$ETR_K = WEDGE_K/R \simeq (t_P+t_Y). \qquad (4)$$

There may be many effective tax rates on capital, reflecting, inter alia, different types of financing (debt, equity, retained earnings), different providers of financing (private households, tax-exempt institutions), and, most importantly in nonindexed income tax systems, the level of inflation.

While taxes on consumption affect the tax wedge on labor, they do not affect the tax wedge on capital income, where capital income is interpreted as the return on postponing consumption from the current to a future period. As regards the labor tax wedge, consumption taxes reduce the value of a given pre-tax wage, assuming that labor income is eventually consumed. But consumption taxes leave the terms of the trade-off between current and future consumption unaffected, at least at the margin, as long as they are imposed at unchanged rates between the two periods.

Effective Average Tax Rates Based on Macroeconomic Data

The construction of effective average tax follows the methodology outlined by Mendoza, Razin, and Tesar (1993). The calculations mostly use annual data obtained from the Quarterly Bulletin of the South African Reserve Bank (SARB). The effective average consumption tax rate (t_C) is defined

$$t_C = [\text{Consumption taxes/Pre-tax value of consumption}] \times 100 \quad (1)$$

Consumption taxes are measured as the sum of general sales tax/value-added tax (series Y4001) and net revenue from customs duties and excises (series Y4011). The pre-tax value of consumption corresponds to the nominal value of private consumption (series Y6007) minus consumption taxes. The effective average tax rate on labor remunerations (t_L+t_Y) is derived as

$$(t_L+t_Y) = [\text{PAYE income taxes/Remuneration of employees}] \times 100 \quad (2)$$

Individual income tax on labor is measured as labor income taxes collected through the Pay-As-You-Earn (PAYE) system. The data on PAYE collections were provided by the Fiscal Analysis Unit. Remuneration of employees corresponds to series Y6000. Social security contributions in South Africa are small and have been ignored. The effective average capital income tax rate (t_K) is constructed as

$$t_K = [\text{Capital income taxes/Net operating surplus}] \times 100. \quad (3)$$

Capital income taxes are defined as total income taxes (series Y4000) minus PAYE collections, while net operating surplus is measured by (series Y6001). Finally, the effective average tax rate on corporate capital income (t_{CORP}) is derived as

$$t_{CORP} = [\text{Corporate income taxes/Net corporate income}] \times 100 \quad (4)$$

Corporate taxes are series Y6230 and net corporate income is total income of incorporated enterprises (series Y6225) minus interest payments of incorporated enterprises (series Y6227). The numerators of the effective tax rates (3) and (4) of t_K exclude property taxes collected at the local government level and a few small tax items on capital transactions (estate tax, gift and donations tax, marketable securities tax).

Calculation of Effective Marginal Tax Rates on Capital

The calculation of effective marginal tax rates on capital follows closely King and Fullerton (1984, Chapter 2). Consider a marginal investment project costing R 1. The project is assumed to earn a perpetual real gross return of MRR, which grows at inflation rate π and on which corporate tax at statutory rate τ is levied. The asset is assumed to depreciate at exponential rate δ, yielding a pre-tax net return p defined as p=MRR-δ. The present value of depreciation allowances and other tax incentives is denoted by A. A risk-neutral investor will equate marginal costs (1-A) and benefits of the project

$$1-A = [(1-\tau)(p+\delta)]/(\rho+\delta-\pi), \tag{1}$$

where ρ denotes the discount rate of the project. Thus, given the discount rate, inflation rate, economic depreciation rate, and tax parameters, the project's pre-tax net return is

$$p = [(1-A)/(1-\tau)](\rho+\delta-\pi)-\delta. \tag{2}$$

An investor can earn a nominal interest rate i by lending in the capital market and interest income is taxed at marginal rate m. The real pre-tax rate of return r in the capital market is r=i-π and the real post-tax return s to an investor is

$$s = i(1-m)-\pi. \tag{3}$$

The marginal effective tax rate on capital is defined as the wedge between pre-tax return on the marginal investment project (p) and the post-tax return to investors in the capital market (s) expressed as a ratio to p

$$METR_K = [(p-s)/p]. \tag{4}$$

To implement the calculations, the discount rate ρ for different types of financing has to be fixed. For debt financing, the discount rate is given by $\rho=i(1-\tau)$, as interest payments on debt are deductible under the corporate tax system. For financing by new share issues, the discount rate is $\rho=i(1-m)(1+d)$, where d is the tax on distributed dividends. Finally, for financing based on retained earnings, the relevant discount rate is $\rho=i(1-m)$. The discount rate on retentions also reflects the fact that South Africa has effectively no capital gains tax.

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VI. Corporate Control and Monopoly in South Africa

1. Introduction

The large South African corporate groups have unusual, but not unique, equity structures known as pyramids. Pyramids delink control and ownership of equity in a manner analogous to dual class--voting and nonvoting--shares, and hence allow minority shareholders to control much more equity than they own. These structures facilitate control by a relatively small number of shareholders of large parts of South African equity: the controlling shareholders behind largest five groups in South Africa control (as opposed to own) over 75 percent of the equity quoted on the Johannesburg Stock Exchange.

Pyramids are the subject of lively debate in South Africa. They are accused of aggravating--if not inducing--monopoly problems in goods markets. The argument is that firms with the same controlling shareholders collude, that the small number of controlling shareholders facilitates collusion, and that the interaction between groups in a variety of markets facilitates the discipline of collusive agreements between them. A populist critique attacks the dominance of a tiny and wealthy shareholder elite. In their defense, it is claimed that pyramids successfully address fundamental principal agent problems in corporate control by shifting the balance of power between shareholders--as principals--and managers--as agents-- decisively in favor of shareholders, precisely by concentrating shareholder power. Furthermore, it is argued that the elite group of controlling shareholders achieve and maintain their control only because they are, and are reputed to be, effective monitors of managers. Hence, their dominant position is in the interest of all, including non controlling shareholders, and it could not persist if that were not so.

The ANC has actively promoted the idea of "unbundling" the main business groups. Section 3.8 on competition policy in the White Paper on Reconstruction and Development declares an intention to introduce "legislation systematically to discourage the system of pyramids where it leads to over-concentration of economic power and interlocking directorships." The intention appears to be to distinguish benevolent from malevolent pyramids (or parts thereof) on a case-by-case basis, and to act against the latter.

This chapter reviews corporate control issues as they arise in South Africa. It argues that, a priori, concentration should not be equated with the exercise of monopoly power; the small size of goods markets relative to optimum operating capacity of modern plant makes it inevitable that many sectors will have few suppliers. However, this does not necessarily mean that the exercise of monopoly power is rife, and the prime source of what monopoly abuses there are is unlikely to lie in the peculiarities of South African equity structures. Instead, the exercise of monopoly power in goods markets is much more likely to derive from the relatively closed and protected nature of the economy, which reflects, in part, the regimes of trade and exchange controls which discourage entry. It is therefore in

these areas that competition policy should focus, not in the area of corporate control. Steps to strengthen both the technical capacity of the Competition Board and its legislative basis are clearly desirable since both are lacking currently, but these should be seen as supplementary to the main thrust of competition policy, not as its central components. Finally, policy toward pyramids should not be motivated by their links to monopoly problems--because the two issues are usually unrelated--but by a view of the corporate control structures that would strike the appropriate balance between shareholders and managers. This is not easy to determine, and there is no international consensus on the appropriate balance or on how to strike it, and practice varies widely.

2. The construction of pyramids

Pyramids consist of holding companies that are stacked on top of one another. Company "A" at the top of a pyramid owns 51 percent of company "B," which owns 51% of company "C," and so on down the pyramid. This allows company "A" to exercise control over a company "Z" at the bottom, because it has a controlling interest in all the companies in between, but it may receive only a small share of dividends paid by Z. At each level in the pyramid, minority shareholders hold the remaining stock. Thus, pyramids are analogous to nonvoting shares, voting trusts, and some long-term debt; 1/ they formally delink ownership (or receipt of dividends) from control.

All the main groups in South Africa--including the Anglo-American/De Beers group, the Rembrandt group, Anglovaal, Liberty Life, "The Old Mutual," and SANLAM--are characterized by such pyramid structures. In none of these cases are the groups composed of simple pyramids; instead, they exhibit a maze of interlocking relationships. All these groups have highly diversified holdings, commonly ranging far beyond their core (or original) sectors. An example of one such pyramid, that of Anglo-American, is presented in Figure 1.

Pyramids allow individual founding members of companies to retain control despite their companies' need for equity finance beyond the capacity of the founders to provide. To do this, however, other investors must be persuaded to take non controlling stakes in the pyramid; without their willing cooperation, pyramids cannot be constructed. Controlling shareholders with a track record of generating high returns to equity have little difficulty persuading investors to take non controlling stakes in their pyramids, and so tend to own relatively small portions of the equity in the pyramids they control.

1/ An example would be debentures: dividends paid to debenture holders are proportionate to profits, but holders of this stock have no voting powers.

FIGURE 1. AN EXAMPLE OF A PYRAMID:

ANGLO AMERICAN CORPORATION
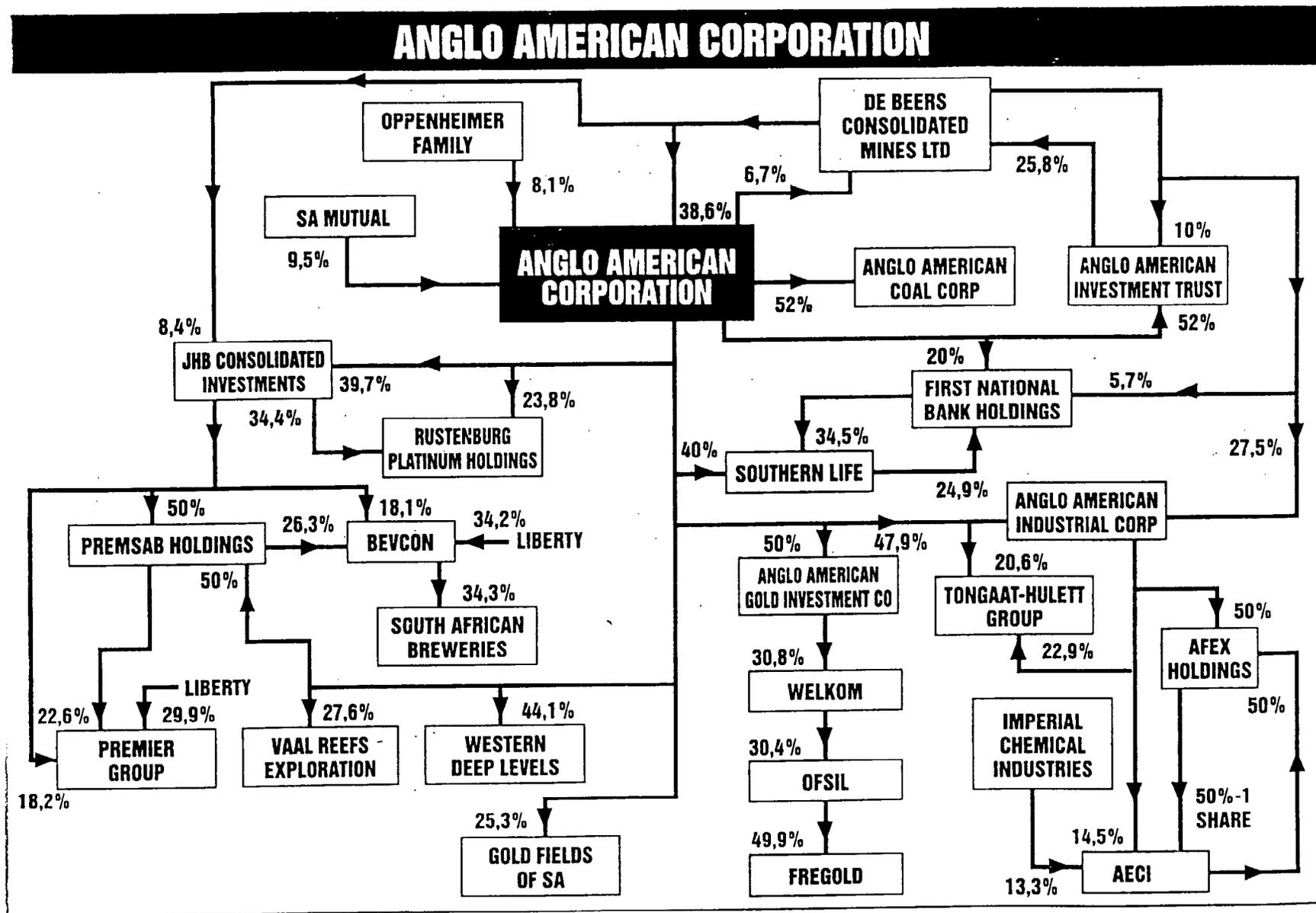
Source: Gerson (1992).

Gerson 1/ suggests that the pattern of shareholder ownership and control on the Johannesburg Stock Exchange reflects these factors. In a study of some 190 South African industrial companies, he finds that the greater the personal wealth of controlling shareholders, the smaller their individual share in the equity of the firms that they control. He suggests that the wealth of the controlling shareholders is a proxy for their reputation and monitoring skill. By implication, therefore, minority shareholders are more willing to take stakes in pyramids controlled by skillful and reputable (wealthy) controlling shareholders, than they are in pyramids controlled by other shareholders.

Hence, the key argument in defense of pyramids (or equivalently, dual class shares or long-term debt) is that they reflect a sensible market response to a fundamental scarcity: that of capable and motivated corporate supervisors. Pyramids facilitate the wide exercise of these skills, precisely because they cede control to "skilled" shareholders, and this concentration of shareholder control reinforces the representation of shareholder interests in their dealings with management. Finally, pyramids disperse the benefits of skilled shareholder control beyond the limits that might otherwise be imposed by the wealth of such shareholders in a system where control and ownership were directly linked. The actions of non-controlling shareholders are critical in making these mechanisms work--it is they who identify and finance capable corporate supervisors.

But claims of a darker side to pyramids are made frequently, including the claim that they facilitate collusion in goods markets. 2/ These issues are taken up below, first by a review of the available evidence concerning the severity of monopoly problems in general, and then by a consideration of how corporate control issues relate to these problems.

3. Monopoly in South Africa

It is plain--notwithstanding the somewhat contradictory impression of concentration given by the different concentration indices 3/--that a substantial number of goods markets in South Africa are dominated by a single supplier, or by a few suppliers.

This evidence is summarized in Table 22. The table shows that it is typical for a small number and for a small proportion of firms in any given sector to account for 80 percent of domestic production. High concentration ratios are also suggested by the gini coefficients. 4/ Furthermore, the table shows that with the exception of machinery, transport equipment and

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1/ Gerson (1992).
2/ For example, Mineral and Energy Policy Workshop 1994, pp. 15-16.
3/ Leach. (1992a).
4/ If these were close to zero, they would indicate that all firms in each sector were roughly equal sized. Since they are all much closer to 1000, they indicate that a few large firms dominate production in most sectors.

Table 22. South Africa: Concentration and Trade

	Effective protection 1/ 1989	Imports as a percent of domestic demand 2/ 1990	Gini-coefficient 3/ 1985	Number of firms with 80 percent sector output 3/ 1985	Percent of firms with 80 percent sector output 3/ 1985
Food, beverages, and tobacco	8.8				
Food		5	873	114	7.9
Beverages		4	825	21	11.4
Textiles, apparel, and leather	93.6				
Textiles		19	827	87	13.5
Wearing apparel		5	788	217	17.8
Leather		28	782	26	16.3
Footwear		15	740	34	23.1
Wood and wood products	39.7				
Wood and cork		10	823	79	13.3
Furniture and fixtures		1	754	219	20.5
Paper and paper products	22.2				
Paper		10	868	13	5.9
Printing and publishing		11	797	203	15.6
Chemicals	50.6				
Industrial chemicals		23	854	21	11.1
Other chemicals		26	880	30	5.8
Rubber		12	851	7	8.2
Plastic		7	742	93	20.6
Nonmetallic minerals	34.3		875	54	5.7
Pottery and china		36	844	6	7.8
Glass		29	850	4	8.2
Basic metal	23.2				
Iron and steel		9	893	11	5.7
Nonferrous metals		7	853	12	11.5
Metal products and equipment	20.3				
Fabricated metal		13	823	362	12.6
Other manufacturing	62.8				
Manufacturing	30.2				
Machinery (excluding electrical)		57	795	295	15.9
Machinery (electrical)		33	845	73	9.1
Motor vehicles		34	902	36	4.5
Transport equipment		66	860	14	6.2
Professional and scientific			819	24	12.1
Other manufacturing		74	811	128	14.1

1/ Source: Belli P., 1993.
2/ Source: Industrial Development Corporation of South Africa Limited, January 1992.
3/ Leach, 1992a.

the residual category "other manufacturing," imports typically account for a small portion of final sales. Concentration is also evident in finance, where four banking groups dominate the banking market. The overall impression--that South Africa tends to exhibit high degrees of concentration in goods and financial services markets, with a limited role for imports in offsetting that tendency--is clear.

These data should, however, be interpreted with caution. At most, the evidence in Table 22 might indicate where monopoly pricing is most likely-- where there are a small number of domestic producers and where the share of imports in final sales is small. 1/ But they do not indicate where it is occurring: markets where entry and exit costs are low--contestable markets-- may well have single incumbents, but the threat of potential entry may prevent them from pricing monopolistically. The extent of monopoly pricing can only be gauged by an examination of the contestability of markets on a case-by-case basis. 2/

The difficulties in identifying where monopoly pricing is occurring are underscored by a related debate about why firms become dominant in their sectors. A study of South African manufacturing firms between 1972 and 1985 suggests that dominant firms often enjoy their status because they are the lowest cost producers. 3/ The inference drawn is that antitrust action against dominant firms might not be in the interest of consumers, because such action might penalize the most efficient firms. But firms with cost advantages are the most likely of all to set monopoly prices; they can credibly threaten a price war to drive out actual or potential rivals, certain that they will win it, precisely because of their cost advantage. This renders such markets uncontestable, so such incumbents can set monopoly prices with impunity.

Hence, the evidence of high concentration and low shares of imports in final demand does not prove that monopoly pricing is rife, and the evidence that incumbents tend to be least cost producers does not mean that concerns about monopolistic pricing can be dismissed. The insights of modern industrial economics make plain that monopolistic pricing can only be identified by detailed case studies, and that even then, the results are unlikely to be unambiguous. The extent of abuse of monopoly power in goods markets in South Africa should remain an open question, notwithstanding the commonly held presumption that it is widespread and severe, and the sometimes glib dismissal of such views.

1/ Such sectors include beverages, rubber, chemicals, paper, and basic metals.

2/ Furthermore, most South African markets are small relative to the optimal capacity of modern manufacturing plant--South Africa's GDP is roughly half that of Belgium--so the a small number of suppliers in any given market, especially in the mining sector, is hardly surprising.

3/ Leach (1992b).

4.   Monopoly and corporate control

It is also commonly believed that abuses of monopoly power--such as
they are--have their roots in the corporate governance structures. This
proposition is deceptively intuitive. Clearly, same-sector firms in the
same pyramid can collude effectively, since their common controlling
shareholder can coordinate their activities. Moreover, the fact that there
are so few controlling shareholders means that collusion between pyramids is
eased, since there are relatively few parties to any collusive agreement.
And since pyramids interact in so many goods markets, any collusive
agreements can be effectively disciplined. If monopoly and pyramids are
linked in this way, then the negative correlation that Gerson finds between
individual wealth of controlling shareholders and their stakes in the
pyramids they control may (partly) reflect their skill at organizing
cartels, rather than their more innocuous sounding superior supervisory
skills.

There are three difficulties with this train of thought:

First, the fact there are a number of well established and highly
diversified groups means that there are potential new entrants into any
goods market. Thus, a key precondition for the contestability of the whole
range of goods markets is met in South Africa.

The second difficulty is that even if pyramids were banned, there are a
variety of financial instruments that might be substituted for them,
including non voting shares, and some long term debt instruments. If the
aim of banning pyramids was to ensure a close correspondence between
ownership and control, thought would have to be given to how to prevent
these pyramid substitutes from simply replicating the effects of pyramids.

The third difficulty is the most fundamental: it is unclear that
problems with the exercise of monopoly power would be any less severe if
pyramids were banned--and ownership was strictly linked to control--but
where nothing else was different. Clearly, controlling minority
shareholders could not formally exist, but minority shareholders in
companies throughout the world exercise effective control simply because
they are the largest and best coordinated group among the shareholders. But
even leaving this possibility aside, a pyramid could in principle be
converted into a conglomerate: the holding companies in the pyramid could
each be converted into independent profit centers in the conglomerate; all
the shareholders in the pyramid could have their claims converted into
claims on the conglomerate; and the pyramid's controlling shareholder could
become a manager/shareholder of the conglomerate. In this conversion, the
"captains of industry" would no longer be a small number of controlling
shareholders, as under the pyramid system, but a small number of managers of
the highest levels of conglomerates. It is unclear that their capacity to
exercise monopoly power--such as it is--would be affected at all by this
change.

Such a conversion from pyramids to conglomerates might, perversely, actually increase the amount of equity under the sway of the "captains of industry". Minority shareholders might be more willing to back managers than to back controlling shareholders because they could exercise greater control over the former than the latter. Hence, individual conglomerate managers might be given managerial control over a greater stock of equity than controlling shareholders. On the other hand, controlling shareholders, faced with the possibility of being outvoted as conglomerate managers, might be less willing to invest as high a share of their own personal wealth in a conglomerate as in a pyramid which they control. They might therefore play a less active role in monitoring the company. This might temper the willingness of minority shareholders to invest more with conglomerate managers than with pyramid controlling shareholders.

Hence, while it is easy to tell stories linking pyramids to monopoly, it is unclear that legislative action against pyramids and their close substitutes would reduce the exercise of monopoly power, precisely because that power may be equally exercised in the counterfactual case. Furthermore, while the link may be construed in theory, there is no evidence that they are the principal cause of the abuse of monopoly power in South Africa--such as it is--and none of the other countries with pyramids in any way specifically motivate or focus their antitrust policy on pyramids. 1/

5. Competition policy

The key institution implementing competition policy in South Africa is the Competition Board. It was established under the Maintenance and Promotion of Competition Act of 1979, and it reports to the Ministry of Trade and Industry. Its remit focuses on restrictive practices, acquisitions, and the exercise of monopoly power, with the onus on the parties to an acquisition or a restrictive practice to prove that they are not causing injury. There are gaps in the legislative basis of the Board-- for example, it has no jurisdiction over vertical integration, and the definitions used in the Act can too readily be challenged in the Courts--and the penalties it can impose are minimal. These include scope for the Minister to reduce tariffs on goods in which domestic producers are exercising monopoly power, and a maximum penalty of R 100,000, but they exclude any liability for damages to injured parties.

Its key problems in practice, however, are the limited capacity of the Board to fulfill its brief--it has a small number of staff relative to its caseload and they frequently confront highly skilled teams from the

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1/ For example, Belgium reformed its antitrust legislation in 1993 to make it conform with the EU norm but felt no need to make special provision for the pyramid structures of its corporates. Sweden has been tolerant of monopolies and pyramid structures, especially in agricultural processing and distribution and in finance, but has addressed issues of monopolistic pricing indirectly through trade and capital account reform since the mid-1980s, not through action against pyramids.

companies they are pursuing--and the sometimes less than sympathetic stance adopted by the Courts to the Board's cases. Given these constraints, it has acted with vigor, particularly recently.

But it is clear that even a strengthened Competition Board will not be able to carry the full burden of competition policy unaided, and it should not be expected to do so. Instead, competition policy should consist of the following components:

*   First, a reduction in trade protection directly attacks monopolies and cartels in the tradable sector, whatever the corporate governance structures underlying them. 1/ Open trade, among other benefits, substantially reduces the likelihood that dominant domestic producers will have cost advantages over actual or potential entrants, including foreign producers. The commitments made under the Uruguay Round of the GATT mark useful steps in this direction. 2/

*   Second, reform of those aspects of the capital account regime that discourage foreign direct investors can help address such monopoly problems as might arise from pyramids, by increasing the potential number of controlling shareholders. The liberalization of controls on residents would also allow domestic groups to expand their core operations abroad, instead of being forced to make domestic investments and acquisitions, often outside their core operations. 3/

*   Third, antitrust institutions should pay particular attention to the non tradable sector, since competition there cannot be spurred through trade reform.

*   Fourth, the role of the Competition Board should not simply be construed as being to pursue firms which abuse their dominant market positions. The Board should also monitor the institutional features of markets--such as labor legislation, bankruptcy procedures, trade protection, and licensing requirements--and identify where these are undermining "contestability." Where it identifies institutional impediments to contestability, it should bring these to the attention of government and work for their removal.

1/ This conclusion is supported by South African research, which finds a link between trade protection and concentration. See Fourie and Smith (1993).

2/ These are described in this issues paper, in Chapter I, Section 5.

3/ GENCOR--South Africa's second largest mining house--announced an "unbundling" package in May 1994 which was partly motivated by the desire to shed local non mining operations in favor of expanding its foreign mining operations.

*   Finally, the utilities and public sector enterprises raise particular problems for antitrust policy. If the former are to be privatized, then establishing a competitive industrial structure for the privatized industry is critical. This may require the establishment of market regulators, particularly where the utilities constitute natural monopolies.

South Africa has announced significant changes to its external trade regime and has benefited from the lifting of financial sanctions. Both of these will strengthen competitive pressures in goods markets. Competition policy should motivate further steps in these areas, which should be taken when and as they are feasible. This, combined with action to strengthen the Competition Board and appropriately structured privatization, should form the core of competition policy in South Africa.

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VII. Financing Small Business in South Africa: Lessons from Other Countries

1. Introduction

The effects of the past exclusion of blacks from economic and education opportunities, exacerbated by the 1989-92 recession, have made black unemployment one of the major challenges the new Government has to face. About 45 percent of the labor force is estimated to be without formal sector employment; but for black South Africans the ratio is even higher. 1/ The promotion of small businesses, particularly those in which blacks have an equity holding, could play an important role in contributing to employment growth because these enterprises tend to be labor intensive.   In addition, the growth of these enterprises could contribute to narrowing the current income and wealth differentials in the South African society. A major constraint faced by black small enterprises is lack of access to financing; this constraint is the focus of this chapter. It reviews experiences in other countries with credit programs intended to increase small enterprises' access to financing, with the objective of deriving from them policies that might be relevant to the South African case.

The organization of the chapter is as follows. Section 2 discusses the current state of black small businesses in South Africa and the constraints they face.   Section 3 contains a theoretical discussion of how information imperfections in credit markets affect credit allocation.   Section 4 focuses specifically on how small enterprises fare in capital markets with imperfect information.   Section 5 discusses the role of Government in the provision of credit to small enterprises and reviews the experiences of some developed and developing countries.   Section 6 reviews experiences of some developing countries with group lending programs intended to increase financing available to small enterprises.   Section 7 concludes with some policy options for South Africa in the promotion of small enterprises.

2. The state of black enterprises

   a. Background

The During, and even before, the apartheid era the participation of blacks in the formal economy was limited by regulations imposed on their movements, their places of residence, and the jobs open to them.   Blacks were severely restricted in their involvement in formal businesses, particularly in urban areas.   For example, the 1923 Native (Urban Areas) Act allowed blacks to participate only in businesses such as the sale of milk, bread, and vegetables (World Bank 1993).   After 1948, more stringent regulations were imposed on the formation and expansion of black businesses.   A rule introduced in 1963 prohibited black entrepreneurs from pooling their

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1/ It is estimated that blacks, who account for 70 percent of the population, constitute about 83 percent of the unemployed (CSS, 1994).

resources under a corporate structure. It also prohibited the formation of black financial institutions, and thereby limited the access of black businesses to capital markets.

In addition to direct prohibitions and limited access to financing, black business development was hindered by restrictions on the skills that blacks were allowed to acquire. For example, Bantu education and job reservation laws limited apprenticeships for blacks in skilled trades.

Laws that prohibited blacks from opening businesses in urban areas were repealed in the 1980s, and formal restrictions were relaxed. Clearly, however, it will take some time to overcome their historical effects.

b.   Current state of black enterprises

As a result of the past restrictions imposed on black participation in business, black businesses are currently concentrated in the informal sector and are mainly micro- and small-scale enterprises. Surveys by the nongovernment organization Growth and Equity through Microenterprise Investments and Institutions (GEMINI) in 1990 and by the World Bank in 1992 identified two types of black enterprises: microenterprises and more established small enterprises. 1/

Black microenterprises, which account for the majority of black enterprises, have proliferated over the last few years because of the dearth of employment opportunities in the formal sectors of the economy (see Chapter I, Section 1) and the relaxation of government restrictions that had been imposed on them earlier. Half of the black microenterprises covered by the World Bank survey were less than three years old. The GEMINI survey found a high concentration of microenterprises in retail and wholesale trade: street vendors account for about 50 percent of the microenterprises surveyed, while light manufacturing--such as dressmaking, shoe repairing, and beer brewing--accounts for about 17 percent of the total.

The individuals in these businesses have a relatively low level of formal education: in the World Bank survey, about 90 of those surveyed had not finished high school. With increasing migration to urban centers in the 1980s and little if any employment growth in the formal sector, most of the individuals involved in microenterprise started their businesses as a means of survival. An average microenterprise employs about two workers in addition to the proprietor and perhaps other family members. Within subsectors, construction had the highest number of employees, followed by manufacturing. The highest employment growth was reported by those microenterprises that were most recently established (World Bank 1993).

1/ The GEMINI survey is based on a sample of 5,000 firms in Mamelodi and Kwazakhele Townships. The World Bank survey was conducted in Cape Town, Durban, and Johannesburg.

Established small black enterprises distinguish themselves from the previous group in both their financial and their human resources. These enterprises tend to have more assets, and higher profitability and turnover than the average microenterprise. Furthermore, entrepreneurs in this group are likely to have better education and prior work experience that is relevant to their own business. In addition, this group's entry into business was driven by entrepreneurial rather than by survival motives.

The sectors covered by the World Bank survey included retail trade, transportation (taxis), construction, and garment manufacturing. With the exception of transportation, all these sectors have a modest capital requirement.

In the retail subsector, high growth enterprises--i.e., those with higher profitability, turnover, and employment--are registered and thus are part of the formal sector. In addition, a large proportion of retail enterprises have received credit from formal financial institutions; in the World Bank survey, about 36 percent of retail enterprises had some history of credit from formal financial institutions. High growth enterprises in particular had more access to financing than any other subsector because they held assets that could be used as collateral. For the retail subsector as a whole, however, the large majority of owners financed the start-up of their enterprises by means of personal savings and family contributions. Retail enterprises employ on average about four workers.

The transportation (taxi) business is another subsector in which small black enterprises have expanded rapidly since the removal of legal restrictions on black taxi operations. 1/ As the number of taxis increased, the black taxi industry began to regulate itself. 2/ It currently has two organizations: the South African Black Taxi Organization (SABTA)--which serves the interests of providers of short-distance and peak-hour commuter travel--and the South African Long Distance Transportation Association. SABTA negotiates lending arrangements from financial institutions by providing collateral for its members. The average employment of taxi enterprises is about two persons. However, including "pirate taxis," it is estimated that this subsector employs about 300,000 workers.

In the construction sector, most black enterprises undertake contracts in the black townships and other informal settlements, which are unattractive to bigger construction firms. The average employment for the construction enterprises surveyed was about six workers. Black enterprise participation in the garment manufacturing subsector is limited. In the

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1/ Up to 1978--with the objective of limiting their competition with bus and train services--black taxis with more than four seats were illegal. In 1978, 8-seat black taxis (Kombi) were legalized and subsequently, in 1987, 16-seat taxis were legalized.

2/ Some estimates put the number of black-owned taxis--including "pirate" taxis--at over 100,000 (Khosa 1990).

World Bank survey, which covered the geographical areas that account for about 70 percent of the country's garment workers, there were no medium-sized, black-owned garment firms. The development of black garment firms had been stymied by Job Reservation Laws, which, until 1979, denied blacks the opportunity to obtain work in skilled job categories.

c.   Constraints faced by black enterprises

Financing was one of the major constraints identified by both micro- and small-scale enterprises in the GEMINI and the World Bank surveys. In addition, as shown in Table 23, the distribution of bank credit extension by race provides a stark picture of the financing constraints faced by black enterprises. In 1990, the share of blacks in bank credit and hire purchase advances was only 5 percent, compared with black income and population shares of 36 percent and 70 percent, respectively. About 40 percent of the total credit advanced to blacks came from Stokvels, which are informal saving and lending organizations.

However, as brought to light by the GEMINI and the World Bank surveys, there was a difference between micro- and small-scale enterprises in the extent of the financing constraint. For microenterprises, financing, especially that for fixed capital, was identified as a major constraint. For small enterprises, the entrepreneurs generally had higher savings at the startup of their businesses, and thus their credit situations were less difficult than those facing the microenterprises. Within the small enterprise subsectors, financing constraints were most severe for the construction subsector--this reflects a history of bond boycotts and difficulties faced by banks in foreclosing on black-owned properties in the townships in cases of default.

Stockvels were the major source of credit for microenterprises; they provided credit to about 20 percent of the microenterprises surveyed (World Bank 1993). 1/ A Stokvel is a voluntary saving/lending group, consisting on average of 27 persons who contribute to a fund from which members take turns to borrow; it is estimated that there are 24,000 Stokvels in South Africa's major metropolitan areas, of which 41 percent are saving clubs and 29 percent are burial societies. 2/ However, credit from the Stokvels is short-term in nature and thus does not meet the medium- and long-term credit needs of the microenterprises. In contrast, a large proportion of small enterprises received credit from the formal private and public financial institutions (World Bank 1993).

In addition to financing constraints, micro- and small-scale enterprises face other hurdles, including government regulation, high input costs, and violence. Regulatory constraints are generally in the form of

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1/ Nongovernment organizations also provide credit to microenterprises through group lending programs.

2/ The National Stokvels Association of South Africa (NSASA) has a membership of 11,500 Stokvels.

Table 23.   South Africa: Credit Extension to Individuals by Race Group, 1990

(In millions of rand; share in category in parentheses)

	White	Coloured	Indian	Black	Total
Advances by building societies	19,149	1,681	1,681	841	23,352
In percent of the total	(82)	(7)	(7)	(4)	(100)
Loans and credit by banks (excluding to companies and farm enterprises)	34,060	1,135	1,892	757	37,844
In percent of the total	(90)	(3)	(5)	(2)	(100)
Hire-purchase	4,469	745	372	1,862	7,448
In percent of the total	(60)	(10)	(5)	(25)	(100)
Stokvels 1/	--	--	--	2,400	2,400
In percent of the total	(--)	(--)	(--)	(100)	(100)
Total	57,678	3,561	3,945	5,860	71,044
In percent of the total	(81)	(5)	(6)	(8)	(100)
Total, excluding Stokvels	57,678	3,561	3,945	3,460	68,644
In percent of the total	(84)	(5)	(6)	(5)	(100)
Percent of population (1990)	16.5	10.6	3.2	70.0	100
Income shares (1988)	53.9	6.6	3.2	36.3	100

Sources: Manning (1990); and Lachman and Bercuson (1992).

1/ Stokvels are informal saving and lending groups.

zoning laws--which prohibit street trading in certain areas--and health and safety regulations. Violence in the black townships has also been one of the major concerns of micro- and small-scale enterprises; for example, bond boycotts in the black townships reduce black entrepreneurs' ability to access financing from the formal financial institutions. Furthermore, some high growth small enterprises face high labor costs because of the extension of industrial council wage setting to them (see Chapter III).

3.   Theories of credit rationing

    a.   Capital market imperfections: Imperfect information

    In competitive capital markets with no imperfections, all investments whose returns exceed the marginal cost of capital will be undertaken. However, with market imperfections such as information asymmetries between borrowers and lenders, an economy might be characterized by underinvestment as a result of credit rationing. Two problems that arise in the presence of imperfect information are adverse selection and moral hazard.

    Adverse selection arises when lenders are unable to observe the individual risk characteristics of their borrowers' projects (this could be due to the high cost required to unravel a borrower's financial circumstances). In this situation, if a lender increases his lending rate above a certain level, his profit might decline as borrowers with less risky projects are crowded out from the market. To illustrate this point, assume that there is a continuum of entrepreneurs each of whom is endowed with a project and an initial capital W. 1/ Each entrepreneur's project requires investment capital of $K > W$ and he has to raise $B = K - W$ in order to carry out his project. A project either succeeds, yielding a return of R^s_i, or fails, yielding $R^f_i = R^f$ for all i, where i is the index of the project. Assuming that all projects yield the same expected return, the expected return of a project is:

$$p_i R^s_i + (1 - p_i) R^f = C \qquad\qquad \text{for all i,} \qquad (1)$$

where C is a constant and $p_i \epsilon [0,1]$ is the success probability of the ith project. Let $f(p_i)$ be the density function of p_i. Given equation (1), project i is said to be riskier than project j, if $p_i < p_j$.

    An entrepreneur borrows B through a debt contract, with $(1+r)B$ repayment if the project succeeds and R^f if the project fails, where r is the interest rate on the loan. It is assumed that $R^s_i > (1+r)B > R^f$ for all i. Assuming that entrepreneurs are risk neutral, the expected profit of the entrepreneur with the ith project can be written as

$$E\pi_i = p_i(R^s_i - (1+r)B). \qquad\qquad (2)$$

1/ The model discussed here is a version of Stiglitz and Weiss (1981) and draws on De Meza and Webb (1987).

Substituting equation (1) into equation (2), we get

$$E\pi_i = C - R^f - p_i[(1+r)B - R^f]. \tag{3}$$

From equation (3), the expected profit is declining in p_i, implying that entrepreneurs with riskier projects are willing to pay higher interest for a loan compared with entrepreneurs with less risky projects.

An entrepreneur will invest in his project as long as:

$$E\pi_i = C - R^f - p_i[(1+r)B - R^f] \geq (1 + \gamma)W, \tag{4}$$

where γ is the safe rate of interest. Assuming that the right hand side of equation (4) holds with an equality and differentiating it, we get

$$\frac{dp}{dr} = - \frac{pB}{((1+r)B - R^f)} < 0. \tag{5}$$

Thus, the probability of success of the marginal project declines as the interest rate increases.

Lenders are assumed to be unable to observe the riskiness of each entrepreneur's project but they know the distribution characteristics of the projects. Assuming that lenders are identical and risk neutral, the expected profit of a representative lender is:

$$E\pi_B = (1+r)B \int_0^p p_i f(p_i)dp_i + R^f\int_0^p (1-p_i)f(p_i)dp - (1 + \gamma)B, \tag{6}$$

where p is the success probability of the marginal project. Differentiating equation (6) with respect to r, we get

$$\frac{dE\pi_B}{dr} = B\int_0^p p_i f(p_i)dp_i + \frac{dp}{dr}\left[(1+r)Bp\ f(p) + R^f(1-p)f(p)\right]. \tag{7}$$

The first term reflects the increased profits from the higher repayments from successful projects and the second term, which is negative (recall that dp/dr < 0), reflects the impact of the worsened risk mix of projects. Thus, an increase in the interest rate might lead to a reduction in the expected profit of the lender. If a higher interest rate leads to lower expected profit for the lender, then he will ration credit instead of increasing the interest rate.

The credit rationing equilibrium will result in underinvestment compared with the first-best equilibrium--that is, the solution that emerges when information is perfect--which requires all projects whose expected return exceeds or equals the cost of funds to be financed. This is the case because all projects have the same expected return, and thus those affected by the credit rationing would have been undertaken if information had been perfect.

Moral hazard, by contrast, occurs when, after loan dispersal, the borrower can take actions, not observable to the lender, that are detrimental to the lender's payoff. For example, if borrowers can choose the riskiness of their projects after a loan contract, higher lending rates might induce them to choose more risky projects, given that in the case of a default, the lender assumes the cost of the loan. Thus, the adverse effect of high lending rates on borrowers' incentives might induce lenders to ration credit instead of raising their interest rates.

To see that a credit rationing equilibrium can arise in a setting with moral hazard, assume that all borrowers are identical--instead of different borrowers, as was the case in the model discussed in the previous section--and that they can choose from a continuum of projects with the same expected return but with different probabilities of success. Then, assuming that equation (4) holds as an equality, an increase in the rate of interest will induce an entrepreneur to shift from a less to a more risky project. Furthermore, from equation (7), we know that the expected profit of the lender might decline as the risk mix of projects worsens, which could lead to a credit rationing equilibrium.

b.   Market response to information imperfections in
     the capital markets

Over time institutions and mechanisms have emerged to mitigate information imperfections in the capital markets. For example, credit rating institutions (bond rating firms, credit bureaus) mitigate information asymmetries between borrowers and lenders by collecting information on firms' past performance and providing it to current or potential creditors. Furthermore, lenders use indirect monitoring mechanisms such as collateral and covenants, which are intended to align the incentives of the borrower with those of the lender. Collateral, by increasing the stake of the borrower when his project fails, reduces the incentive for him to undertake riskier projects. Similarly, covenants that specify a certain observable and verifiable performance, which borrowers are expected to adhere to, provide lenders a mechanism for indirectly monitoring the behavior of their debtors. Observable and verifiable performance indicators might include, for example, a limit on debt-service ratios.

4.   Information imperfections and small business financing

Information imperfections in the capital market and their consequences have a more severe effect on small enterprises than on large established enterprises. Most small enterprises have been in business for a short time

period and are consequently unlikely to have developed a reputation (credit rating) in the capital market sufficient to mitigate information asymmetries between them and their potential lenders. Furthermore, loan processing costs for small enterprises--at least as a proportion of the loan--are much higher than those for large established firms, a fact that dissuades commercial banks from serving them. 1/ In addition, most small enterprises do not have enough marketable collateral to safeguard lenders' positions by means of collateralized credits.

Credit constraints faced by small enterprises are particularly severe in developing countries: there are usually no credit rating institutions, the legal institutional framework is underdeveloped, and sometimes there are even problems with the establishment of property rights. However, even in developing countries some institutions have emerged to compensate for information and institutional imperfections. For example, lending and saving groups, such as Rotating Savings and Credit Associations (ROSCA)--which are informal lending and saving institutions formed by people who are well acquainted with each other and who overcome moral hazard through community and peer pressure--are common in many developing countries.

5. Role of government in the provision of small business finance

In the presence of adverse selection and moral hazard, the first-best outcome of an efficient market (Pareto Optimum) will not be achieved. The question that generally arises therefore is whether there is a role for government to improve the situation by offsetting information imperfections in capital markets. The presence of imperfect information, however, does not imply per se that there is a market failure. In the presence of adverse selection and moral hazard the market equilibrium that emerges will be constrained-efficient if there are no externalities. In this situation, unless Government is more efficient in the production of the information characteristics of borrowers--which is not generally thought to be the case--government intervention will not lead to a Pareto improvement over the market equilibrium.

Rather than on the grounds of imperfect information, government interventions in credit markets are generally justified by market failure that is due to the presence of externalities in these markets. There are different forms of externalities that could arise in credit markets and would warrant government intervention. If information is a public good--this is the case when information generated by an individual lender about the risk characteristics of its borrowers is in the public domain--then lenders will produce less credit information output than is socially optimal. Furthermore, if provision of credit to the excluded segment of the population has economic benefits that private lenders do not take into

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1/ The cost of gathering information may also be lower for larger enterprises. The reason is that large enterprises are more likely to have been in business longer than small enterprises and thus their past performance might reveal information about their future performance.

account in their decision-making process, government intervention would be justified. This is the case, for example, if the provision of credit to small enterprises enhances technological innovations and economic growth. Another form of externality that might occur in capital markets is when the consumption or the use of certain inputs has an impact on the success of projects undertaken by borrowers. 1/ For example, if the use of more modern inputs by a class of borrowers reduces the susceptibility of their projects to adverse shocks, a subsidy for these inputs and a tax on outdated inputs might make these projects less risky.

Government intervention can also be defended if it could improve the lenders' abilities to sort out the credit risk of the targeted population. For example, a temporary subsidy for loans to the targeted population might improve lenders' capacity to assess their risk and thus their access to credit in the future. Government intervention may also be justified on distributional grounds. For example, a Government might deem it necessary to make credit available to certain segments of the society that are excluded or have limited access to credit markets. However, this is a political decision rather than an economic policy motivated by a market failure.

a.   Forms of government intervention

Credit guarantee schemes involve a partial or full government guarantee of loans provided to targeted groups by banks. The guarantee by the government is intended to increase credit to small enterprises by reducing the default risk faced by banks. These schemes result in a moral hazard problem. Given that banks will be repaid whether a borrower defaults or repays his loan, they will have less incentive to carefully screen credit applications, thus leading to the undertaking of more risky projects; this will produce a higher default rate among loan guarantee recipients than among other borrowers.

Loan guarantee schemes also might result in a displacement effect: insofar as firms that would have qualified for commercial bank loans without guarantees are induced to shift to guaranteed loans, the guarantee scheme will not increase credit availability.

Direct government loan schemes are another means of increasing financing available to groups that are disadvantaged by credit constrains. These types of loans are generally provided at interest rates that are lower than market rates and are thus not self-financing. 2/ In addition, these programs distort investment decisions; for example, borrowers might undertake projects that have low returns because of the low lending rate that is available. Also, of course, to the extent that subsidized

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1/ See Arnott and Stiglitz (1986).

2/ Interest rate subsidies are generally justified on account of externalities.

government loans displace commercial bank lending, there is no increase in credit availability.

    b.   Experiences with government intervention in credit to small enterprises

      Loan guarantee schemes have been used extensively in developed countries to encourage commercial bank lending to small- and medium-scale enterprises. Eligibility for guaranteed loans for most countries is based either on the number of employees or on total sales of the firm. Furthermore, all countries have ceilings on the amount of lending to any individual firm.

    In these schemes, commercial banks are responsible for the disbursement of loans and the monitoring of their performance. Participating banks accept applications for loans from eligible businesses and if the project is thought to be viable, the bank applies for a loan guarantee from the government guarantee agency. If the guaranteeing agency approves, the loan is disbursed by the bank to the applicant. 1/ The guarantee comes into effect if a borrower is not able to service his loan after a certain period. In most countries, if a borrower defaults, the guarantee agency buys the loan and the interest payment arrears and it is responsible for the recovery of the loan from the borrower.

    Government guarantees generally vary from 50 percent to 100 percent of each loan provided to qualified small- and medium-scale enterprises. 2/ In France, the Netherlands, and Japan, loan guarantees sometimes are as high as 100 percent. In the United States and Canada, the guarantee is up to 90 percent of individual loans, while in Germany and the United Kingdom, the guarantee is about 70 of each loan to qualified small- and medium-scale enterprises. Guarantee fees charged by guarantee agencies vary from country to country. In the United States, the guarantee fee is 1 percent of the guaranteed amount, while in Germany there is a 1 percent fee on the amount guaranteed and a fee of 0.5 percent a year on the outstanding guaranteed amount of the loan. Countries such as Canada and the Netherlands have no guarantee fees.

    Despite fees and premium charges, all the credit guarantee schemes in the developed countries are heavily subsidized in order to cover the losses on loan guarantees. In the United States, losses on guaranteed loans in default are estimated to be about 25 percent of the total outstanding loans. 3/ In the United Kingdom, failure rate estimates varied from 5 percent to 20 percent. In New Zealand, from 1978 to 1985, 13 percent of

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    1/ In some countries--like France, Germany, and Japan--the guaranteeing agency plays a major role in the appraisal of the projects applying for a government agency. However, in most countries the screening process is left to the banks.

    2/ See Levitsky and Prasad (1987).

    3/ See Rhyne (1988).

the loan guarantees were invoked because of defaults. In Germany and in the Netherlands, losses on the guarantee schemes were estimated to be about 2 percent and 4 percent of the total outstanding guaranteed loans, respectively. 1/ In addition to loan defaults, administrative costs of loan guarantee schemes are very high particularly when guarantee agencies rigorously screen loan applications.

Some studies have shown that these programs have had relatively small impact on small- and medium-scale enterprises' access to financing. In the United Kingdom, for example, a 1983 study found that without the loan guarantees, 40 percent of the loans extended under the scheme would have been made anyway. 2/ In the United States, some studies show that despite subsidies, credit guarantee schemes have not significantly increased the flow of credit to small enterprises. 3/

Developing countries' guarantees schemes have been generally similar to those in the developed countries, except that the participation of banks in loan guarantee schemes has been limited. There is evidence--from Ghana, India, Liberia, Malaysia, Philippines, and Sri Lanka--to suggest that banks have been uncertain as to whether government credit guarantee institutions would honor their guarantees. This forced many banks, despite loan guarantes offered by the Government, to ask for collateral against small business loans, so that access to credit markets did not improve for collateral-constrained targeted groups.

The losses of these programs in developing countries were also much higher than those in developed countries. For example, in Nepal, the capital fund of the government guarantee agency in 1986 amounted to only 8.6 percent of its total guarantee obligations, while total overdue loans amounted to 52 percent of the outstanding guaranteed credit. Similarly, in the Philippines, banks participating in credit guarantee programs have experienced a ratio of overdue to total loans outstanding as high as 90 percent. In Ghana, banks withdrew from the government credit guarantee scheme after the Ghanian credit guarantee agency refused to honor losses on its guarantees. The large losses incurred by guarantee agencies in developing countries can be explained in part by the limited project appraisal skills of the staff of credit guarantee agencies.

Finally, direct credit programs are more common in developing countries than in developed countries. In developing countries, direct lending to small enterprises is generally funded by the government and it is channeled through government-owned development banks. Direct lending operations are also often partially financed by donors. Most direct government loans to

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1/ Low default rates in these countries are due to the thorough project appraisals performed by the guarantee agencies. However, even in these countries, guaranteed loans still have a higher default rate than the economy-wide default rate.

2/ See Levitsky and Prasad (1987).

3/ See Gale (1991) and Harm (1992).

small- and medium-scale enterprises in developing countries are heavily
subsidized and in some countries the real interest rates on these loans are
negative. This has reportedly led to investment in low return projects and
the crowding out of commercial bank lending in many countries. 1/

6.   Group lending programs

     Group lending programs became popular in many developing countries in
the wake of the failure of previous government programs intended to increase
small enterprises' access to credit markets. In these programs, financial
institutions or nongovernmental organizations, which often receive donor
grants, lend to a group as a whole or to individual members of a group. If
a loan is provided to the group as a whole, the group is jointly liable for
the loan received, and if a loan is provided to individual members of a
group, the group jointly guarantees the loan received by each of its
members. 2/ In most group lending programs, repayment of loans by all
group members is a prerequisite for continued access to credit.

     The presence of group joint liability or group guarantees induces self-
selection and peer monitoring. Because the whole group's access to credit
will depend on the loan repayment performance of its members, individuals
will form a group with others whom they know well and on whom they can exert
social pressure to ensure loan repayment. 3/ This form of self-selection
and peer monitoring mechanism lowers monitoring costs compared with those
that would have been incurred by any outside financial institution.
Furthermore, the group joint liability and group guarantees substitute for
collateral and thus increase group members' access to credit.

     Most group lending schemes also reduce transaction costs by locating
their operations near where their borrowers live and by using simplified
loan application procedures. Lending operations are decentralized and
individual branches make independent lending decisions, thereby speeding up
loan approval procedures. In addition, the lack of collateral in loan
contracts saves borrowers' fees that would have been charged for collateral
verification and registration.

     One of the early successful group lending institutions is the Grameen
Bank in Bangladesh, which was founded in 1976. The objective of this bank
is to provide loans to peasants to finance a variety of microenterprises.
The total amount of loans disbursed by the Grameen Bank has risen from less

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1/ See Levitsky (1983).

2/ In some cases the leader of the group provides guarantee for loans
provided to his group members.

3/ The size of the group has been found to be one of the major
determinants in the repayment success of group lending programs. As the
group becomes larger, information costs increase beyond a certain point and
monitoring becomes more difficult. Furthermore, as the group size
increases, social linkages and thus peer pressure tend to decline; this
adversely affects the repayment of loans.

than US$26,000 in the early years of its operations to about US$40 million in 1989. By 1989, Grameen Bank had 632 branches and 630,000 members. Similar lending groups have emerged and expanded in many developing countries. These include ACCION International in Latin America, Amanah Ikhtiar Malaysia (AIM) in Malaysia, the Badan Kredit Kecaman (BKK) in Indonesia, Caisses De Crédit Agricole Mutuel du Benin, Crédit Solidaire in Burkino Faso, the People's Bank in Nigeria, and the Small Holder Agriculture Credit Administration and the Malawi Mudzi Fund in Malawi. Defaults experienced by these institutions are minimal: repayments were as high as 100 percent in Malaysia and Benin, 98.7 percent in Bangladesh and Malawi, and 98 percent in Nigeria.

In addition to lending programs, most of these institutions also provide financial services to their clients and operate as credit unions or cooperatives. This is an important aspect of these institutions because it emphasizes local savings mobilization to meet local investment demand instead of relying on funds from governments or international donors. 1/ However, Government and donors continue to play a major role in providing funds to these institutions to cover support services such as borrower training and group formation.

In most group lending programs, interest rates charged on loans are not subsidized and are comparable to those of commercial banks. This underscores the importance of having lending schemes that are at least self-financing, in contrast to the subsidy-dependence of most other government credit programs. Charging market interest rates also protects against resource misallocation and the crowding out of commercial bank lending. Furthermore, the scheme gives nascent entrepreneurs maximum freedom; there is no prescription that borrowers have to invest in any particular sector or area and they are free to put their funds to whatever use maximizes returns. Group lending programs seem generally to have succeeded in lifting living standards: a survey in 1988 showed that incomes of the Grameen Bank members were 43 percent higher than those of comparable nonGrameen Bank members and similar results have been reported for Indonesia, Benin, Burkino Faso, Malawi, and Malaysia. 2/

7. Lessons for South Africa

The lesson for South Africa from these experiences is that subsidized credit to small enterprises is not sustainable in the long run and, at the same time, might distort investment decisions. To increase the financing available to micro- and small-scale enterprises, nongovernmental agencies could build on and develop the current system of group lending and saving

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1/ The combination of lending and deposit services might have a positive effect on loan repayment as it increases the stake of borrowers in the institution.
2/ Riedinger (1994) and Gurand, Pederson, and Yaron (1994).

programs. 1/ In addition to providing credit, nongovernmental organizations could help in the provision of training and in the group formation process. It bears repeating that, in order for these programs to be effective and sustainable, interest rate subsidization must be avoided; access to credit rather than the cost of credit is generally the constraint faced by micro- and small-scale enterprises.

Group lending programs financed by nongovernmental organizations through donor or government funds will not be sustainable in the long run without domestic saving mobilization. This will require the transformation of lending and saving programs such as the Stokvels into banks. This is in line with the recent establishment of a community bank in South Africa that is intended to mobilize savings and serve the credit needs of the black community. The community bank will operate as a credit cooperative and will rely on share capital and members' savings for loanable funds.

Furthermore, financing to small enterprises could be increased through the establishment of small enterprise associations or cooperations, which, on behalf of their members, can guarantee loans provided to their members by financial institutions. This would have three advantages. First, information costs will be reduced since such organizations would have better information than financial institutions about the characteristics of their members. Second, small enterprise associations can monitor their members' performance better than commercial banks can. Third, small and medium-sized enterprises should be able to negotiate more favorable loan contracts as a group than as individual enterprises.

In the formation of small enterprise associations, government intervention should be kept to a minimum, to avoid the emergence of moral hazard. For example, if these organizations have expectations that the government will bail them out in times of financial crises, their incentive to carefully screen and monitor their members might be diluted. At most, government intervention should be limited to helping in the formation of these organizations by providing them with technical assistance.

Finally, success of the promotion of small enterprises will depend heavily on the macroeconomic stability of the economy. If the macroeconomic environment is not conducive to economic growth because of government controls, unsustainable government deficits, wage developments that squeeze profit margins, and high inflation, then any policy measures undertaken to promote small enterprises will not have the desired effects.

1/ Stokvels are the best known example, but it should be noted that they are more often geared to consumption rather than investment.

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South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates

1. Taxes on income, profits, and capital gains

1.1. Individual income tax

Income Tax Act No. 58 of 1962 as amended.

Central government tax charged on taxable income received by or accrued to a person from any source within or deemed to be within South Africa. Taxable income is assessed as gross income less exemptions and deductions. Receipts or accruals of a capital nature are generally excluded from gross income. Capital gains derived from asset transactions deemed to be made with the purpose of making a profit are included in gross income. Wage and salary earners are subject to withholding tax at source (PAYE) may have to submit income tax returns at the end of the tax year. Persons whose income consists almost entirely of remuneration and of which the amount, after some deductions, does not exceed R 50,000 are subject to Standard Income Tax on Employees (SITE) under the PAYE system; SITE payers are not required to submit income tax returns. Other individuals are assessed on the basis of their estimated income in the tax year; provisional payments are effected in two half yearly installments. The tax year runs from the first day of March to the last day of February.

Exemptions include (i) the first R 2,000 of any taxable interest; (ii) dividends excluding dividends paid by building societies, fixed property companies, or unit portfolios; (iii) lump-sum receipts from provident, pension, and retirement annuity funds; (iv) benefits payable under the Unemployment Act, and (v) leave gratuities on retirement/retrenchment up to R 30,000. Deductions are allowed for (i) annual contributions to pension and retirement funds (the greater of R 1,750 or 7 1/2 percent of pensionable income); (ii) retirement annuity fund contributions (the greater of R 1,750 or R 3,500 less allowable pension contributions or 15 percent of non-pensionable income), (iii) medical expenses (with deduction ceilings depending on age, marriage status, and number of dependents); and (iv) donations to certain educational institutions.

Individual tax payers are classified into three different categories: (i) married persons; (ii) unmarried persons; and (iii) married women. There is a separate income tax rate schedule for each category. Tax calculated according to the appropriate schedule is reduced by tax rebates, which depend on tax payer category, age, and number of children. For example, the tax rebate of a married person under the age of 64 with two children amounts to R 2,425. Taking into account tax rebates, the following marginal and average income tax rates apply to a married person with two children:

Taxable annual income (In rand)	Marginal tax rates (In percent)	Average tax rates (In percent)
0 – 13,553	0	0
13,554 – 15,000	19	0.9
15,001 – 20,000	20	4.1
20,001 – 30,000	21	8.9
30,001 – 40,000	28	13.4
40,001 – 50,000	36	17.5
50,001 – 60,000	41	21.4
60,001 – 80,000	42	25.5
80,001 and above	43	...

In FY 1994/95, individuals other than married women will be charged a transition levy of 3.33 percent of taxable income exceeding R 50,000. For married women, the levy will apply to taxable income exceeding R 175,000.

144

South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1.2. Corporate taxes Income tax act No. 58 of 1962 as amended.	Corporate income tax is a central government tax levied on the taxable income of any company registered in South Africa and on the taxable income of foreign companies generated in South Africa. Taxable income is defined as gross income, other than capital receipts and exempt income, less allowable deductions and loss offsets. The year of assessment is the accounting year. Companies (other than gold mining companies) are required to make three provisional tax payments in respect of each year of assessment, viz., the first within six months after the commencement of the year of assessment, the second at the end of such year, and the third within a period of six months from the close of such year. Comprehensive agreements for the avoidance of double taxation on the same income are in force with 22 countries. Limited agreements for the avoidance of double taxation on profits derived from sea or air transport are also in force with 9 countries. Gold mining companies are subject to special tax provisions.	Deductions include normal operating costs, interest, and depreciation allowances but exclude dividends and capital expenditures. Depreciation allowances of non-mining companies vary according to type of asset, life expectancy, and intensity of use of assets. Generally, the straight-line method is used. Special depreciation allowances include initial allowances ranging from 10 percent (certain housing projects) to 40 percent (aircraft). Farming machinery may be written of at 50, 30, and 20 percent over three years. Exporters are allowed to deduct a percentage of the marketing expenditure incurred by the taxpayer during a year. An assessed loss can be carried forward indefinitely but can not be carried backward. Income of pensions and retirement annuity funds is tax exempt. Capital expenditures by all types of mines are allowable as a deduction from income in the year of assessment in which they are incurred, limited, however to the annual mining working profit. Unredeemed balance ranks for redemption against future mining working profit. Cost of land, mineral rights, mining rights, servitude, etc., are not deductible.	a. Non-gold mining companies: 35 percent of taxable income derived within South Africa. b. Gold mining companies: Formula-based tax rate according to: $$y = 43 - [215/x],$$ where y is the tax rate and x is the profit-to-revenue ratio. For example, a gold mine with a profit-to-tax revenue ratio of 10 percent faces a corporate tax rate of 21.5 percent. Gold mines were given the option to switch to the non-gold mining company tax system by August 31, 1993, but no gold mining company has done so. c. Oil extraction companies: 61 percent. d. Long-term insurance companies: If taxable income is determined under section 28, 43 percent. If taxable income is determined under section 29, 35 percent in respect to income derived from company policies and 30 percent in respect to income derived from policies held by individuals. In FY 1994/95, taxable company incomes exceeding R 50,000 before the off-setting of any assessed loss brought forward are subject to a levy of 5 percent.
1.3. Secondary tax on companies (STC) Income Tax Act No. 58 of 1962 as amended.	A central government tax payable on the net amount of dividends, i.e. the excess of dividends declared by the company over dividends accrued to the company.	Exemptions include dividend payments of fixed property companies and unit portfolios. These dividends are taxed in the hands of the recipient. Dividends in specie deriving from unbundling operations are also exempt from STC.	25 percent.

South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates
1.4. Non-resident shareholders' tax (NRST) Income Tax Act No. 58 of 1962 as amended.	A central government tax on dividend income derived by nonresidents from South African sources on which normal tax is not payable. The tax is withheld by the company declaring the dividend.	Exemptions for ecclesiastical, charitable, or educational institutions of a public character. Dividend in specie due to unbundling operations are also exempt from NRST.	15 percent.

2. Social security contributions

2.1. Unemployment insurance contributions	A contribution collected by unemployment insurance funds.	Not payable for employees earning more than R 63,648 per year. Also excluded from unemployment insurance are domestic servants, homeworkers, and temporary workers who are employed for less than 8 hours or less than one full working day in any calendar year.	Employee and employer contributions of 1.0 percent of insured's earnings.
2.2. Work injury insurance contributions	A compulsory insurance scheme.	Not payable by employees earning more than R 55,068 per year. Also excluded are domestic servants and casual workers.	Insurance premia vary with risk.

3. Taxes on payroll and workforce

3.1. Payroll tax Regional Service Councils Act.	A tax levied by Regional Service Councils.	A tax levied by Regional Service Councils on remuneration paid by employer or employee. Some Regional Service Councils grant discounts of 15, 20, or 25 percent to farming enterprises.	Ranges from 0.25 to 0.38 percent depending on Regional Service Council.

South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates
4. Taxes on property			
4.1. Property tax	A local tax payable on the capital value of land and improvements.	Method of valuation and rates differ across local governments. Rebates of up to 40 percent are provided for different classes of property.	Rates differ across local governments and depend on valuation methods.
4.2. Estate duty Estate Duty Act No. 45 of 1955.	A central government tax payable on the estate of an individual. Property includes life insurance proceeds, pension or provident fund benefits, donations made in contemplation of death, lifetime donations if made after March 24, 1955.	Deductions include funeral and estate administration expenses, as well as outstanding debts of deceased. A single deduction of R 1,000,000 is applicable.	15 percent.
4.3. Donations tax Income Tax Act (No. 58 of 1962)	A central government tax payable by the donor on the cumulative value of property donated by residents.	Donations by public companies and donations to charitable, educational or ecclesiastical institutions are exempted. Also, annual exemption limits of R 5,000 and R 20,000 apply for legal and natural persons, respectively.	15 percent.
4.4. Transfer duty (Transfer Duty Act No. 40 of 1949)	A tax payable on the purchase consideration of fair value (whichever is the greater) of transfers of immovable property.	Exemption limits of R 20,000 for unimproved property and R 50,000 for property with dwelling.	For natural persons, 1 percent on the first R 60,000 plus 5 percent on the value in excess of R 60,000 but under R 250,000 plus 8 percent on amount in excess of R 250,000. For other persons, 10 percent of total value of property.
4.5. Marketable securities tax	A tax payable on the purchase of marketable securities by a stockbroker on behalf of any person.		1 percent.

South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates
5. Domestic taxes on goods and services			
5.1. Value-added tax (VAT) Value Added Tax Act, No. 89 of 1991.	A central government tax levied on the sale of goods and services. VAT is collected at single rate, is consumption-type (allows full and immediate tax credit on capital goods), is based on destination principle (exports are zero-rated and imports are taxed), and uses invoiced-based credit method (VAT is calculated on sales and purchases separately, and tax is paid on difference between VAT on sales and VAT on purchases adequately supported by invoices).	Main zero-ratings include (i) exports; (ii) several unprocessed food items including brown bread, maize meal, milk, eggs, fruit, and vegetables; (iii) petrol and diesel; (iv) several agricultural inputs including seeds, feed, and fertilizers; and (v) international transport services. Main exemptions include: (i) financial services; (ii) residential rents; (iii) passenger transport; and (iv) educational services.	14 percent.
5.2. Turnover tax Regional Service Councils Act.	A tax on turnover levied by Regional Service Councils.	Exemptions: (i) religious, charitable and educational institutions; (ii) non-profit organizations engaged in nature conversation or animal protection; (iii) amateur sport clubs; and (iv) letting of accommodation to employees.	Ranges from 0.1 to 0.2 percent.
5.3. Excise duties Customs and Excise Act No. 91 of 1964 as amended.	Central government taxes payable by the manufacturer or importer of certain commodities. Most are specific, though some ad valorem rates exist.	A rebate is granted on dutiable goods that are used by government, provincial administrations, diplomatic representatives, etc., and on taxable goods used by producers in the manufacture of taxable goods for industrial or commercial purposes.	Beer (excluding sorghum beer): 72 cents per liter. Sorghum beer: 4 cents per liter. Sorghum powder: 20 cents per kilogram. Unfortified wine: 29 cents per liter. Fortified wine: 67 cents per liter. Sparkling wine: 85 cents per liter. Spirits: 1,840 cents per liter absolute alcohol. Other fermented drinks: 33 cents per liter. Cold drinks and mineral water: 14 cents per liter. Cigarettes: 36 cents per 10 grams. Cigarette tobacco: 45 cents per 50 grams. Pipe tobacco and cigars: 315 cents per kilogram.

South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates
5.4. Fuel levy Customs and Excise Act No. 91 of 1964 as amended.	A central government levy on the sale of petrol and diesel.		Petrol: 61 cents per liter. Diesel: 53 cents per liter.
5.5. Levy on financial services Income tax act No. 58 of 1962 as amended.	A central government tax levied on certain transactions or 50 percent of the minimum share capital and unimpaired reserve funds of financial institutions.	Exemptions: (i) government pension funds; (ii) private pension funds where interest per quarter does not exceed R 125,000; (iii) stabilization account of SADF group life assurance scheme; (iv) interest received by pension fund from other pension fund, insurer or unit trust.	0.75 percent.
5.6. Motor vehicle taxes Customs and Excise Act No. 91 of 1964 as amended.	A tax levied according to weight on all private motor cars, station wagons, and similar dual purpose motor vehicles. Motorcycles are not subject to the duty.	The rates depend on local content.	Motor cars Net local content greater than 65 percent: 20 cents per 1,000 kg plus 10 percent if compression ignition engine. Other motor car rates are higher. Road tractors for semi-trailers--20 percent plus further ad valorem levies if engine not manufactured subject to approval of Ministry of Industry, Commerce, and Tourism. Other motor vehicle rates are similarly determined.

South Africa: Tax Summary as of November 1, 1994

(All amounts in South African rand)

Tax	Nature of Tax	Exemptions and Deductions	Rates
6. Taxes on international trade transactions			
6.1. Customs duties			
Customs and Excise Act No. 91 of 1964 as amended.	A three-column tariff schedule based on the Brussels nomenclature with general, most favored nation, and preferential rates of duty. Preferential treatment is given to goods from the United Kingdom and in some cases, goods from Canada and Ireland. There is a Customs Union with Botswana, Lesotho, and Swaziland. Most duties are assessed ad valorem at c.i.f. value but there are a number of specific duties.	Rebates are allowed for certain goods used in manufacture by approved industries or by particular institutions and bodies.	There are 35 ad valorem rates, and 2,865 tariff lines with either formula, specific, or other types of duties. Import duties vary widely.
6.2. Import surcharges	Import surcharges were introduced in 1988 to compensate for balance of payments disequilibria.	Imports of capital goods are exempt. Payment of import surcharges may be waived for certain goods by the Director-General of Trade and Industry. Goods originating in Hungary and Malawi are exempt as are some goods originating in Zimbabwe.	Import surcharge are levied at rates of 5, 15, and 40 percent of import value, depending on type of import.
7. Other taxes			
7.1. Stamp duties	Ad valorem or specific taxes payable on	Most securities issued by certain public	Rates of stamp duty vary for different instruments
Stamp Duties Act.	a wide range of legal documents such as agreements, bills of exchange, bonds, fixed deposit receipts, leases, marketable securities, transfer deeds, etc.	corporations and public authorities are exempt from stamp duty on issue and transfers. Where marketable securities tax is chargeable, brokers' notes do not attract stamp duty.	and also for a particular instrument. Examples are: R 2 for agreements; 5 cents per R 100 for bills of exchange; 10 cents per R 200 per annum on fixed deposit receipts.

South Africa - Exchange Arrangements

A full description of South Africa's exchange arrangements as of December 31, 1993 is given in Exchange Arrangements and Exchange Restrictions, Annual Report 1994. At present, South Africa maintains one exchange restriction subject to approval under the Fund's Article VIII, namely, the multiple exchange practice arising from the restriction that emigrants' interest and dividend income above R 350,000 per annum can only be transferred abroad at the financial rand rate.

Other changes in the exchange system since end-1993 include:

Payments for Invisibles:

August 29, 1994: The indicative annual limits on allowances that authorized dealers may provide for traveling to countries other than neighboring countries were raised as follows: (i) the basic tourist allowance, from R 20,000 to R 23,000 for an adult and from R 10,000 to R 11,500 for a child; (ii) the limit on additional allowances for business travel was raised from R 30,000 to R 34,000.

Table 1. South Africa: Expenditure on GDP, 1989-94

	1993 Millions of rand	1993 Percent of GDP	1989	1990	1991	1992	1993	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II	1994 III
	(At current prices)		(Annual percentage change; at 1990 prices)					(Seasonally adjusted at annual rate)						
Private consumption	230,630	60.2	2.7	2.9	-0.7	-1.7	0.5	0.8	1.5	1.8	2.7	1.4	2.6	2.9
Public consumption	79,047	20.6	4.0	2.3	2.3	1.5	1.8	3.2	2.7	5.2	4.5	7.0	1.6	0.1
Gross fixed investment	58,837	15.4	6.5	-2.3	-7.4	-5.3	-3.4	-6.6	0.7	2.0	2.5	3.6	8.4	7.2
Final demand	368,514	96.2	3.8	1.7	-1.5	-1.8	0.0	-0.1	1.6	2.6	3.1	3.0	3.4	3.1
Inventory investment 1/	2,407	0.6	-0.7	-2.4	0.8	0.5	1.3	4.0	-3.6	3.6	4.7	-3.7	-0.1	5.4
Domestic demand	370,921	96.8	3.0	-0.8	-0.7	-1.3	1.4	4.1	-2.2	6.4	8.1	-1.0	3.3	8.7
Exports of goods and nonfactor services	91,013	23.8	5.4	1.7	-0.1	1.1	6.0	-0.3	34.7	-6.3	16.1	-24.7	6.9	18.7
Imports of goods and nonfactor services	76,155	19.9	0.3	-5.8	2.1	5.3	7.0	8.7	2.9	1.5	37.3	-13.0	22.1	52.0
Foreign balance 1/	14,858	3.9	1.2	1.6	-0.4	-0.8	0.1	-2.0	7.9	-2.2	-3.1	-4.5	-3.0	-5.9
Statistical discrepancy 1/	-2,708	-0.7	-1.7	-1.2	--	-0.2	-0.3	0.3	-0.8	2.9	0.4	1.9	1.4	0.5
GDP at market prices	383,071	100.0	2.4	-0.3	-1.0	-2.2	1.1	2.2	4.9	6.8	4.8	-3.6	1.6	2.6

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Contribution to GDP growth.

Table 2. South Africa: Gross Fixed Investment and Capital Stock, 1989-93

	1993 Share of total	1989	1990	1991	1992	1993
		(Annual percentage change; at 1990 prices)				
Total gross investment	100.0	6.5	-2.3	-7.4	-5.3	-3.4
By type of organization						
Private enterprises 1/	70.4	2.1	0.4	-5.5	-2.4	-1.3
Public corporations	14.1	34.5	3.0	-10.4	-6.4	-13.5
Public authorities	15.5	3.8	-14.8	-11.4	-15.4	-2.5
By sector						
Mining	8.9	3.2	-6.2	-6.8	-18.7	-24.6
Manufacturing	26.4	35.5	13.8	-11.7	-6.0	8.7
Financial services 1/ 2/	23.2	-2.1	-12.4	-5.6	-2.8	-0.9
Community, social, and personal services	13.8	6.7	-2.3	-11.3	6.2	-3.9
Other sectors	27.6	-0.7	-4.0	-3.4	-5.3	-6.5
By type of asset						
Residential building	11.9	-12.7	-14.8	4.0	4.9	-3.1
Nonresidential building	11.1	20.9	0.1	-7.7	-17.7	-16.1
Construction works	16.3	17.9	15.0	-11.1	-21.0	-14.0
Transport equipment	13.3	7.3	-13.0	0.7	-8.4	-9.7
Machinery and other equipment	43.7	3.8	-4.6	-11.8	7.7	7.6
Transfer costs	3.7	-4.8	1.7	4.1	0.7	0.9
Real fixed capital stock 3/	100.0	1.7	1.5	1.0	0.7	0.5
Private enterprises 1/	50.1	1.9	5.0	1.3	1.2	1.0
Public corporations	20.6	1.0	74.7	-0.8	9.1	-2.6
Public authorities 4/	29.3	1.6	-23.5	1.5	-5.5	1.7

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Including transfer costs.
2/ Finance, insurance, real estate, and business services.
3/ End of period.
4/ General Government plus four departmental enterprises (Community Development Fund, Government Motor Transport Trading, Government Printing Works, National Housing Fund).

Table 3. South Africa: Financing of Domestic Investment, 1988-93

(In percent of GDP at market prices)

	1988	1989	1990	1991	1992	1993
Gross private saving 1/	23.1	22.8	19.6	19.8	21.5	22.3
Less: Depreciation 2/	15.6	15.3	15.0	14.5	14.1	13.5
Net private saving	7.6	7.4	4.6	5.4	7.3	8.8
Net personal saving	2.3	2.0	0.6	1.2	2.6	3.0
Net corporate saving	5.3	5.5	4.0	4.2	4.7	5.8
Gross general government saving 1/	-0.5	-0.2	-0.1	-0.9	-4.5	-4.8
Less: Depreciation 2/	0.6	0.6	0.6	0.6	0.6	0.6
Net general government saving	-1.1	-0.8	-0.7	-1.5	-5.1	-5.4
Net domestic saving	6.5	6.6	4.0	3.8	2.3	3.4
Net foreign saving (current account surplus -)	-1.7	-1.4	-1.9	-2.0	-1.2	-1.5
Net domestic investment	4.8	5.2	2.1	1.8	1.1	1.9

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Before inventory valuation adjustment.
2/ Provision for depreciation at replacement value.

Table 4. South Africa: Growth of Disposable Income of Households, 1989-93

	1993 Structure of disposable income	1989	1990	1991	1992	1993
	(In billions of rand)	(Percentage change from previous year)				
Net remuneration of employees 1/	207.7	20.1	18.4	14.6	13.1	10.7
Net income from property	54.8	21.0	4.5	28.3	25.9	11.7
Transfers received	17.6	9.6	40.4	8.2	28.9	22.7
General government	16.8	8.4	44.6	8.3	30.5	22.1
Business enterprises	0.2	21.3	13.5	11.3	11.2	9.6
Abroad	0.6	26.4	-13.3	4.0	-2.7	49.5
Current income	280.1	19.8	16.8	16.5	16.2	11.6
Less: Direct taxes	37.4	36.3	20.8	21.5	17.1	10.2
Personal disposable income	242.8	17.7	16.3	15.7	16.1	11.8
Less: Private consumer expenditure	230.6	18.4	19.1	14.7	13.5	11.0
Less: Transfers to general government and abroad	0.5	-3.2	12.4	30.8	-4.4	21.2
Personal saving	11.7	3.0	-62.9	104.8	148.1	30.2
Personal saving/Personal disposable income 2/	4.8	3.4	1.1	1.9	4.1	4.8

Source: South African Reserve Bank, Quarterly Bulletin.

1/   After adjustment for net remuneration paid to the rest of the world.
2/   After provision for depreciation and inventory valuation adjustment.

Table 5. South Africa: Real Gross Domestic Product at Factor Cost, 1989-94

	1993 Billions of rand	1993 Percent of total	1989	1990	1991	1992	1993	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II	1994 III
	(At current prices)		(Annual percentage change; at 1990 prices)					(Seasonally adjusted at annual rates)						
Primary sector	45.6	13.2	4.2	-3.1	0.1	-8.9	6.5	16.8	41.4	35.0	23.3	-30.8	-3.2	2.8
Agriculture, forestry, and fishing	15.1	4.4	14.7	-7.1	4.5	-27.3	16.7	62.6	236.6	155.5	70.0	-60.1	7.1	8.5
Mining and quarrying	30.5	8.8	-1.0	-0.8	-2.2	1.7	2.3	5.8	2.8	-0.5	2.5	-6.3	-8.1	-0.1
Industry sector	106.4	30.8	2.3	-1.8	-3.7	-3.1	0.0	1.8	0.3	4.7	1.2	-0.3	-0.0	1.8
Manufacturing	81.2	23.5	1.4	-2.7	-4.6	-3.3	0.2	2.1	-0.1	4.8	0.4	-1.3	-0.6	1.8
Construction	11.2	3.3	8.4	0.9	-4.7	-6.2	-6.8	-7.5	-6.0	-0.1	0.4	3.7	1.9	1.1
Electricity, gas, and water	14.0	4.0	3.7	1.7	2.0	0.5	4.0	6.8	6.5	7.0	5.7	2.0	1.7	1.9
Service sector	193.0	55.9	2.0	0.6	0.2	-0.1	0.6	0.9	-0.0	1.7	2.0	2.1	2.8	2.1
Wholesale and retail trade and catering	55.7	16.1	0.4	0.8	-1.8	-2.3	0.5	-0.0	0.0	2.8	2.4	1.8	4.0	2.0
Transport, storage, and communication	26.8	7.8	4.4	0.0	-2.2	1.9	2.4	2.3	-0.9	6.6	9.6	2.6	3.1	2.7
Finance, insurance, real estate, and business services	43.9	12.7	1.8	-0.4	1.6	-0.2	0.1	0.9	0.1	-0.4	-0.4	4.3	4.7	4.4
General government and other services	66.6	19.3	2.5	1.4	2.0	1.1	0.4	1.1	0.1	0.4	0.3	0.7	0.5	0.6
GDP at factor cost	344.9	100.0	2.5	-0.8	-1.1	-2.4	1.3	3.2	5.0	7.1	4.9	-4.6	1.0	2.1
Memorandum item:														
GDP less general government	292.4	84.8	2.5	-1.1	-1.7	-3.0	1.5	3.6	6.0	8.3	5.7	-5.4	1.1	2.4

Source: South African Reserve Bank, Quarterly Bulletin.

Table 6. South Africa: Indicators of Mining and Quarrying Activity, 1986-93

	Weights 1/	1986	1987	1988	1989	1990	1991	1992	1993
					(Annual percentage change; in volume)				
Production	100.0	-3.0	-4.3	2.9	-2.4	-1.9	-1.0	0.6	2.8
Gold	49.9	-4.9	-5.7	2.5	-2.4	-1.2	-0.7	2.1	0.9
Nongold	50.1	-0.1	-2.5	3.3	-2.2	-2.7	-1.2	-0.8	4.5
Of which:									
Coal	(21.5)	(1.8)	(0.1)	(0.6)	(-2.7)	(-0.9)	(-0.5)	(-1.8)	(...)
Diamonds	(4.6)	(-0.9)	(-6.7)	(-7.7)	(-3.6)	(-5.4)	(-3.9)	(17.2)	(...)
Copper	(2.8)	(-4.5)	(-1.0)	(-8.8)	(18.0)	(-9.7)	(4.9)	(-9.2)	(...)
Asbestos	(0.4)	(-24.8)	(-8.7)	(2.8)	(12.2)	(-3.8)	(5.4)	(-38.0)	(...)
Iron ore	(2.8)	(-3.8)	(-12.6)	(15.3)	(18.6)	(4.6)	(-5.1)	(-0.2)	(...)
Gross fixed investment at 1990 prices		7.8	-1.2	9.3	3.2	-6.2	-6.8	-18.7	-24.6
Fixed capital stock at 1990 prices		4.8	4.8	5.3	4.3	3.1	2.1	0.1	-1.8
					(Annual percentage change)				
Employment	100.0	3.7	--	-2.2	-1.4	-2.9	-7.4	-6.9	-6.4 2/
Gold	64.7	5.7	-0.1	-3.3	-3.1	-5.2	-10.2	-8.2	-4.8 2/
Nongold	35.3	-0.5	0.4	-0.1	2.2	1.4	-2.3	-4.0	-9.9 2/
Wage bill	100.0	21.0	20.1	14.0	14.4	15.1	6.7	4.9	1.3 2/
Gold	60.1	22.4	21.7	14.4	10.8	10.4	2.2	0.9	1.4 2/
Nongold	39.9	18.6	17.3	13.4	21.3	23.1	13.5	11.3	1.1 2/
					(In percent)				
Memorandum items:									
Share in total capital stock at 1990 prices		7.9	8.2	8.5	8.8	8.9	9.0	9.0	8.8
Share in total nonagricultural employment		16.4	16.2	15.5	15.2	14.9	14.0	13.5	13.1
Share in real GDP at factor cost		11.0	10.3	10.1	9.7	9.7	9.6	10.0	10.1

Sources: South African Reserve Bank, Quarterly Bulletin; Central Statistical Service, Bulletin of Statistics.

1/ In 1985.
2/ Through August.

Table 7. South Africa: Manufacturing Volume of Production and Capacity
Utilization, 1986-94

		Volume of production			Capacity utilization		
		Durable goods	Nondurable goods	Total	Durable goods	Nondurable goods	Total
		(1990=100)			(In percent)		
1986		92.6	93.3	93.0	74.9	81.7	78.4
1987		95.0	96.6	95.9	77.0	83.3	80.3
1988		104.2	98.0	100.7	82.1	85.0	83.6
1989		105.3	99.6	102.1	84.2	84.2	84.1
1990		100.0	100.0	100.0	81.5	81.8	81.9
1991		93.5	97.3	95.7	78.2	83.0	81.0
1992		87.7	96.3	92.6	75.1	81.0	78.5
1993		86.3	96.9	92.4	74.8	80.3	77.9
		(Period average; seasonally adjusted)					
1990							
Qtr	I	101.7	100.8	101.2	82.2	81.7	82.2
Qtr	II	102.0	100.3	101.0	81.7	81.2	81.6
Qtr	III	99.0	99.1	99.1	81.5	81.7	81.9
Qtr	IV	97.3	99.9	98.7	80.7	82.5	82.0
1991							
Qtr	I	93.5	97.7	95.9	78.8	82.7	81.2
Qtr	II	95.9	98.3	97.3	78.2	83.1	81.0
Qtr	III	93.1	96.7	95.1	78.1	83.5	81.1
Qtr	IV	91.4	96.6	94.4	77.9	82.9	80.8
1992							
Qtr	I	89.4	97.7	94.1	77.5	82.6	80.5
Qtr	II	87.7	95.6	92.2	75.8	81.5	79.0
Qtr	III	84.9	94.2	90.2	73.0	80.3	77.1
Qtr	IV	89.0	97.6	93.9	74.1	79.6	77.3
1993							
Qtr	I	87.4	95.7	92.1	73.7	80.4	77.5
Qtr	II	83.8	95.2	90.3	73.8	80.3	77.5
Qtr	III	86.6	97.4	92.8	75.2	80.7	78.3
Qtr	IV	87.5	99.4	94.2	76.4	80.0	78.4
1994							
Qtr	I	86.9	96.4	92.3	76.3	79.7	78.3
Qtr	II	85.4	95.0	90.9	78.7	81.0	80.0

Source: South African Reserve Bank, Quarterly Bulletin.

Table 8.   South Africa: Nonagricultural Employment, 1987-94

(1990 = 100)

	Public Authorities 1/			Private sector			
	General govt.	Business enterprises 2/	Total	Mining	Manufacturing	Total 3/	Grand total
1987	95.0	110.2	97.5	106.8	97.4	98.5	98.2
1988	97.5	105.7	98.9	104.4	100.4	100.6	100.1
1989	99.4	102.2	99.9	103.0	100.4	100.9	100.6
1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1991	102.2	98.5	101.6	92.5	97.4	96.4	97.9
1992	103.1	94.5	101.7	87.4	94.3	93.4	95.8
1993	102.5	82.4	99.2	82.3	92.3	91.1	93.4
	(End of quarter; seasonally adjusted)						
1989							
I	98.5	104.6	99.5	103.8	100.3	101.0	100.6
II	99.3	103.8	100.0	102.4	100.5	101.1	100.8
III	99.9	103.5	100.5	102.6	100.4	100.9	100.8
IV	100.0	96.9	99.5	102.0	100.2	100.7	100.4
1990							
I	99.7	101.4	100.0	102.0	100.7	101.2	100.9
II	99.9	99.6	99.9	101.5	100.1	100.5	100.3
III	99.9	99.6	99.9	98.7	99.6	99.8	99.8
IV	100.5	99.4	100.3	96.0	98.9	98.5	99.1
1991							
I	102.1	99.2	101.6	93.3	98.0	97.3	98.5
II	101.9	98.3	101.3	93.6	97.4	96.4	97.9
III	102.0	98.6	101.5	92.3	97.0	96.0	97.6
IV	102.7	98.0	101.9	91.2	96.2	95.8	97.6
1992							
I	102.6	96.7	101.6	89.5	95.4	94.6	96.7
II	102.5	95.2	101.2	88.8	94.4	94.0	96.1
III	103.4	93.8	101.8	85.8	93.4	92.6	95.3
IV	104.0	92.3	102.0	84.6	93.6	92.4	95.2
1993							
I	103.5	86.7	100.7	83.4	93.2	92.0	94.5
II	101.5	83.5	98.5	81.2	92.3	91.3	93.4
III	102.2	80.1	98.5	81.3	91.7	90.9	93.1
IV	102.9	79.4	99.0	80.9	90.1	90.2	92.7
1994							
I	102.8	77.6	98.6	71.4	91.7	88.8	91.6
II	102.8	76.3	98.4	...	...	...	...

Source: South African Reserve Bank, Quarterly Bulletin.

1/   Central Government, local authorities, provincial administrations, statutory bodies, and national and independent states (TVBC).
2/   Transnet and the Department of Posts and Telecommunications.
3/   Includes Electricity Supply Commission, Boards of Control, and universities.

Table 9. South Africa: Remuneration, Labor Productivity, and Unit
Labor Costs in the Nonagricultural Sector, 1987-94

	1987	1988	1989	1990	1991	1992	1993	1993 1/				1994 1/	
								I	II	III	IV	I	II

(Percentage change from year earlier)

	1987	1988	1989	1990	1991	1992	1993	I	II	III	IV	I	II
Remuneration per worker													
At current prices													
Public authorities	15.2	12.4	21.9	17.5	17.3	14.7	9.3	13.5	8.9	9.7	5.5	8.9	20.7
Private sector	15.0	16.6	16.7	17.1	15.3	15.6	11.2	12.8	10.5	10.5	11.1	9.7	...
Total	15.1	15.2	18.3	17.2	16.1	15.4	10.6	13.1	9.9	10.2	9.1	9.5	...
At constant 1990 prices 2/													
Public authorities	2.4	-0.9	4.0	0.6	2.6	1.4	-1.2	1.4	-2.2	-0.6	-3.8	0.4	10.7
Private sector	1.1	2.7	-0.5	0.3	0.9	2.0	0.6	0.8	-0.9	0.3	1.2	1.2	...
Total	1.5	1.5	0.9	0.4	1.6	1.9	--	1.0	-1.3	--	-0.5	1.1	...
Labor productivity	0.6	2.3	1.2	0.7	0.8	1.3	3.0	1.8	2.8	3.3	4.2	4.8	...
Unit labor costs													
Nominal	15.5	13.0	16.8	17.0	15.3	14.1	7.1	11.0	6.9	6.7	4.7	4.5	...
Real 2/	1.1	-0.5	-0.4	0.1	0.9	0.7	-3.1	-0.8	-4.0	-3.2	-4.6	-3.6	...

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Seasonally adjusted.
2/ At 1990 prices; deflated by nonagricultural deflator.

- 160 -

Table 10. South Africa: Price Developments, 1989-94

(Percentage change over the previous period)

	Weight 1/	1989	1990	1991	1992	1993	1993				1994		
							I	II	III	IV	I	II	III
							(Seasonally adjusted at annual rate)						
Consumer prices	100.0	14.7	14.4	15.3	13.9	9.7	8.7	16.8	7.4	5.3	9.2	6.7	15.7
Goods	57.9	15.2	15.5	17.0	16.3	10.4	8.3	16.2	6.3	6.2	8.3	8.0	19.4
Of which:													
Food	19.3	(11.1)	(16.0)	(19.6)	(24.8)	(7.2)	(5.1)	(2.1)	(6.5)	(3.8)	(13.6)	(16.0)	(42.5)
Services	42.1	13.6	12.2	12.6	11.2	8.6	6.5	19.6	13.0	1.2	6.8	8.3	16.0
Of which:													
Housing	21.4	(13.8)	(9.2)	(5.6)	(2.0)	(0.1)	(-3.7)	(4.6)	(9.8)	(2.7)	(-1.1)	(8.1)	(6.8)
Producer prices	100.0	15.2	12.0	11.4	8.3	6.6	7.6	7.4	5.9	3.0	9.7	10.3	14.6
Goods produced in													
South Africa	80.5	14.9	12.5	12.1	9.1	7.0	7.1	6.6	5.9	5.1	11.1	9.0	14.4
Imported goods	19.5	16.3	10.1	8.3	4.2	5.0	8.3	14.3	2.4	-5.4	3.2	16.6	14.8
GDP deflator at													
market prices		17.2	15.1	13.5	12.4	11.1	13.8	15.0	10.3	1.4	12.0	18.7	7.7
Memorandum items:													
Twelve month-rate to end of period													
Consumer prices		15.6	14.4	16.0	9.5	9.7	9.7	10.0	9.1	9.7	8.9	7.3	10.1
Producer prices		14.5	13.6	8.2	6.9	6.3	8.1	6.3	5.2	6.3	6.3	7.7	10.0

Source: South African Reserve Bank, Quarterly Bulletin.

1/ 1990 weights for consumer price series; 1985 weights for producer price series.

Table 11.   South Africa: Central Government Finances, 1989/90-1994/95 1/

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95 Budget
	(In millions of rand)					
Revenue	66,755	70,151	76,644	81,707	95,162	105,813
Inland revenue	53,305	59,487	65,028	67,383	78,767	90,440
Income taxes	32,274	36,861	42,165	44,944	47,778	55,679
Sales tax/VAT	16,551	18,047	18,517	17,165	24,809	28,600
Other	4,480	4,579	4,345	5,275	6,180	6,161
Customs and excise	10,461	10,345	10,807	13,180	14,989	15,373
Import duty and surcharge	4,819	4,578	4,192	4,482	5,151	5,085
Excise duty	2,842	3,345	3,825	4,436	4,934	5,387
Fuel levy and other	4,165	4,224	5,551	7,246	7,993	8,151
SACU payments	-1,366	-1,801	-2,760	-2,984	-3,089	-3,250
Extraordinary revenue	2,989	319	809	1,144	1,406	--
Expenditure	68,280	77,339	90,595	110,556	122,559	135,087
Primary recurrent expenditure	...	...	...	...	93,474	101,414
Capital expenditure	...	...	...	...	8,200	9,100
Interest payments 2/	10,312	11,580	13,886	17,050	20,885	24,573
Balance	-1,525	-7,188	-13,950	-28,849	-27,396	-29,274
	(In percent of GDP)					
Revenue	26.8	24.7	23.9	23.5	24.1	24.0
Inland revenue	21.4	21.0	20.3	19.4	20.0	20.5
Income taxes	13.0	13.0	13.2	12.9	12.1	12.6
Sales tax/VAT	6.6	6.4	5.8	4.9	6.3	6.5
Other	1.8	1.6	1.4	1.5	1.6	1.4
Customs and excise	4.2	3.6	3.4	3.8	3.8	3.5
Import duty and surcharge	1.9	1.6	1.3	1.3	1.3	1.2
Excise duty	1.1	1.2	1.2	1.3	1.3	1.2
Fuel levy and other	1.7	1.5	1.7	2.1	2.0	1.8
SACU payments	-0.5	-0.6	-0.9	-0.9	-0.8	-0.7
Extraordinary revenue	1.2	0.1	0.3	0.3	0.4	--
Expenditure	27.4	27.2	28.3	31.8	31.1	30.6
Primary recurrent expenditure	...	...	...	...	23.7	23.0
Capital expenditure	...	...	...	...	2.1	2.1
Interest payments 2/	4.1	4.1	4.3	4.9	5.3	5.6
Balance	-0.6	-2.5	-4.4	-8.3	-6.9	-6.6
Memorandum items:						
Balance excluding extraordinary revenue	-1.8	-2.6	-4.6	-8.6	-7.3	-6.6
Primary balance	3.5	1.5	--	-3.4	-1.7	-1.1
Golden rule gap 3/	...	...	...	...	-4.9	-4.6
Government debt 4/	38.6	37.2	39.5	44.5	52.6	54.5
GDP (In millions of rand)	248,946	283,946	320,226	347,785	394,434	441,786

Sources: Data provided by the South African authorities; National Revenue Account definitions.

1/ Fiscal year begins April 1.
2/ Includes interest payments on loans by former homeland from 1994/95 onwards.
3/ Balance plus capital expenditure.
4/ Government debt at end of fiscal year.

Table 12. South Africa: Central Government Revenue, 1989/90-1994/95 1/

(in millions of rand)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95 Budget
Revenue	66,755	70,151	76,644	81,707	95,162	105,813
Inland revenue	53,305	59,487	65,028	67,383	78,767	90,440
Income tax	32,274	36,861	42,165	44,944	47,778	55,679
Gold mines	1,016	644	524	422	622	805
Other mines	1,258	1,557	712	463	389	504
Nonmining companies	10,788	11,655	12,277	11,899	11,155	12,210
Individuals	19,212	23,005	28,652	32,160	35,612	42,160
Sales tax/VAT	16,551	18,047	18,517	17,165	24,809	28,600
Other	4,480	4,579	4,345	5,275	6,180	6,161
Customs and excise	10,461	10,345	10,807	13,180	14,989	15,373
Customs duty	2,194	2,502	2,736	2,961	3,404	3,885
Surcharge	2,625	2,075	1,456	1,521	1,747	1,200
Excise duty	2,842	3,345	3,825	4,436	4,934	5,387
Fuel levy	4,081	4,104	5,421	7,083	7,888	8,045
Other	85	120	129	163	105	106
SACU payments	-1,366	-1,801	-2,760	-2,984	-3,089	-3,250
Extraordinary revenue	2,989	319	809	1,144	1,406	--
Memorandum items:						
Ordinary revenue	63,766	69,832	75,835	80,563	93,756	105,813
Direct taxes	32,205	36,636	41,724	44,220	47,028	...
Indirect taxes	29,707	31,376	32,634	34,362	44,215	...
Nontax revenue	1,855	1,820	1,478	1,981	2,513	...

Source: Department of Finance; National Revenue Account definitions.

1/ Fiscal year begins April 1.

Table 13. South Africa: Central Government Revenue, 1989/90-1994/95 1/

(In percent of GDP)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95 Budget
Revenue	26.8	24.7	23.9	23.5	24.1	24.0
Total inland revenue	21.4	21.0	20.3	19.4	20.0	20.5
Income tax	13.0	13.0	13.2	12.9	12.1	12.6
Gold mines	0.4	0.2	0.2	0.1	0.2	0.2
Other mines	0.5	0.5	0.2	0.1	0.1	0.1
Nonmining companies	4.3	4.1	3.8	3.4	2.8	2.8
Individuals	7.7	8.1	8.9	9.2	9.0	9.5
Sales tax/VAT	6.6	6.4	5.8	4.9	6.3	6.5
Other	1.8	1.6	1.4	1.5	1.6	1.4
Total customs and excise	4.2	3.6	3.4	3.8	3.8	3.5
Customs duty	0.9	0.9	0.9	0.8	0.9	0.9
Surcharge	1.1	0.7	0.5	0.4	0.4	0.3
Excise duty	1.1	1.2	1.2	1.3	1.2	1.2
Fuel levy	1.6	1.4	1.7	2.0	2.0	1.8
Other	--	--	--	--	--	--
SACU payments	-0.5	-0.6	-0.9	-0.9	-0.8	-0.7
Extraordinary revenue	1.2	0.1	0.3	0.3	0.4	--
Memorandum items:						
Ordinary revenue	25.6	24.6	23.7	23.2	23.8	24.0
Direct taxes	12.9	12.9	13.0	12.7	11.9	...
Indirect taxes	11.9	11.0	10.2	9.9	11.2	...
Nontax revenue	0.7	0.6	0.5	0.6	0.6	...

Source: Department of Finance; National Revenue Account definitions.

1/ Fiscal year begins April 1.

Table 14. South Africa: Economic Classification of General
Government Expenditure, 1992/93-1994/95 1/

	1992/93	1993/94	1994/95 Budget
	(In millions of rand)		
Goods and services	60,090	67,485	73,268
Remuneration of employees	42,417	47,733	54,764
Other	17,673	19,752	18,504
Interest	17,530	22,150	24,573
Current transfers	32,707	31,625	32,330
Businesses	10,829	8,620	7,127
Households	10,677	11,360	13,331
Foreign	187	338	141
Other general government institutions and funds	11,014	11,307	11,731
Capital expenditure	7,771	10,150	9,930
Investment	5,155	6,843	6,687
Capital transfers	2,282	2,974	2,807
Businesses, households, and foreign	353	840	506
Other general government institutions	1,929	2,135	2,301
Purchases of shares and loans	334	333	436
Unallocated	--	--	3,081
Total general government expenditure	118,097	131,410	143,182
	(In percent of GDP)		
Goods and services	17.3	17.1	16.6
Remuneration of employees	12.2	12.1	12.4
Other	5.1	5.0	4.2
Interest	5.0	5.6	5.6
Current transfers	9.4	8.0	7.3
Businesses	3.1	2.2	1.6
Households	3.1	2.9	3.0
Foreign	0.1	0.1	--
Other general government institutions and funds	3.2	2.9	2.7
Capital expenditure	2.2	2.6	2.2
Investment	1.5	1.7	1.5
Capital transfers	0.7	0.8	0.6
Businesses, households, and foreign	0.1	0.2	0.1
Other general government institutions	0.6	0.5	0.5
Purchases of shares and loans	0.1	0.1	0.1
Unallocated	--	--	0.7
Total general government expenditure	34.0	33.3	32.4

Source: Department of Finance.

1/ Fiscal year begins April 1; general government comprises central and provincial governments, but
excludes local governments, extrabudgetary funds, and social security funds.

Table 15. South Africa: Functional Classification of
General Government Expenditure, 1989/90-1994/95 1/

(In millions of rand)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95 Budget
Protection services	15,031	18,084	19,229	21,166	23,076	25,385
Defense	9,938	11,330	10,488	10,803	10,683	12,124
Other 2/	5,093	6,754	8,741	10,363	12,393	13,261
Social services	25,075	34,279	41,841	51,758	57,984	63,094
Education	12,158	17,358	19,929	24,393	27,761	30,850
Nontertiary	...	14,863	17,093	21,018	23,795	26,520
Tertiary	...	2,495	2,836	3,375	3,966	4,330
Health	6,506	8,390	10,630	12,709	13,969	14,299
Social security and welfare	3,809	5,759	7,431	10,031	10,794	13,015
Housing and related services	959	1,235	1,555	1,256	1,571	1,797
Other 3/	1,643	1,537	2,296	3,369	3,889	3,133
Economic services	8,737	11,290	12,530	18,418	18,259	16,367
Agriculture, forestry and fishing	1,360	1,947	2,392	6,059	3,719	3,322
Transport and communication	3,189	4,033	4,402	5,628	6,601	6,526
Other economic services 4/	4,188	5,310	5,736	6,731	7,939	6,519
Of which: export trade promotion	(...)	(931)	(1,623)	(2,684)	(2,528)	(2,179)
Other noninterest 5/	9,935	7,015	8,743	9,224	9,943	13,762
Interest payments	9,836	12,264	14,460	17,530	22,150	24,573
Total general government expenditure	68,614	82,932	96,803	118,096	131,412	143,181

Source: Department of Finance.

1/ Fiscal year begins April 1; general government comprises central and provincial governments, but excludes local governments, extrabudgetary funds, and social security funds.
2/ Police, prisons and law courts.
3/ Recreation and culture, community development, other community services, and sewerage and sanitation.
4/ Including water, fuel and energy, mining, manufacturing, and regional development.
5/ Including foreign affairs, general reserach, general administration, cost of raising loans, unallocable expenditure, and certain transfers to government enterprises.

Table 16. South Africa: Functional Classification of
General Government Expenditure, 1989/90-1994/95 1/

(In percent of GDP)

	1989/90	1990/91.	1991/92	1992/93	1993/94	1994/95 Budget
Protection services	6.0	6.4	6.0	6.1	5.9	5.7
Defense	4.0	4.0	3.3	3.1	2.7	2.7
Other 2/	2.0	2.4	2.7	3.0	3.1	3.0
Social services	10.1	12.1	13.1	14.9	14.7	14.3
Education	4.9	6.1.	6.2	7.0	7.0	7.0
Nontertiary	...	5.2	5.3	6.0	6.0	6.0
Tertiary	...	0.9	0.9	1.0	1.0	1.0
Health	2.6	3.0	3.3	3.7	3.5	3.2
Social security and welfare	1.5	2.0	2.3	2.9	2.7	2.9
Housing and related services	0.4	0.4	0.5	0.4	0.4	0.4
Other 3/	0.7	0.5	0.7	1.0	1.0	0.7
Economic services	3.5	4.0	3.9	5.3	4.6	3.7
Agriculture, forestry and fishing	0.5	0.7	0.7	1.7	0.9	0.8
Transport and communication	1.3	1.4	1.4	1.6	1.7	1.5
Other economic services 4/	1.7	1.9	1.8	1.9	2.0	1.5
Of which: export trade promotion	(...)	(0.3)	(0.5)	(0.8)	(0.6)	(0.5)
Other noninterest 5/	4.0	2.5	2.7	2.6	2.5	3.1
Interest payments	4.0	4.3	4.5	5.0	5.6	5.6
Total general government expenditure	27.6	29.2	30.2	34.0	33.3	32.4

Source: Department of Finance

1/ Fiscal year begins April 1; general government comprises central and provincial governments, but excludes local governments, extrabudgetary funds, and social security funds.
2/ Police, prisons and law courts.
3/ Recreation and culture, community development, other community services, and sewerage and sanitation.
4/ Including water, fuel and energy, mining, manufacturing, and regional development.
5/ Including foreign affairs, general reserach, general administration, cost of raising loans, unallocable expenditure, and certain transfers to government enterprises.

Table 17. South Africa: Financing of the Central Government Budget Deficit, 1989/90-1994/95 1/

(In millions of rand)

	1989/90	1990/91	1991/92	1992/93	1993/94	1994/95 Budget
Deficit before borrowing 2/	-3,895	-7,578	-14,084	-29,327	-26,655	-29,539
Government stock	8,261	10,762	13,329	28,138	38,663	28,978
Government stock issued	12,592	13,728	17,629	32,219	41,385	...
Discount on government stock	-4,331	-2,966	-4,300	-4,081	-2,722	...
Loan levy	704	2	2	--	--	-710
Foreign loans	-174	-118	551	537	-140	1,652
Use of cash balances	-6,550	2,828	1,194	5,286	1,565	-381
Unusual receipts	2,975	319	809	1,144	1,406	--
Privatization	2,975	--	--	108	...	--
National Supplies Procurement and Central Energy Funds	...	319	809	1,036	...	--
Unusual transfers	-1,320	-6,216	-1,800	-5,777	-14,840	--
Gold and Foreign Exchange Contingency	-1,320	-3,000	--	-3,777	-7,500	--
Government Pension Funds	--	-1,000	-1,000	-2,000	-7,340	--
Independent Development Trust	--	-2,000	--	--	--	--
Other	--	-216	-800	--	--	--
Total financing	3,895	7,578	14,084	29,327	26,655	29,539

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Fiscal year begins April 1.
2/ Reserve Bank data for the central government deficit differ from Department of Finance data owing to differences of definition and timing.

Table 18. South Africa: Central Government Debt, 1989-93

	1989	1990	1991	1992	1993
	(In millions of rand; end of period)				
External debt	2,033	1,956	2,099	2,367	5,028
Domestic debt	79,091	89,264	112,470	136,229	171,608
Marketable	74,354	83,240	103,403	130,816	168,005
Bonds	72,031	79,301	100,114	122,035	159,731
Bills	1,625	3,234	2,580	8,072	7,564
Loan levies	698	705	709	710	710
Nonmarketable	4,737	6,023	9,066	5,413	3,603
Bonds	1,934	1,213	1,124	1,128	959
Bills	2,800	4,807	7,940	4,281	2,641
Loan levies 1/	4	3	3	3	3
Gold and foreign exchange contingency reserve account 2/	10,158	11,140	10,351	8,731	8,934
Debt of former homelands	...	...	...	...	15,354
Total government debt	91,282	102,360	124,920	147,327	200,924
(In percent of GDP)	37.9	37.1	40.3	43.2	52.5
	(In percent of total debt)				
External government debt 3/	2.2	1.9	1.7	1.6	2.5
Domestic government debt	86.6	87.2	90.0	92.5	85.4
Marketable	81.5	81.3	82.8	88.8	83.6
Nonmarketable	5.2	5.9	7.3	3.7	1.8

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Including tax exemption certificates and personal saving.
2/ Includes loses on forward exchange cover provided by the Reserve Bank.
3/ Adjusted for exchange rate changes.

Table 19. South Africa: Growth Rates of
Monetary Aggregates, 1982-94 1/

(In percent)

	M1A	M1	M2	M3
Changes in the year to the end of:				
1982	2.5	18.8	16.6	15.3
1983	24.7	37.7	22.7	16.4
1984	14.0	33.6	24.3	18.0
1985	19.8	-7.3	14.1	12.3
1986	20.5	12.8	4.3	9.3
1987	24.8	36.0	22.0	17.6
1988	25.0	23.1	35.2	27.3
1989 March	19.3	19.3	33.4	26.6
June	10.9	12.4	29.7	26.2
September	10.3	12.7	27.1	22.9
December	10.4	9.6	26.7	22.3
1990 March	6.9	18.1	23.1	20.2
June	10.7	14.7	20.0	16.5
September	9.8	5.8	13.0	12.6
December	14.3	15.1	12.8	12.0
1991 March	13.6	8.4	16.3	14.1
June	17.0	15.4	20.2	15.7
September	26.2	23.5	22.6	15.3
December	17.7	14.0	15.7	12.3
1992 March	25.2	13.5	11.5	9.0
June	18.6	10.5	11.5	7.2
September	23.6	23.2	12.8	8.7
December	16.2	17.5	10.8	8.0
1993 March	19.4	10.4	5.1	5.7
June	18.1	11.0	1.8	3.3
September	6.9	-0.0	1.3	4.3
December	16.6	6.7	3.9	7.0
1994 March	25.7	19.4	13.6	12.3
June	25.1	28.2	17.4	15.0
September	28.8	26.1	18.5	14.3

Source: South African Reserve Bank, Quarterly Bulletin.

1/ M1A includes coins and bank notes in circulation and check and
transmission deposits with banking institutions, building societies,
and the Post Office Savings Bank. M1 is defined as M1A plus other demand
deposits with banking institutions. M2 is defined as M1 plus other
short-term deposits and medium-term deposits with banking institutions
and building societies (including, for the latter, savings deposits and
certain "share" investments), plus savings deposits with, and savings bank
certificates of, the Post Office Savings Bank. M3 is defined as M2 plus
all long-term deposits with banking institutions and building societies
(including, for the latter, other "share" investments), plus investments
in national savings certificates issued by the Post Office Savings Bank.

Table 20. South Africa: Monetary Survey, 1989-94

	1989	1990	1991	1992	1993	1994
			September			
	(In billions of rand)					
Broad money (M3)	138.0	155.4	179.1	194.7	203.1	232.1
Coin and notes	7.0	8.1	8.5	9.1	10.0	12.1
Private deposits	131.0	147.3	170.6	185.6	193.0	220.0
Counterparts to broad money						
Net foreign assets	-2.4	-0.1	2.8	2.8	-3.4	-13.3
Short-term	-3.3	-1.0	1.9	1.2	-5.2	-15.0
Gross reserves	7.4	7.0	9.6	12.5	9.0	11.0
Reserve Bank	5.4	5.8	8.0	10.8	6.8	8.1
Commercial banks	2.0	1.2	1.6	1.7	2.2	3.0
Liabilities	-10.6	-8.0	-7.7	-11.3	-14.2	-26.0
Reserve Bank	-2.1	-0.4	-0.1	-0.0	-2.7	-3.6
Commercial banks	-8.5	-7.7	-7.6	-11.2	-11.6	-22.4
Long-term	0.8	0.9	0.9	1.6	1.8	1.7
Net domestic assets	140.4	155.5	176.3	191.9	206.5	245.4
Government	2.1	0.4	2.5	2.5	4.8	21.1
Claims on Government	18.7	17.5	18.2	20.3	25.9	32.5
Government deposits	-16.5	-17.1	-15.7	-17.8	-21.1	-11.4
Claims on private sector	137.5	158.5	187.8	203.9	221.5	255.3
Other items, net	0.8	-3.4	-14.0	-14.6	-19.8	-31.0
Other assets	27.5	40.0	49.4	52.1	49.8	49.4
Capital and reserves	-7.6	-8.9	-12.3	-14.0	-19.4	-23.0
Other liabilities	-19.0	-34.4	-51.0	-52.6	-50.2	-57.4
Contributions to growth of M3	(In percent)					
Net foreign assets	-2.3	1.7	1.9	0.0	-3.2	-4.9
Short-term	-2.4	1.6	1.9	-0.4	-3.3	-4.8
Long-term	0.1	0.1	-0.0	0.4	0.1	-0.1
Net domestic assets	25.1	10.9	13.4	8.7	7.5	19.2
Government	-1.4	-1.3	1.4	0.0	1.2	8.0
Claims on Government	5.1	-0.9	0.5	1.2	2.9	3.3
Government deposits	-6.5	-0.4	0.9	-1.1	-1.7	4.8
Claims on private sector	20.8	15.2	18.8	9.0	9.0	16.7
Other items, net	5.7	-3.0	-6.8	-0.3	-2.7	-5.5
Growth of broad money	22.9	12.6	15.3	8.7	4.3	14.3
Memorandum items:						
Income velocity of M3	1.92	1.88	1.85	1.82	1.93	...
Bills discounted by Reserve Bank (in billions of rand) 1/	4.6	2.9	1.9	4.8	4.2	3.9
Deposits at Reserve Bank (in billions of rand)	13.4	13.4	10.2	12.6	8.7	7.1

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Includes overnight loans accommodation system introduced by the Reserve Bank in May 1993.

Table 21. South Africa: Changes in Bank Credit, 1990-94 1/

	Credit to the private sector						Credit to Government, net	Total bank credit	Credit to the private sector	Total bank credit
	Bills discounted, deposits, and investments	Hire purchase credit	Leasing finance 2/	Mortgage advances	Other loans and advances	Total				
	(Change from previous period; in millions of rand)								(Percentage change from year ago)	
1990	3,572	2,454	1,847	7,612	7,339	22,825	5,583	28,409	15.7	19.4
1991	1,995	1,205	2,258	10,729	8,145	24,331	-2,762	21,569	14.5	12.3
1992	2,463	293	1,266	12,160	632	16,815	3,606	20,421	8.7	10.4
1989 March	39	798	410	1,973	2,511	5,730	-58	5,673	25.7	23.7
June	-1,468	923	410	2,029	2,466	4,361	314	4,675	25.3	22.3
September	1,823	677	748	1,686	1,401	6,333	-1,660	4,673	20.5	18.5
December	1,224	780	573	1,953	3,484	8,016	-1,353	6,662	20.2	17.4
1990 March	45	255	419	1,587	1,177	3,483	-535	2,949	17.5	14.6
June	1,371	746	303	1,838	2,072	6,330	1,452	7,782	18.4	16.3
September	22	735	571	2,160	-287	3,201	-1,342	1,859	15.3	13.8
December	2,134	718	554	2,027	4,377	9,811	6,008	15,819	15.7	19.4
1991 March	1,600	-84	169	2,487	4,630	8,801	-3,818	4,983	18.9	20.4
June	-1,924	334	381	2,736	2,526	4,054	935	4,990	16.7	17.6
September	1,660	284	846	2,837	964	6,591	-1,012	5,578	18.5	19.7
December	659	671	862	2,669	25	4,885	1,133	6,018	14.5	12.3
1992 March	-1,818	-894	630	2,819	1,352	2,090	-992	1,097	9.9	9.8
June	1,778	168	347	2,833	-1,260	3,866	-1,123	2,744	9.6	8.4
September	2,343	492	70	3,064	-645	5,322	1,049	6,372	8.6	8.5
December	160	527	219	3,444	1,185	5,537	4,672	10,208	8.7	10.4
1993 March	-1,505	-33	167	3,585	151	2,363	-1,327	1,036	8.8	10.3
June	-2,311	1,135	-141	3,217	-1,188	713	-3,962	-3,249	7.0	7.2
September	-742	1,087	608	4,154	3,790	8,895	2,898	11,793	8.6	9.6
December	-418	1,321	359	3,663	3,420	8,346	2,888	11,235	9.7	9.6
1994 March	-1,208	1,125	302	3,270	3,644	7,134	13,881	21,014	11.8	18.7
June	552	1,325	-43	3,909	-1,926	3,815	936	4,751	13.3	22.7
September	3,648	1,603	275	4,679	4,334	14,541	-1,401	13,140	15.3	22.2

Sources: South African Reserve Bank, Quarterly Bulletin.

1/ Credit extended by the banking sector, which comprises the Reserve Bank, the former National Finance Corporation, the Corporation for Public Deposits and the "pooled" funds of the former Public Debt Commissioners, the discount houses, the short-term business of the Land Bank, the commercial and merchant banks, and other general banking institutions.

2/ Excluding unearned finance charges.

Table 22. South Africa: Interest Rate Developments, 1989-94

(In percent per annum)

		Short-term rates				Long-term rates	
	Bank rate 1/	Clearing bank prime overdraft rate 2/	Rate on three-month deposits with commercial banks 3/	Rate on interbank deposits at call 3/	Treasury bill rate 4/	Government bond yield 5/	Predominant rate on new mortgages: participation bonds 2/
1989 March	14.5	19.0	17.5	16.8	16.0	16.9	18.4
June	17.0	20.0	18.5	20.0	17.2	17.2	19.5
September	17.0	20.0	18.2	18.8	17.1	16.8	19.5
December	17.0	21.0	19.8	21.0	18.0	15.8	20.0
1990 March	17.0	21.0	19.2	19.5	17.9	15.7	20.0
June	17.0	21.0	19.5	21.0	18.0	16.7	20.5
September	17.0	21.0	18.0	18.5	17.5	16.4	20.5
December	*17.0*	*21.0*	*18.2*	*18.8*	*17.4*	*16.0*	*20.5*
1991 March	17.0	21.0	17.4	17.8	16.9	15.6	20.5
June	17.0	20.0	17.2	16.8	16.7	16.3	19.5
September	17.0	20.0	17.2	16.5	16.6	16.8	19.5
Decemeber	17.0	20.2	17.0	16.0	16.2	16.7	18.9
1992 January	17.0	20.2	16.5	16.0	16.0	16.7	18.9
February	17.0	20.2	16.0	15.8	15.9	16.9	18.9
March	16.0	20.2	15.5	15.5	15.5	16.4	18.9
April	16.0	19.2	15.4	15.1	15.0	16.3	18.9
May	16.0	19.2	14.3	14.3	14.4	16.0	18.9
June	15.0	19.2	13.5	13.8	14.0	16.0	18.9
July	15.0	18.4	12.8	15.9	13.5	15.3	18.4
August	15.0	18.2	12.2	12.9	12.7	14.4	18.4
September	15.0	18.2	12.2	13.0	12.1	14.2	18.4
October	15.0	18.2	12.8	12.8	12.1	13.9	17.0
November	14.0	18.0	12.0	12.2	12.0	14.5	17.0
December	14.0	17.2	12.2	12.0	12.0	14.9	15.9
1993 January	14.0	17.2	12.0	11.9	11.9	14.7	15.9
February	13.0	16.2	11.8	11.0	11.4	14.5	15.9
March	13.0	16.2	11.9	10.9	11.3	14.6	15.9
April	13.0	16.2	12.2	11.0	11.1	15.1	15.1
May	13.0	16.2	12.0	11.1	11.5	15.0	15.1
June	13.0	16.2	...	10.8	11.9	14.8	15.1
July	13.0	16.2	11.8	10.8	11.8	14.3	15.1
August	13.0	16.2	11.8	11.2	11.7	14.0	15.1
September	13.0	16.2	11.7	11.2	11.6	13.6	15.1
October	12.0	16.2	10.5	10.9	11.3	13.2	15.1
November	12.0	15.2	10.2	9.6	10.2	12.7	15.1
December	*12.0*	*15.2*	*10.3*	*9.6*	*10.2*	*12.3*	*15.1*
1994 January	12.0	15.2	10.3	9.8	10.2	12.2	14.0
February	12.0	15.2	10.3	9.5	10.2	12.8	14.0
March	12.0	15.2	10.3	9.6	10.1	13.0	14.0
April	12.0	15.2	10.3	10.1	10.3	13.2	14.0
May	12.0	15.2	11.0	11.0	10.7	13.8	14.0
June	12.0	15.2	10.5	10.4	10.8	14.5	14.0
July	12.0	15.2	...	10.0	10.8	15.1	14.0
August	12.0	15.2	...	9.6	10.8	15.9	14.0
September	13.0	16.2	11.5	9.7	11.0	16.9	14.0
October	13.0	16.2	...	11.0	11.8	16.9	14.0

Sources: International Monetary Fund, International Financial Statistics; and South African Reserve Bank, Quarterly Bulletein.

1/ Until April 1993, Reserve Bank's discount rate for treasury bills. Thereafter, accommodation rate for overnight loans using government paper as collateral.
2/ End of period.
3/ Period average.
4/ Averages for each Friday of the month.
5/ Average yield on government bonds with a maturity of more than ten years.

Table 23. South Africa: Balance of Payments, 1985-93

(In millions of U.S. dollars)

	1985	1986	1987	1988	1989	1990	1991	1992	1993
Current account balance	2,338	2,771	3,295	1,489	1,322	2,057	2,241	1,382	1,784
Trade balance	5,376	6,488	7,282	5,464	5,056	6,764	6,125	5,430	5,777
Exports	15,802	17,798	21,334	22,805	21,937	23,539	23,288	23,624	24,104
Net nongold, f.o.b.	8,863	10,476	12,579	14,136	14,638	16,515	16,194	17,187	17,299
Gold 1/	6,940	7,322	8,755	8,669	7,299	7,024	7,094	6,437	6,805
Imports, f.o.b.	-10,426	-11,310	-14,052	-17,340	-16,881	-16,775	-17,163	-18,194	-18,327
Nonfactor services	-370	-677	-680	-684	-262	-323	-513	-946	-1,229
Credits	2,017	2,131	2,553	2,668	3,240	3,788	3,594	3,754	3,757
Debits	-2,387	-2,808	-3,233	-3,353	-3,502	-4,111	-4,108	-4,700	-4,985
Factor services	-4,620	-5,436	-6,024	-6,240	-6,667	-8,176	-7,186	-7,552	-7,571
Credits	994	1,189	1,355	1,241	1,162	597	892	914	690
Debits	-5,615	-6,624	-7,379	-7,480	-7,829	-8,772	-8,077	-8,466	-8,261
Interest	-4,862	-5,411	-5,911	-6,217	-6,548	-7,426	-6,874	-7,220	-7,335
Dividends and profits	-585	-1,022	-1,256	-1,085	-1,112	-1,179	-1,084	-1,148	-825
Taxes	-167	-191	-211	-179	-168	-167	-120	-98	-101
Transfers	19	30	-19	40	78	71	73	105	131
Private	2	-12	11	7	41	-33	-27	32	68
Official	17	42	-30	33	37	104	100	73	64
Capital account balance	-2,863	-2,281	-1,934	-2,828	-1,310	-685	-780	-1,288	-4,598
Long-term capital, net	-234	-1,385	-836	-516	-231	-39	-627	-530	-83
Private	-415	-1,218	-976	-43	-52	-237	-1,007	-1,632	800
Public	180	-166	140	-473	-179	197	381	1,102	-883
Short-term capital, net	-1,738	-1,039	-484	-1,459	-808	-541	664	878	-1,555
Private	-1,701	-910	-469	-1,449	-572	-557	815	892	-1,725
Public	-37	-129	-16	-11	-236	17	-151	-14	169
Errors and omissions	-891	143	-614	-852	-271	-105	-818	-1,636	-2,960
Change in net reserves (on a transactions basis) 2/	-526	490	1,361	-1,339	12	1,373	1,461	94	-2,814
Change in liabilities relating to reserves 3/	-29	-995	-435	600	518	-1,033	-371	283	2,274
SDR allocations and Valuation adjustments	809	433	162	196	-454	-201	-170	114	493
Change in gross reserves	254	-72	1,088	-543	76	139	920	491	-47
Memorandum item:									
Current account/GDP (in percent)	4.2	4.4	4.0	1.7	1.4	1.9	2.0	1.2	1.5

Source: South African Reserve Bank, Quarterly Bulletin; and staff calculations.

1/ Net foreign sales of gold plus changes in the gold holdings of the Reserve Bank and other banking institutions.

2/ Gold and foreign exchange reserves of the Reserve Bank, the banking sector, and the Central Government.

3/ Liabilities related to reserves include all foreign short-term liabilities of the Reserve Bank and other banking institutions and short-term foreign loans to the Central Government by foreign banks and authorities.

Table 24. South Africa: Quarterly Balance of Payments, 1991-94

(In millions of U.S. dollars)

	1991 III	1991 IV	1992 I	1992 II	1992 III	1992 IV	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II	1994 III
					(Seasonally adjusted figures)								
Nongold exports, f.o.b.	4,125	4,150	4,207	4,354	4,465	4,170	3,924	4,436	4,171	4,744	4,456	4,476	4,757
Net gold exports 1/	1,722	1,878	1,606	1,470	1,837	1,533	1,686	1,738	1,816	1,566	1,642	1,604	1,720
Imports, f.o.b.	4,255	4,146	4,382	4,322	4,996	4,507	4,571	4,452	4,475	4,821	4,777	4,941	5,704
Trade balance	1,591	1,882	1,430	1,502	1,307	1,196	1,039	1,722	1,512	1,489	1,320	1,139	773
Net services and transfers	-983	-821	-970	-1,016	-1,037	-1,025	-952	-828	-1,056	-1,144	-1,154	-957	-1,104
Current account balance	608	1,061	460	486	269	172	87	894	456	346	166	182	-331
					(Actual data, not seasonally adjusted)								
Current account balance	-62	1,145	711	411	137	129	289	1,058	217	242	49	84	-620
Long-term capital, net	-413	181	482	-154	-113	-717	-163	352	-281	18	-489	-456	120
Public sector	-226	419	1,094	521	-122	-369	-170	-155	-86	-464	-724	-77	229
Private sector	-187	-238	-612	-674	9	-348	7	507	-195	483	235	-379	-109
Short-term capital, net	887	-1,188	-470	-88	-17	-180	-1,149	-1,347	-591	-1,441	166	-265	1,428
Public sector	-17	-14	-24	13	-7	4	84	-5	83	8	-17	-35	20
Monetary sector 2/	-278	702	16	363	222	543	-576	-386	193	-275	656	367	920
Other 3/	1,182	-1,876	-462	-464	-233	-728	-657	-955	-868	-1,173	-473	-597	487
Total capital movements	474	-1,008	12	-242	-130	-897	-1,312	-995	-872	-1,422	-323	-721	1,548
Change in net reserves (on a transactions basis) 4/	412	137	723	169	7	-768	-1,024	64	-655	-1,181	-273	-637	927
Change in liabilities related to reserves 5/	15	-1	-32	1	6	296	393	-161	301	1,688	4	505	-570
SDR allocations and valuation adjustments	-107	-65	-69	-85	235	38	92	314	-12	107	52	-45	17
Change in gross reserves	320	70	623	85	248	-434	-539	217	-367	613	-217	-177	374

Source: South African Reserve Bank, Quarterly Bulletin; and staff calculations.

1/ Net foreign sales of gold plus changes in the gold holdings of the Reserve Bank and other banking institutions.
2/ Excluding the Reserve Bank.
3/ Private nonmonetary sector including unrecorded transactions.
4/ Gold and foreign exchange reserves of the Reserve Bank, the banking sector, and the Central Government.
5/ Liabilities related to reserves include all foreign short-term liabilities of the Reserve Bank and short-term foreign loans
to the Central Government by foreign banks and authorities.

Table 25. South Africa: Quarterly Balance of Payments, 1991-94

(In millions of rand)

	1991 III	1991 IV	1992 I	1992 II	1992 III	1992 IV	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II	1994 III
					(Seasonally adjusted figures)								
Nongold exports, f.o.b.	11,808	11,611	11,884	12,388	12,375	12,362	12,252	14,162	14,072	16,027	15,317	16,166	17,164
Net gold exports 1/	4,929	5,255	4,537	4,182	5,092	4,545	5,264	5,548	6,128	5,289	5,644	5,793	6,204
Imports, f.o.b.	12,182	11,600	12,381	12,296	13,846	13,360	14,273	14,213	15,099	16,284	16,422	17,846	20,581
Trade balance	4,556	5,265	4,041	4,274	3,622	3,546	3,243	5,497	5,100	5,032	4,539	4,114	2,788
Net services and transfers	-2,814	-2,298	-2,740	-2,891	-2,875	-3,037	-2,972	-2,644	-3,562	-3,864	-3,968	-3,456	-3,982
Current account balance	1,741	2,967	1,301	1,383	746	509	271	2,853	1,538	1,167	571	658	-1,194
					(Actual data, not seasonally adjusted)								
Current account balance	-178	3,203	2,008	1,170	379	383	902	3,379	732	816	169	303	-2,238
Long-term capital, net	-1,182	505	1,363	-437	-312	-2,125	-510	1,124	-948	62	-1,681	-1,647	433
Public sector	-648	1,172	3,091	1,481	-337	-1,093	-532	-495	-290	-1,569	-2,490	-279	827
Private sector	-534	-667	-1,728	-1,918	25	-1,032	22	1,619	-658	1,631	809	-1,368	-394
Short-term capital, net	2,540	-3,325	-1,328	-251	-48	-535	-3,588	-4,299	-1,995	-4,867	572	-958	5,151
Public sector	-49	-40	-69	36	-19	13	263	-16	280	26	-57	-128	73
Monetary sector 2/	-795	1,964	46	1,033	616	1,611	-1,799	-1,233	652	-929	2,254	1,327	3,321
Other 3/	3,384	-5,249	-1,305	-1,320	-645	-2,159	-2,052	-3,050	-2,927	-3,964	-1,625	-2,157	1,757
Total capital movements	1,358	-2,820	35	-688	-360	-2,660	-4,098	-3,175	-2,943	-4,805	-1,109	-2,605	5,584
Change in net reserves (on a transactions basis) 3/	1,180	383	2,043	482	19	-2,277	-3,196	204	-2,211	-3,989	-940	-2,302	3,346
Change in liabilities related to reserves 4/	44	-4	-89	3	18	876	1,226	-514	1,014	5,701	15	1,824	-2,058
SDR allocations and valuation adjustments	-307	-182	-195	-242	650	113	288	1,002	-40	360	179	-161	63
Change in gross reserves	917	197	1,759	243	687	-1,288	-1,682	692	-1,237	2,072	-746	-639	1,351

Source: South African Reserve Bank, Quarterly Bulletin.
1/ Net foreign sales of gold plus changes in the gold holdings of the Reserve Bank and other banking institutions.
2/ Excluding the Reserve Bank.
3/ Private nonmonetary sector including unrecorded transactions.
4/ Gold and foreign exchange reserves of the Reserve Bank, the banking sector, and the Central Government.
5/ Liabilities related to reserves include all foreign short-term liabilities of the Reserve Bank and short-term foreign loans to the Central Government by foreign banks and authorities.

Table 26. South Africa: Volume and Unit Value of Exports and Imports, 1988-94

(_Percentage change from previous period_)

	1988	1989	1990	1991	1992	1993	1993 1/				1994 1/		
							I	II	III	IV	I	II	III
Volume of exports													
Goods and nonfactor services	9.9	5.2	2.4	-0.1	1.1	6.0	-0.1	7.7	-1.6	3.8	-6.9	1.3	4.9
Nongold goods and nonfactor services	12.9	9.2	3.5	-0.7	2.7	6.7	-2.3	10.5	-4.8	10.4	-7.4	2.0	2.7
Volume of imports													
Goods and nonfactor services	21.4	0.3	-5.8	2.1	5.4	7.0	2.1	0.7	0.4	8.3	-3.4	1.6	11.1
Unit value of exports 2/													
Goods and nonfactor services	8.0	8.4	4.7	4.9	4.2	9.6	4.5	5.0	2.8	0.5	4.9	5.0	0.7
Nongold goods and nonfactor services	9.5	12.6	8.3	4.7	6.5	7.5	3.2	5.2	2.9	0.4	2.8	4.8	2.8
Unit value of imports 2/													
Goods and nonfactor services	10.1	13.4	7.4	6.4	5.5	8.9	4.3	1.3	3.8	0.7	2.5	4.0	2.9
Terms of trade 3/													
Including gold													
Index 1990 = 100	107.2	102.6	100.0	98.6	97.4	98.1	95.9	99.5	98.6	98.3	100.6	101.6	99.4
Percentage change	-1.9	-4.3	-2.5	-1.4	-1.2	0.7	0.2	3.8	-0.9	-0.3	2.3	1.0	-2.2
Excluding gold													
Index 1990 = 100	99.9	99.1	100.0	98.4	99.4	98.1	95.8	99.5	98.8	98.4	98.7	99.5	99.3
Percentage change	-0.5	-0.8	0.9	-1.6	1.0	-1.3	-1.1	3.9	-0.7	-0.4	0.3	0.8	-0.2
Memorandum items:													
Effective exchange rate (IFS)													
Nominal	-13.8	-8.8	-5.6	-6.2	-6.0	-8.9	-1.7	-4.9	-3.8	0.8	-1.2	-7.0	-3.3
Real 4/	-5.5	0.4	2.9	3.8	3.8	-2.7	-0.2	-2.1	-2.9	2.1	0.5	-6.3	-0.4
Trading partners (GEE)													
Total domestic demand	5.0	3.7	2.9	1.5	1.3	-0.7	...	...	...	...	...	...	...
Non-oil import demand	11.1	7.7	6.8	6.7	5.8	-0.8	...	...	...	...	...	...	...
Domestic demand (incl. exports) 5/	7.6	3.5	-0.3	-0.5	-0.8	2.4	0.8	1.3	0.8	2.4	-1.8	1.0	2.6

Sources: South African Reserve Bank, _Quarterly Bulletin_; International Monetary Fund, _International Financial Statistics_; and staff estimates.

1/ Seasonally adjusted quarterly data, except for memorandum items.
2/ In rand.
3/ Goods and nonfactor services.
4/ Relative consumer prices adjusted for exchange rate changes (depreciation -); period average.
5/ Quarterly data are seasonally adjusted.

Table 27.   South Africa: Services and Transfers, 1987-93

(In millions of dollars)

	1987	1988	1989	1990	1991	1992	1993
Services							
Receipts	3,908	3,909	4,402	4,385	4,486	4,668	4,446
Freight	207	255	349	295	246	364	353
Other transportation	622	656	781	926	962	1,024	1,017
Travel	599	691	811	956	1,103	1,182	1,327
Investment income	1,327	1,214	1,132	549	775	838	716
Interest	252	221	243	132	165	147	129
Dividends and profits	924	857	759	352	518	598	501
Taxes	151	136	129	65	92	94	87
Other income 1/	1,152	1,094	1,329	1,658	1,400	1,259	1,033
Payments	7,875	7,925	8,214	9,163	8,444	8,821	8,570
Freight	1,036	1,096	1,015	1,016	1,059	1,205	1,241
Other transportation	588	623	860	1,103	1,097	1,094	1,010
Travel	869	1,005	895	1,118	1,155	1,545	1,870
Investment income	3,475	3,403	3,526	3,810	3,281	3,136	2,831
Interest	2,008	2,140	2,245	2,463	2,078	1,890	1,905
Dividends and profits	1,256	1,085	1,112	1,179	1,084	1,148	825
Taxes	211	179	168	167	120	98	101
Other payments 2/	1,906	1,798	1,918	2,117	1,851	1,840	1,619
Net	-3,968	-4,016	-3,812	-4,778	-3,957	-4,153	-4,124
Freight	-829	-841	-667	-720	-813	-841	-887
Other transportation	34	33	-79	-176	-134	-69	7
Travel	-270	-315	-84	-162	-53	-363	-543
Investment income	-2,148	-2,190	-2,394	-3,261	-2,506	-2,298	-2,115
Interest	-1,756	-1,919	-2,002	-2,331	-1,913	-1,743	-1,777
Dividends and profit	-333	-228	-353	-827	-565	-551	-324
Taxes	-60	-43	-39	-103	-28	-4	-14
Other	-755	-704	-589	-459	-451	-581	-586
Net transfers	-19	40	78	71	73	105	131
Private	11	7	41	-33	-27	32	68
Central Government	-30	33	37	104	100	73	64
Net invisibles	-3,987	-3,976	-3,734	-4,707	-3,884	-4,048	-3,993
(In percent of GDP)	(-4.9)	(-4.5)	(-4.1)	(-4.4)	(-3.5)	(-3.4)	(-3.4)

Sources: South African Reserve Bank, Quarterly Bulletin; and staff calculations.

1/   Income from nonmerchandise insurance and other foreign earnings.
2/   Payments for nonmerchandise insurance and other foreign payments.

Table 28.   South Africa: Net Capital Movements, 1988-93

(In millions of dollars)

	1988	1989	1990	1991	1992	1993
Long-term capital	-516	-231	-39	-627	-530	-83
Public sector	-473	-179	197	381	1,102	-883
General government	-95	-4	538	422	744	51
Public corporations	-280	-111	-151	97	368	-480
Public enterprises	-98	-64	-189	-139	-11	-455
Nonbank private sector	-70	-6	-251	-962	-1,390	819
Direct investment, net	1	7	29	-194	-613	-172
Nondirect investment, excluding net purchases of securities	-65	-18	356	75	19	131
Net purchases of securities by nonresidents	-7	5	-636	-843	-796	860
Banking sector	28	-47	14	-45	-242	-19
Short-term capital	-1,459	-808	-541	664	878	-1,555
Public sector	-11	-236	17	-151	-14	169
General government	- -	-26	90	-29	- -	154
Public corporations	15	-80	4	-32	-12	24
Public enterprises	-26	-130	-78	-90	-1	-9
Nonbank private sector	-1,641	-1,055	-804	-134	-268	-712
Direct investment	92	-382	-148	198	-191	-130
Nondirect investment	-1,733	-673	-656	-333	-77	-582
Banking sector	192	484	247	949	1,159	-1,013
Errors and omissions	-852	-271	-105	-818	-1,636	-2,960
Net capital movements	-2,828	-1,310	-685	-780	-1,288	-4,598

Source: South African Reserve Bank, Quarterly Bulletin; and staff calculations.

Table 29. South Africa: External Debt, 1986-93

	1986	1987	1988	1989	1990	1991	1992	1993
	(In millions of U.S. dollars)							
Debt outstanding (at year-end)								
Medium- and long-term 1/	11,035	11,464	9,377	8,585	8,504	8,941	8,342	8,145
Public sector 2/	4,857	6,881	6,292	5,347	5,248	5,735	5,260	5,481
Private sector	6,178	4,583	3,085	3,238	3,256	3,206	3,082	2,664
Short-term 1/	11,558	11,154	11,808	12,012	10,879	9,188	8,959	8,545
Public sector 2/	3,662	4,409	3,828	5,575	3,732	2,926	3,200	3,731
Private sector	7,896	6,745	7,980	6,437	7,147	6,262	5,759	4,814
Total external debt	22,593	22,618	21,185	20,597	19,383	18,129	17,301	16,690
Public sector	8,519	11,290	10,120	10,922	8,980	8,661	8,460	9,212
Private sector	14,074	11,328	11,065	9,675	10,403	9,468	8,841	7,478
Memorandum items:			(In percent)					
Total external debt (in billions of rand)	49.3	43.7	50.3	52.1	49.8	49.6	52.6	56.6
Debt/GDP	36.0	27.6	24.0	22.4	18.2	16.1	14.4	14.2
Debt/Exports of goods and nonfactor services	108.4	89.9	86.9	79.0	70.4	66.8	67.3	62.2
Share of short-term debt in total debt	63.4	58.0	58.2	59.8	56.0	50.9	52.1	51.5
Interest payments/Exports of goods and nonfactor service	10.8	8.4	8.4	8.9	9.0	7.7	6.9	6.8

Sources: South African Reserve Bank, Quarterly Bulletin; data provided by the South African authorities; and staff estimates.

1/ The distinction between short-term and long-term debt is not based on the original maturity structure, but on the schedule of repayments, i.e., short-term debt comprises all amortization payments due over the next year.

2/ Central Government, local authorities, public business enterprises, public corporations, and debt of the monetary sector that is not affected by the debt standstill.

Table 30. South Africa: External Reserves, 1989-94

(In millions of U.S. dollars; end of period)

	1989	1990	1991	1992	1993	1993 I	1993 II	1993 III	1993 IV	1994 I	1994 II	1994 III
Gross external reserves	2,722	2,834	3,574	3,670	3,252	2,999	3,070	2,614	3,252	2,962	2,647	3,091
Gross official reserves 1/	2,096	2,421	2,972	2,982	2,676	2,359	2,260	1,974	2,678	2,281	1,941	2,263
Gold, national valuation 2/	1,137	1,415	2,074	1,992	1,658	1,639	1,670	1,457	1,658	1,694	1,467	1,299
SDRs	2	2	2	--	12	--	6	2	12	19	5	3
Other foreign exchange	958	1,004	896	990	1,006	720	584	515	1,008	568	469	962
External liabilities	3,986	3,145	3,519	4,806	5,678	4,440	3,773	4,140	5,678	6,196	6,767	7,287
Official liabilities relating to reserves	551	267	16	289	1,550	667	472	758	1,550	1,448	1,821	987
Net external reserves 3/	2,171	2,568	3,558	3,381	1,702	2,332	2,598	1,856	1,702	1,513	826	2,104
Net official reserves	1,545	2,155	2,955	2,693	1,126	1,692	1,788	1,216	1,128	832	120	1,276
Memorandum items:												
Gross official reserves												
In millions of rand	5,316	6,205	8,152	9,104	9,092	7,480	7,513	6,776	9,092	7,934	7,084	8,061
In millions of SDRs	1,595	1,702	2,078	2,169	1,948	1,685	1,609	1,391	1,948	1,614	1,339	1,541
In millions of dollars, excluding gold	959	1,007	898	990	1,018	716	588	516	1,018	586	473	963
In millions of SDRs, IMF definition 4/	838	851	854	952	908	703	592	524	908	584	474	784
Gold (millions of ounces)	3.08	4.09	6.47	6.65	4.76	5.46	4.94	4.56	4.76	4.84	4.20	3.64
In months of imports 5/												
Gross external reserves	1.6	1.6	2.0	2.1	1.7	1.7	1.7	1.3	1.6	1.6	1.3	1.2
Gross official reserves	1.2	1.4	1.7	1.7	1.4	1.3	1.3	1.0	1.3	1.2	1.0	0.9

Sources: International Monetary Fund, International Financial Statistics; and South African Reserve Bank, Quarterly Bulletin.

1/ Holdings of the Reserve Bank and Central Government.
2/ Gold reserves are valued at 90 percent of the average of the last ten London fixing prices during the month.
3/ Exclusive of nonofficial short-term foreign liabilities which are treated above the line in the balance of payments.
4/ Gold valued at SDR 35 per ounce.
5/ Imports of goods and nonfactor services.

Table 31. South Africa: Exchange Rate and Gold Price Developments, 1986-94

(Average data)

	U.S. dollar/ Rand	U.S. dollar/ Financial rand 1/		Effective exchange rate 3/		London gold price 5/	
				Nominal	Real 4/	In rand	In U.S. dollars
	Level	Level	Discount	Index 1990=100		Level	
1986	0.438	0.215	52.9	135.8	90.8	840.4	367.6
1987	0.491	0.321	38.1	134.7	102.4	908.8	446.6
1988	0.440	0.261	37.9	116.1	96.7	991.6	437.1
1989	0.381	0.279	28.9	105.9	97.1	998.9	381.5
1990	0.386	0.295	24.2	100.0	100.0	991.9	383.6
1991	0.362	0.315	13.5	93.8	103.8	999.5	362.2
1992	0.351	0.206	37.2	88.2	107.8	980.0	343.7
1993	·0.306	0.233	20.9	80.3	104.9	1,176.7	359.7
1991							
Jan.	0.390	0.300	23.6	95.7	100.4	984.5	384.1
Feb.	0.394	0.310	20.7	95.1	101.0	923.6	363.8
Mar.	0.378	0.306	16.5	96.1	103.0	962.9	363.4
Apr.	0.365	0.297	17.0	95.9	103.6	982.1	358.3
May	0.358	0.305	14.1	94.7	103.3	997.7	357.0
June	0.349	0.301	13.0	94.8	104.1	1,050.1	366.5
July	0.347	0.307	12.1	94.2	104.4	1,059.5	367.9
Aug.	0.348	0.308	11.5	93.1	104.1	1,022.5	356.4
Sep.	0.353	0.317	11.0	92.6	104.7	989.0	348.6
Oct.	0.353	0.320	9.5	92.2	106.0	1,015.5	358.8
Nov.	0.358	0.327	8.5	91.3	105.8	1,006.4	360.1
Dec.	0.361	0.315	13.5	90.3	105.8	1,000.4	361.5
1992							
Jan.	0.360	0.291	18.1	89.9	106.1	986.4	354.5
Feb.	0.355	0.263	24.9	90.3	107.6	996.9	353.9
Mar.	0.347	0.285	18.0	90.3	108.2	992.5	344.5
Apr.	0.347	0.290	16.5	90.0	108.5	974.5	338.6
May	0.351	0.291	17.6	89.5	108.2	959.6	337.1
June	0.356	0.266	26.2	88.9	108.6	957.2	340.8
July	0.363	0.259	28.5	87.9	108.4	971.1	352.6
Aug.	0.362	0.269	26.4	86.7	107.5	949.3	343.3
Sep.	0.357	0.246	30.9	86.1	107.0	966.4	345.4
Oct.	0.347	0.230	32.1	86.1	107.3	994.3	344.3
Nov.	0.334	0.210	36.3	86.8	108.5	1,003.9	335.0
Dec.	0.332	0.206	37.2	86.1	107.7	1,007.8	334.6
1993							
Jan.	0.326	0.216	33.7	85.8	108.2	1,009.9	329.0
Feb.	0.321	0.221	30.7	85.4	107.9	1,028.1	329.3
Mar.	0.315	0.220	30.1	83.4	106.7	1,049.0	330.0
Apr.	0.316	0.219	30.8	81.3	105.9	1,083.9	342.0
May	0.315	0.217	31.0	80.8	105.3	1,162.5	366.4
June	0.309	0.213	29.3	79.9	104.8	1,204.6	371.9
July	0.298	0.224	24.2	78.9	103.8	1,312.6	392.1
Aug.	0.297	0.213	28.1	78.2	103.0	1,274.2	378.9
Sep.	0.293	0.239	17.9	75.8	100.1	1,211.0	355.4
Oct.	0.295	0.236	20.7	77.0	102.3	1,233.2	364.1
Nov.	0.297	0.223	25.0	78.9	105.5	1,257.7	373.9
Dec.	0.296	0.233	20.9	78.8	105.6	1,293.9	383.4
1994							
Jan.	0.293	0.225	23.1	78.7	106.6	1,319.5	387.0
Feb.	0.290	0.212	26.5	77.2	104.7	1,316.9	381.8
Mar.	0.290	0.204	29.2	76.1	103.7	1,326.9	384.1
Apr.	0.279	0.217	23.2	73.3	99.9	1,355.6	377.6
May	0.276	0.211	23.8	71.5	97.9	1,383.4	381.3
June	0.276	0.213	22.3	70.8	97.5	1,399.6	385.7
July	0.273	0.217	20.4	68.5	95.4	1,413.6	385.5
Aug.	0.278	0.222	20.2	69.9	98.7	1,368.8	380.4
Sep.	0.281	0.234	16.3	70.1	100.0	1,392.0	391.5
Oct.	0.283	0.249	12.8	...	...	1,379.3	390.0

Sources: South African Reserve Bank, Quarterly Bulletin; and International Monetary Fund, International Financial Statistics.

1/ End-of-period.
2/ The difference between the commercial and the financial rand as a percentage of the commercial rand.
3/ IMF estimates.
4/ Relative consumer prices, adjusted for exchange rate changes.
5/ Average daily fixing price per fine ounce.