

AND NOT FOR PUBLIC USE

FOR
AGENDA

SM/82/89

CONTAINS CONFIDENTIAL
INFORMATION

May 11, 1982

To: Members of the Executive Board
From: The Acting Secretary
Subject: South Africa - Recent Economic Developments

This paper provides background information to the staff report on the 1982 Article IV consultation discussions with South Africa, which was circulated as SM/82/76 on April 20, 1982.

Att: (1)

Other Distribution:
Department Heads

INTERNATIONAL MONETARY FUND

SOUTH AFRICA

Recent Economic Developments

Prepared by D. Burton, M. Dell'Anno,
and J. Wein

Approved by the European Department

May 3, 1982

<u>Contents</u>	<u>Page</u>
Basic Data	v
I. Overview of Recent Economic Developments	1
II. Recent Developments in the Domestic Economy	4
1. Domestic demand	4
a. Expenditure on consumption	4
b. Gross investment	5
2. Output	6
a. Agriculture	7
b. Mining	7
c. Industry	8
d. Energy	9
3. Labor developments and policies	10
a. Developments	10
b. Labor policies	12
4. Income and prices	13
a. Incomes	13
b. Prices	14
5. Planning	15
III. Gold	29
1. Introduction	29
2. Gold price developments	29
3. Output, costs, and earnings	30
4. Employment and miners' earnings	32
5. The marketing of gold	32
6. Gold in the balance of payments accounts	33
IV. Balance of Payments	40
1. Recent developments in the current account	41
a. The current account balance. an absorption approach	41
b. Merchandise and gold exports	42

<u>Contents</u>	<u>Page</u>
c. Merchandise imports	45
d. Invisibles	47
2. Developments in the capital account	47
a. Long-term capital	48
b. Short-term capital	49
c. Official financing	50
3. Exchange rate developments	51
Appendix I. The Demand for Imports: Empirical Results	62
V. Public Finance	64
1. The structure of the public sector	64
2. Overview of recent trends in expenditure and revenue	66
3. The 1980/81 budget and its financing	66
4. The 1981/82 budget	68
5. The 1982/83 budget	70
VI. Money and Credit	77
1. Introduction	77
2. Monetary policy	78
a. Instruments of monetary policy	78
b. Monetary policy from 1980	81
3. Development of the main monetary aggregates	83
4. Interest rate developments	84
5. Capital markets	85
Appendix II. Demand for Money Estimates	93
VII. Exchange and Trade System	95
1. Exchange rate system	95
a. Exchange control territory	96
b. Administration of control	96
c. Prescription of currency	96
d. Nonresident accounts	97
e. Imports and imports payments	98
f. Payments for invisibles	99
g. Exports and export proceeds	100
h. Proceeds from invisibles	100
i. Capital	101
j. Gold	102
2. Changes since January 1980	103
Annex. Gold Price Movements: The Problems of Adjustment in South Africa	107
1. Introduction	107
2. Adjustment to gold price shocks--main issues	108
3. The effects of recent gold price cycles on the South African economy	110
4. Summary and appraisal of policy	113

Contents

Page

Text Tables

1. Expenditure on GDP	16
2. Private Consumption Expenditure	17
3. Gross Domestic Fixed Investment	18
4. Real Fixed Capital Stock	19
5. Average Capital and Labor Ratios of Nonagricultural Sector	20
6. Financing of Gross Domestic Investment	21
7. Gross Domestic Product	22
8. Relative Importance in World Mineral Reserves	23
9. Relative Importance in World Mineral Production in 1980	24
10. Mining Output and Value of Sales	25
11. Indicators in the Manufacturing Sector	26
12. Employment and Unemployment in Nonagricultural Sectors	27
13. Salaries and Wages per Worker in the Nonagricultural Sector	28
14. Price Developments	28
15. World Gold Supply and Demand	35
16. Gold and the Economy	36
17. Gold Production	37
18. Average Working Revenue, Costs, and Profits	38
19. Employment in Gold Mines	39
20. Balance of Payments Summary	53
21. Savings, Investment, and the Current Account	54
22. Merchandise Trade Volumes and Related Factors	55
23. Commodity Composition of Exports	56
24. Classification of Exports According to Stage of Fabrication	56
25. Commodity Classification of Imports	57
26. Classification of Imports According to Stage of Consumption	57
27. Direction of Foreign Trade	58
28. Services and Transfers	59
29. Net Capital Movements	60
30. Gross Official Reserves	61
31. Summary of the State Revenue Account	73
32. Revenue in the State Revenue Account	74
33. Expenditure in the State Revenue Account	75
34. The Financing of the Deficit in the Exchequer Account	76
35. Minimum Cash and Liquid Assets for Bank Institutions	87
36. Minimum Statutory Investment Requirements for Financial Institutions	88
37. Monetary Survey	89
38. Sources of the Base	90
39. Net Domestic Credit by Lender	91
40. Interest Rates	92
41. Gold Price Movements--Anticipated and Unanticipated Components	115
42. Monetary Developments	116
43. Balance of Payments Developments	117

<u>Contents</u>	<u>Page</u>
<u>Charts</u>	
1. Demand, Supply, and Inflation	2a
2. Growth of Real Demand and Supply	4a
3. Price Inflation	14a
4. Gold Price on the London Market	30a
5. Gold Futures Prices	30b
6. Balance of Payments: Longer-Term Developments	40a
7. Current Account of the Balance of Payments	42a
8. Exchange Rate Developments	44a
9. External Transactions in Goods and Services: Volume and Price Developments	44b
10. Cost of Trade Credit	50a
11. Growth of Monetary Aggregates	78a
12. Velocity of Circulation	84a
13. Interest Rate Developments	84b
14. London Gold Prices	108a
15. Selected Economic Indicators	110a
16. Monetary Developments	110b
17. Exchange Rate Developments	110c

South Africa--Basic Data

Area and Population

Area	1,182,345 sq km
Population (at June 1980)	29,290,000
Employment in nonagricultural sector (as at December 1980)	4,960,300

IMF Position (March 31, 1982)

Quota	SDR 636 million
Fund holdings of rand as per cent of quota	100 0
Holdings of SDRs	SDR 115 5 million
Exchange rate	R 1 = US\$ 0 95 = SDR 0.85

National Accounts

	1980	1978	1979	1980	1981
	In millions of rand at current prices	Percentage change in real terms			
Private consumption	37,655	1.1	2.5	8.9	6.3
Public consumption	9,527	--	2.4	7.4	2.3
Gross fixed investment	18,298	-3.0	2.0	13.9	6.7
Change in stocks (including residual item) 1/	7,048	1.8	0.9	3.1	4.5
Total domestic demand	72,528	1.8	3.4	13.5	10.5
Exports of goods and services	20,373	4.5	2.3	-1.7	-7.6
Imports of goods and services	21,707	0.7	-1.0	18.9	14.2
Gross domestic product	71,194	2.9	4.0	7.8	4.7

State Revenue Account 2/

	1978/79	1979/80	1980/81	1981/82
	In millions of rand			
Revenue	8 138	9,788	13,310	14,290
Expenditure	9,855	11,444	13,641	16,350
Overall deficit	-1,817	-1,656	-331	-2,060

Balance of Payments

	1978	1979	1980	1981
	In billions of rand			
Merchandise exports, f o b	11.3	14.8	19.8	17.7
Net gold output	3.9	6.0	10.1	8.3
Merchandise imports, f o b	-8.0	-9.7	-14.2	-18.2
Net invisibles and transfers	-2.0	-2.1	-2.8	-3.4
Current balance	1.3	3.0	2.8	-3.9
Net long-term capital	--	-1.0	-0.6	0.4
Net short-term capital (including errors and omissions)	-0.8	-1.5	-1.7	0.8
Net capital (including errors and omissions) 3/	-0.8	-2.6	-2.3	1.1
Overall balance	0.5	0.4	0.5	-2.8

Level of reserves at end-year (in millions of SDRs, IFS definition)

Monetary Aggregates (end-period)

	1978	1979	1980	1981
	Percentage increase over previous year			
Broad money (M3)	16.5	14.7	23.5	20.2
Total net domestic credit	8.8	13.3	20.3	33.8
Of which				
Bank credit to private sector	14.5	15.6	29.1	35.0
Bank credit (net) to Government	-6.7	5.7	-12.0	27.0

Prices (annual average)

Consumer prices	10.2	13.1	13.8	15.2
Exports of goods and services	17.8	26.2	34.2	--
Imports of goods and services	15.7	21.6	20.4	12.1

1/ Contribution to growth of GDP

2/ Years ended March 31 Excludes South-West Africa Account

3/ Excluding short-term liabilities related to reserves.

I. Overview of Recent Economic Developments

In recent years changes in economic conditions in South Africa have been dominated by fluctuations in the price of gold and other primary commodities and the authorities' response to them. As the balance of payments constraint was removed for a time by the high price of gold, economic policy in 1980 was designed to stimulate activity, with a view to increasing employment opportunities for the abundant unskilled labor resources. With easy financial policies and the buoyant gold market underpinning consumer and business confidence, the economy expanded at an unprecedented rate. Real domestic demand rose by 13 1/2 per cent and real GDP by nearly 8 per cent (compared with increases in GDP of about 4 per cent in 1979 and 3 per cent on average in 1972-78). The unemployment rate among unskilled (largely black) labor declined, but remained above 8 per cent according to official statistics. However, as capacity utilization rose, supply bottlenecks developed in many areas. Notwithstanding an increase in the number of skilled immigrants, shortages of skilled labor became widespread, pushing up labor costs. Inflation accelerated from 14 per cent during 1979 to 15 1/2 per cent during 1980.

During 1981 the price of gold fell, and South Africa's nongold exports were affected by the recession abroad. With financial policies aimed at shielding the domestic economy from these external influences, domestic demand remained relatively buoyant and increased by 10 1/2 per cent. However, as capacity constraints became binding, the rate of growth of real GDP slowed to below 5 per cent (Chart 1). Continued excess demand kept the rate of inflation high and led to a further sharp increase in imports. This combined with the fall in the gold price, caused the current account of the balance of payments to turn into deficit to the tune of about R 4 billion in 1981 (equivalent to some 5 1/2 per cent of GDP, compared with a surplus of 4 1/2 per cent of GDP in 1980). The swing in the current external position was not accompanied by a reversal of capital flows of a similar magnitude, as relative interest rates did not favor borrowing abroad for much of the year. The capital inflow in 1981 (following the large outflow in the previous year) contained the overall balance of payments deficit to R 2.8 billion, compared with a surplus of R 0.5 billion in 1980.

The authorities financed the external deficit by running down reserves and by recourse to short-term foreign borrowing (R 1.8 billion). In late 1981 the South African Reserve Bank resorted to gold swaps with foreign commercial banks (which had the advantage of avoiding outright gold sales that might have forced a further decline in the price of gold), with a view to keeping the foreign exchange component of reserves from falling excessively. At the end of 1981 gross official reserves (excluding gold reserves) stood at SDR 0.9 billion (IFS basis), compared with SDR 1 billion a year earlier. With gold officially valued at market-related prices, reserves were equal to SDR 3.3 billion (seven weeks of 1981 imports of goods and services). At the same time the exchange rate of the rand depreciated during 1981 by 12 per cent in effective (trade-weighted) terms and by 22 per cent vis-a-vis the U.S. dollar, after

appreciating by 12 per cent and 11 per cent, respectively, during 1980. Adjusted for relative consumer prices, the "real" exchange rate of the rand fell by 9 per cent during 1981, to about the level of mid-1980.

Monetary policy was excessively easy over most of the past two years. Although there was some relaxation of exchange control on outflows in 1980, as well as an appreciation of the exchange rate, the mounting external surplus was allowed to ease domestic monetary conditions significantly. In late 1980 and early 1981, as the balance of payments moved into deficit, the authorities initially offset the monetary consequences of the external deficit through domestic liquidity creation. Thus interest rates remained far below the rate of inflation, and broad money (M3) rose by 33 per cent in the year to April 1981. While this rate of growth may overstate the underlying monetary expansion because of special factors, the other monetary aggregates also grew at rapid rates. In the second half of 1981 monetary conditions became less easy. Domestic interest rates were allowed to rise sharply, but they remained low in relation to the rate of inflation, and those ruling abroad.

Fiscal policy in 1980/81 ^{1/} was on the other hand relatively restrictive. While stimulus in the 1980/81 budget was provided through tax concessions to individuals and companies, expenditures declined in relation to GDP and revenues from the gold mining companies soared, leading to a reduction in the budget deficit to 1/2 per cent of GDP from 3 1/2 per cent a year earlier. Revised expenditure estimates for 1981/82 show that the budget deficit rose to the equivalent of 2 3/4 per cent of GDP. Government spending increased by 20 per cent and its share in GDP by 1 percentage point to 23 1/2 per cent, though it remained well below the peak of 27 1/2 per cent in the mid-1970s. Despite a sharp fall in revenues from gold mining companies, other tax receipts were very buoyant, leading to an increase of 7 1/2 per cent in total revenues.

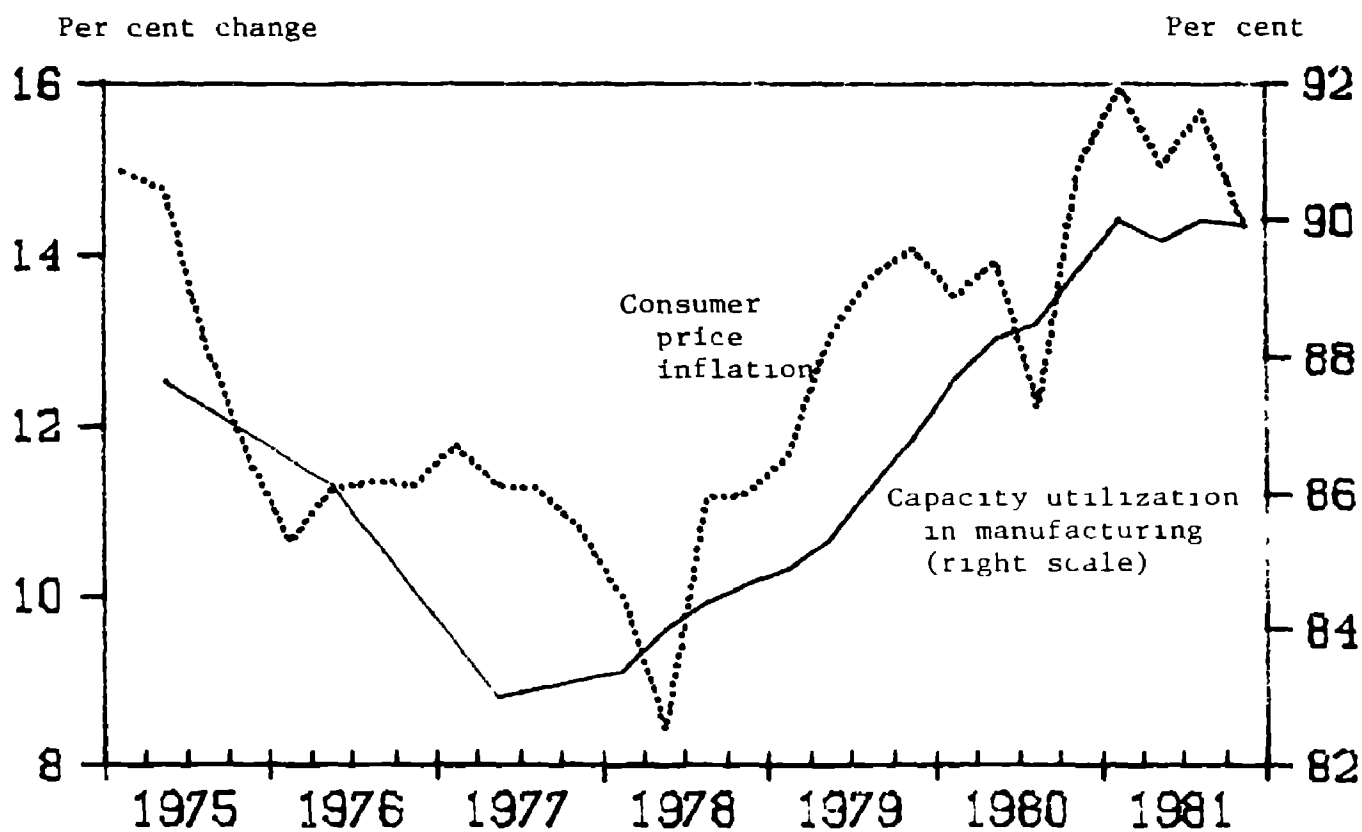
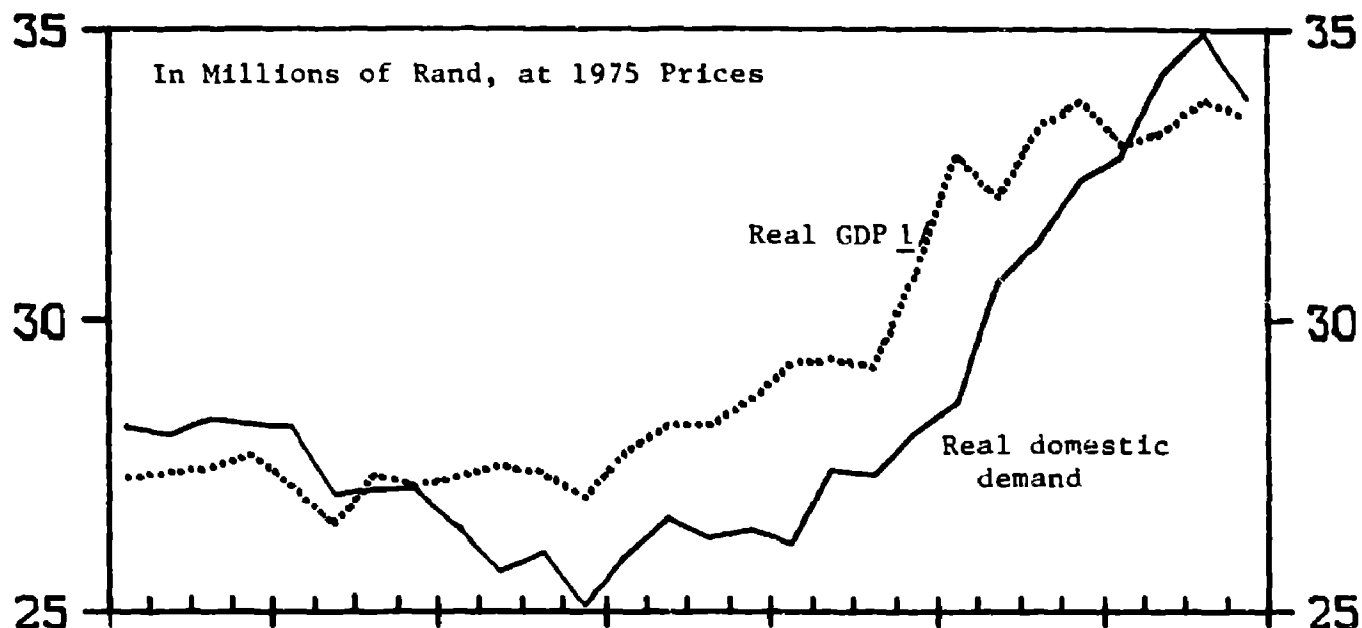
In the closing months of 1981 there were signs that South Africa's most vigorous expansion period of the postwar years was coming to an end. In the fourth quarter of 1981 there was a decline in the seasonally adjusted volume of domestic demand, a significant improvement in the real external balance, and a slowdown in the growth of real GDP to an annual rate of about 2 per cent. The year-on-year rate of price inflation in the December quarter slowed to 14 per cent from 16 per cent in the first quarter, and the external current deficit (seasonally adjusted) fell to the equivalent of 4 3/4 per cent of GDP from 7 3/4 per cent in the third quarter of 1981.

The growth of demand and output appears to have been sluggish in early 1982, and the year-on-year rate of price inflation slowed to 13 1/2 per cent. Demand conditions were affected by restrictive measures aimed at containing the growth of monetary aggregates and the budget deficit. The measures in the monetary field drove the prime rate up to 20 per cent; interest rates became positive in real terms and

^{1/} Fiscal year ending March 31.

Chart 1

SOUTH AFRICA **DEMAND, SUPPLY, AND INFLATION**



Source: South African Reserve Bank, Quarterly Bulletin.

^{1/} Adjusted for changes in the terms of trade.

more in line with rates abroad. The budgetary measures included tax increases by an amount exceeding 2 per cent of GDP in fiscal 1982-83 and a cut in real expenditures, which are expected to keep the budget deficit in relation to GDP at the level obtained in 1981/82, despite a projected 60 per cent fall in gold-related revenues.

The further decline in the price of gold and sluggish world demand conditions suggest that the current external deficit remained weak in the first quarter of 1982 despite a decline in the volume of imports. Though the net capital inflow picked up after the middle of the quarter, pressures on reserves remained considerable. Gross official reserves (including gold at market-related prices) declined to SDR 3 billion at the end of March 1982, reflecting also the lower price of gold. The effective (trade-weighted) exchange rate appreciated on average in the first three months of 1982, but by end-March it was some 2 1/2 per cent lower than at the end of December 1981.

II. Recent Developments in the Domestic Economy

Following a long period of slow growth, the South African economy began to display some buoyancy in the second half of 1979, and real GDP for the year as a whole grew by a respectable 4.0 per cent. Assisted by exceptional earnings from gold exports, tax concessions, and low interest rates, the economic recovery exceeded expectations in 1980. Real GDP grew by an unprecedented 7.8 per cent, a remarkable performance in comparison with South Africa's main trading partners. With policies geared to shielding the domestic economy from the adverse effects of external developments in 1981, domestic demand remained buoyant (Table 1). The real external balance moved into deficit with the volume of imports of goods and nonfactor services rising by an estimated 14.2 per cent following an increase of 18.9 per cent in 1980, and that of exports of goods and nonfactor services falling by 7.6 per cent, following a decline of 1.7 per cent in the preceding year (for details on the external sector, see Chapter VII). Accordingly, the rate of growth of real GDP slowed to 4.7 per cent in 1981 as a whole.

1. Domestic demand

After rising by 3.4 per cent in 1979, total domestic demand increased by 13.5 per cent in 1980 and 10.5 per cent in 1981. Annual developments, however, conceal significant changes that took place during the 1980-81 period. Boom conditions prevailed in the first nine months of 1980. A slowdown in domestic demand set in late in the year, which was again followed by strong expenditure growth during the central quarters of 1981 and a new relapse in the fourth quarter, when it appeared that South Africa's most vigorous period of the postwar years was coming to an end, and a new cyclical downswing was about to begin. In the fourth quarter of 1981, the volume of domestic demand (seasonally adjusted) was over 3 per cent lower than in the preceding quarter, with the growth in real consumption slowing very sharply and the volume of gross investment falling (Chart 2).

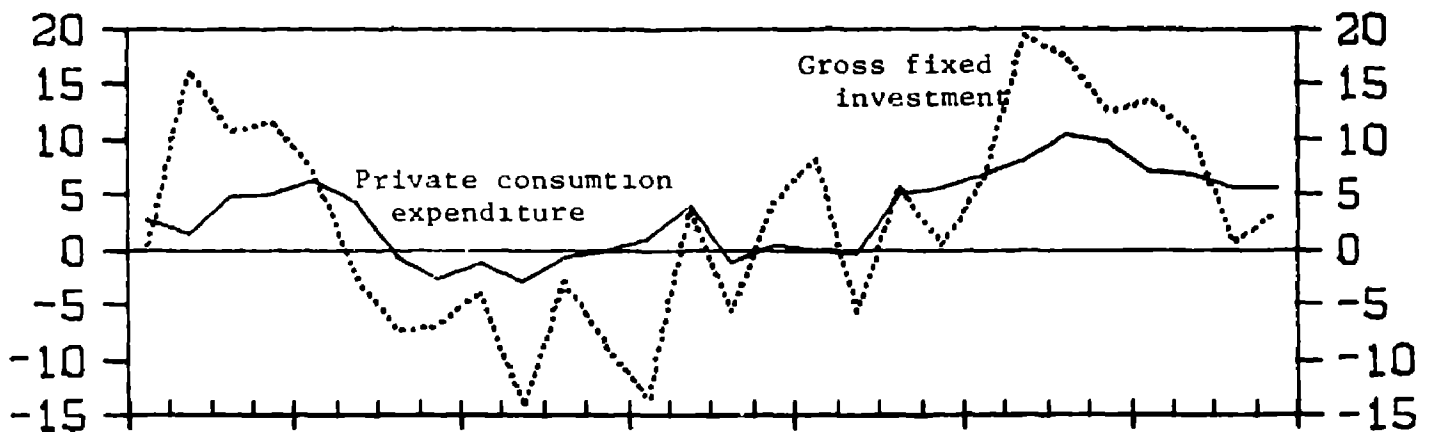
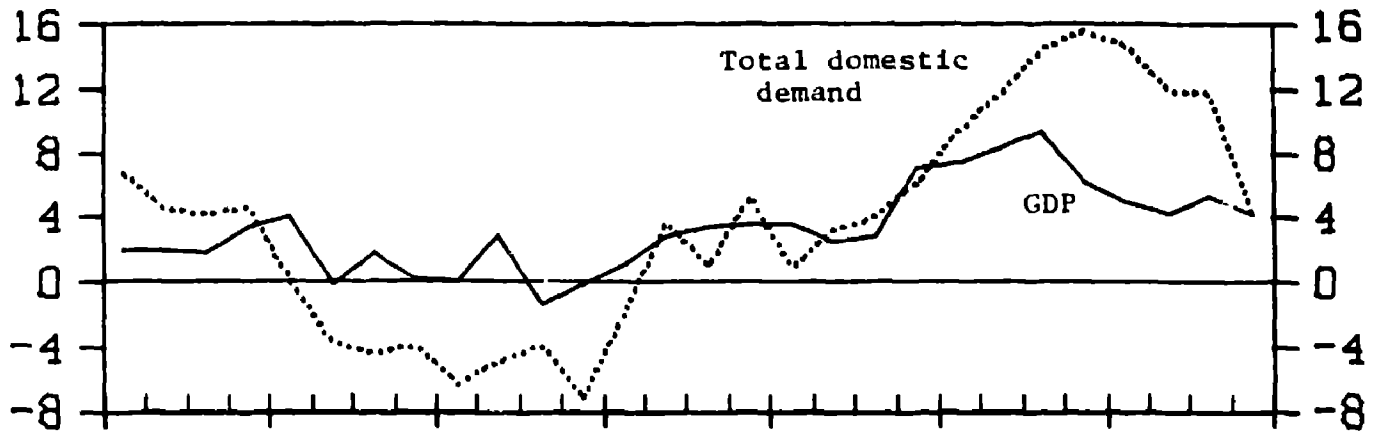
a. Expenditure on consumption

Buoyed by tax concessions and a strong rise in real incomes, real personal disposable incomes rose by 7.5 per cent in 1980, and households increased the volume of their consumption expenditure by 8.9 per cent, compared with 2.5 per cent in 1979. As a result, personal savings as a proportion of disposable income declined to 7.8 per cent from 8.8 per cent in 1979. Expenditure on all major classes of consumer goods rose more rapidly than in 1979, but the largest increases were recorded in the durable and semidurable goods categories. The volume of consumer outlays on motor vehicles rose by 33.8 per cent, that on furniture and appliances by 23.2 per cent as housing sales boomed, and that on clothing and footwear by 14.4 per cent (Table 2).

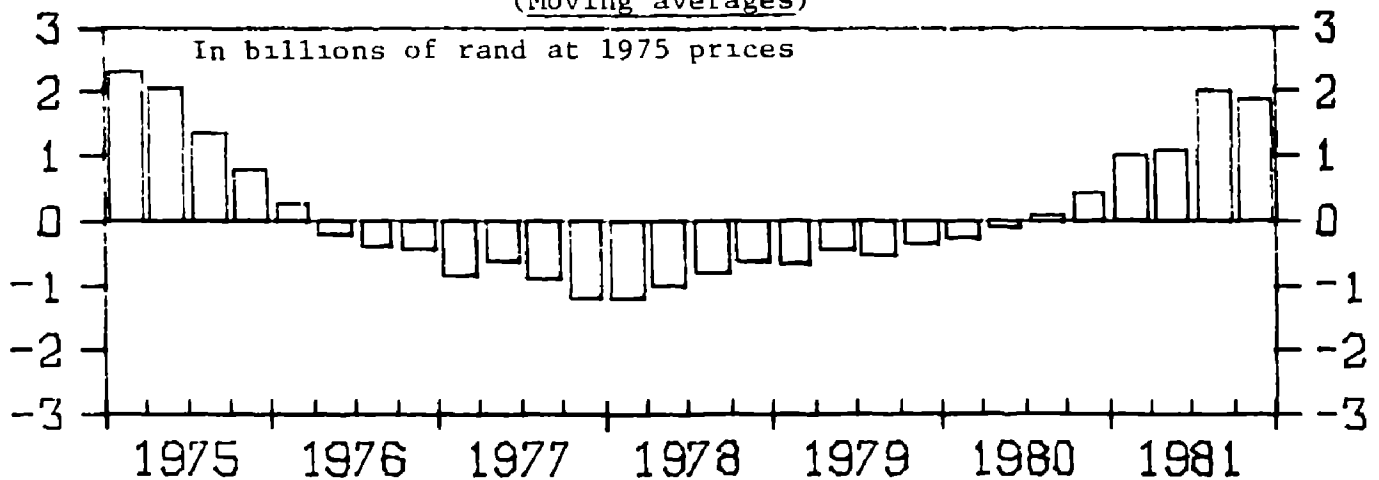
With a considerable part of the need for durable and semidurable goods satisfied, the rate of growth of private consumption expenditure

Chart 2

SOUTH AFRICA GROWTH OF REAL DEMAND AND SUPPLY (Year On Year Rate Of Change, In Per Cent)



CHANGES IN INVENTORIES (Moving averages)



Source South African Reserve Bank, Quarterly Bulletin.

slowed down to 6.3 per cent in 1981, which was still more than double the average rate in 1972-78. Since real disposable income of households increased by less than 4 per cent in 1981, the personal savings ratio declined to 5.9 per cent.

Real consumption expenditure of the public authorities ^{1/} increased by 7.4 per cent in 1980. This came after a relatively modest rate of growth of 2.4 per cent in 1979, which itself followed two years during which the volume of public spending had not increased at all, in line with official policy of leaving room for expansion in the private sector. The rise in 1980 reflected in part a strong increase in public sector employment, but was associated primarily with increased military spending. The rate of growth of employment in the public sector abated in 1981; partly as a result, the rate of increase in overall consumption expenditure by the public sector declined to 2.3 per cent.

b. Gross investment

After accelerating from 2.0 per cent in 1979 to 13.9 per cent in 1980, the real rate of growth of gross fixed investment eased to 6.7 per cent in 1981. Real investment growth in manufacturing, agriculture, and mining was in the 25-28 per cent range in 1980 (Table 3), with total private outlays increasing at the historically high rate of 22.9 per cent. The share of private sector outlays in total gross fixed capital formation in nominal terms increased to 50.6 per cent in 1980 from 47.1 per cent a year earlier, interrupting a long-term downward trend, which the authorities had attempted to reverse. A climate more conducive to new fixed investment in the private sector since the middle of 1979 was created by the revival in consumer expenditure, tax concessions, a substantially higher level of corporate savings, and low interest rates.

Private investment outlays in agriculture, manufacturing, and construction dominated gross fixed capital formation in 1981. Increased investment in agriculture was encouraged by expectations of rising incomes. In manufacturing, the increase reflected the continuation of the large number of capital expansion programs initiated earlier, as well as new projects to create additional production capacity. As a result, production capacity in private manufacturing, as measured by the real net fixed capital stock, increased by 12.8 per cent from the beginning of the investment upswing in the end of 1979 to the middle of 1981 (Table 4). Fixed investment in private residential building continued to rise in response to enduring strong demand for housing. On the whole, total real private fixed investment in 1981 increased by 11.4 per cent, i.e., about half the 1980 rate. The share of private sector investment in total fixed capital formation in nominal terms rose to 52.8 per cent.

^{1/} Current expenditure on wages and salaries and other services of a noncapital nature of the general departments--but not the business enterprises--of public authorities. Public authorities include all departments of the Central Government, provincial administrations, local authorities of the defined territory and other bodies, e.g., social security funds, South African Trust Fund, etc.

The volume of fixed investment in the public sector (including public corporations), which had increased by 5.7 per cent in 1980, rose by 1.9 per cent in 1981. Following an increase of 14.1 per cent in 1980, the volume of investment by public corporations declined by 8.1 per cent in 1981, partly as a result of the completion of SASOL's (the South African Coal, Oil, and Gas Corporation) second oil-from-coal plant. Real fixed capital outlays of the public authorities, which had continued to decline in 1980 in line with the Government's policy of curtailing public sector expenditure, increased by 12.3 per cent in 1981, chiefly as a result of higher outlays by the South African Transport Services.

The average capital-output ratio increased between 1971 and 1978, when it reached a peak of 3, a level around which it has oscillated in recent years (Table 5). The trend toward capital-intensive forms of production reflected a variety of influences including (a) the increased importance of large capital-intensive projects, such as oil-from-coal projects; (b) restrictions on the mobility of the labor force and, to a lesser extent, of other factors of production; and (c) the policy of reducing the wage gap between the population groups, which has implied measurable real wage increases for unskilled workers.

The upward phase of the stockbuilding cycle, which began in the second half of 1979, continued in 1980 and was extended in 1981, when there were further substantial increases in inventories of strategic materials (including crude oil); of diamonds, the demand for which was sluggish in world markets; and agricultural stock in trade, partly as a result of bumper maize crops. Industrial and commercial inventories, which had increased strongly in 1980, continued to rise in 1981, despite measurably higher costs of carrying stocks. Overall, stockbuilding made a significant contribution to the growth of real aggregate domestic demand (Table 1).

Changes in the financing of gross fixed investment are shown in Table 6. For a discussion on savings and investment and their relationship with the current external account, see Chapter IV.

2. Output

In 1980 real economic activity rose at a much faster rate than in 1979 (Table 7). Particularly sharp rises were recorded in agriculture, manufacturing, construction, and wholesale and retail trade. Real value added in mining and quarrying, however, fell in 1980; gold output declined by 4 per cent; and the rate of growth of mining production other than gold was more than halved to 6 per cent. ^{1/} Output growth slowed in 1981 as capacity constraints became increasingly more binding.

^{1/} The data for gold and nongold mining refer to changes in the volume of production rather than in value added.

a. Agriculture

A relatively well-developed and commercially oriented agricultural sector coexists with a largely subsidized agricultural sector in the black states in South Africa. Although its relative contribution to real GDP amounts to only 8-9 per cent, agriculture is a key industry rendering the country virtually self-sufficient in regard to food, supplying secondary industry with raw materials, and contributing to the country's export earnings (5.4 per cent in 1981). Furthermore, in the black states, agriculture employs an estimated 65 per cent of the economically active population.

After declining by 4.4 per cent in 1979, owing to poor weather conditions, real value added in agriculture (including forestry and fishing) rose by 12.7 per cent in 1980 and a further 3.8 per cent in 1981. Most products shared in the gains, though the maize crops of 1980 and 1981 enjoyed particularly high rates of growth. ^{1/} Wheat output did not fare well both in the 1980 and 1981 growing season, which led to rising imports. Cattle herds in white farming areas, which had declined from 9.0 million heads at the end of August 1979 to 8.5 million at the end of 1980, remained unchanged in the following year.

The rate of increase in the price of all farming requisites decelerated from 20.6 per cent in 1979 to 16.3 per cent in 1980 and 11.0 per cent in 1981. The rate of increase in agricultural producer prices also decelerated from 18.8 per cent in 1979 to 17.6 per cent in 1980 and to 13.9 per cent in 1981. The volume of investment increased by 25.9 per cent in 1980 and a further 18.1 per cent in 1981 (Table 3).

b. Mining

The mineral resource base of South Africa is large, and the mining industry is one of the most highly developed in the world. An indication of the range of South Africa's mineral products and their ranking in world reserves is given in Tables 8 and 9. South Africa is the largest supplier to the western world of gold, platinum, chrome, vanadium, manganese, andalusite group minerals, and certain asbestos fibers. It is the second largest exporter of diamonds, uranium, antimony, and vermiculite and features among the ten top suppliers of antimony, coal, fluor-span, nickel, copper, tin, and silver.

During the 1970s many mineral producers enjoyed, on the whole, rather favorable world demand conditions, which led to greater local processing of a number of minerals. As a result, mineral processing in South Africa progressed to the point where the country became the world's largest supplier of manganese metal, ferrochrome, ferro-manganese, vanadium pentoxide, and the third largest of antimony trioxide. Rapid progress was also made in the production of titanium slag and phosphoric

^{1/} The surplus from the 1981 crop is estimated at 7 million tons, of which only 5.5 million tons will be possible to export in the year to May 1982, given transport limitations.

acid. Even so, the share of the mining sector in real GDP has declined over the years; it was 14.8 per cent in 1973, 11.5 per cent in 1980, and 10.8 per cent in 1981. In 1980 the sector employed some 15.3 per cent of the working population and contributed 62 per cent to merchandise export earnings.

The effects of the world recession have been considerable for most sectors of the mining industry. After being more than halved to 6 per cent in 1980, the rate of growth of nongold mining output ^{1/} fell further to an estimated 4 per cent in 1981 (Table 10). Production of certain key minerals (notably diamonds and uranium) was stockpiled rather than cut back in response to poor world demand. The effects of the world recession were also severe for iron ores, manganese, ferroalloys, vanadium, and other metals. On the other hand, coal output, which had been boosted in 1979 by the coming on stream of two new export-oriented mine projects, rose by a further 10 per cent in 1980 and by 13 per cent in 1981. Asbestos and copper output staged a significant recovery in 1980. Production of the latter remained high in 1981.

Capital expenditure in mining was about R 2.5 billion in 1980 and 1981. According to estimates by the South African Chamber of Mines, the mining industry plans to invest R 2.0 billion in 1982. This is consistent with medium-term plans for 1980-85 for total fixed capital expenditures of some R 12 billion, of which R 7 billion will be accounted for by new gold mines and expansion of existing ones and R 3 billion by the coal industry. The latter has already established ten new collieries and has several more under construction to supply new power stations and rapidly growing export markets. In all, these outlays are expected to create about 9,300 skilled jobs and 85,000 openings for unskilled workers.

c. Industry

The importance of the industrial sector has grown over the years. It now accounts for about one third of real GDP (30 per cent in 1973) and exports earnings, and employs over 40 per cent of the working population.

Within the industrial sector manufacturing predominates. Since 1979 manufacturing has experienced a strong growth phase, benefiting from rising domestic demand, some relaxation of the restrictions on the use of manpower, the relaxation of price controls, and, since September 1980, from the introduction of a comprehensive export promotion scheme (see Chapter VII for details).

Value added in manufacturing rose by 9.3 per cent in 1979, 10.9 per cent in 1980, and 5.8 per cent in 1981; its rate of growth, after reaching a peak in the second half of 1980, began to slow in early 1981 as shortages of skilled labor became more widespread, and capacity utilization, as measured by the Department of Statistics, rose to 90 per

^{1/} Developments in output, prices, and profits in gold mining in 1980-81 are discussed in Chapter III.

cent. ^{1/} In 1980 utilization in the iron and steel industry reached 93.4 per cent, that in paper and paper products 93.3 per cent, and that in the motor industry 84.6 per cent.

Initially, the strong performance of manufacturing was evident across a wide number of sectors catering to consumers (motor vehicles, wood and wood products, wearing apparel), but later on it was extended to sectors producing investment goods. On the whole, the output of durable goods outperformed that of nondurable goods in 1980--as it did in 1979--but its rate of growth in the first nine months of 1981 slowed and was about the same as that of nondurable goods (Table 11).

The rise in demand for manufactures and the concomitant increase in the utilization of capacity resulted in a sharp boost in profits in 1980, even after allowance is made for the higher unit labor costs--which rose by 11.5 per cent compared with 7.7 per cent in 1979. Total gross operating surplus (mainly profits) in manufacturing increased by 45 per cent in 1980. With unit labor costs rising further by nearly 15 per cent and capacity fully utilized in 1981, the gross operating surplus grew at about half the 1980 rate.

Activity in the building industry, which had been at a standstill for several years, began to pick up in 1979, when real value added in the sector increased by 1.5 per cent. Despite severe shortages of building materials--notably bricks and cement, which are subject to price controls--and the emergence of shortages of both skilled and supervisory workers, real value added rose by 8.2 per cent in 1980. Construction activity continued to show considerable vigor during 1981, and real value added increased by a further 8.1 per cent. However, its rate of growth began to slow late in the year, as mortgage rates increased and building costs rose more rapidly than the rate of inflation.

d. Energy

About 80 per cent of South Africa's total energy requirements are met from the country's ample coal resources. ^{2/} Coal is used by SASOL, which since 1950 has been engaged in the production of petroleum products from coal. In 1979 it was decided to add a third plant, which is expected to become fully operational in 1986. By then, SASOL's output is expected to reduce the country's dependence on imported oil by 50 per

^{1/} The measurement is based on a sample survey of the most important establishments in each industry group. According to Department of Statistics' estimates, the theoretical full capacity is 93 per cent of a factory's maximum rate of production, with the 7 per cent missing from the nominal full rate being accounted for by natural output wastage and built-in variations in labor productivity. However, given existing distortions in the labor supply and the lack of highly developed infrastructural links, the effective full rate is estimated at about 90 per cent.

^{2/} Statistics on oil imports or consumption are not published; the figures quoted in this paragraph are not official.

cent. Various private undertakings and the Government itself have conducted oil exploration, both on land and in territorial waters, but so far only traces of natural oil have been found, though there are indications of several substantial gas deposits.

The government policy is geared toward encouraging greater use of domestic sources of energy, especially coal. This involves the acceleration of the electrification of the railways' main lines, the diversion of several commodities usually conveyed by road to rail transport, tax incentives for the conversion from diesel oil to other forms of energy, and measures to improve public transport facilities. A project for the generation of electrical energy from nuclear power is also progressing according to schedule, and the Corporation for Economic Development has approved the construction of a pilot plant for the production of methanol with cassava, that will start production in 1983.

As part of the campaign to achieve energy conservation, the Government has allowed the increase in crude oil prices to be reflected in domestic prices of gasoline and other oil products. 1/ On the other hand, the price of coal sold on the domestic market (which has a relatively low calorific content) while being above production costs is lower than the world market price. All domestically used coal with calorific value lower than 28.5 MJ/kg is subject to price control. The price of coal used domestically was increased by 15 per cent in 1981 to R 11 per ton, compared with an export price of R 32 per ton.

3. Labor developments and policies

a. Developments

The higher rate of economic activity since late 1979 was accompanied by an appreciable rise in employment, increasing shortages of skilled labor, and a decline in unemployment. Nonagricultural employment increased by 3.3 per cent in 1980, compared with 2.0 per cent the year earlier and 2.9 per cent on average in 1972-78 (Table 12). The rate of increase in employment, however, began to subside in early 1981, as available skilled and semiskilled labor became nearly fully employed. An indication of the tightness of the labor market is given by an increase in the ratio of overtime to ordinary hours worked between the end of 1980 and mid-1981 from 13.6 per cent to 14.9 per cent in manufacturing and from 8.7 per cent to 9.1 per cent in construction. Furthermore, labor turnover in manufacturing and construction in relation to the labor force increased from 4 per cent in the fourth quarter of 1979 to 5 per cent in the first quarter of 1981.

1/ To the landed cost of oil are added: customs and excise duties and an equalization fund levy (part of these duties and levies are used to finance SASOL plants and to pay incentives for the manufacture of indigenous fuels), a general sales tax of 5 per cent, and marketing margins of oil companies and retailers. In December 1981 the price of gasoline was R 0.61 per liter (US\$2.15 per gallon).

In 1980 employment in the private and public sectors increased by 3.6 per cent and 2.5 per cent, respectively. Both rates of growth were higher than a year earlier and in the case of the private sector also higher than the average rate for 1972-78. Except for nongold mining, all sectors of the economy experienced higher rates of employment in 1980. Within the private sector, gold mining and manufacturing enjoyed higher rates of increase, and the construction sector, where employment had declined in 1979, posted an increase of 2.8 per cent. As regards the public sector, the rate of growth in central government employment was considerably higher than that in local and provincial governments. The most notable developments in the employment picture in the first nine months of 1981--aside from the decline in the year-on-year rate of growth of overall employment to 2.9 per cent--were the fall in the number of people engaged in the nongold mining sector and the increase in employment in the construction sector.

The unemployment rate among nonblack workers, which had reached its most recent peak of 1.6 per cent in the last quarter of 1977, was more than halved by the third quarter of 1981. The ratio of unemployed black workers--mainly unskilled manpower--to the corresponding economically active population decreased from 12.4 per cent in the last quarter of 1977 to 8.7 per cent in 1980 and 7.3 per cent in September 1981. 1/

In 1980 there were 192 strikes and work stoppages, which resulted in the loss of nearly 508,000 man-days. By comparison, there were 101 strikes in 1979 and about 71,000 man-days lost. The number of strikes was lower (86) in the first half of 1981 than in the same period a year earlier (105) but, since they lasted longer, the number of man-days lost reached 829,000, compared with 120,000 in the first half of 1980. Since mid-1980 white workers have not been involved in strikes and work stoppages. In 1980 wage disputes were the single most important factor behind the strikes, figuring in 38 per cent of the cases; union recognition, working conditions, fringe benefits, and other nonwage claims accounted for the balance. Though statistics are not available, the 1980 Annual Report of the National Manpower Commission indicates that nearly all trade unions involved in strikes were unregistered unions. 2/ Some 57 per cent of the strikes took place in industry, and much of the remainder involved construction workers.

Labor productivity in the nonagricultural sector, as measured by real gross domestic product per worker, rose by 3.9 per cent in 1980. Following a sharp rise in the first three quarters 1980, labor productivity showed virtually no further growth in the following three quarters,

1/ Excluding unemployment in Transkei and Bophuthatswana; according to unofficial sources, the black unemployment rate may be significantly higher.

2/ Membership of registered trade unions in 1979 represented 35 per cent of the white, colored, and Asian workers outside agriculture. With the inclusion of black workers, registered union membership in 1980 represented 15.3 per cent of all population groups working outside agriculture.

as capacity limits were being reached and the scarcity of skilled labor became more widespread. It rose again in the third quarter of 1981, leading to a year-on-year increase of 2 per cent for the period January-September 1981. In manufacturing (for which more detailed statistics are available) productivity per man-hour showed a similar downward trend, the gain slowing from 4.7 per cent in 1980 to 2.8 per cent in the first nine months of 1981 (Table 11).

b. Labor policies

For the past several years, South Africa's labor market has been beset by increasingly severe structural imbalances, with rising shortages of skilled manpower coexisting with a fairly high rate of unemployment of semiskilled and unskilled workers. The Government's goal is to improve the development and utilization of the country's manpower resources. 1/

The Government is involved in a three-fold training program. First, it conducts training programs to meet its own needs. Second, there are government programs to train workers to meet the skill requirements of the country in general. Third, and most importantly, substantial tax concessions are available to private enterprise for training. In the metropolitan areas employers are allowed to deduct 200 per cent of the cost of training from income for tax purposes, and in the nonmetropolitan areas, they are allowed a 225 per cent deduction. In some industries there is a levy system in operation. That is, within the industry a levy is imposed on individual companies with the proceeds used for training, with 200 per cent of the levy paid being deductible for tax purposes, as long as the training is undertaken by a recognized institution. The total cost of these tax incentive schemes to the Exchequer is in the range of R 30-50 million per year.

In 1977/78 (fiscal year beginning April) the Government erected eight training centers, chiefly for black trainees. In 1980/81 about R 7-8 million was spent on maintaining and improving these centers. There was a new scheme, too, to help train the unemployed, which cost the Exchequer about R 9 million in the 1981/82 fiscal year. The Government also set up a Manpower Development Fund (MDF) that grants low-interest loans for training programs. The MDF has a capital of R 3 million; last year it received more than R 7 million in loan applications.

In November 1981 a National Training Board was established. It brought together employers, Government, and unions in an attempt at a coordinated approach to training--that is, matching skills to needs.

1/ Some of the related measures have been taken within the framework of the recommendations of the Wiehahn and Riekert Commissions (see SM/80/122, 5/28/80). The Government has sought to generate the interest of the private sector to solve its manpower problems with a view to reducing the Government's involvement in this field. However, the response of the private sector so far as the registration of black apprentices is concerned has been disappointing.

In order to end discriminatory practices and make the best use of labor, 27 of the 28 job reservation rule determinations have been removed. Only in one category of work in the mining industry has a job reservation rule been retained, but the rule is in the process of being phased out.

In 1980 the authorities reopened the facilities for recruiting abroad. After having slowed to 3,500 in 1979, the net number of immigrants rose to 18,000 in 1980 and 24,000 in the first nine months of 1981. The composition of immigration changed; the share of net immigration of production workers (the majority of which was presumably skilled) in total net immigration of economically active people rose to 26.4 per cent in 1980, firming a trend under way since 1975 when the share was 16.3 per cent.

4. Incomes and prices

a. Incomes

As a result of more active competition for skilled workers, the average nominal remuneration per worker in the nonagricultural sector rose at a significantly faster rate in 1980 (18.1 per cent) than a year earlier (12.2 per cent) and also faster than the rate of inflation. Consequently, average remuneration displayed a 3.5 per cent rise in real terms in 1980, following a decline in 1979 and very modest increases in the 1972-78 period (Table 13). Both white and nonwhite workers shared in the gain; for whites, the 1980 real increase in remuneration came after five years of real declines. In the public sector, salary and wage scales were adjusted upward by 12 per cent and higher bonuses were introduced; on average, public servants' remuneration increased by 19.4 per cent in nominal terms and 5.0 per cent in real terms, compared with 18.1 per cent and 3.5 per cent, respectively, in the private sector.

Compared with the corresponding period of 1980, average remuneration in the nonagricultural sector in the first nine months of 1981 was 20.7 per cent higher in nominal terms and 4.4 per cent higher in real terms. On the whole, the rate of increase in real remuneration of white workers accelerated, while that of nonwhites decelerated. The latter reflected primarily the sharp rise in food prices, which have a larger weight in the consumer price index for lower income groups.

With the slowdown in the growth of real wages of nonwhite workers, progress toward narrowing the differential between their income and that of white workers was halted. Though narrowing considerably since 1970, average annual earnings of black workers as a percentage of the average annual earnings of whites remain low. Furthermore, it is noteworthy that the ratio of average annual earnings of colored workers has changed only slightly since 1974 and that of Asian workers has increased marginally since 1978, as shown below:

	<u>Coloreds</u>	<u>Asians</u>	<u>Blacks</u>
1970	29	32	15
1974	31	36	18
1978	33	42	23
1980	33	43	24
1981	32	43	24

b. Prices

In both 1980 and 1981, strong demand inflation added to domestic cost pressures, which stemmed from a combination of rising wages and/or upward adjustment of government administered prices, ^{1/} as well as to external cost pressures. Import price pressures remained significant in 1980, despite the appreciation of the rand, reflecting the effects of the oil price increases early in the year; after abating significantly in the first half of 1981, the rate of increase in import prices accelerated again in the second half, primarily as a result of the depreciation of the exchange rate of the rand.

The average rate of increase in consumer prices in 1980 (13.8 per cent) was only slightly higher than in 1979 (Table 14). However, during the year the rate of inflation was 15.7 per cent. An appreciable portion of the 1980 inflation was attributable to food and vegetables, reflecting primarily sharply increased demand which supply could not adequately satisfy in the short term. During the year to December, the price of meat increased by 57.3 per cent and vegetables by 30.1 per cent, compared with 11 per cent for food items other than meat and vegetables. Thus, inflation was more severe for the low income groups, for which the inflation rate was 20.1 per cent during the year; for the middle and higher income groups, the rates of inflation were 16.9 per cent and 14.1 per cent, respectively. Higher rates of price increases than in 1979 were also registered for furniture, motor vehicles, housing, and medical care.

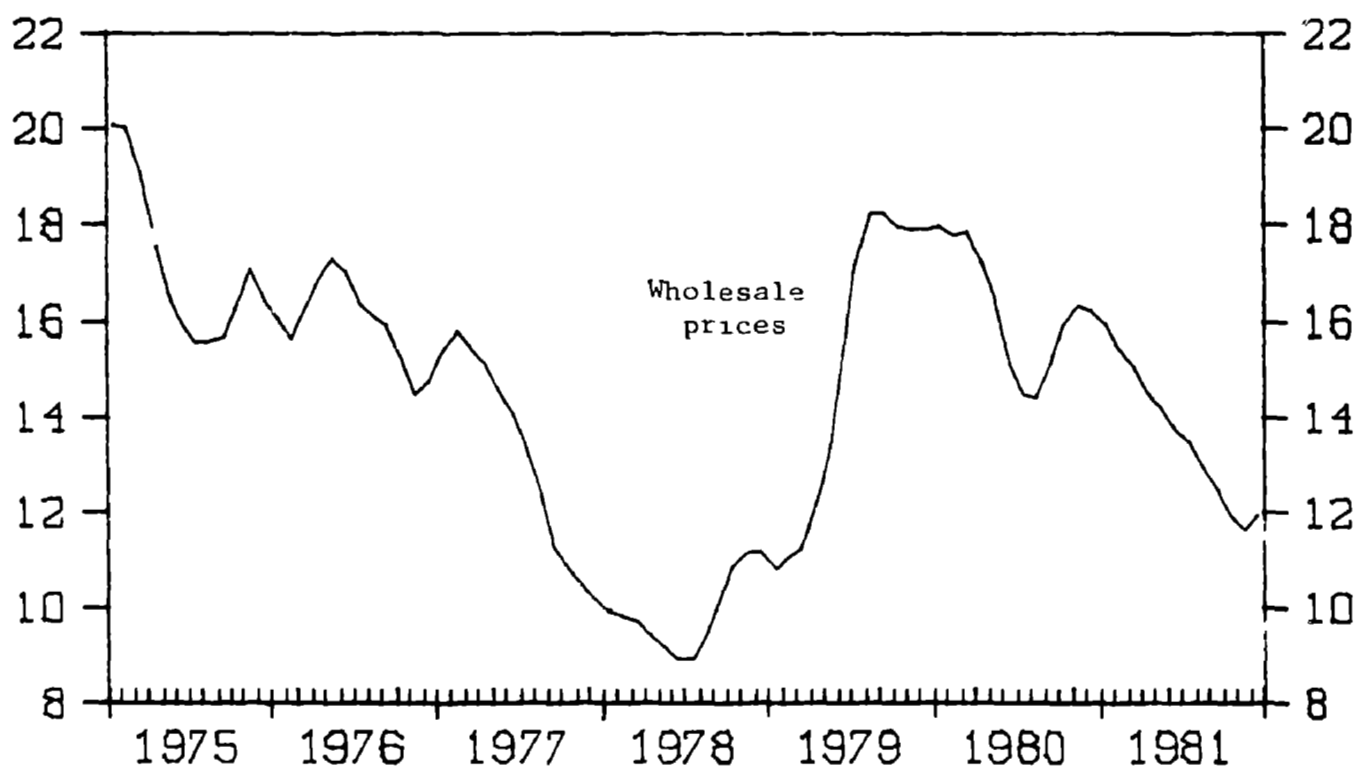
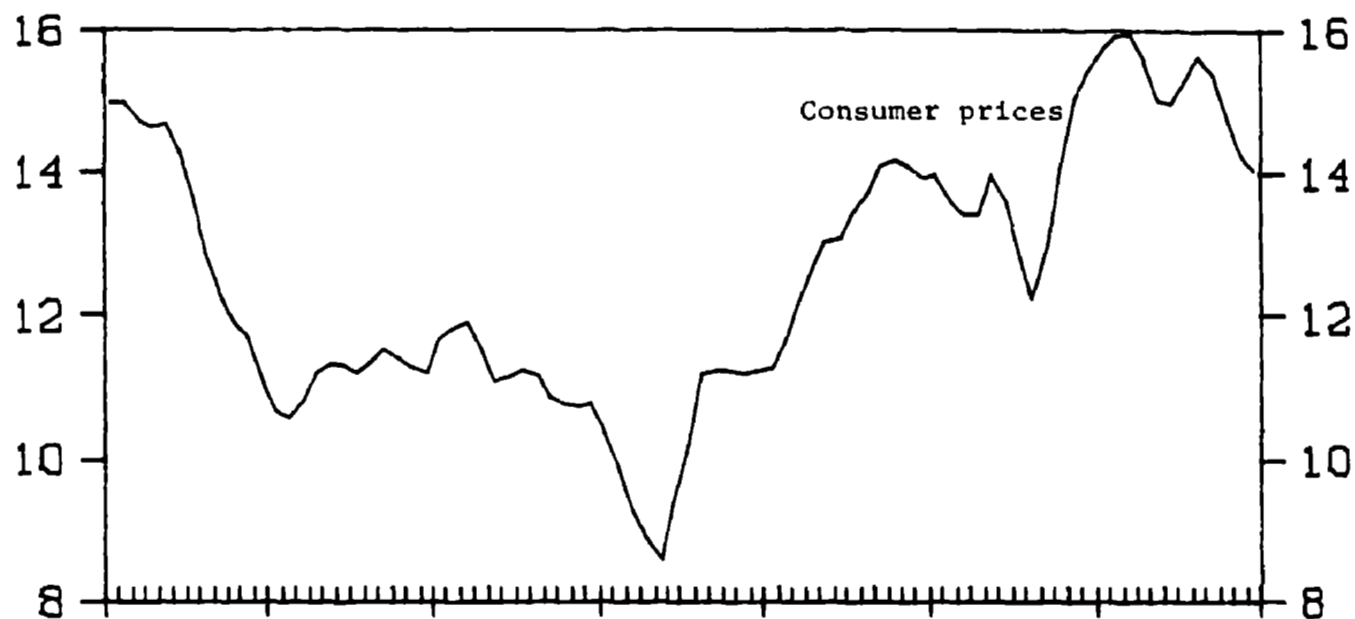
The year-on-year rate of increase in consumer prices rose in the first quarter of 1981 before decelerating in the second quarter, as the rate of increase in import prices abated and needed adjustments in government administered prices were postponed. As adjustments were made in July to the price of bread and petroleum products, water tariffs, mortgage interest rates, and property taxes, consumer price inflation accelerated

^{1/} In late 1980 a number of goods were removed from the list of those subject to price controls. They include: seed potatoes; porcelain insulators; fencing materials; photographs for identification cards, all types of electrical and nonelectrical household appliances and their parts; photographic and cinematographic cameras and equipment and their parts; and radios, record players, and relative equipment and accessories. However, the relevant legislation remains on the statute books. In 1981 cement was removed from the list.

Chart 3

SOUTH AFRICA PRICE INFLATION

(Year On Year Rate Of Change, In Per Cent) 1/



Source. IMF, International Financial Statistics.

1/ Three-month moving average.

again in the third quarter. However, in the fourth quarter the rate of inflation declined to 14.3 per cent (Chart 3). For the year as a whole, the increase in consumer prices was 15.2 per cent.

Wholesale prices increased by 16.2 per cent in 1980, compared with 15.1 per cent in 1979. Price trends at the wholesale level in 1980 were similar to those displayed by consumer prices. In the course of 1981, however, unlike consumer prices, the year-on-year rate of increase in wholesale prices displayed a continuous tendency to decline falling to 11.7 per cent in the October-December quarter. The average increase in 1981 at 13.5 per cent was 2.7 percentage points lower than that for 1980 as a whole, reflecting to a large extent the slowdown in the rate of rise of imported goods.

5. Planning

The Ninth Economic Development Plan (EDP) for 1978-87 ^{1/} was revised in 1981. The revised EDP estimates that an average real GDP growth of 5 per cent in 1981-87 is needed to keep unemployment from rising. With the expectation of little growth in 1982 and 1983, growth between 1984 and 1987 would have to be significantly higher than the 5 per cent postulated in the revised EDP. Unemployment is thus likely to remain a problem. The continued high level of unemployment among blacks, and particularly the fact that 43.5 per cent of those unemployed at the beginning of 1981 were in the 20-29 year age group, makes it one of the most urgent socio-economic problems. Accordingly, the revised EDP indicates that an increase in the quantity and quality of education and training of all population groups is essential for the realization of the forecast rate of growth.

^{1/} The EDP attempts to identify possible bottlenecks and to secure a broad economic development framework within which the public and private sectors can plan their economic activities. The EDP is essentially a coordinating document, and an example of "indicative" planning. Another point to stress is that the projections in the EDP are to be regarded as conditional forecasts of the growth rates that could possibly be achieved under specific assumptions about exogenous factors, structural developments, and general government policy. A description of the EDP's scenarios is contained in SM/80/122, 5/28/80.

Table 1. South Africa: Expenditure on GDP

	1981	1972-78 1/	1979	1980	1981 2/	1980 2nd half	1981 1st half	1981 2nd half
	(In millions of rand, at current prices)	(Annual percentage change; at constant prices)			(Percentage changes at actual rate; at constant prices) 3/			
Private consumption	37,655	3.0	2.5	8.9	6.3	5.2	1.8	3.7
Public consumption	9,527	5.5	2.4	7.4	2.3	1.3	-0.4	4.1
Gross fixed investment	18,298	1.3	2.0	13.9	6.7	7.5	4.1	-2.0
Changes in inventories 4/	5,608	0.1	1.7	3.8	3.2	0.9	2.5	0.5
Statistical discrepancy 4/	1,440	0.1	-0.8	-0.7	1.3	1.3	0.7	-
Domestic demand	72,528	2.9	3.4	13.5	10.5	7.6	5.2	2.6
Exports of goods and nonfactor services	20,373	1.6	2.3	-1.7	-7.6	-5.3	-7.4	5.2
Imports of goods and nonfactor services	21,707	0.7	-1.0	18.9	14.2	13.3	5.2	4.2
Foreign balance 4/	-1,334	0.1	0.9	-4.4	-5.4	-4.4	-3.2	0.2
GDP at market prices	71,194	3.0	4.0	7.8	4.7	2.6	1.9	2.8
Net factor payments abroad	-2,983	...	...	...	...	...	...	...
CNP	68,211	...	...	...	...	...	...	...
Memorandum items								
Implicit price deflator								
Private consumption		10.9	13.0	13.7	15.0	7.3	7.5	6.8
Exports of goods and nonfactor services		19.8	26.2	34.2	-	8.9	-5.6	2.4
Imports of goods and nonfactor services		17.8	21.6	20.4	12.1	5.3	4.2	9.5
GDP at market prices		12.9	15.1	21.7	8.6	5.4	1.2	8.8

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Compound annual averages.

2/ Preliminary.

3/ Seasonally adjusted

4/ Changes are expressed as percentage of GDP in the previous period.

Table 2. South Africa: Private Consumption Expenditure

	1981 ^{1/}		1972-78 ^{2/}	1979	1980	1981 ^{1/}
	In millions of rand; at current prices	In per cent of total	Annual percentage changes; at constant prices			
1 durable goods	4,676	12.4	2.7	7.6	27.1	9.2
Furniture and household appliances	1,714	4.6	1.2	8.4	23.2	8.4
Personal transport equipment	2,125	5.6	1.0	8.0	33.8	10.2
Durable goods	6,637	17.6	2.4	1.2	13.2	10.0
Clothing and footwear	3,407	9.0	2.8	1.7	14.4	10.1
Durable goods	17,347	46.1	4.1	2.3	4.0	4.3
Food, beverages, and tobacco	12,762	33.9	4.3	3.4	3.7	2.8
Petroleum products	1,767	4.7	1.6	-10.1	5.1	11.3
All services	8,995	23.9	1.8	2.0	6.4	5.4
Rent	<u>2,558</u>	<u>6.8</u>	<u>2.8</u>	<u>1.9</u>	<u>1.9</u>	<u>3.0</u>
Total private consumption	37,655	100.0	3.0	2.5	8.9	6.3

Source: South African Reserve Bank, Quarterly Bulletin.

/ Preliminary.

/ Compound annual averages.

Table 3. South Africa: Gross Domestic Fixed Investment

	1981 ^{1/}		1972-78 ^{2/}	1979	1980	1981 ^{1/}
	In millions of rand; at current prices	In per cent of total	Percentage change from preceding year; at constant prices			
Sectors of economic activity						
Agriculture	1,156	6.3	1.1	-8.6	25.9	18.1
Mining and quarrying	1,878	10.3	9.9	29.6	25.0	-3.1
Manufacturing	4,353	23.8	3.1	5.4	27.9	7.6
Electricity, gas, and water	1,988	10.9	13.8	4.0	3.4	-8.7
Construction						
Industry	317	1.7	2.3	1.5	8.1	7.4
Transport, stor- age, and communication	2,273	12.4	-1.8	-4.8	2.4	20.2
Community, social, and personal services	2,311	12.6	-4.2	-2.9	-5.6	6.8
Other services	<u>4,022</u>	<u>22.0</u>	<u>-1.7</u>	<u>-3.2</u>	<u>12.5</u>	<u>5.2</u>
Total	18,298	100.0	1.3	2.0	13.9	6.7
Of which:						
Private sector						
Public cor- porations	9,657	52.8	0.2	0.6	22.9	11.4
Public author- ities	3,863	21.1	16.0	7.7	14.1	-8.1
	4,778	26.1	-3.6	-0.2	-1.7	12.3

Source: South African Reserve Bank, Quarterly Bulletin.

/ Preliminary.

/ Compound annual averages.

Table 4. South Africa: Real Fixed Capital Stock

	1981 ^{1/}	1972-78 Average ^{2/}	1979	1980	1981 ^{1/}
	In millions of rand at 1975 prices	1.7 per cent of total	Per cent changes		
Private sector	38,724	42.0	4.2	1.7	3.6
Manufacturing	6,217	6.7	2.9	0.4	4.8
Private residential construction	11,696	12.7	3.6	1.3	2.1
Public corporations	13,221	14.3	14.8	11.9	12.3
Electricity, gas, and water	6,098	6.6	11.5	14.1	12.0
Public authorities	40,274	43.7	6.0	3.8	3.5
Total	92,219	100.0	6.0	3.8	4.7
					4.8

Source. South African Reserve Bank, Quarterly Bulletin.^{1/} Preliminary.^{2/} Compound annual rates

Table 5. South Africa: Average Capital and Labor Ratios of Nonagricultural Sector

• Ended ember 31	Average Capital-Output Ratio	Average Capital per Unit of Labor <u>1</u> /	Average Output per Unit of Labor <u>1</u> /
1	2.33	12,142	5,214
2	2.45	12,869	5,250
3	2.50	13,011	5,208
4	2.56	13,343	5,219
5	2.65	13,728	5,182
6	2.78	14,409	5,180
7	2.96	15,238	5,148
8	3.00	15,772	5,242
9	2.99	16,080	5,376
0	2.92	16,250	5,559
1	2.94	16,662	5,668

Source: Information provided by the South African authorities.

¹ In rands.

Table 6. South Africa: Financing of Gross Domestic Investment
(At current market prices)

	1981 <u>1/</u> In millions of rand	1972-78 Annual average In per cent of gross domestic investment	1978	1979	1980	1981 <u>1/</u>
Personal savings	2,364	21.6	19.1	19.5	14.7	9.9
Corporate savings	6,441	17.1	26.6	40.8	42.7	26.9
Current surplus of general government	1,881	10.6	10.3	10.3	14.9	7.9
Provision for depreciation	<u>9,273</u>	<u>45.3</u>	<u>57.6</u>	<u>53.3</u>	<u>43.5</u>	<u>38.8</u>
Gross domestic savings	19,959	94.6	113.6	123.9	115.8	83.5
Net capital inflow from abroad	2,943	5.0	-13.2	-23.9	-12.8	12.3
Change in reserves (increase -)	<u>1,004</u>	<u>0.4</u>	<u>-0.4</u>	--	<u>-3.0</u>	<u>4.2</u>
Gross domestic investment	23,906	100.0	100.0	100.0	100.0	100.0

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Preliminary.

	<u>1981 1/</u>	<u>1981 1/</u>	<u>1972-78</u> <u>Average 2/</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>
	In millions of rand; at current prices	In per cent of real GDP	Percentage change in volume terms; at constant prices			
Primary sectors	<u>15,945</u>	<u>19.2</u>	<u>0.3</u>	<u>0.2</u>	<u>4.8</u>	<u>0.8</u>
Agriculture, forestry, and fishing	4,921	8.4	2.2	-4.4	12.7	3.8
Mining and quarrying	11,024	10.8	-0.9	3.6	-0.8	-1.4
Industry	<u>21,037</u>	<u>33.1</u>	<u>3.5</u>	<u>8.0</u>	<u>10.4</u>	<u>6.6</u>
Manufacturing	16,136	25.9	4.2	9.3	10.9	5.8
Construction	2,534	4.3	--	1.5	8.2	8.1
Electricity, gas, and water	2,367	2.9	5.9	7.2	8.5	11.0
Service sectors	<u>29,089</u>	<u>47.7</u>	<u>3.9</u>	<u>2.9</u>	<u>6.5</u>	<u>4.8</u>
Wholesale and retail trade	8,205	12.4	3.0	-3.2	10.1	7.3
Transport and communication	5,838	10.3	5.8	8.1	7.8	6.6
General government and other services	<u>15,046</u>	<u>25.0</u>	<u>3.6</u>	<u>3.9</u>	<u>4.4</u>	<u>3.0</u>
GDP at factor cost	66,071	100.0	3.0	3.9	7.3	4.6
Memorandum item						
Secondary and tertiary sectors	50,126	80.8	3.8	4.3	8.0	5.5

Source South African Reserve Bank, Quarterly Bulletin.

1/ Preliminary.

2/ Compound annual rates.

Table 8. South Africa: Relative Importance in
World Mineral Reserves 1/

Mineral Commodity	Reserves <u>2/</u>	Western World		World	
	In thou- sands of metric tons	Rank	Per cent mineable in situ	Rank	Per cent mineable in situ
Vanadium (metal, 30 meter depth)	5,200	1	65	1	35
Platinum group metals (metal, 600 meter depth)	27	1	78	1	66
Chrome ore (300 meter depth)	2,600,000	1	65	1	63
Manganese ore	12,100,000	1	93	1	78
Gold (metal)	17	1	64	1	51
Andalusite, kyanite, sillimanite	102,000	1	45	1	34
Fluorspar (20 per cent CaF ₂ mineable in situ)	33,000	1	45	1	34
Baddeleyite (zirconium oxide)	large	high	--	1	34
Diamonds (carats)	71,000	2	23	2	21
Vermiculite (crude)	73,000	2	29	2	28
Antimony (metal)	400	2	18	3	5
Asbestos (fibre)	8,400	4	8	4	5
Uranium (metal)	390	2	14	n.a.	n.a.
Zinc (metal)	12,000	4	6	5	5
Lead (metal)	6,157	4	5	5	4
Nickel (metal, 600 meter depth)	4,780	5	8	7	6
Silver (metal)	9	5	6	6	4
Coal (largely bituminous 300 meter depth, mineable in situ)	110,000,000	3	13	6	10
Iron ore (300 meter depth)	9,500,000	6	6	7	3
Phosphate (contained conc., 100 meter depth)	1,790,000	3	9	4	9
Titanium (metal)	36,600	3	17	4	15
Copper (metal)	6,400	8	2	10	1

Source: South African Minerals Bureau.

1/ Estimated as a percentage of Western world and world reserves in 1980.

2/ Includes identified resources.

Table 9. South Africa: Relative Importance in World
Mineral Production in 1980 1/

Mineral Commodity	Production <u>2/</u> In thousands of metric tons	Western World		World	
		Rank	In per cent	Rank	In per cent
Iron group metals	n.a.	2	38	3	22
(metal; in thousands of kgs.)	673	1	71	1	55
Chromium (metal)	n.a.	1	54	1	29
Gold ore	3,414	1	55	1	34
Platinum ore	5,695	1	42	2	22
Garnet, kyanite, sillimanite	197	1	46	1	39
Asbestos (crude)	186	2	32	2	31
Aluminum (metal)	22	2	24	3	20
Diamonds (in thousands of carats) <u>3/</u>	8,521	2	23	3	18
Coal (fibre)	277	2	12	3	5
Aluminum (oxide)	7	3	14	--	--
Quartz	523	2	15	3	11
Phosphate	19,830	5	3	7	2
	115,119	4	7	7	4
Steel (metal)	n.a.	7	4	9	3
Mercury (metal)	197	9	3	11	3
Copper ore	15,663	10	2	13	2
(metal)	3	8	1	11	1

Source: South African Minerals Bureau.

Estimated as a percentage of Western world and world production in 1980.

With the exception of gold (metal) and diamonds, where the data are expressed in kilograms and carats, respectively.

South Africa is the world's largest producer of gem diamonds.

Table 10. South Africa: Mining Output and Value of Sales

	<u>1981 ^{1/}</u> in millions of rand, at current prices	<u>1979</u>	<u>1980</u>	<u>1981 ^{1/}</u> Percentage change in sales value	<u>1979</u>	<u>1980</u>	<u>1981 ^{1/}</u> Percentage change in output
Gold	7,808	60	78	-19	--	-4	-3 ^{2/}
Nongold	4,593	36	16	8	13	6	4
Of which:							
Coal	1,867	31	27	42	15	10	13
Diamonds	284	37	4	-46	8	-1	1
Copper	258	39	14	-10	-5	6	--
Iron ore	330	34	--	19	30	-16	4
Asbestos	<u>101</u>	<u>-12</u>	<u>-2</u>	<u>8</u>	<u>-5</u>	<u>10</u>	<u>-12</u>
Total	12,401	50	52	-11	5	--	--

Sources: South African Department of Statistics, Bulletin of Statistics; and data provided by the South African authorities.

^{1/} January-November, the percentage changes are calculated over the first 11 months of 1980.

^{2/} January-December.

	1972-78	1978	1980	1981 1/	1980		1981	
Average					1st half	2nd half	1st half	2nd half
Manufacturing production (percentage change) 2/	4.1	9.0	10.3	6.9	3.9	6.0	0.3	...
Of which:								
Durable goods	4.0	11.0	10.9	6.8	4.5	6.0	-0.3	...
Nondurable goods	4.4	6.7	9.7	6.9	3.3	6.0	1.2	...
Volume of unfilled orders (as percentage of sales)	73.4	67.8	64.3	...	62.0	66.7	...	...
Of which:								
Durable goods	79.9	71.0	66.0	...	64.4	67.6	...	...
Nondurable goods	58.3	58.7	59.9	...	55.6	64.2	...	...
Total hours worked by production workers (percentage change) 2/	1.4	4.2	5.3	3.9	2.7	2.5	1.3	...
Production per man-hour (percentage change) 2/	2.7	4.5	4.7	2.8	2.1	2.4	0.1	...
Labor cost per unit produced (percentage change)	11.9	7.7	11.5	14.9	7.3	6.2	7.2	...
Overtime worked by production workers (as percentage of ordinary hours)	11.1	12.5	13.8	14.3	13.3	14.3	14.1	...
Capacity utilization (in per cent)	85.2 3/	85.8	88.5	89.9	88.0	88.9	89.9	90.0

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

1/ First nine months of 1981 compared with the same period in 1980.

2/ Half-yearly changes are seasonally adjusted actual rates.

3/ Average for 1975-78.

Table 12. South Africa: Employment and Unemployment
in Nonagricultural Sectors

	1980 ^{1/}		1972-78	1979	1980	1981 ^{2/}
	Number in	In per cent	Average ^{3/}	Percentage changes		
	thousands	of total				
Employment						
Private sector	3,613.2	72.8	2.6	2.4	3.6	3.2
Mining	760.2	15.3	2.0	4.3	3.2	0.2
Gold	475.5	9.6	1.0	3.7	4.5	2.5
Other	284.7	5.7	3.7	5.3	1.1	-1.1
Manufacturing	1,415.1	28.5	2.5	2.4	4.2	4.0
Construction	423.3	8.5	2.7	-0.2	2.8	4.4
Services	1,015.0	20.5	5.7	2.0	3.8	3.1
Public sector	1,347.1	27.2	4.0	1.4	2.5	2.2
Central government	324.6	6.6	2.9	1.2	3.7	3.0
Local and provincial authorities	473.0	9.5	2.2	0.7	1.6	0.9
Other ^{4/}	549.6	11.1	6.5	2.0	2.6	3.1
Total	4,960.3	100.0	2.9	2.0	3.3	2.9
Registered unemployment						
Whites, coloreds, and Asians	22.0	...	17.0	-8.7	-22.2	-29.6
Blacks	480.0	8.7 ^{5/}	...	-6.8	-3.2	-9.8

Source: Data provided by the South African authorities.

^{1/} Based on information published in the Quarterly Bulletin of the South African Reserve Bank; the data differ slightly from those published by the Department of Statistics in the Bulletin of Statistics.

^{2/} Seasonally adjusted data for the first nine months of 1981.

^{3/} Compound annual average.

^{4/} Railways, post and telecommunications, electricity suppliers, control boards, and authorities of independent Black states.

^{5/} As percentage of economically active black population

Table 13. South Africa: Salaries and Wages per Worker in the Nonagricultural Sector

(Percentage change from previous year)

	1972-78	1978	1979	1980	1981 <u>1/</u>
Current prices	10.1	9.3	11.9	17.5	22.0
Constant prices	10.1	9.3	11.9	17.5	22.0
Manufactures	-0.4	-0.7	-1.0	3.3	5.6
Current prices	16.3	12.1	13.0	19.9	20.2
Constant prices	5.4	1.0	0.5	4.3	1.5
Population groups	11.8	10.4	12.2	18.1	20.7
Current prices	11.8	10.4	12.2	18.1	20.7
Constant prices	2.1	0.3	-0.9	3.5	4.4

Source: South African Reserve Bank, Quarterly Bulletin.

First nine months over same period of 1980.

Table 14. South Africa: Price Developments

(Percentage change over same period of previous year)

	1972-78	1980	1981	1980	1981				1982
	Average			4th qtr.	1st qtr.	2nd qtr.	3rd qtr.	4th qtr.	Feb.
Consumer prices	11.2	13.8	15.2	15.1	15.9	15.0	15.7	14.3	13.6
1 goods	11.9	14.7	16.0	26.3	13.8	9.2	16.0	15.2	...
	12.4	18.8	22.0	27.3	29.2	26.0	21.4	13.5	...
Services	9.8	11.3	13.5	10.1	11.0	11.9	14.7	16.1	...
Wholesale prices	14.5	16.2	13.5	16.3	15.4	14.1	13.0	11.7	...
Goods produced in									
South Africa	14.2	15.0	14.2	16.3	16.1	15.1	13.9	12.2	...
Imported goods	15.6	20.1	10.7	14.9	13.0	10.7	9.6	9.9	...

Source: South African Reserve Bank, Quarterly Bulletin.

III. Gold

1. Introduction

South Africa is the leading gold producer in the world, accounting in 1980 for 72 per cent of production outside the socialist bloc (Table 15). Gold is of pivotal importance to the South African economy, both in terms of export receipts and also as a source of Exchequer revenue and provider of employment (Table 16). The gold mining industry has directly or indirectly been the most important single sector underpinning the development and prosperity of the South African economy, and it remains today a key factor which must be taken into account in the shaping of economic policy.

South Africa has been producing gold for a century. Recent estimates place known reserves equivalent to about 25 years of 1981 production, but such estimates vary with the assumptions made about the gold price, production costs, improvements in technology, and future gold ore discoveries.

Gold prices climbed sharply in 1979 and peaked early in 1980, after which there was an irregular but substantial downward trend, explainable in part by the sharply higher yields obtainable on interest-bearing assets, some mitigation of inflationary expectations, and a large contraction of commercial demand for gold at sharply higher prices. Speculative pressures also contributed to the recent downward movement of the gold price. An upturn in gold prices from about mid-March 1980 appeared to reflect a change in speculative sentiment based on political developments, but as of mid-April it was not clear if the upturn would be sustained.

2. Gold price developments

The price of gold was on a rising trend from the third quarter of 1976 until early 1980, with a sharp acceleration from the beginning of 1979, reaching in the latter year an average price of US\$307 per fine ounce on the London market. The rise, which occurred despite substantial sales of gold in 1978-79 by the IMF and the U.S. Treasury, came at a time of rising inflation and inflationary expectations, a surge in petroleum prices, and weakening confidence in some currencies, which stimulated speculative demand. Market demand for gold to be used in the fabrication of jewelry weakened markedly as prices rose.^{1/} By the end of 1979, the tone of the market was clearly speculative, with large variations between high and low fixing prices (Chart 4). The peak was reached on January 21, 1980, when gold closed at US\$850 per ounce in London. Following this, there was a speculative reaction, which took the price of gold back to US\$474 within two months, despite an announcement by the South African authorities of a decision to withhold part of newly produced gold from

^{1/} However, this does not take account of new jewelry fabricated with gold obtained from the melting down of pieces felt to be less marketable at the higher prices, e.g., large pieces.

the market. Although prices rose in the second and third quarters of 1980, in the fourth quarter they began a downward trend which continued, except for a brief upturn at mid-year, throughout 1981 and the beginning of 1982, bringing the gold price to about US\$320 at mid-March, before an upturn to above US\$360 at mid-April.

Based on preliminary estimates for 1981, there appears to have been some recovery in supply from the modest levels of 1980, including an increase in net sales by the U.S.S.R., reflecting in part political and economic developments. Official gold holdings of IMF member countries, which rose in 1980, rose again in the first nine months of 1981, but by the end of the year were little changed from the end of 1980. There was, however, a decline of a quarter in the physical holdings of gold in international reserves by South Africa in October-November 1981, reflecting gold swaps undertaken to bolster foreign exchange holdings. ^{1/} Commercial demand for gold may have recovered somewhat from the depressed levels of 1980, but seems likely to have remained well below the levels of 1979 and earlier years. High interest rates and a moderation of inflationary expectations also had a dampening effect on investors' demand for gold. There was, however, a sharp rise in gold sales to Japan, particularly at the end of 1981, in part reflecting prospective changes in the tax system that may have increased the relative attractiveness of gold to Japanese investors. On the futures markets, gold was at a small interest-adjusted discount from the spot price throughout 1981 and early 1982 (Chart 5).

3. Output, costs, and earnings

The production of gold in South Africa is greatly affected by the system of taxation applicable to the earnings of gold mines. The rate of taxation is based on a formula ^{2/} and is subject to a maximum which is currently 56.4 per cent. In addition, mines also pay lease payments based on contracts with the various mines. A surcharge, amounting to 5 per cent in 1981 and raised to 15 per cent in the fiscal year 1982/83 (year beginning April 1), is levied on tax payments. For marginal mines negative tax rates may apply, resulting in state aid. In 1980 mines received state aid amounting to R 1.5 million, but in 1981 R 26.9 million of such aid was received. Lease payments are effectively computed first and deducted from profits in calculating tax liability. Capital expenditure is also deductible from profits, thus eliminating or greatly reducing the payments liabilities of many mines, particularly new ones, as well as providing an incentive for investment in further expansion of capacity.

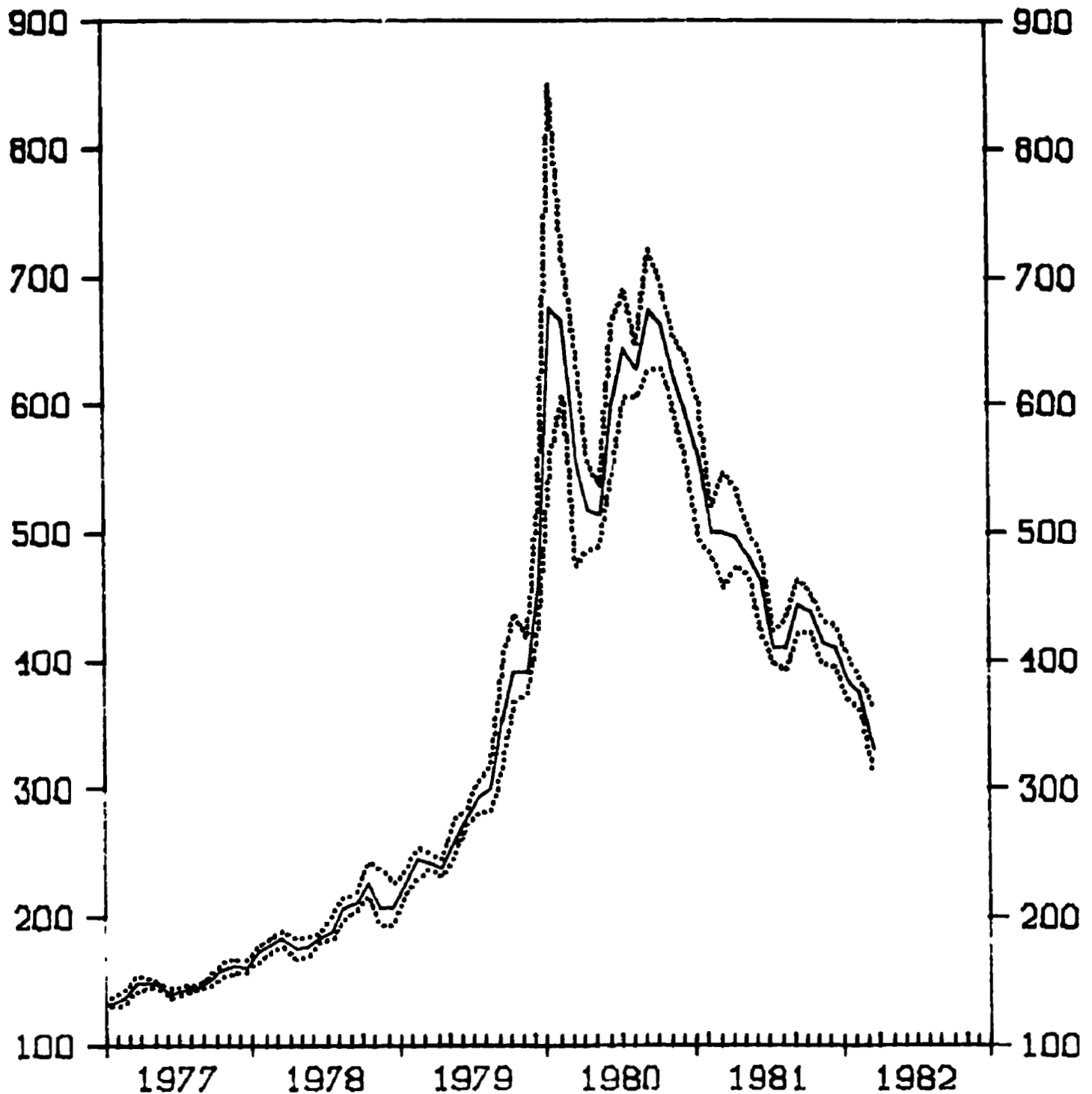
^{1/} In December a small rise in gold holdings resulted from temporary withholding of some gold from the market due to technical factors.

^{2/} The formula (in respect of a pre-1966 gold mine) is $Y = 60 - \frac{360}{X}$

where Y is the tax rate and X the ratio, expressed as a percentage, of the taxable income from gold mining to the gross revenue from gold.

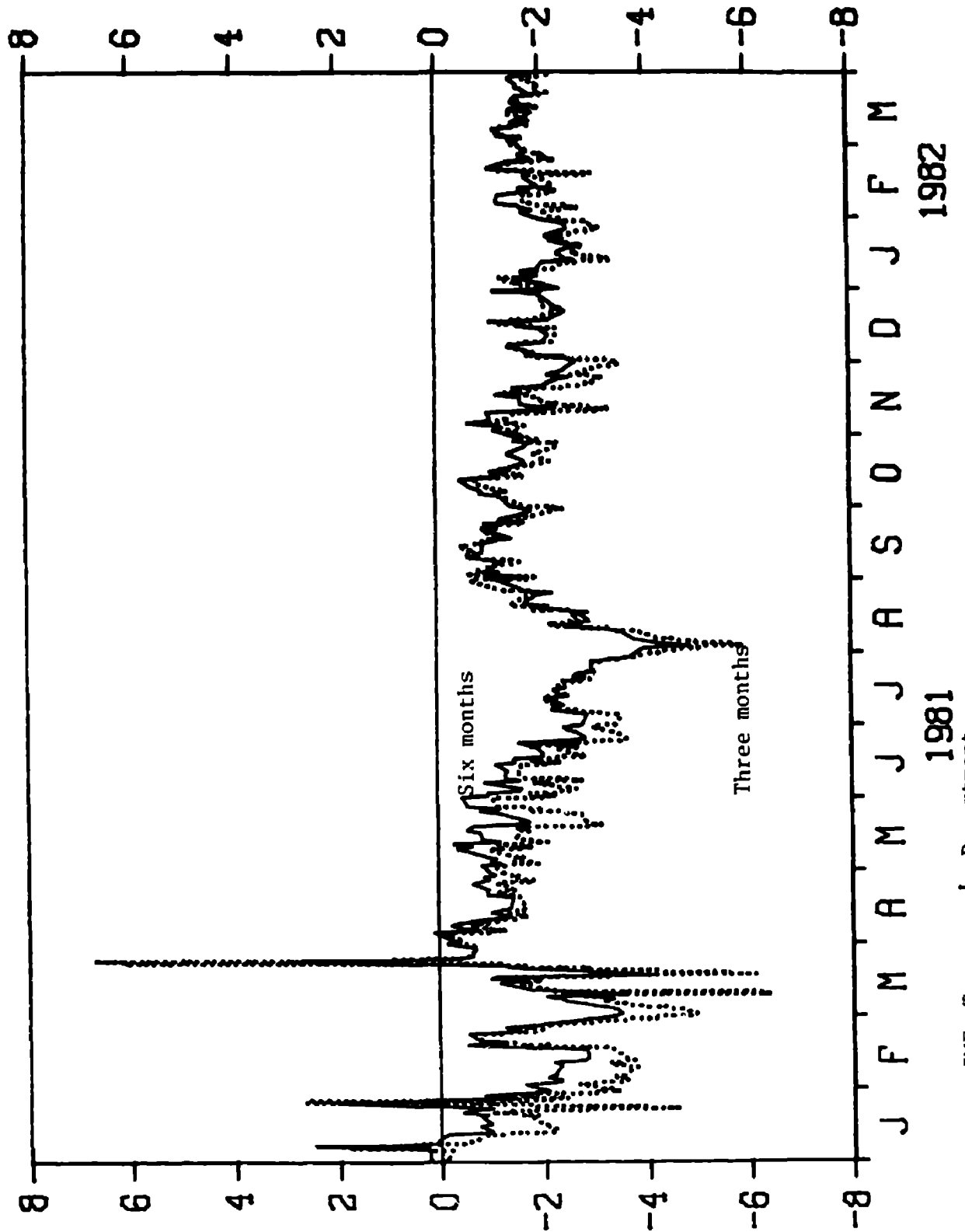
Chart 4

SOUTH AFRICA
GOLD PRICE ON THE LONDON MARKET
(U.S. Dollars Per Ounce)



Source: IMF, Treasurer's Department.

GOLD FUTURES PRICES^{1/}
PREMIUM(+), OR DISCOUNT(-)
(Per cent per annum)



Source: IMF, Treasurer's Department.
1/ Annualized premium of three- and six-months future prices on the New York COMEX over

The progressive structure of taxation creates an incentive, other things being equal, for the mining of ore below the highest grade available to the mine. In addition, there is a legal requirement that mines produce to the average grade of their payable ore reserves (where the latter varies according to prices and costs). These provisions prevent the immediate utilization of the highest grade ore, and thus extend the productive life of the mines, while minimizing the very heavy expenses which would be associated with frequent mine closings and reactivations. They give rise, however, to an inverse relationship between gold output and price, whereby rising prices are generally associated with smaller gold production. This situation arises because the throughput of ore through the mills cannot normally be much expanded by a mine in the short run, so that utilization of lower grade ore results in reduced gold production. Over the long run, a supply response to higher prices can be expected, but in view of the time and investment required, investment plans are usually formulated on conservative long run projections of prices. 1/

After rising rapidly in the 1950s and first half of the 1960s, as new gold fields were discovered and explored, growth of production slowed down in the latter half of the 1960s and production peaked in 1970 when 1,000 metric tons were produced (Table 17). Production declined in the first half of the 1970s as prices rose, but stabilized from 1975-79 as the continued decline in the average grade of ore milled was roughly offset by a rise in the volume of ore milled. In 1980 production declined by 4 per cent in response to higher average prices.

Although the average gold price in 1981 was well below that for 1980, the average grade of ore milled declined, reflecting the difficulty of quickly changing the grade of ore mined and the fact that some of the older mines have only relatively low-grade ore remaining. 2/ Working revenues per ton of ore milled thus declined, and with a continued rise in working costs, there was a marked decline in working profitability, which had risen very rapidly in 1979 and 1980 (Table 18). In 1981 profits of gold mines with membership in the Chamber of Mines amounted to R 4.9 billion, a decline of about 30 per cent from 1980. 3/ The depreciation of the rand against the U.S. dollar in 1981 also mitigated the effect of lower prices on profits in rand. Tax and lease payments to the state revenue fund, which nearly trebled to R 3.0 billion in 1980, amounted to R 2.8 billion in 1981, reflecting (with a lag) the lower gold price, continued strong growth of capital expenditure, and until the latter half of the year, the lagged effect of previously higher prices on tax and lease payments.

1/ A new gold mine may take up to six years to open.

2/ In recent months an upward trend in the grade of ore mined has become discernable.

3/ These account for nearly all gold production. Membership of the Chamber of Mines is comprised of the six South African mining finance houses and 43 gold mines, as well as other mines producing diamonds, coal, platinum, and a variety of other minerals and metals.

4. Employment and miners' earnings

About nine tenths of the total work force and nearly all nonsupervisory personnel in the gold mining sector are black. The proportion of these employees from South Africa, after declining in the late 1960s and early 1970s, rose sharply before stabilizing in 1977 at around 55 per cent of the labor force (Table 19). Almost an additional quarter of gold mining sector employees are from Lesotho.

Earnings of black mine workers have risen substantially in real terms in the 1970s and 1980s, but still remain well below those of white workers, in part because the movement of blacks into skilled positions has met with resistance by skilled trades' unions. For unskilled workers, wage rates in mining are generally above that in agriculture but below that in industry.

5. The marketing of gold

According to exchange control regulations, new domestically produced gold must be offered to the Treasury within 30 days (including refining time). The Treasury has appointed the Reserve Bank as its agent for handling all the country's gold transactions. With effect from April 1978, the Reserve Bank pays current market prices to the mines according to an agreed formula that includes a small charge for freight and insurance. Through the South African Mint, the Bank makes a limited amount of gold available for the domestic production of jewelry and proof gold coins, while the Chamber of Mines may withhold up to 30 per cent of the current production for the minting of gold coins (mainly Krugerrand). A limited amount of these coins is sold in the domestic market, but the bulk is exported.

The Reserve Bank sells gold bullion abroad on its own behalf or adds it to its reserves. Sales are made in the London gold market, to the Zürich gold pool, 1/ and to a number of other international gold dealers in other countries.

In addition, sales are made to various banks, industrial users, and bullion dealers on an irregular basis. For some years it had been the policy of the authorities to sell all newly produced gold, thus maintaining a constant volume of gold reserves. In 1979, however, some gold repurchased under expired swap arrangements was added to reserves, and in March 1980 the Minister of Finance announced the implementation of a more flexible gold marketing policy, under which some newly produced gold might be withheld from the market. 2/ The volume of South African

1/ In late December 1981 the tax on physical gold transactions in Switzerland was removed. The tax, which had been in effect from early 1980, had had a detrimental effect on the level of activity in the Zurich gold pool.

2/ In the long run, gold sales are based on balance of payments needs. When the overall balance of payments is in deficit, the full gold production is sold. However, this policy is not necessarily adhered to strictly on a daily or weekly basis.

gold holdings increased in 1980 1/ and in the first three quarters of 1981, before showing a sharp decline in October, as new gold swaps reduced holdings. At the end of 1981, South Africa's gold reserves amounted to 9.3 million troy ounces (excluding "swapped" gold), which was the lowest level of such holdings since the early 1960s. At the end of March 1982, holdings were 9.1 million ounces.

Krugerrand sales in 1980 declined for the second consecutive year, as the rise in price of gold followed by a sharp decline induced investor caution. 2/ In 1981 sales increased by 13 per cent in volume terms, and Europe replaced the United States as the largest market for the coins. Sales continued strong in the first quarter of 1982. Because of its status as legal tender, the Krugerrand does not bear import duties or excise taxes in many countries. 3/

Sales of legal tender gold coins by Mexico expanded rapidly in 1981, and late in the year Mexico expanded its gold coin program by introducing one-quarter ounce and one-ounce coins, in addition to its regular 50-peso gold coin (about 1.2 ounces). Canada and the United Kingdom were also significant sellers of official gold coins in 1981. Australia began sales of official coins in 1980.

To meet the increased demand for high-purity gold, the South African authorities announced in April 1982 that, as from June, gold bars of 99.99 per cent purity would be marketed through the Chamber of Mines.

In the last few years, the market for gold has been developed by rapidly growing activity in gold futures and options. The largest gold futures markets are the COMEX and the IMM in the United States, but there exist smaller markets in the United States, as well as in Singapore, Australia, and Hong Kong. Futures markets were also recently begun in the United Kingdom and Japan. 4/ Trading in gold options takes place on several exchanges.

6. Gold in the balance of payments accounts

The part of new gold production sold to local industrial users (including sales to the South African Mint for the production of coins) does not enter the balance of payments accounts. However, gold coins sold to the Reserve Bank or to foreigners are included under the "net gold output" item in the balance of payments. The remainder of current

1/ The rise in official holdings appears to have started before the official announcement of a change in policy.

2/ Besides one-ounce coins, Krugerrand are also minted in half-ounce, quarter-ounce, and one-tenth ounce sizes.

3/ The United Kingdom, however, imposed value-added tax on gold coin transactions from the beginning of April 1982, putting these transactions on the same basis as those for bullion.

4/ The Tokyo Gold Exchange opened in March 1982 and the London Gold Futures Market in April.

production, which is bought by the Reserve Bank as agent for the Treasury, also enters the balance of payments accounts immediately. Since April 1978 it is valued at the official price, which is equal to 90 per cent of the average of the last ten London fixing prices during the month.

Gold sales by the Reserve Bank from its holdings on foreign private markets will increase the "net gold output" item for the period by the premium or discount on these sales, i.e., the difference between the actual market price and the official price, and the "change in reserves" item will increase by the same amount. Within the reserves account, the gold component will decrease by the amount sold abroad at the official price, whereas the "change in foreign exchange" component will increase by the amount sold at the realized market price.

Gold swapped with banks for foreign exchange is excluded from reserves when such swaps are in effect. When the swap is unwound, the gold obtained may be returned to reserves or sold on the market.

Table 15. South Africa: World Gold Supply and Demand

(In metric tons)

	1970	1977	1978	1979	1980	1981 <u>1/</u>
Supply of gold						
South African production <u>2/</u>	1,000	700	706	703	675	657 <u>3/</u>
Other reported production <u>4/</u>	<u>273</u>	<u>272</u>	<u>273</u>	<u>258</u>	<u>268</u>	<u>283</u>
Total reported production	1,273	972	979	961	943	940
Net sales by U.S.S.R., China, and Eastern Europe <u>5/</u>	-3	401	410	199	90	350
IMF sales	--	188	184	170	69	--
Net U.S. sales <u>6/</u>	<u>--</u>	<u>--</u>	<u>126</u>	<u>365</u>	<u>--</u>	<u>--</u>
Total market supply	1,034	1,642	1,751	1,704	803	1,190
Demand for gold						
Jewelry, net	1,066	1,003	1,007	737	120	...
Industrial, net <u>7/</u>	<u>264</u>	<u>274</u>	<u>302</u>	<u>288</u>	<u>222</u>	<u>...</u>
Total "commercial," net	1,330	1,277	1,309	1,025	342	...
Legal tender coins	46	142	287	290	179	...
Of which:						
Krugerrand	7	89	194	145	98	111
Net private bullion purchases (residual)	<u>-342</u>	<u>223</u>	<u>155</u>	<u>389</u>	<u>282</u>	<u>...</u>
Total "noncommercial," net	-296	365	442	679	461	...
Total market demand	1,034	1,642	1,751	1,704	803	1,190

Sources: Consolidated Gold Fields Limited, Gold 1981; data provided by the Chamber of Mines; and IMF, Data Fund.

1/ Chamber of Mines estimates.

2/ Includes Bophuthatswana.

3/ Excludes Bophuthatswana.

4/ The six largest reporting producers, other than South Africa, are (1979 tonnages in parentheses): Canada (51), United States (30), Brazil (25), Papua New Guinea (20), Philippines (19), and Australia (19).

5/ Although the amount of its sales is not published, the U.S.S.R. is the second largest gold producer.

6/ Excluding medallion sales program.

7/ Industrial demand is defined to include electronics, dentistry, medallions and face (nonofficial) coins, and miscellaneous industrial and decorative uses.

Table 16. South Africa: Gold and the Economy

	1975	1977	1978	1979	1980	1981
gold output (millions of rand)	2,540	2,795	3,864	6,003	10,141	8,338
and lease payments by gold mines (millions of rand)	695	370	727	1,144	3,040	2,794
employment in gold mining (thousands)	375.4	423.5	438.5	454.7	475.5	486.5 <u>1/</u>
(Ratios; in per cent)						
employment in gold mining/total agricultural employment	8.2	9.1	9.3	9.5	9.6	9.6 <u>1/</u>
and lease payments by gold mines/state revenue fund revenue	12.5	5.2	8.9	11.8	23.8	19.2
gold output/GDP	9.3	8.1	9.7	12.6	16.2	11.7
gold output/exports, f.o.b.	41.0	30.8	34.2	40.5	51.3	47.2
Random items:						
Average gold price per fine ounce (U.S. dollars)	161	148	193	307	613	460
Average gold price per fine ounce (rand)	118	128	168	258	477	400

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

^{1/} First three quarters.

Table 17. South Africa: Gold Production

		<u>Ore Milled</u> In millions of metric tons	<u>Average Grade 1/</u> Grams of gold per metric ton milled	<u>Production</u> In metric tons of fine gold
1970		80.0	13.3	1,000.4
1971		78.7	13.1	976.3
1972		73.2	12.5	909.6
1973		76.0	11.2	855.2
1974		76.0	10.0	758.6
1975		75.1	9.4	713.4
1976		77.9	9.2	713.4
1977		76.7	9.2	699.9
1978		83.0	8.9	706.4
1979		86.2	8.2	703.5
1980		93.3	7.3	675.0
1981		91.9	6.9	
1981 1/	I	22.6	7.0	157.8
	II	23.0	6.9	159.7
	III	23.3	6.9	161.7
	IV	23.0	6.9	156.7

Sources: Chamber of Mines, Annual Report of 1979 and Quarterly Statements of Working Results; and Consolidated Gold Fields Limited, Gold, 1981.

1/ The figures refer to mines that are members of the Chamber of Mines and that provide complete information.

Table 18. South Africa: Average Working
Revenue, Costs, and Profits 1/

(In rand per metric ton milled)

	Working Revenue	Working Costs	Working Profit
1970	11.2	7.3	3.9
1971	12.4	7.9	4.5
1972	16.3	8.8	7.5
1973	23.9	10.5	13.4
1974	34.7	13.2	21.5
1975	34.5	16.7	17.7
1976	31.5	19.3	12.2
1977	40.0	23.9	16.1
1978	52.7	27.1	25.6
1979	72.1	30.2	41.9
1980	120.6	35.5	85.0
1981	95.6	41.9	53.7
I	97.0	39.3	57.8
II	95.9	40.4	55.5
III	93.9	43.3	50.7
IV	95.6	44.5	51.1

Sources: Chamber of Mines, Annual Report 1979; Quarterly Statements of Working Results; and Consolidated Gold Fields Limited, Gold, 1981.

1/ Members of Chamber of Mines.

Table 19. South Africa: Employment in Gold Mines 1/
(In thousands of employees)

	1970	1975	1980	1981
South Africa <u>2/</u>	105.2	101.6	233.1	240.1
Lesotho	62.5	75.4	96.3	98.2
Botswana	19.7	17.4	17.8	17.5
Swaziland	6.2	7.4	8.1	8.9
Mozambique	93.2	91.4	39.5	40.1
Malawi	78.5	22.9	13.6	12.9
Others	<u>5.1</u>	<u>5.9</u>	<u>7.2</u>	<u>4.4</u>
Total	370.3	321.8	415.5	422.1
Memorandum items:				
Per cent of total from				
South Africa	28.4	31.6	56.1	56.9
Lesotho	16.9	23.4	23.2	23.3

Source: Data provided by the Chamber of Mines.

1/ Members of Chamber of Mines only; detail may not add because of rounding.

2/ Includes Transkei, Bophuthatswana, and Venda.

IV. Balance of Payments

Following the devaluation of the rand in 1975 and the shift of monetary and fiscal policy toward restraint, the current account of the balance of payments moved into surplus in 1977. This surplus increased during the gradual recovery from the recession of 1975-77, reaching a peak in 1979 of nearly R 3 billion, which amounted to over 6 per cent of GDP. The current account remained surprisingly strong in 1980, recording a surplus of 4 1/2 per cent of GDP, despite low interest rates and a real rate of growth of 8 per cent. This current account behavior was very largely the result of an increase in the average gold price from R 258 per fine ounce in 1979 to R 477 in 1980. The current account position deteriorated in the fourth quarter of 1980, however, and in 1981 moved sharply into deficit as a result of a decline in gold prices and a continued high level of domestic demand. In 1981 the deficit amounted to almost R 4 billion (5 1/2 per cent of GDP).

Over the period 1977-1980, despite the continued operation of a system of exchange controls, 1/ the current account surplus was more than 80 per cent offset by net capital outflows, which restricted the impact of the surpluses on the foreign exchange component of the monetary base. Nevertheless, there was a total increase in net gold and other foreign reserves on account of balance of payments transactions of R 1,473 million over the three-year period to 1980. Following the change from a fixed 2/ to a managed floating exchange rate regime in January 1979, there was also some exchange rate adjustment in response to movements in the current account, as the authorities allowed the rand to appreciate in effective terms and against the U.S. dollar in 1979 and 1980. In 1981 the current account deficit was offset only to a limited extent by a modest net capital inflow and the overall balance of payments was in deficit to the tune of almost R 3 billion. At the same time, the rand also depreciated substantially both against the U.S. dollar and in effective terms.

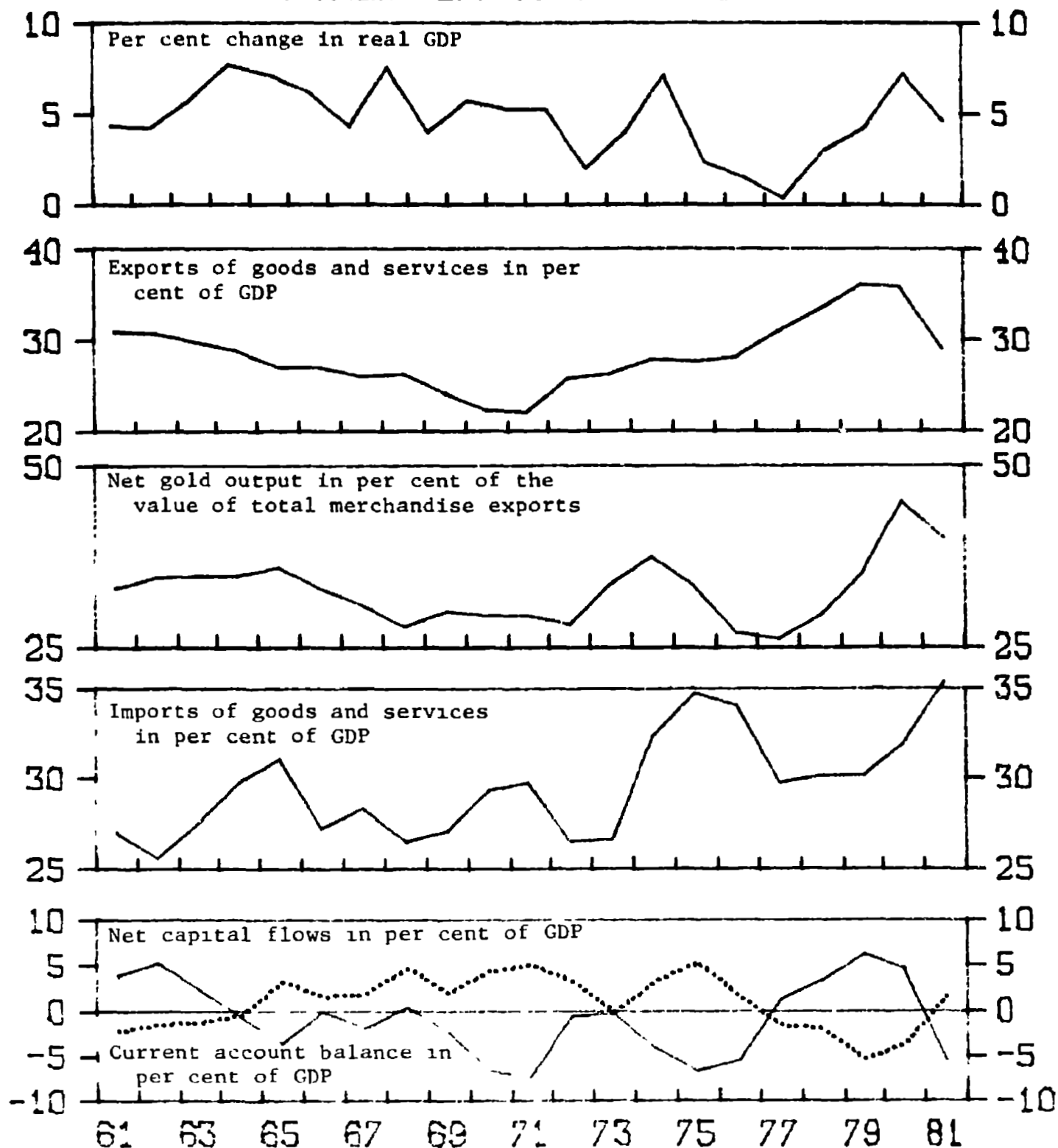
The longer-term performance of the balance of payments is displayed in Chart 6 and stands in some contrast to the developments since 1977. With the single exception of 1968, the current account remained in deficit throughout the decade to 1976, with the average deficit equivalent to 3 1/2 per cent of GDP. This deficit typically consisted of a small surplus on the trade account, more than offset by a larger deficit on invisibles. Historically, the current account has also been related to variations in domestic capacity utilization and fluctuations in external demand, with the latter reflected more through the terms of trade than the volume of exports. South Africa has also traditionally been a net importer of capital; and during the decade to 1976, the current account deficit was more than 80 per cent offset by net capital inflows.

1/ Measures were taken during the period to relax control on capital outflows.

2/ Against the U.S. dollar.

Chart 6

SOUTH AFRICA
BALANCE OF PAYMENTS:
LONGER-TERM DEVELOPMENTS



Source. South African Reserve Bank, Quarterly Bulletin.

1. Recent developments in the current account 1/

a. The current account balance: an absorption approach

The current account of the balance of payments can be defined as the difference between gross domestic saving and the financing required for fixed and inventory investment (Table 21). Viewed from this perspective, the performance of the current account in recent years can be seen to have been very strongly influenced by the effect of fluctuations in the gold price on saving, and also by the behavior of fixed and inventory investment. 2/

The strength of the current account during the period 1977-79, when the surplus increased from R 412 million in 1977 to R 2,970 million in 1979, can be attributed in part to the poor performance of real fixed investment and a decline in real inventories. Total inventories fell by R 684 million at current prices over the three-year period to 1978, which reflected a substantial decline in real terms. In 1979 there was some nominal increase in inventories, although there was little change in their real value. Real gross fixed investment also declined steadily over the three years to 1978, in large part because of substantial excess capacity. As a consequence, fixed investment in nominal terms increased by only 24 per cent over the same period. In 1979, however, there was recovery in real investment, which was reflected in a 16 1/2 per cent increase at current prices. This was primarily the result of an expansion in capacity at gold mines in response to the rising gold price, and an increase in investment in manufacturing arising from a reduction in excess capacity.

In 1980 there was a sharp increase in real gross fixed investment, in response to both low interest rates caused by expansionary monetary policy and high gold prices. Although real investment declined in the second half of 1981, it was nonetheless over 6 1/2 per cent higher for the year as a whole. At current prices, fixed investment increased by 30 per cent in 1980 and by 20 per cent in 1981. Inventory investment followed a similar pattern, with total nominal inventories rising very rapidly in 1980 and 1981, as real inventories increased sharply.

The dominant influence on the current account since 1979, however, has been the effect of gold price movements on gross domestic saving, which increased by 38 per cent in 1979 and by a further 35 per cent in 1980. In 1981, however, gross domestic saving declined and its ratio to GDP fell to 28.0 per cent, compared with 33.4 per cent for 1980 as a whole. As a consequence of the impact of the large increases in the gold price in 1979 and 1980 3/ on gold mining companies' profits, their lease and tax payments to the State Revenue Account increased very

1/ See Table 20 and Chart 7.

2/ Recent behavior of fixed and inventory investment is also discussed in Chapter II.

3/ See section (b) below.

sharply in both 1979/80 and 1980/81. ^{1/} In the latter year, they accounted for 27 per cent of total revenues compared with 6 per cent in 1977/78. Although other taxes were lowered in 1980/81, the saving of the general government increased by 110 per cent in 1980, following an increase of 26 per cent in 1979. This increase in saving was far from fully offset by higher government capital expenditures and the Exchequer Account total deficit fell from R 2,120 million in the 1978/79 financial year to R 582 million in 1980/81. During 1981, however, general government saving declined by R 788 million, as the gold price fell back sharply.

The recent movement in the gold price has also been a factor affecting corporate and personal saving. Dividends paid by the mining sector increased by about 48 per cent in 1979 and by a further 97 per cent in 1980, when they reached R 2.9 billion. To the extent that the permanence of this increase in income was regarded as highly uncertain by its recipients, its contribution to personal saving may have been greater than that of an equal increase in income less likely to be transitory. But while personal saving increased by 30 per cent in 1979, it increased by only 9 per cent in 1980, as a result of a sharp rise in private consumption expenditures stimulated by low interest rates. Private consumption expenditures continued to grow rapidly in 1981 and personal saving declined, amounting to only 4 1/2 per cent of personal disposable income, compared with an average ratio of 8 1/2 per cent in 1979 and 1980. Corporate saving, which rose sharply in 1979 and 1980, ^{2/} respective and then declined in 1981, has also been heavily influenced by movements in the gold price.

Overall, in 1980 the rise in fixed and inventory investment and the marked increase in consumption expenditure was almost entirely offset by the effect of higher gold prices on saving and hence there was only a small decline in the current account surplus in nominal terms. In 1981, however, the effect of the falling gold price on saving and the continued rise in investment reinforced one another and resulted in the movement from a substantial current account surplus in 1980 to a deficit of almost of R 4 billion (5 1/2 per cent of GDP).

b. Merchandise and gold exports

Since 1979 South African exports, even more than the current account balance, have been dominated by large movements in the gold price. The rise in the value of net gold output between 1979 and 1980 accounted for 83 per cent of the increase in gold and merchandise exports over the same period. At the same time, the value of net gold output as a percentage of gold and merchandise exports increased from 34 per cent in 1978 to 51 per cent in 1980. But in 1981 this percentage declined to 47 per cent, as net gold output declined quite sharply.

^{1/} The financial year ends on March 31.

^{2/} Gross private corporate savings substantially exceeded gross investment of companies in the private sector in both 1979 and 1980.

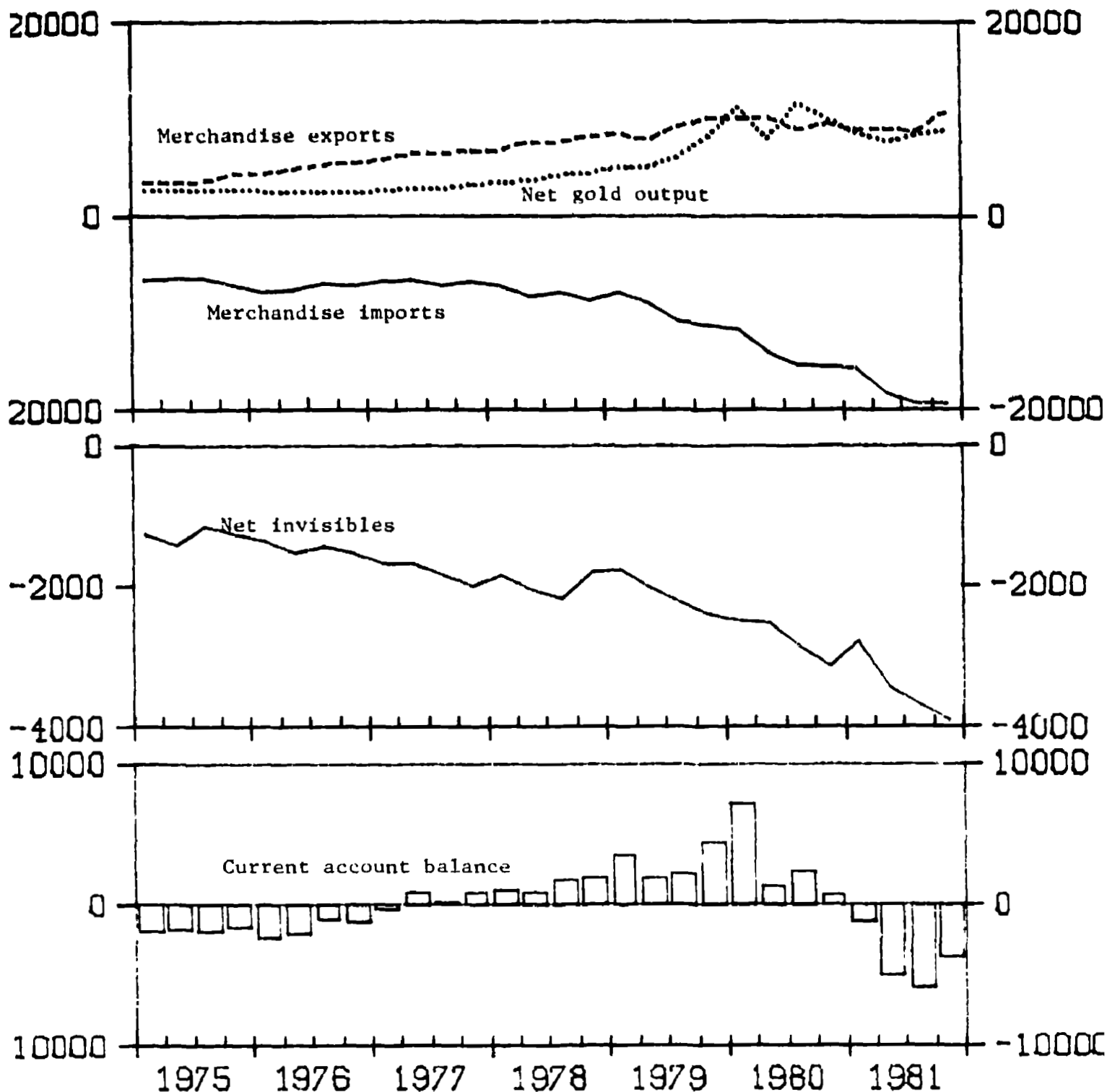
Chart 7

SOUTH AFRICA

CURRENT ACCOUNT OF THE BALANCE OF PAYMENTS

(IN MILLIONS OF RAND, SEASONALLY ADJUSTED

AT ANNUAL RATES)



Source: South African Reserve Bank, Quarterly Bulletin.

The value of net gold output increased by 55 per cent in 1979 to approximately R 6 billion. This sharp increase was more than accounted for by a rise in the gold price, since volume fell by about 2 1/2 per cent in 1979. By December 1979 the gold price, in terms of rand, had risen by over 90 per cent to R 380 per fine ounce, compared with its level in January of the same year. In 1980 the value of net gold output increased by a further 69 per cent reaching over R 10.1 billion, and for the first time since 1946 exceeded the value of merchandise exports. ^{1/} As in 1979 this increase was more than entirely the result of a further upward movement in the gold price--which averaged over R 476 per fine ounce for the year--as the volume of output declined due to the mining of lower-grade ore. The movement in the gold price over the course of the year, however, was uneven; and reflecting these movements, the value of net gold output declined quite sharply in the second quarter, rose to reach a peak in the third quarter, and then declined again in the last quarter of the year.

The decline in the value of net gold output in the fourth quarter of 1980 continued in 1981, when it fell 18 per cent from its level in 1980 to R 8,338 million. This was the result of a slight decline in volume, as mines continued their policy of mining lower-grade ore, and a more substantial drop in price. The average price of gold decreased in 1980 by 25 per cent to US\$460, but the decline in terms of rand was limited to 16 per cent because of the substantial depreciation of the rand against the dollar. The higher rand price of gold in the fourth quarter of 1981 accounted partly for the increase in the value of net gold output in this period.

Merchandise exports ^{2/} have been substantially influenced by general developments in the world economy (Table 22), as well as by a number of special factors. The poor performance of merchandise exports in 1980 was to a considerable extent the result of recessionary conditions prevailing in many major trading partner countries. The sharp decline in export volumes in 1981, however, occurred although there was no further decline in export markets, for reasons which are discussed below.

Exports in recent years have been influenced to some extent by fairly sharp movements in South Africa's competitive position. A comparison of both South African consumer prices and wholesale prices with those of major trading partners adjusted for exchange rate changes (Chart 8) shows that international competitiveness was eroded in 1979 and more sharply in 1980 as a result of a 12 per cent ^{3/} appreciation of

^{1/} In 1980 the Reserve Bank withheld 7 1/2 per cent of gold output from the market. The gold withheld, however, appears in net gold output in the balance of payments figures, valued at 90 per cent of the average of the most recent ten London fixing prices.

^{2/} Tables 23 and 24 show the commodity composition of exports and the classification of exports according to stage of fabrication. See also Chart 9 for volume and price developments.

^{3/} The effective exchange rate figures throughout the text are based on staff calculations.

the rand in effective terms (Chart 8) and rising domestic inflation. This deterioration in competitiveness was reversed in 1981, as the rand depreciated in effective terms in response to a worsening current account deficit. The real exchange rate of the rand adjusted for consumer price changes fell by approximately 9 per cent during 1981, to about the level of mid-1980. It should be borne in mind, however, that both these measures of competitiveness suffer from the defect that the indices on which they are based contain prices of nontraded goods. Moreover, in the case of South Africa conventional measures of competitiveness are of only limited value because the primary product content of exports is high.

In 1979 there was an 18 per cent increase in the value of merchandise exports, which consisted of a 5 per cent increase in volume and a 13 per cent increase in price. The volume increase was broadly in line with the growth of export markets, while the price component was heavily influenced by price rises for most mining products and a number of agricultural products, including maize and wool. Although the value of merchandise exports increased by a further 9 per cent in 1980, the volume declined by about 1 per cent, reflecting recessionary conditions in trading partner countries. It is difficult to assess the impact of the new export incentives introduced in September 1980, ^{1/} but it is unlikely they had a significant impact on the overall export performance in that year. The fall in volume occurred despite the improved performance of maize and coal exports. ^{2/} The response of coal exports to the sharp rise in spot prices, brought about by the situation in Poland and strikes in Australia, was facilitated by the increased efficiency of the Richards Bay Coal Terminal and the improved capacity on the railway line to the coast. The increase in merchandise export prices overall, however, was restricted by the appreciation of the rand against the currencies of major trading partners (Chart 8).

The volume of merchandise exports fell by 13 1/2 per cent in 1981, while the size of export markets remained constant (Table 22). To some extent this sharp decline may have reflected the lagged effect of the appreciation of the rand in real as well as nominal terms in 1980. It also reflected special adverse conditions in a number of export markets, most notably for diamonds. The decline in the value of merchandise exports, however, was limited to about 3 per cent, largely as a result of the depreciation of the rand in response to the current account deficit, which grew rapidly in the first three quarters of the year. Nonetheless,

^{1/} See Chapter VII for details of the scheme.

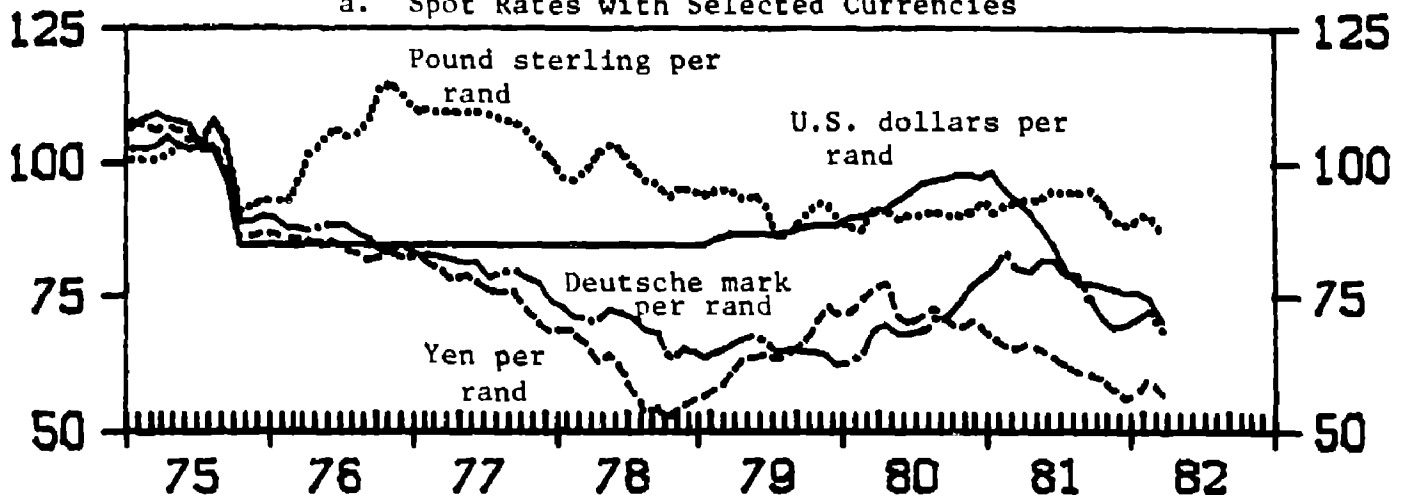
^{2/} Coal exports are subject to a ceiling of 44 million tons per year. This limit does not represent a binding constraint--exports in 1981 were about 30 million tons--as exports are limited by existing port facilities and railway capacity. Exports are currently expected to reach this ceiling by 1985. The ceiling, however, is to be gradually raised to 80 million tons, on the basis of revised estimates of coal reserves and projected domestic needs.

Chart 8

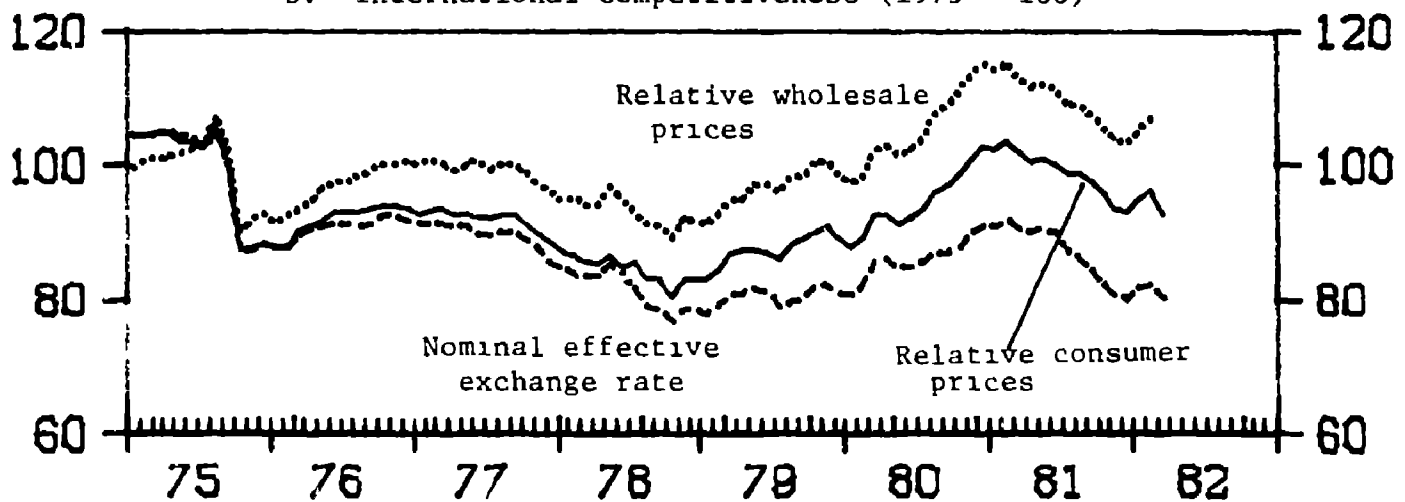
SOUTH AFRICA

EXCHANGE RATE DEVELOPMENTS

a. Spot Rates with Selected Currencies



b. International Competitiveness (1975 = 100)



c. Financial Rand (percentage discount on commercial rand)

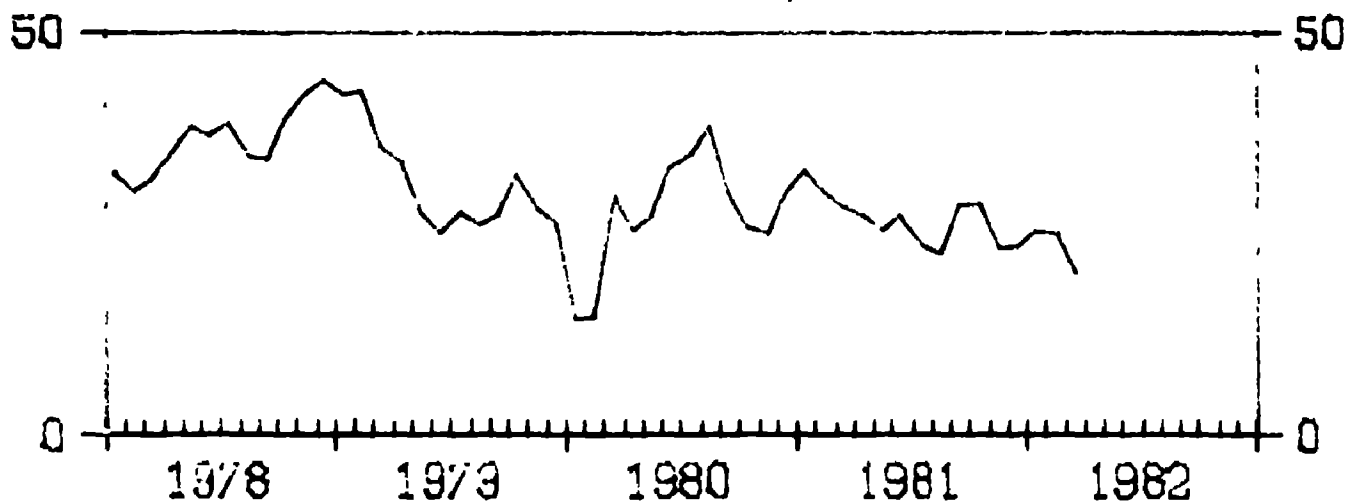
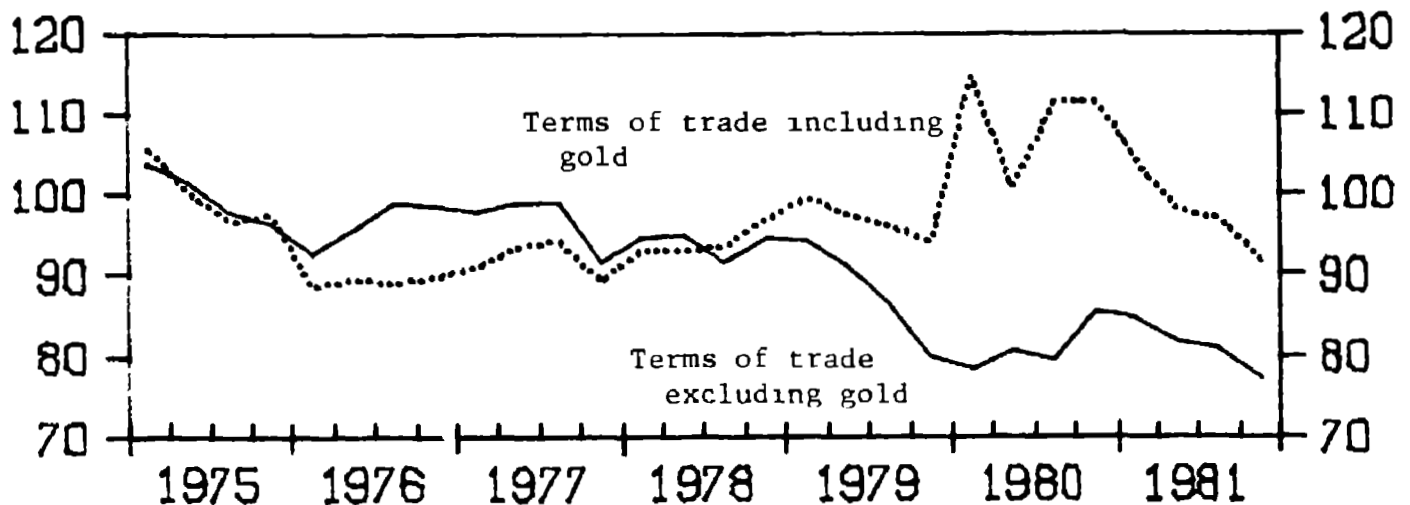
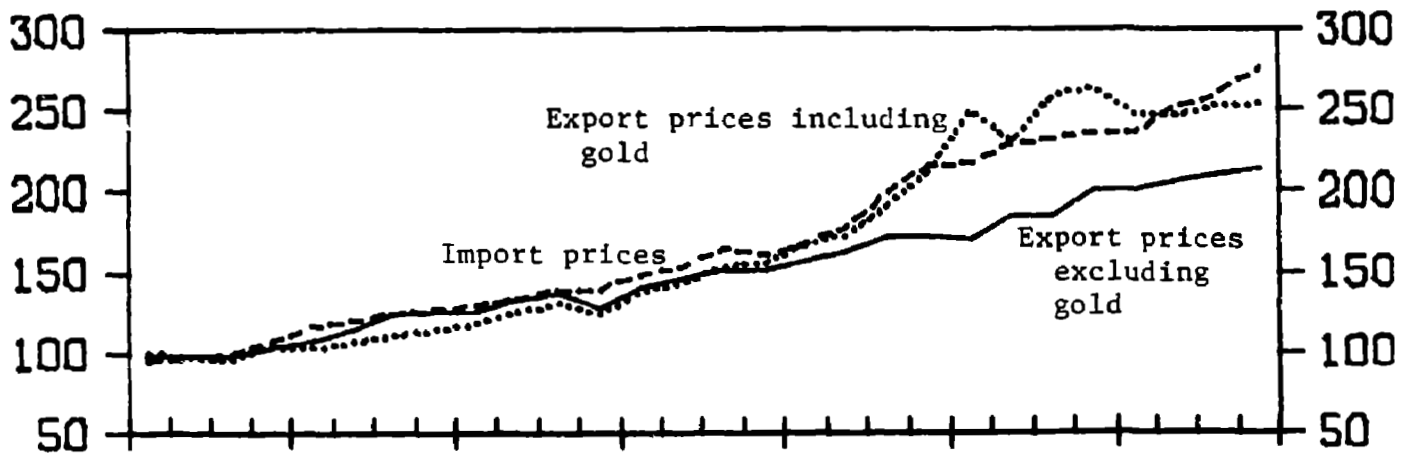
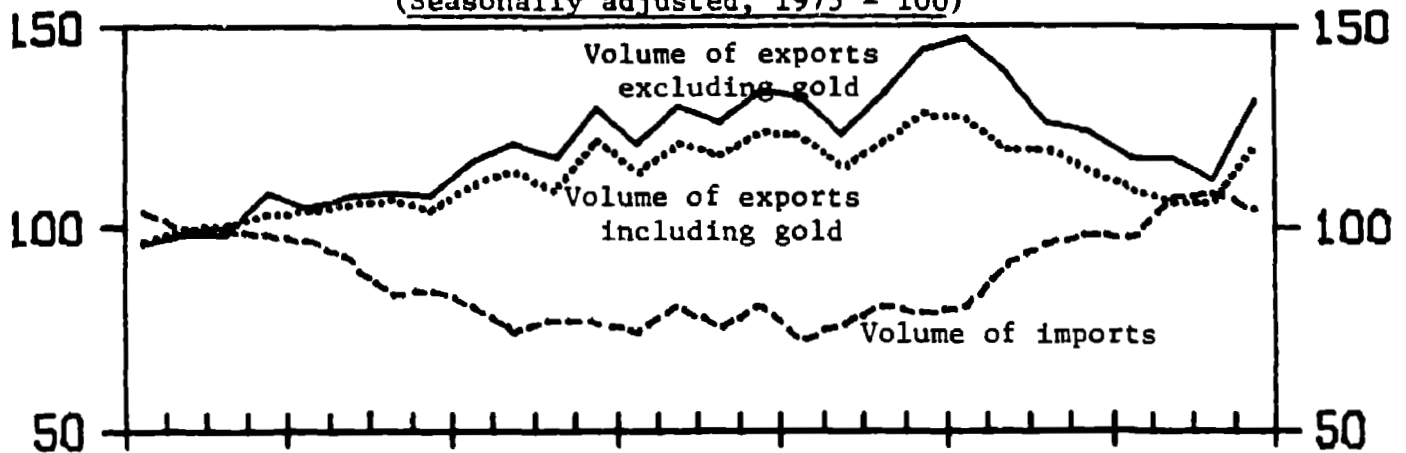


Chart 9

SOUTH AFRICA
EXTERNAL TRANSACTIONS IN GOODS AND SERVICES:
VOLUME AND PRICE DEVELOPMENTS

(Seasonally adjusted, 1975 = 100)



Source: South African Reserve Bank, Quarterly Bulletin.

diamond and copper sales 1/ fell particularly sharply in 1981, although the value of most other mineral exports increased during the year. Agricultural exports increased slightly in 1981 because of a record maize crop.

Table 27 shows clearly South Africa's dependence on major industrial countries for export markets. In 1981 South Africa's six major trading partner countries accounted for 64 per cent of exports excluding gold bullion. This percentage has remained fairly constant in recent years, although its composition has changed. The United Kingdom has declined in importance, while the United States has become South Africa's leading export market, followed by Japan. The percentage share of Switzerland has increased rapidly since the mid-1970s, largely on account of increased exports of gold coins, which are included in the figures. As a result of this dependence on major industrial countries, exports have been adversely affected by the recession experienced by most of them following the second oil shock of 1979-80. South Africa's exports to African countries declined from 17 per cent of total exports in 1970 to 7 per cent in 1978, before recovering to about 10 per cent in 1981.

c. Merchandise imports

The volume of merchandise imports declined substantially during the recession of 1975-77 and then remained roughly constant until 1979, before rising sharply in 1980 and 1981. The results of the estimation of an import demand equation, reported in Appendix I, suggest that the performance of import volumes can be largely explained by the behavior of real gross domestic expenditure. 2/ The estimated coefficients indicate an elasticity of the volume of merchandise imports with respect to trend growth in real gross domestic expenditure of just about 0.8, 3/ but also strong procyclical variation in the relationship between these two variables. Capital and intermediate goods account for a very high proportion of merchandise imports (Table 26), 4/ which may explain the sensitivity of the latter to cyclical fluctuations in fixed investment and stockbuilding.

The slow growth in real gross domestic expenditure during the early stages of the recovery from 1977 to 1979--in part the result of the poor performance of real fixed investment and the decline in real inventories discussed in section 1a above--was largely responsible for the very slight decline in merchandise import volumes over that period. The value of merchandise imports, however, increased by over 21 per cent in 1979 as a result of a sharp rise in many import prices, particularly of petroleum products. In 1980, stimulated by low interest rates, real gross

1/ Addition to stockpiles of diamonds in London appear in the customs exports figures and as stockbuilding in the national accounts, but do not enter the balance of payments statistics.

2/ See also Table 22.

3/ The elasticity for imports of goods and services is about unity.

4/ The commodity composition of imports is shown in Table 25.

domestic expenditure grew by 13 1/2 per cent, and the volume of merchandise imports increased by 21 1/2 per cent. The sharp increase in import volumes may also have reflected the removal of the 7.5 per cent import surcharge in March 1980. The value of merchandise imports increased by 46 per cent as a result of a further rise in import prices as well as the marked increase in volume.

The volume of merchandise imports grew by a further 15 1/2 per cent in 1981, as domestic expenditure continued to increase rapidly and domestic capacity reached almost full utilization. Together with an increase in import prices, this resulted in a 28 per cent increase in the value of merchandise imports. 1/ Higher import values were evident in virtually all the main categories of goods, but particularly sharp rises occurred in imports of machinery and electrical equipment, mineral products (including oil), textiles, and transport equipment. The growth rate in the value of imports slowed in the fourth quarter of 1981, however, when there was an decline in the volume of imports, the first decrease since the fourth quarter of 1979.

A 10 per cent import surcharge was imposed in February 1982. The estimates of the revenue, this will provide in a full year (R 550 million), suggest that it will cover about 30 per cent of merchandise imports.

Despite the sharp rise in import prices in 1979 and 1980, the terms of trade (Chart 9) improved by about 4 per cent and 11 1/2 per cent, respectively, largely because of the increase in gold prices. In contrast, the terms of trade excluding gold worsened by approximately 7 per cent and 8 per cent, respectively. The decline in the gold price in 1981 led to a deterioration in the overall terms of trade by 10 1/2 per cent. The terms of trade excluding gold, however, remained roughly constant.

The bulk of South Africa's imports is provided by a small number of countries (Table 27). In 1981 imports from six major trading partner countries accounted for 77 per cent of total imports, excluding strategic commodities. 2/ The United States accounted for the largest proportion of imports, followed by the Federal Republic of Germany, the United Kingdom, and Japan. The share of the United Kingdom has declined significantly over the last decade from 22 per cent in 1970 to 16 per cent in 1981. The share of African countries has declined from 5 1/2 per cent in 1977 to 2 per cent in 1981.

1/ The growth of imports was somewhat uneven during the first three quarters of 1981 due to: (a) problems in clearing containerized imports in the first quarter and (b) a dockworkers' dispute in Britain, which was resolved in the second quarter.

2/ Strategic commodities include oil and defense equipment.

d. Invisibles

South Africa has traditionally recorded fairly large deficits on invisibles. These deficits have been to a large extent the result of net payments of investment income abroad, which reflect the importance of foreign capital to South African development. Since 1977, however, there has been a substantial net outflow of capital to offset the large current account surpluses recorded. As a consequence, South African total foreign liabilities increased from the end of 1977 by only about R 1.5 billion to R 22.9 billion at the end of 1979, while total foreign assets rose by R 4.9 billion to R 10.3 billion over the same period.

Nevertheless, net service and transfer payments abroad increased by roughly 7 per cent in 1979 (Table 28). This increase was due, among other things, to higher dividend payments to foreigners as a result of higher domestic profits, particularly in gold and other mining companies. Net service and transfer payments increased by a further 30 per cent in 1980 and 25 per cent in 1981. The increases were largely the result of higher transportation costs and dividend payments to the rest of the world. The rise in transport costs was the result of the sharp increase in the volume of imports during these two years and the substantial rise in oil prices in 1979.

The considerable increase in the gold price and the buoyancy of the domestic economy were responsible for an increase in dividend payments of 51 per cent in 1980 and 11 per cent in 1981. At the same time, recessionary conditions abroad caused dividends received by nonresidents to decline by 9 per cent and 12 per cent in 1980 and 1981, respectively. Higher interest rates and an increase in South Africa's foreign debt resulted in a 13 1/2 per cent increase in interest payments to foreigners in 1981.

2. Developments in the capital account

Despite the existence of a fairly extensive system of capital controls in South Africa (see Chapter VII), net capital flows in the 1970s have tended to offset the current account balance (Table 20). To some extent this has been the result of foreign borrowing by the public sector in deficit years and repayment of these loans, when the current account moved into surplus. Private capital flows, however, have become increasingly important. During the two-year period 1979-80, outflows from the private sector, particularly of short-term capital, were largely responsible for the substantial offset of the current account surplus, accounting for over 96 per cent of net capital outflows on average. ^{1/} In 1981, although there was a small outflow of long-term capital from the private sector, overall the private sector accounted for 73 per cent of the net capital inflow. The total net inflow of capital, however, amounted to

^{1/} For much of this period, the forward dollar discount encouraged capital outflows; and measures were also taken in 1980 to relax exchange controls (see Chapter VII).

only 28 per cent of the current account deficit. The small size of the capital inflow in relation to the current account deficit was largely the result of: (a) a deliberate policy of the Reserve Bank to allow the current account deficit to drain liquidity from the economy; and (b) the ready availability of funds at relatively low interest rates in domestic financial markets as a result of a fairly relaxed monetary policy.

In general, in spite of the tendency for net capital flows to counterbalance movements in the current account, net gold and other foreign reserves in recent years, with the exception of 1977, have fallen, when the current account has been in deficit and risen in surplus years. Hence, current account deficits have tended to be associated with tight monetary conditions and surpluses with strong monetary expansion.

a. Long-term capital

In South Africa long-term capital movements, particularly outflows, are subject to a number of controls. 1/ With regard to outward movements, all transfers of capital outside the Rand Monetary Area require the approval of the Reserve Bank; and transfers by residents for purchases of shares on foreign stock exchanges are generally not permitted. All inward loan transfers also need approval, while inward transfers through commercial rand for equity capital are freely permitted. South Africa also operates a dual exchange rate system, with all equity investments by nonresidents eligible to use the "financial rand," although Reserve Bank approval is still required in each case. The supply of financial rand is provided by the proceeds of sales by nonresidents of assets which cannot under existing exchange controls be converted into foreign exchange at the commercial rand rate. 2/ Income from foreign investment in South Africa, however, is remitted at the commercial rand exchange rate. Given that the financial rand has been at a discount relative to the commercial rand, this provides an incentive for foreign investment. But, since the financial rand is allowed to float freely, all foreign investments in equity using this rate are exactly offset by outward flows of capital. Under this system, the financial rand adjusts so that the return on domestic investment to foreigners 3/ is such that they are willing to hold a given stock of equity. The size of this stock is determined by the stock under foreign ownership when the system was introduced, subsequent capital gains and foreign investment by residents through the financial rand. While there can be no net foreign equity investment through the financial rand, this arrangement does prevent net disinvestment in equity by nonresidents.

Exchange controls failed to prevent a substantial net outflow of long-term capital in 1979 amounting to R 1,024 million (Table 29),

1/ See Chapter VII for full details.

2/ Approved foreign investment by residents as well as capital transfers by migrants also have to use the financial rand.

3/ If the implications of expected changes in the financial rand rate for capital gains are ignored, a depreciation of the financial rand against the commercial rand raises the return to foreign investors.

encouraged by low domestic interest rates in relation to those abroad. There was a further smaller net outflow of long-term capital of R 608 million in 1980. This consisted of a net outflow from the private sector and repayment of foreign long-term loans by the Central Government and banking sector, partially offset by foreign borrowing of public corporations. During 1980, however, to some extent reflecting the deteriorating position of the current account, there was a shift from capital outflows in the first two quarters to an inflow of R 136 million in the second half of the year. This inflow of long-term capital continued in 1981, amounting to R 357 million, as the current account moved into substantial deficit. As in the second half of 1980, the inflow was largely the result of foreign borrowing by public corporations, which was only partially offset by a net repayment on long-term foreign debt by the private sector.

b. Short-term capital

The short-term capital account of the balance of payments 1/ remained in deficit over the period 1975-1980, which reached a peak of R 1,691 million in 1980 (Table 29). In 1981, however, as the current account moved into deficit, a net inflow of R 755 million was recorded. In recent years, these flows, which are subject to controls, 2/ have been dominated by private sector short-term capital movements, in particular trade credit, which in turn have been heavily influenced by interest differentials. 3/ The covered differential, however, is not market determined since forward cover is provided by the Reserve Bank, which sets the U.S. dollar premium or discount. Together with exchange controls, this gives the Reserve Bank scope to influence the covered interest differential, which often differs from zero, and hence whether trade is financed domestically or abroad.

In January 1979 a 1 per cent charge for forward transactions between the rand and U.S. dollar was replaced by a single 2 per cent annual rand premium (dollar discount), which at the time reflected the interest differential between South Africa and the United States. Although the rand premium was increased to 2.5 per cent in April 1979, a substantial shift in the covered interest differential took place over the course of the year, as the uncovered interest differential between the United States and South Africa widened substantially. For the year as a whole, there was a net outflow of short-term capital of R 1,804 million from the private sector, which was slightly offset by an inflow of R 297 million to public corporations and local authorities.

There was a further large outflow of short-term capital from the private sector in 1980, amounting to R 1,687 million in total. This outflow was concentrated in the first quarter of the year when there was a large covered interest differential in favor of the rand and exchange

1/ Including errors and omissions.

2/ See Chapter VII.

3/ Chart 10 shows the covered and uncovered interest differentials.

controls on the granting of export credits were eased. 1/ In response to this outflow the Reserve Bank raised the forward dollar discount from 2.5 per cent to 12 per cent in April, 2/ which roughly eliminated the covered interest differential and reduced the outflow in the second quarter. Following an inflow of short-term capital in the third quarter, 3/ the forward rate was set to slightly favor the domestic financing of trade in the fourth quarter, which resulted in a fairly substantial outflow of capital from the private sector.

In 1981 a net inflow of short-term capital of R 755 million took place. The flow of short-term capital was uneven during the year, with outflows occurring in the first and third quarters, and inflows of R 629 million and R 802 million in the second and fourth quarters, respectively. The overall net inflow was more than accounted for by an inflow to the private sector of R 1,017 million, which was to some extent offset by outflows from public corporations, government enterprises, and the Central Government. For much of the year, forward exchange rates were fixed to make the domestic cost of trade financing either marginally more attractive than, or at least roughly equal to, foreign costs. In August and September, however, in response to pressure on its foreign exchange reserves, the Reserve Bank set a fairly large discount on forward dollars to encourage more use of foreign financing of trade. This strategy, however, tended to undermine the Bank's desire for a more restrictive monetary stance and was discontinued, when the Bank entered into gold swap arrangements in October (section 2c below).

c. Official financing

The substantial surpluses on the current account in 1979 and 1980 were to a considerable extent offset by net capital outflows, despite the existence of exchange controls, which limited the balance of payments-related increase in net gold and other foreign reserves to R 417 million and R 531 million in 1979 and 1980, respectively. The increase in 1979 was almost entirely used for the repayment of liabilities related to reserves. After allowing for SDR allocations and valuation adjustments, gross reserves 4/ increased by R 2,052 million in 1979 and R 1,511 million in 1980. During 1981, as the current account moved rapidly into deficit, there was only a modest net inflow of capital, and the overall balance of payments was in deficit by R 2,835 million. The effect of this on gross reserves, however, was to a large extent countered by an increase in liabilities related to reserves amounting to R 1,830 million. This addition to gross foreign reserves was itself partly offset,

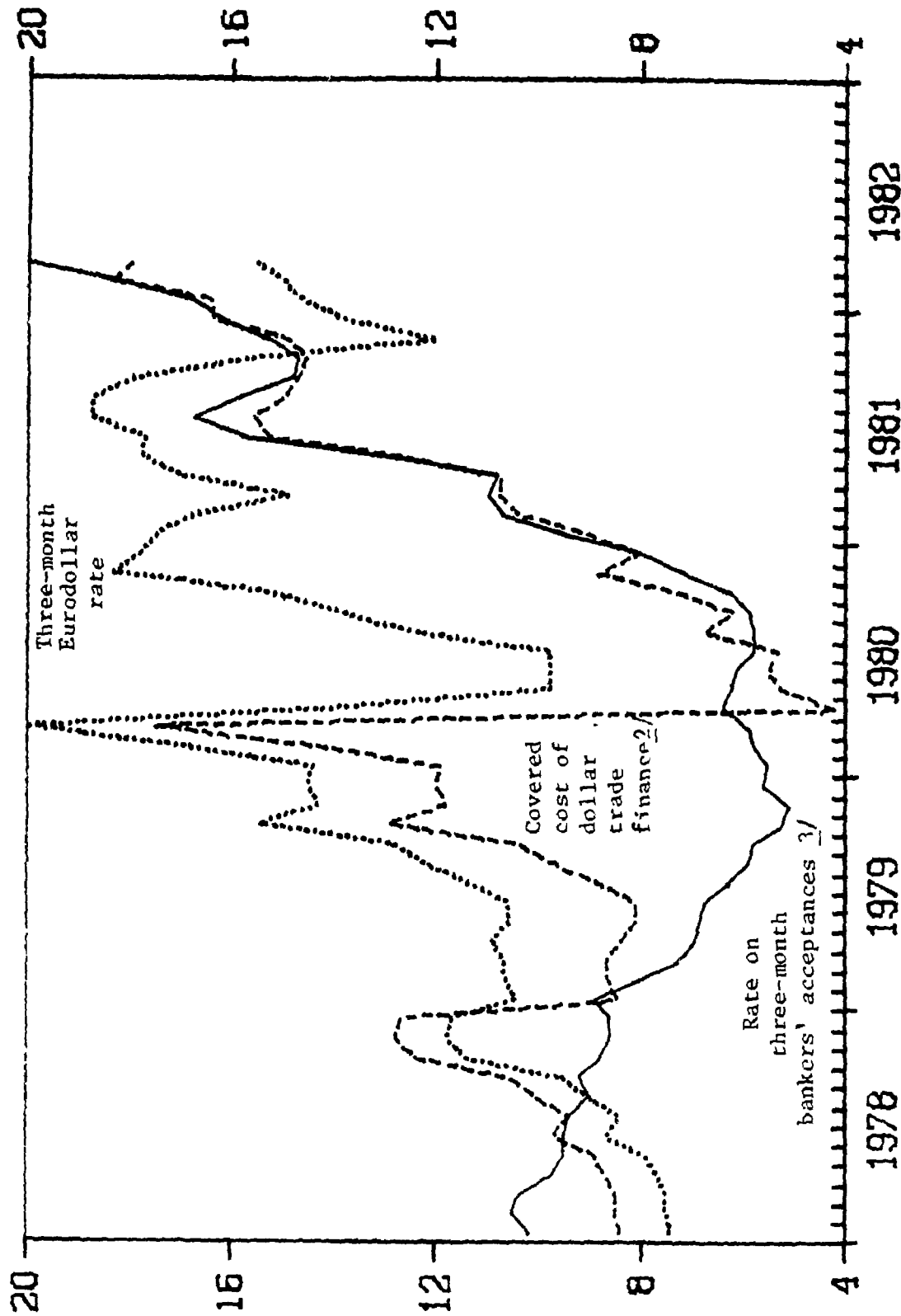
1/ The limit was extended from six to twelve months.

2/ At the same time, the Reserve Bank announced its intention to make more frequent adjustments in the forward premium in response to changes in interest rates and other economic conditions.

3/ This was the result of the repayment of the large amount of trade credit extended in the first quarter and an increase in foreign credits to finance a marked increase in imports.

4/ Table 30 shows developments in gross official reserves.

SOUTH AFRICA COST OF TRADE CREDIT ^{1/} (Per cent per annum)



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

^{1/} End of period monthly data.

^{2/} The three-month Eurodollar rate minus the Reserve Bank's forward dollar discount.

however, by the revaluation of the gold component of these reserves at a lower price in accordance with the decline in the price of gold, as well as by other valuation adjustments. Taking into account valuation adjustments and SDR allocations, gross reserves fell by R 1,548 million in 1981.

There was a substantial drop in total foreign exchange holdings in 1981. In particular, the foreign exchange, excluding SDRs, of the Reserve Bank fell by R 344 million to R 382 million during the year. In an attempt to bolster its depleted reserves, the Reserve Bank entered into substantial gold swap arrangements in October and November. Although the Reserve Bank has not released the exact value of the swaps, the decline in gold reserves during this period suggests that it was of the order of R 1 billion. In these arrangements, gold was sold for foreign exchange and repurchased forward. In February 1982 South Africa purchased the remainder of its reserve tranche from the Fund (SDR 107 million).

3. Exchange rate developments

South Africa maintains a dual exchange rate system. The purchase and sale of rand by nonresidents associated with equity investment in South Africa and a limited number of other transactions (see section 2a and Chapter VII for more details) take place at the freely floating financial rand exchange rate. All other foreign exchange transactions take place through the medium of the commercial rand.

Between June 1975 and January 1979, the commercial rand (henceforth the rand) was pegged to the U.S. dollar. Following a 17.9 per cent devaluation in September 1975, the rand remained fixed at a middle rate of R 1 = US\$1.15 for the remainder of the period. During 1977 and 1978, however, the depreciation of the dollar on international exchanges, at a time when the South African current account recorded substantial surpluses, called into question the appropriateness of pegging the rand to the dollar, and in January 1979 the fixed rate regime was replaced by one of heavily managed floating. At the same time, the Reserve Bank replaced a 1 per cent charge for forward transactions by a single forward rate. It was announced that this rate would be set on a variable and increasingly market-related basis. The "securities rand" was also renamed the "financial rand" and extended to cover all equity investment in South Africa rather than just purchases of South African securities listed on the Johannesburg Stock Exchange. These measures were regarded as the first steps toward an ultimate goal of the establishment of a unified floating exchange rate for the rand, with limited exchange controls applicable only to residents.

Under the pegged rate system in force until January 1979, current account imbalances, which emerged at the chosen dollar exchange rate and which were not offset by regulated capital flows, automatically resulted in accommodating changes in the foreign exchange component of the

monetary base. ^{1/} The new system, however, gave the authorities the option of allowing exchange rate movements to bear a greater burden of adjustment to current account imbalances. Furthermore, the rand was no longer forced to follow large movements in the dollar exchange rate with other currencies. This new freedom to maneuver was exercised in 1979, when in response to a current account surplus of close to R 3 billion, the effective exchange rate of the rand appreciated by about 3 per cent over the year, while the rand appreciated by 5 per cent against the U.S. dollar (Chart 8). The rand appreciated by a further 12 per cent in effective terms in 1980, as a result of a marked appreciation against most Western European currencies and smaller appreciations against the U.S. dollar and the pound sterling. The appreciation of the rand was reversed in 1981, as the current account moved sharply into deficit. During 1981, despite a substantial decline in net gold and other foreign reserves, the effective exchange rate depreciated by 12 per cent, while the rate against the dollar declined by 22 per cent. In the first two months of 1982, however, as a result of a temporary policy of stabilizing the value of the rand against the dollar, the rand appreciated in effective terms. Then at the beginning of March 1982 the rand was allowed to depreciate against the dollar and on March 9 fell below US\$1 for the first time. By the end of March the rand had fallen to US\$0.95. As a consequence of this depreciation against the dollar, by the end of March the nominal effective exchange rate was 2 1/2 per cent lower than its level at the end of December 1981.

As explained in section 2a, the financial rand which, given the rand rate of return, determines the foreign exchange return on nonresident-owned South African equity, essentially adjusts to maintain nonresident demand for equity equal to, what at any instant is, a given supply. Fluctuations in the discount on the financial rand in relation to the commercial rand largely represent shifts in nonresident demand for South African equity, which has been strongly influenced by the effect of movements in the gold price on mining profits, and also by prospects for political stability. The discount on the financial rand decreased steadily through much of 1979 and reached a minimum of 14.4 per cent in January 1980, in comparison with a discount of 42.4 per cent in February of the previous year (Chart 8). This coincided with a steady rise in the gold price from around R 200 per fine ounce at the beginning of 1979 to a peak of R 554 in January 1980. The gold price dropped sharply in March 1980, and in response the discount on the financial rand rose steeply to nearly 30 per cent. For much of the period from then until the end of 1981, the financial rand fluctuated around 30 per cent, running as high as 38 per cent in August 1980 and falling to 22 per cent in August 1981. At the close of 1981, the discount stood at about 23 per cent. The discount then increased in early 1982 as the gold price fell further, but then declined again late in March as the gold price recovered. On March 31, 1982 the discount stood at 20.2 per cent.

^{1/} The existence of capital controls, however, made sterilization possible.

Table 20. South Africa: Balance of Payments Summary
(In millions of rand)

	1976-78 Annual average	1979	1980	1981	1980		1981	
					First half	Second half	First half	Second half
					(Seasonally adjusted) 1/			
Merchandise exports, excluding gold	6,210	8,813	9,643	9,328	5,053	4,590	4,460	4,868
Net gold output	3,002	6,003	10,141	8,338	4,766	5,375	4,026	4,312
Merchandise imports	-7,448	-9,739	-14,207	-18,171	-6,471	-7,736	-8,512	-9,659
Invisibles, net	-1,741	-2,107	-2,747	-3,442	-1,250	-1,497	-1,550	-1,892
Current balance	23	2,970	2,830	-3,947	2,098	732	-1,576	-2,371
					(2,264)	(566)	(-1,412)	(-2,535)
					(Seasonally unadjusted)			
Long-term capital	430	-1,024	-608	357	-744	136	279	78
Of which:								
Private nonbank sector	229	-723	-474	-201	-486	12	82	-283
Short-term capital 2/	-715	-1,529	-1,691	755	-1,656	-35	210	545
Net capital flows 2/	-285	-2,553	-2,299	1,112	-2,400	101	489	623
Overall balance	-262	417	531	-2,835	-136	667	-973	-1,912
Changes in reserve-related liabilities 3/	-16	-401	1	1,830	61	-60	710	1,120
SDR allocations	--	50	48	45	48	--	45	--
Changes in reserve assets (excluding valuations changes) 3/	-278	66	580	-960	-27	607	-168	-792
Memorandum items:								
Reserve valuation adjustment	653	1,986	931	-588	1,571	-640	-370	-218
Changes in reserve assets (including valuation changes) 3/	375	2,052	1,511	-1,548	1,544	-33	-538	-1,010

South African Reserve Bank, Quarterly Bulletin.

1/ Figures in parentheses are unadjusted.

2/ Excluding short-term liabilities related to reserves; including errors and omissions.

3/ Including reserve holdings of the Central Government, the Reserve Bank, and the rest of the banking

Table 21. South Africa: Savings, Investment, and the Current Account

(In per cent of GDP)

	1975	1976	1977	1978	1979	1980	1981
Gross domestic saving	<u>25.8</u>	<u>23.8</u>	<u>27.6</u>	<u>27.8</u>	<u>32.2</u>	<u>33.2</u>	<u>28.0</u>
Personal saving <u>1/</u>	6.9	4.0	6.6	4.7	5.1	4.2	3.3
Corporate saving <u>1/</u>	3.6	4.5	5.1	6.5	10.6	12.2	9.0
Saving of general government <u>1/</u>	3.0	1.6	1.9	2.5	2.7	4.3	2.6
Provision for depreciation <u>2/</u>	12.3	13.7	14.1	14.1	13.9	12.5	13.0
Gross domestic investment	<u>32.4</u>	<u>29.2</u>	<u>26.4</u>	<u>24.5</u>	<u>26.0</u>	<u>28.6</u>	<u>33.6</u>
Total fixed investment	29.5	29.8	27.0	25.2	24.5	24.3	25.7
Total change in inventories	2.9	-0.6	-0.6	-0.7	1.4	4.4	7.9
Current account balance	-6.6	-5.4	1.2	3.3	6.2	4.5	-5.5

Source: South African Reserve Bank, Quarterly Bulletin.

1/ After provision for depreciation and inventory valuation adjustment.

2/ At replacement value.

Table 22. South Africa: Merchandise Trade Volumes
and Related Factors

	1977	1978	1979	1980	1981
	Percentage changes				
Volume of merchandise exports	16.3	5.2	5.0	-0.8	-13.5
Export market growth <u>1/</u>	5.6	7.1	8.2	-2.0	--
Real exchange rate <u>2/</u>	-5.7	-5.5	6.9	15.4	-9.3
Volume of merchandise imports	-16.8	-0.1	-0.5	21.6	15.6
Real domestic expenditure	-5.9	1.8	3.4	13.5	10.5

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

1/ Weighted average of partner country import volumes.

2/ Relative consumer prices adjusted for exchange rate changes: December over December.

Table 23. South Africa: Commodity Composition of Exports 1/

	1970	1976	1977	1978	1979	1980	1981
ls, precious and semiprecious ones	13.9	14.5	23.3	28.0	28.0	26.9	21.4
ral products	15.2	13.2	15.0	13.7	13.9	14.7	19.1
metals and articles	17.0	17.5	17.4	17.1	17.6	17.9	15.4
cultural products	9.6	9.4	6.5	7.8	5.8	7.1	9.3
ared foodstuffs	9.9	11.0	8.7	5.8	5.5	6.8	5.6
iles and articles	6.2	5.1	4.7	4.0	3.6	3.4	3.8
r	<u>28.2</u>	<u>24.3</u>	<u>24.4</u>	<u>23.6</u>	<u>25.6</u>	<u>25.6</u>	<u>25.4</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data provided by the South African authorities.
Customs and excise figures, excluding gold bullion.
Including gold coins.

Table 24. South Africa: Classification of Exports According
to Stage of Fabrication

	1970	1976	1977	1978	1979	1980	1981 <u>1/</u>
Materials							
griculture origin	18.0	14.1	10.5	10.8	9.3	11.1	14.2
ining origin	13.9	23.8	27.5	26.5	23.2	22.2	19.6
fabricated goods							
griculture origin	15.8	12.9	12.3	9.3	10.4	11.0	8.3
ining origin	24.0	19.7	20.2	24.7	29.1	29.3	28.9
icated goods	19.4	25.0	25.3	24.3	24.9	24.1	24.6
xports	7.9	4.1	3.9	3.5	2.7	2.3	2.7
assified goods	<u>1.0</u>	<u>0.4</u>	<u>0.3</u>	<u>0.9</u>	<u>0.4</u>	<u>--</u>	<u>1.7</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data provided by the South African authorities.
Based on first six months of 1981.

Table 25. South Africa: Commodity Classification
of Imports 1/

(Percentage distribution)

	1970	1976	1977	1978	1979	1980	1981
Machinery and electrical equipment	27.6	33.0	32.1	33.5	31.5	34.5	35.2
Vehicles and transport equipment	18.3	21.0	19.4	21.5	19.2	18.1	19.2
Chemical products	6.5	8.3	9.9	10.4	11.3	10.0	9.2
Base metals and articles	7.9	6.1	6.3	5.8	6.3	6.8	6.3
Textile products	9.5	7.4	6.3	5.8	5.8	5.2	5.7
Optical and professional instruments	3.8	3.6	4.0	3.9	4.6	4.6	5.0
Artificial resins and plastic materials	4.0	4.2	4.3	4.2	5.2	4.7	4.2
Other	<u>22.4</u>	<u>16.4</u>	<u>17.7</u>	<u>14.9</u>	<u>16.1</u>	<u>16.1</u>	<u>15.2</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data provided by the South African authorities.

1/ Customs and excise figures, excluding strategic imports.

Table 26. South Africa: Classification of Imports According
to Stage of Consumption

(Percentage distribution)

	1970	1976	1977	1978	1979	1980	1981 <u>1/</u>
Capital goods	45.0	43.8	40.0	43.2	37.2	38.4	41.6
Intermediate goods	33.6	41.9	45.5	41.8	49.2	48.2	43.9
Consumer goods	20.1	13.9	14.1	14.8	13.5	13.2	14.5
Unclassified goods	<u>1.3</u>	<u>0.4</u>	<u>0.4</u>	<u>0.2</u>	<u>0.1</u>	<u>0.2</u>	<u>--</u>
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

Source: Data provided by the South African authorities.

1/ Based on first six months of 1981.

Table 27. South Africa: Direction of Foreign Trade 1/

	1976	1977	1978	1979	1980	1981 <u>2/</u>	1980
	<u>(Percentage distribution)</u>						<u>(Millions of U.S. dollars)</u>
Exports:							
United Kingdom	22.0	22.6	16.7	10.2	13.1	12.4	1,761
Germany, Fed. Rep. of	10.8	9.0	9.2	9.6	7.6	7.6	1,091
Other EC	14.8	13.6	14.0	14.5	14.0	14.6	2,023
Total EC	47.6	45.2	39.9	34.3	34.7	34.6	4,875
United States	10.1	13.4	18.6	15.0	15.6	15.0	2,155
Japan	11.6	11.0	10.5	10.0	11.4	12.8	1,525
Switzerland	3.7	3.7	6.4	16.3	11.7	11.8	1,460
Africa	10.0	8.8	7.4	7.8	10.4	10.2	1,299
Other countries	17.0	17.9	17.2	16.6	16.2	15.6	2,297
Total	100.0	100.0	100.0	100.0	100.0	100.0	13,611
Imports:							
United Kingdom	17.5	16.4	16.6	17.8	17.0	15.7	2,265
Germany, Fed. Rep. of	18.0	18.1	20.3	18.6	18.2	16.0	2,433
Other EC	12.6	13.7	15.9	15.1	14.1	16.1	1,868
Total	48.1	48.2	52.8	51.5	49.3	47.8	6,566
United States	21.6	19.0	15.7	17.6	19.1	18.8	2,539
Japan	10.2	12.2	13.1	11.4	12.6	14.7	1,759
Africa	5.2	5.6	3.9	3.6	2.8	2.2	345
Other countries	14.9	15.0	14.5	15.9	16.2	16.5	2,012
Total	100.0	100.0	100.0	100.0	100.0	100.0	13,221

Source: IMF, Direction of Trade.

1/ Exports exclude gold; imports exclude petroleum products and defense equipment.

2/ First eight months of 1981.

Table 28. South Africa: Services and Transfers

(In millions of rand)

	<u>1975-77</u> <u>Average</u>	1978	1979	1980	1981
Services					
Receipts	<u>1,496</u>	<u>1,949</u>	<u>2,334</u>	<u>2,761</u>	<u>3,117</u>
Freight	80	119	173	218	218
Other transportation	369	513	590	777	959
Travel	261	319	388	459	549
Investment income	220	287	409	426	381
Other foreign income <u>1/</u>	566	711	774	881	1,010
Payments	<u>3,096</u>	<u>4,010</u>	<u>4,604</u>	<u>5,802</u>	<u>6,929</u>
Freight	392	480	602	873	1,300
Other transportation	330	356	461	641	756
Travel	334	405	486	584	682
Investment income	1,065	1,443	1,688	2,103	2,341
Other foreign income <u>1/</u>	975	1,326	1,367	1,601	1,850
Net	<u>-1,600</u>	<u>-2,061</u>	<u>-2,270</u>	<u>-3,041</u>	<u>-3,812</u>
Freight	-312	-361	-429	-655	-1,082
Other transportation	39	157	129	136	203
Travel	-73	-86	-98	-125	-133
Investment income	-845	-1,156	-1,279	-1,677	-1,960
Other foreign income <u>1/</u>	-409	-615	-593	-720	-840
Net transfers	<u>91</u>	<u>97</u>	<u>163</u>	<u>294</u>	<u>370</u>
Private	-3	-15	10	22	...
Central Government and banking sector	94	112	153	272	...
Net invisibles	-1,509	-1,964	-2,107	-2,747	-3,442

Source: South African Reserve Bank, Quarterly Bulletin.

1/ Besides wage and salary income, this line also includes rents, royalties, and fees related to communications and advertising.

Table 29. South Africa: Net Capital Movements
(In millions of rand)

	1973	1974	1975	1976	1977	1978	1979	1980	1981
Long-term capital	214	761	1,746	989	296	5	-1,024	-608	357
Private sector	-44	201	697	235	256	195	-723	-474	-201
Public corporations and local authorities	269	431	718	606	98	237	-193	179	552
Central government and banking sector	-11	129	331	148	-58	-427	-108	-313	6
Short-term capital 1/	-249	17	-298	-488	-848	-810	-1,529	-1,691	755
Private sector 1/	-195	99	-361	-543	-967	-1,025	-1,804	-1,687	1,017
Public corporations and local authorities	-12	31	173	6	103	202	297	11	-208
Central government and banking sector 2/	-42	-113	-110	49	16	13	-22	-15	-54
Total	-35	778	1,448	501	-552	-805	-2,553	-2,299	1,112

Source. South African Reserve Bank, Quarterly Bulletin.

1/ Including errors and omissions.

2/ Excluding changes in liabilities related to reserves.

Table 30. South Africa: Gross Official Reserves

(In millions of SDRs; end of period)

	1974	1975	1976	1977	1978	1979	1980	1981
Gold, national valuation <u>1/</u>	639	515	371	272	1,482	3,379	5,101	2,869
Reserve position in IMF	40	36	35	32	39	25	37	115
Foreign exchange	82	--	--	--	--	--	129	107
Total, national valuation	947	933	736	615	1,807	3,708	5,671	3,439
Total, national valuation (in millions of rand)	800	950	744	650	2,047	4,039	5,397	3,829
Memorandum items:								
Total (IFS) <u>2/</u>	947	1,039	809	683	667	681	994	898
Gold (in millions of ounces)	18.25	17.75	12.67	9.72	9.79	10.03	12.15	9.29

Source: IMF, International Financial Statistics.

1/ Gold reserves are valued at the statutory price of R 29.55 per fine ounce until March 1978. From April 1978 the gold reserves are valued at 90 per cent of the last ten London fixing prices during the month.

2/ Gold valued at SDR 35 per ounce.

The Demand for Imports: Empirical Results

This appendix reports the results of the estimation of a simple import demand function for South Africa, using annual data. The equation is then used to project import volumes for 1982.

The demand for imports in volume terms is hypothesized to depend on real gross domestic expenditure, the deviation of real gross domestic expenditure from its trend value, and the relative price of imported to home-produced goods. The deviation of real gross domestic expenditure from trend is intended to capture any cyclical variation in import volumes. South Africa is assumed to be a price taker in the market for imports and their relative price is treated as an exogenous variable (in the sense of being statistically independent of the error term). The equation was estimated in log-linear form using OLS on annual data from 1960 to 1981.

Two versions of the equation were estimated: the first employed the volume of merchandise imports as the dependent variable; 1/ and the second, the volume of imports of goods and nonfactor services derived from national accounts data. With merchandise imports as the dependent variable, the coefficient on the relative price variable took the "wrong" sign, although it was highly insignificant. 2/ The results with the relative price variable omitted are (t-statistics in parentheses):

$$\ln(M) = -3.81 + 0.81 \ln(GDE) + 1.57 \ln(DGDE)$$

$$(19.76) \quad (41.46) \quad (20.55)$$

$$\bar{R}^2 = .993 \quad DW = 1.77 \quad SEE = .027$$

where:

M = volume of merchandise imports
 GDE = real gross domestic expenditure
 DGDE = the ratio of actual to trend GDE 3/

1/ The equation for merchandise imports was estimated using data for the period from 1960 to 1980.

2/ Empirical work undertaken by the South African authorities suggest that the long-term relative price elasticity of merchandise imports is about -0.7.

3/ The trend value of GDE was derived from the following estimated log-linear time trend:

$$\ln(GDE) = 9.33 + 0.051 T$$

$$(255.10) \quad (18.13)$$

$$\bar{R}^2 = .943 \quad DW = 0.510 \quad SEE = .0837$$

where T = time

The estimated parameter values show an import elasticity with respect to trend gross domestic expenditure of less than unity, but also that imports exhibit a strong procyclical pattern. The estimated elasticities were not sensitive to specification changes, in particular the inclusion of relative price variables.

Given the trend rate of growth of GDE reported in footnote 1, p. 62, this equation implies that a 10 per cent increase in GDE results in about a 15 1/2 per cent increase in the volume of merchandise imports. An increase in GDE of about 5 per cent, roughly in line with trend, on the other hand, gives rise to only about a 4 per cent increase in import volume. On the assumption that GDE falls by 3 per cent in 1982, the above equation predicts that merchandise imports will fall by about 14 per cent in 1982 over their estimated level in 1981.

The import demand equation estimated with the volume of imports of goods and nonfactor services as the dependent variable yielded the following results:

$$\ln(\text{MGS}) = -0.84 + 0.95 \ln(\text{GDE}) + 0.96 \ln(\text{DGDE}) - 0.07 \ln(\text{IPREL})$$

(3.42) (39.69) (11.04) (0.50)

$$\bar{R}^2 = 0.997 \quad DW = 1.431 \quad SEE = 0.022$$

where: MGS = the volume of imports of goods and nonfactor services

IPREL = the ratio of prices of imported to home-produced goods (IFS line 76.x - 63a)

In comparison with the first equation, this equation has a higher elasticity with respect to trend GDE, but a smaller cyclical variation in the relationship between imports and GDE. The relative price coefficient has the right sign but is insignificant. In this case a 10 per cent increase in GDE, relative prices held constant, implies approximately a 14 per cent increase in the volume of imports of goods and nonfactor services. On the assumption that GDE declines by 3 per cent in 1982 and that the relative price of imports remains at its 1981 value, 1/ the equation predicts that the volume of imports of goods and services will fall by about 8 per cent in 1982, from its actual level in 1981. 2/

1/ The projections are not sensitive to variations in the assumption about relative prices.

2/ The equation underpredicts the volume of imported goods and services in 1981, and the forecast for 1982 represents a decline of 10 per cent over the fitted value for 1982.

V. Public Finance

1. The structure of the public sector

The public sector in South Africa comprises the Central Government, four provincial administrations, 1/ numerous municipalities and local rural bodies, and a number of public enterprises.

The municipalities are financially relatively independent of both central and provincial governments, though some aspects of their loan and revenue sources are subject to approval by the South African Treasury and the provincial administrations. The rural local bodies are normally small and derive their finances largely from the provincial administration. Loans are made available to them by the Local Loan Funds, which are administered by the Public Debt Commissioners (PDCs) and financed mainly by the Central Government. On the other hand, there are important financial links between the Central Government, the provincial authorities, and public enterprises and other institutions on the periphery of the public sector (e.g., Bureau of Standards). The provinces have had only limited taxing power since 1971 (when provincial income and personal taxes were abolished and replaced by increased Treasury subsidies) and have never had autonomous borrowing ability. Treasury transfers, therefore, finance the bulk of the provinces' current and capital expenditure. 2/

An important feature of the South African system is that ownership of a number of basic enterprises is vested in the Central Government. These include the postal and other communication services; the ports, railways, and airways (controlled by the South African Services, formerly the Railways and Harbours Administration); and a number of enterprises 3/ in which the Central Government has a controlling interest either directly or indirectly through the Industrial Development Corporation. Among these enterprises, the most important are ISCOR (the Iron and Steel Corporation); SASOL (the South African Coal, Oil, and Gas Corporation); FOSKOR (the Phosphate Development Corporation); and ALUSAF (the Aluminum Corporation). The two largest enterprises--i.e., SATS (the South African

1/ These are the Cape, Natal, Transvaal, and Orange Free State.

2/ Central government transfers account for about 85 per cent of total revenue of the provincial authorities. Own revenues of these governments flow primarily from motor vehicle licenses and racing and betting taxes. Total revenue of provincial governments increased by 17.3 per cent in 1981/82, following an increase of 21.8 per cent in the preceding fiscal year, while total outlays rose by 17.3 per cent and 20.2 per cent, respectively. Current expenditures account for 79 per cent of total outlays; they are primarily for hospital services and public health, education, and maintenance of roads and bridges.

3/ State ownership of these enterprises reflects policy of promotion by the state of key industries or undertakings of strategic importance. Management of these enterprises enjoys a high degree of autonomy from civil service regulations.

Transport Services) and the Post Office (Department of Posts and Telecommunications)--have separate budgets approved yearly by Parliament; their current revenue and expenditure do not pass through the Exchequer accounts. The borrowing needs of SATS are satisfied by the Treasury, whereas the capital expenditure of the Post Office is financed mainly from internal sources and funds from savings services. ESCOM (the Electricity Supply Commission) finances its expansion program entirely from its own issues on both domestic and foreign markets.

Some central government bodies, the SATS, and provincial administrations are obliged by law to deposit certain funds (primarily pension funds) with the PDCs which, in turn, invest these funds in government, Land Bank, 1/ and other securities. The PDCs also receive funds from the Social Security Fund and other public bodies, such as the agricultural marketing boards, the Corporation for Economic Development, as well as from the pension funds of certain other public institutions. Most of these funds are invested by the PDCs in long-term securities. The non-pension funds obtained from SATS, the provincial administration, and certain extrabudgetary government funds 2/ are fluctuating sources of loan money for the PDCs.

The South African Treasury has also direct links with South-West Africa/Namibia--for which special accounts are maintained--as well as with Ciskei, KwaZulu, Lebowa, and others--which have accounts separate from the central government budget. However, the major portion of their revenue consists of grants, both capital and current, from the Central Government. The salaries of white officials from whose services they benefit are charged to the main budget as are development loans. Lesotho, Botswana, and Swaziland--whose imports pass nearly wholly through South African customs--are members of a customs union with South Africa and receive payments from the South African Treasury, representing a pro rata share of indirect taxes collected by the members of the Customs Union.

The Central Government is thus the major recipient of tax revenues, and controls, either directly or indirectly, public sector expenditure. Spending by government departments is limited within any fiscal year to the amounts appropriated by Parliament, and any unspent balances must be returned to the Exchequer at the end of the year. Expenditure overruns, which have been the norm in recent years, are approved by Parliament in a supplementary budget before the end of the financial year.

While existing budgetary procedures provide the authorities with a reasonable degree of control over the fiscal year as a whole, they have

1/ Established to provide credit to South African farmers at concessional rates.

2/ These extrabudgetary funds include the Defense Special Equipment Account, the National Housing Fund, the Atomic Energy Board, the National Road Fund, and the Industrial Development Corporation. These funds represent moneys which have to a large extent been duly appropriated and debited in the state budget.

at times seriously hindered the authorities' effort to maintain appropriate fiscal policies in the light of unexpected domestic and external influences on the economy. For the most part, the authorities view adjustments in tax rates as being more important than discretionary changes in public sector spending as a countercyclical device, even though legislative arrangements limit the scope for changing the tax burden in the course of the fiscal year without parliamentary approval to variations in indirect taxes. The Government has also the authority to raise or lower loan levies on taxes paid by both companies and individuals by up to 10 per cent in the course of the fiscal year.

2. Overview of recent trends in expenditure and revenue

Since 1976/77 (year ending March 31), the authorities have adopted a policy of restraining government outlays in order to leave room for expansion in the private sector. As measured by the State Revenue Account, the proportion of public spending in GDP--which exceeded 27 per cent in the mid-1970s--has been lowered to around 23 per cent in the early 1980s, chiefly by reducing the growth of investment spending. At the same time, the rise in current expenditure has been contained at a compound annual rate of 15 per cent in the five years to 1981/82, compared with 18 per cent annual growth in GDP.

The restraint on the overall growth of spending has not been accompanied by any measurable decline in total revenue, which in relation to GDP has oscillated between 20 per cent and 22 per cent since the mid-1970s. However, the composition of revenue has changed quite appreciably. There has been an official policy of gradually shifting from direct to indirect taxes, which was assisted by the introduction of a general sales tax in 1978 and the personal income tax reductions granted in the 1979/80 and 1980/81 budgets. The ratio of income tax collection to total government revenue--which had increased to nearly 60 per cent in 1976/77--declined to around 56 per cent in 1980/81 despite much higher revenue collections from gold mining. Owing to variations in the gold price, the composition of income taxes itself changed. Tax revenue collected from the gold mines increased at a compound annual rate of 75 per cent between 1976/77 and 1980/81, while other income tax revenue increased at a rate of only 9 per cent, partly reflecting the tax concessions mentioned above. Including lease payments by the gold mines, total revenue from gold mining rose from 6 per cent of total revenue in 1976/77 to over 27 per cent in 1980/81, before declining to 15 per cent in 1981/82 as a result of the fall in the price of gold.

3. The 1980/81 budget and its financing

The 1980/81 budget was introduced against the background of an economy that had just begun to emerge from a prolonged period of hesitant growth. It was therefore designed to underpin the broadening of expansionary trends under way since the second half of 1979 and to ensure a fuller exploitation of the economy's potential than had been the case in earlier years.

Restraint on government spending remained the keystone of the 1980/81 budget strategy. As in the 1979/80 budget, some of the benefits of the soaring revenue from gold mining were channeled to the private sector in general and to households in particular through income tax reductions and the elimination of the loan levy. The need to contain inflation was recognized by eliminating the 7.5 per cent import surcharge and the provision of additional incentives to the private sector for increasing the supply of skilled labor. It is, however, difficult to judge the overall stance of fiscal policy, since budgetary developments in South Africa were strongly influenced by the rise in the price of gold and did not fully reflect changes in the stance of fiscal policy. All in all, the deficit (before borrowing) in the State Revenue Account was reduced from the equivalent of 3.4 per cent of GDP in 1979/80 to 0.6 per cent in 1980/81 (Table 31).

The revenue-reducing measures included in addition to the termination of the import surcharge and the abolition of the loan levy the following: (i) the reduction of the maximum basic marginal tax rate (from 55 per cent to 50 per cent) and the increase of the level to which the maximum rate applies (from R 30,000 to R 40,000 for married persons, and from R 22,000 to R 28,000 for single taxpayers); (ii) the introduction of a single basic income tax rate for both married and single taxpayers; (iii) increased tax deductions for senior citizens and disabled persons; (iv) the increase of the threshold for income tax liability by blacks; (v) an increase of the tax-free portion of married women's income; and (vi) a number of other measures reducing among other things the burden of payments related to transfer and estate duties. The tax concessions, excluding the loan levy, were estimated to amount to R 909 million, far in excess of fiscal drag.

The 1980/81 outturns differed considerably from the budget estimates. The South African authorities had taken a conservative view about developments in the price of gold and had estimated tax and lease revenue from gold mining to increase by 65.6 per cent. In the event, such revenues increased by 142.0 per cent. Household incomes also rose at a much faster pace than anticipated, and revenue from personal income taxes increased by 7.5 per cent against an expected fall of 7.1 per cent. Furthermore, as economic activity was much more buoyant than expected, the growth of revenue from the general sales tax and from custom and excise ^{1/} taxes was considerably higher than budgeted, viz., 32.4 per cent and 14.2 per cent against 24.2 per cent and a decline of 17.2 per cent, respectively. On the whole, revenue increased by 36.0 per cent in 1980/81, exceeding the original estimate by 25 percentage points (Table 32). Revenues as a proportion of GDP rose from 20.3 per cent in 1979/80 to 22.2 per cent (Table 31).

Outlays in 1980/81 were budgeted to increase by 14 per cent; in the event, they rose by 19.2 per cent. Deflated by the price changes of both

^{1/} After taking into account transfers to the Central Revenue Fund of South West Africa and payments in respect of the Customs Union.

public consumption and investment as derived from the national accounts, the increase in real outlays was of the order of 2 per cent, compared with a real rise of about 0.5 per cent in 1979/80. ^{1/} The largest overruns occurred in current expenditure. Transfers to provincial governments increased by 26.1 per cent--against a budgeted rise of 16.2 per cent--and following an increase of 11.4 per cent in 1979/80. The wage and salary bill ^{2/} had been estimated to rise by 22.6 per cent but rose instead by 27.2 per cent, some 4 1/2 percentage points faster than in 1979/80 (Table 33).

The deficit before borrowing, originally set at R 2,227 million, turned out to be only R 331 million in 1980/81. This figure was not only well below the corresponding figure of R 1,656 million in 1979/80 but was also the lowest on record in relation to GDP. The Exchequer financing need amounted to R 582 million in 1980/81, the difference from the budget deficit being accounted for by amounts in transit and nondepartmental expenditure from the Exchequer Account. The PDCs' investment of R 1,048 million was more than adequate to finance the revenue shortfall. Even so, the authorities borrowed some R 596 million from the private nonbank sector in an effort to absorb excess liquidity. This amount, however, was considerably lower than the preceding year's R 972 million, as institutional investors were reluctant to acquire new long-term fixed interest securities at the time when interest rates were expected to rise. The borrowing from private nonbank sources allowed the repayment of R 96 million to foreign lenders and the reduction of the Exchequer's net indebtedness to the domestic banking sector by R 1,243 million (Table 34). Although the net indebtedness of the Exchequer to the domestic banking sector declined in 1980/81, the net indebtedness of the government sector as a whole increased by R 122 million, as the authorities used some R 1,121 million out of the funds of the Stabilization Account primarily to grant loans to the National Supplies Procurement Fund for the purpose of building up strategic inventories.

4. The 1981/82 budget

The 1981/82 budget was designed to help shield the domestic economy from unfavorable external developments. Outlays were budgeted to rise at a slower rate than in 1980/81 and revenues to fall below the preceding year's levels, largely on account of lower revenue from gold mining. The deficit before borrowing was estimated at R 2,709 million and, therefore, to rise from the equivalent of 0.6 per cent of GDP in 1980/81 to about 3.9 per cent. This deficit was not considered by the authorities to be excessive by past standards.

^{1/} According to national accounts statistics, the volume of public outlays on consumption and gross fixed investment rose by 2.1 per cent in 1979/80 and 3.8 per cent in 1980/81.

^{2/} Including wages and salaries for the military. Overall military expenditure had been budgeted to rise by 14.1 per cent in 1980/81. It rose instead by 22.4 per cent, which followed an increase of 30.0 per cent in 1979/80.

The 1981/82 budget was designed at a time, 1/ when the authorities began to perceive an incipient economic slowdown, owing to natural economic forces, and as the Reserve Bank was moving to tighten monetary conditions. The budget was seen as the expression of a policy of "consolidation and adjustment," as it would aim at (1) consolidating the economic gains made in the recent past and (2) assisting the adjustment of the economy to the adverse impact of the sharp decline in the price of gold, the continued sluggishness of world demand, and the pressures stemming from high interest rates in the United States.

Accordingly, the authorities budgeted for a rise of 16.3 per cent in expenditure, which was estimated to allow for a volume increase of about 2 per cent, or less than the growth of real GDP. Higher-than-average increases in nominal terms were budgeted for current expenditure, notably for wages and salaries (21.5 per cent) and other goods and services, including defense spending (18.2 per cent). Transfers and subsidies were instead to rise at a somewhat lower rate than the average, owing to a reduction in transfers to enterprises and a sharp curtailment of those to provincial administrations (Table 33). The rate of growth of capital expenditure was also to remain below the average, mainly because transfers to public corporations and government enterprises were to be sharply curtailed.

The authorities originally estimated that total revenue in 1981/82 would amount to R 13,160 million, or about 1 per cent less than in the preceding fiscal year. The estimate was based on the assumption that the average gold price would be considerably lower than in the preceding budget period and implied a slightly lower revenue growth from the general sales tax as well as from customs and excise duties. 2/ Aside from a number of minor tax concessions, 3/ the budget included a number of important tax proposals, which would have a bearing on revenue beginning in 1982/83, including (a) the implementation of the final stage of taxation of black income earners from March 1, 1982, whereby all individuals in South Africa are subject to a uniform system of taxation; (b) the exemption from the requirement to fill tax returns for individual taxpayers under the PAYE system with taxable wage incomes of not more than R 7,000; and (c) the phasing in of a tax on fringe benefits over the 1982/83 and 1983/84 tax years. 4/

1/ The budget is normally presented in the second half of March. Because of the general election, the 1981/82 budget was presented in August 1981, with expenditure during the period from April 1 being covered by a Part Appropriation Budget.

2/ This was to occur despite an increase of R 110 million in revenue from higher duties on beer, spirits, wine, and other alcoholic beverages, nonalcoholic beverages, tobacco products, and imports of such products as jewelry, photographic equipment, and furs, and was to be mainly the result of a substantial increase in transfers from customs and excise duties to the Central Revenue Fund of South West Africa.

3/ Including tax relief for the aged, increased relief for disabled retirees and for parents of disabled children, and increased deductions with respect to estate duties.

4/ In the event, the introduction of this tax was postponed.

According to revised estimates, both revenue and expenditure turned out to be larger than expected, while the actual deficit (before borrowing) was in the end considerably smaller than budgeted, amounting to R 2,060 million or about 2.8 per cent of GDP. With continued buoyancy in the domestic economy, revenue increased by 7.4 per cent. Instead of declining by 3 per cent, income tax revenue rose by 6 per cent, because profits and incomes were higher than anticipated. Collections of customs and excise duties increased by more than 35 per cent instead of the budgeted 4.7 per cent, reflecting the strong growth of domestic expenditure and imports. On the other hand, revenue from gold mining declined by about 40 per cent, broadly in line with expectations. New tax measures--i.e., the introduction of a 10 per cent import surcharge and the increase in the general sales tax from 4 per cent to 5 per cent--were introduced effective March 1, 1982, but they were designed to reduce the budget deficit in 1982/83 and had only a marginal impact on revenue in 1981/82 (see page 71 below).

Total expenditures grew by 19.9 per cent well in excess of budget estimates (16.3 per cent), and its ratio to GDP rose by about 1 percentage point to 23.5 per cent, compared with the outturn in 1980/81. The overrun was accounted for primarily by higher debt servicing costs 1/ and defense. The authorities also allowed some expenditure to be financed outside the budget, but the amounts involved were relatively small. 2/

The financing of the budget deficit in 1981/82 deviated markedly from that envisaged in the original budget estimates. Purchases of government paper by the PDCs were some R 700 million lower than the expected R 1,850 million. The shortfall was due primarily to larger-than-normal withdrawals of funds by a number of public institutions experiencing larger-than-expected cost increases and generally tight conditions in the money and capital markets. Sales of nonmarketable debt instruments also yielded some R 150 million less than the original estimate of R 550 million. These shortfalls were offset by larger sales of government paper to the nonbank private sector and by raising an additional R 151 million abroad over and above the budgeted R 276 million (Table 34).

5. The 1982/83 budget

The 1982/83 budget was framed with a view to assisting in the adjustment effort. Accordingly, fiscal policy has three aims: (a) to restrict government spending as much as possible without disrupting the provision of essential services, (b) to contain the budget deficit (before borrowing) as a percentage of GDP to 2 3/4 per cent, and (c) to finance the deficit without recourse to bank credit.

1/ The cost of public debt, originally estimated at R 1,771 million, was instead R 1,978 million in 1981/82.

2/ The housing program used R 30 million of building society funds; SASOL and the Industrial Development Corporation borrowed in the domestic capital market--some R 100 million and R 70 million, respectively.