GROWTH, EMPLOYMENT AND REDISTRIBUTION

A Macro-Economic Strategy
(Appendices)

GROWTH, EMPLOYMENT AND REDISTRIBUTION
A MACROECONOMIC STRATEGY

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APPENDIX 1

A REVIEW OF ECONOMIC DEVELOPMENTS SINCE 1994

Recent Macroeconomic Performance

The growth performance of the South African economy has improved considerably over the past two years. Following three years of economic decline, real gross domestic product rose by 1,3 percent in 1993, 2,7 percent in 1994 and 3,3 percent in 1995. This stronger growth occurred in all secondary and tertiary sectors, although agriculture and mining experienced declines in 1995.

A marked increase in real fixed investment has been a welcome feature of the upswing. Private consumption expenditure also firmed as incomes rose and consumer confidence improved. In contrast, real government consumption expenditure, which increased sharply until 1994, levelled off in 1995. Export volumes stagnated in 1994 and then rose by an impressive 8 percent in 1995, while real imports have increased at an annual rate of 16 percent since 1993.

Inflation in 1995 declined to levels last seen in the early 1970s. The annual rate of increase in consumer prices has been below 10 percent for three years. Positive real interest rates and containment of money supply growth have been important factors in combating inflation.

Formal sector employment has responded sluggishly to the economic recovery. Formal non-agricultural employment declined throughout the period 1989 to 1994 and appears to have increased by little more than 50 000 during 1995. However, employment in unregulated sectors of the labour market appears to be on an upward trend.

The post-election period has seen considerable movement in the balance of payments. A net capital inflow amounting to R31 billion was recorded between mid-1994 and the end of 1995. The bulk of this inflow has been portfolio investment, which is comparatively mobile and sensitive to shifts in market perceptions. The balance on current account moved into deficit over this period as imports, particularly capital goods, rose strongly.

Since mid-February the foreign exchange market has been subjected to intense speculative pressure, causing a substantial real depreciation of the rand. This development to some extent reflects that the rand had become somewhat overvalued in response to a temporary capital surge, but was also the result of increased uncertainty regarding policy trends and economic prospects.

Fiscal Policy

In response to the unsustainable fiscal situation that had developed by 1992/93, when the overall deficit reached 9,0 percent of GDP, fiscal policy has been informed by the following goals:

- to cut the overall budget deficit and the level of government dissaving;
- to avoid permanent increases in the overall tax burden;
- to reduce general government consumption expenditure relative to GDP; and
- to strengthen the general government contribution to gross domestic fixed investment.

Although government dissaving has not yet been eliminated, progress has been made in this respect. The cash-flow adjusted exchequer deficit was reduced to an estimated 5,4 percent in 1995/96.

Consolidated general government tax revenue has increased from 25,6 percent to 26,8 percent of GDP between 1992/93 and 1994/95, but still somewhat below the 1989/90 level of 27,1 percent. At the same time, significant shifts in the allocation of expenditure have been effected in accordance with reconstruction and development priorities.

The improved discipline in fiscal policy has contributed to greater financial stability and lower inflation. It has also enhanced local and international business confidence, contributing to capital inflows and investment. A gradual approach to deficit reduction has been necessary to prevent disruptions in the provision of essential public services, but has also had the advantage of avoiding a major contraction in aggregate demand.

It is widely acknowledged that the overall tax burden is high and that personal income tax rates, in particular, lead to excessive distortions in business and household behaviour. A range of tax reforms have been implemented over the past two years.

Tax issues and fiscal relations between the different tiers of government are subjects of major investigations, finalisation of which should lead to greater fiscal certainty and business confidence. The ongoing reform of the budgetary process introduced by the Department of State Expenditure will contribute to more effective planning and expenditure management.

Inflation and Monetary Policy

The basic objective of monetary policy has been to protect the value of the rand. The Reserve Bank operates within a framework in which effective control over the money supply serves as an intermediate objective. Annual guidelines for growth in broadly defined monetary aggregates are set, aimed at reducing the inflation rate.

Following a period of negative real interest rates in 1986/87, monetary policy has been kept relatively tight. A consistent anti-inflationary stance was maintained throughout the 1989-1993 cyclical downturn, bringing broad money supply growth down from 28 percent to single-digit levels. The lower rates of increase in monetary aggregates, with sustained surpluses on the current account, enabled nominal interest rates to decline. The Bank rate was reduced in steps from a maximum of 18 percent in 1989 to a low point of 12 percent in late 1993.

The acceleration in money supply and credit growth in 1994 called for tighter policies to prevent a resurgence of inflation. In September 1994 the Bank rate was raised by 1 percent, followed by three further increases of the same order to bring the rate to 16 percent by April 1996.

Inflation reduction has been facilitated by other developments. Trade liberalisation has contributed significantly to the containment of domestic prices, while more moderate wage-setting and improved industrial relations have also played a role in holding cost increases in check.

The consistent application of monetary policy and the maintenance of positive real interest rates over the past few years have not only brought inflation down to single-digit levels, but have also, with the exception of recent developments, reduced the volatility of a number of financial variables including interest rates. This has facilitated business planning and reduced the intensity of cyclical movements in the economy.

Exchange Rate Developments

The current approach to exchange rate policy reflects the view that the exchange rate of the rand is best protected through consistent application of anti-inflation policies as this brings stability to the average value of the rand against the currencies of trading partners.

The monetary authorities have not attempted to fix a specific exchange rate of the rand. Because the variables which impact on the balance of payments are continuously in flux, the rate must be flexible. The Reserve Bank can to some extent smooth erratic movements in the exchange rate, but it cannot override fundamental market perceptions. Nevertheless, an unsustainable appreciation can be countered by appropriately relaxing exchange controls and accelerating the Reserve Bank's withdrawal from the forward exchange market.

Although the exchange rate is primarily market determined, its value at any moment cannot be considered a true reflection of the underlying value of the rand while exchange controls exist. The government has stated repeatedly that it is committed to phasing out controls in a prudent manner. In line with this commitment, the financial rand was abolished in 1995.

To maintain orderly conditions in the foreign exchange market, it is necessary to retain an adequate stock of foreign exchange reserves. Large capital inflows since mid-1994 enabled the Bank to increase the net gold and other foreign reserves by R9,1 billion during 1995, thus countering somewhat the tendency of the rand to appreciate in real terms.

In view of shortcomings in the forward exchange market, the Reserve Bank has been an active market-maker. While this has led to a large imbalance in the forward book, considerable progress has been made since 1994 in reducing the Bank's exposure. The combination of more market-related forward rates, interest rates and spot exchange rates has encouraged private parties to develop the forward cover market. This remains true although the Reserve Bank's involvement in that market has increased again since the depreciation of the rand.

Trade and Industrial Policies

The unreliability of raw materials exports in the 1980s persuaded policy-makers that the central thrust of trade and industrial policy had to be the pursuit of employment-creating international competitiveness. This entails a shift away from demand-side interventions, such as tariffs and subsidies, which raised prices received by producers, to supply-side measures designed to lower unit costs and expedite progress up the value chain.

While long-term survival strategies have had to be developed for certain sensitive sectors, general progress towards an outward-oriented stance is reflected in a number of achievements:

- substitution of former quantitative restrictions with tariffs;
- rationalisation of the tariff structure by almost halving the number of tariff lines;
- abolition of import surcharges, completed in October 1995;
- phasing down of tariffs, begun in 1995, by on average one-third over five years; and
- phasing out of the general export incentive scheme, to be completed by the end of 1997.

Another critical policy thrust has been the expansion of market access through preferential trade arrangements with industrial countries and pursuit of regional economic integration. The following developments deserve specific mention:

- the signing of the Marrakesh Agreement has secured membership of the World Trade Organisation and continued "most favoured nation" access to member country markets;
- the granting of Generalised System of Preferences status by various developed countries (the USA, the European Union, Japan, Canada, Norway and Hungary) has brought preferential access to their markets; and
- the signing of bilateral trade treaties with several African countries and rapidly growing trade with neighbours has seen exports from within the Southern African Customs Union area to the rest of the Southern African region quadruple.

In the area of concessionary industrial finance, several schemes have been introduced by the Industrial Development Corporation (IDC), to meet strategic industrial objectives, including:

- the JOBS scheme for small enterprises satisfying certain employment criteria;
- the LIFE scheme for ventures which satisfy certain export performance criteria; and
- the Multi-Shift scheme for existing concerns which introduce an additional shift.

Although the Regional Industrial Development Programme (RIDP) is under review, it was expanded in 1993 to include a simplified scheme applicable to smaller enterprises. The phasing in of supply-side support measures has begun recently, with the introduction of the IDC's World Player scheme for the modernisation of plant and equipment in sensitive industries facing a significant decline in protection. The development of a full package of supply-side measures is the central focus of medium-term industrial and trade strategy.

The impact of trade restructuring is not easily measured. Many firms have been under intense pressure, compounded by the real appreciation of the exchange rate in 1995, and will require additional investment incentives to meet international competition. Nevertheless, manufacturing employment and exports have increased, taking advantage of the international cyclical upswing. The most positive sign, also evident in sectors sensitive to the lowering of trade barriers, has been the significant increase in new foreign and domestic fixed investment in the manufacturing sector.

Employment and Labour Trends

South Africa's labour market is extremely fragmented. Employment growth in the formal sectors of the economy has stagnated over the past decade and private sector employment has fallen. It is apparent that unregulated low wage employment has increased significantly since the 1970s, now accounting for perhaps a third of all job opportunities. In addition, a large pool of unemployed men and women who earn no income or derive sporadic earnings from informal self-employment make up about a third of the potential labour force.

Irregular, sub-contracted, out-sourced or part-time employment on semi-formal contractual terms is becoming the preferred source of labour for many employers. This is resulting in a growing gap between the wages and benefits in the regulated and unregulated parts of the labour market. Where regulations raise the costs of job creation, employers turn to unregulated forms of employment.

The following additional features of the labour market may be noted:

- spatial imbalances between supply and demand for labour;

- inordinate distances between places of residence and work;
- poor integration of education and training into job entry and career planning; and
- diversity in technology, skills and productivity across regions and sectors.

The major development in the primary segment of the labour market over the past two years has been the new Labour Relations Act. This has four key features. It establishes a single industrial relations system for all employees, promotes collective bargaining by providing certain organisational rights for trade unions, establishes new procedures and institutions for resolution of disputes and provides for workplace forums to facilitate a shift from conflictual employer-employee relations towards joint problem-solving with employee participation. The reduced incidence of industrial unrest in recent years attests to the considerable progress made in this regard.

What are the implications of labour market trends for income distribution? Over the past two decades, black wage income in the non-primary sectors of the economy has increased by 4,5 percent per year in real terms, mainly due to rising average wages. Though many households have been lifted above the poverty line, the trend is shifting in favour of higher income classes, where education, training and experience contribute to sustained improvements in productivity. Employment growth has contributed just 1,2 percent per year to the increase in black wage income over the past twenty years, and has been virtually zero over the past decade. The slow pace of regulated formal employment growth has resulted in limited benefits of growth reaching the poor. Though the unemployed are in some cases attached to households where other members have access to productive employment, in many of the poorest households the main breadwinner cannot find a job. Whereas the average household received R1 360 per month from wages in 1993, the poorest fifth received R47 per month from regular employment, mainly because so few of their work-seekers had jobs.

Restructuring the Public Sector

The process of administrative restructuring of the public service provided for in the Constitution gathered pace in 1995. With the first phase of the process, involving the integration of the public service at national and provincial levels, nearing completion, attention is shifting to the longer-term issue of creating a more cost-effective service.

A major step was taken in early 1996 with the devolution to line departments of all career-related personnel functions. The restructured Public Service Commission will retain a research and monitoring role, while the Department of the Public Service and Administration will be responsible for broad human resource policy, conditions of service and labour relations.

Agreement was recently reached on a three-year conditions of service adjustment package. Inter-related elements include the right-sizing of the public service, a voluntary severance package and simplification of occupational remuneration schedules. Substantial improvements in wages in 1996 are envisaged for certain categories of civil servants, redressing imbalances within the service and relative to the private sector. Improvements in subsequent years will depend on the overall reduction in personnel and affordability considerations.

Government has initiated a review of state assets, with a view to restructuring their ownership and governance. An agreement has been signed with organised labour which sets guidelines for further consultation. A process of enhancing the governance of public enterprises is under way, with the first step covering policy regarding dividend payments to the fiscus. Revised conditions for sovereign guarantees have also been issued which reduce fiscal exposure and extend the discipline of the market to public sector institutions.

Progress has been made over the past year regarding the restructuring of development finance institutions. A strong emphasis has been placed on ensuring financial sustainability. It is envisaged that grant components of project finance should be channeled through the fiscus in a transparent manner and that loan terms should be market-related.

Social Policy

The past two years have witnessed an energetic revision of social policies. Although implementation of these initiatives has been uneven, policy development is now sufficiently advanced to expect significant delivery across a broad front in the coming years. A few key linkages between growth and redistribution and new policy directions are highlighted below.

Progress in **education** shows up consistently in comparative studies as a key determinant of long-run economic performance and income redistribution. Sustained improvements in the quality of public schooling available to the poor and greater equity in the flow of students through secondary and tertiary education are central to the Government's approach. Despite near-universal enrolment in primary education, only some 40 per cent of children currently complete secondary schooling successfully. Inadequate pass rates in science and mathematics are a cause for concern.

Reform initiatives underway aimed at qualitative improvements in the educational system include restructuring and decentralising of school governance and management, overhauling school curricula, establishing a national qualifications framework, addressing the culture of learning in schools, building and refurbishment of classrooms, rationalising and renewing teacher education, enhancing educational administration, and expanding further education. Suitable norms, together with quality enhancing rewards, are under review. With spending on education at nearly 7 percent of GDP there is a need to contain expenditure through reductions in subsidisation of more expensive parts of the system and greater private sector involvement in higher education. This will concentrate public resources on enhancing the educational opportunities of historically disadvantaged communities.

The systematic restructuring of **health** services, with strong emphasis on universal and free access to comprehensive primary care, represents a clear commitment to improving the health conditions of the poor. Within the public health system resources are shifting from tertiary services in metropolitan areas towards overcoming the inadequacies of hospitals and clinics in rural areas and townships.

Partnerships between the state and voluntary organisations centred on developmental **welfare** services will focus attention on the vulnerable, especially in under-serviced areas, while freeing resources from expensive institutionally based services. By far the greater part of welfare spending is devoted to social grants, which assist some 3 million elderly or disabled persons or needy children. These transfers play a vital role in poverty alleviation, especially in rural areas. Affordable alternatives to support families and children in need are being investigated.

Although the implementation of the **housing** and infrastructure programmes have been slow, there have been continuous refinements to the policy framework. Since late 1995, a marked acceleration in housing delivery has been evident. A continuation of this trend will see the provision of housing and related services on a substantial scale in subsequent years. This will have several beneficial distributional effects. Construction is largely labour intensive and provides jobs and training, while improvements in housing and infrastructure enhance the productivity of labour and the quality of urban life.

Improved **water and sanitation** is typically the first priority of rural communities. Some 500 projects costing R1,5 billion have been committed. Rapid progress with the supply of potable water to the 12 million people without adequate access will be a major contribution to poverty relief. These initiatives have been complemented by new policies regarding sanitation systems.

Enhanced **crime prevention** has been identified as one of the key pillars on which growth and development rests. The national crime prevention strategy, which will involve considerable coordination with other departments and includes several projects, such as community policing stations, will have a strong redistributive thrust, as the poor are hardest hit by violent and property-related crimes. The emphasis on community policing in the new approach recognises the crucial link between crime prevention and development at the local level.

The **land reform** programme, combining asset redistribution with enhancement of tenure, has an important role in improving the long-term prospects for employment and income generation in the rural economy. Progress has been made with finalising procedures for the rapid release of land and the introduction of a settlement grant. Complementary initiatives include emergent farmer support programmes. As these gain momentum, emphasis will shift to marketing support, appropriate technological interventions and streamlined extension services.

Growth, Employment and Redistribution: A Summary

As a result of political stability and sound policies, economic growth has revived, bringing to an end the stagnation that characterised the 1980s. Most commentators are confident of a return to a growth trend somewhat in excess of population growth, ensuring a gradual improvement in living standards. The higher growth path is linked to an improved balance of payments situation, which eases the major constraint on medium term economic growth. The last few years have also witnessed success in the fight against inflation as a result of effective monetary policies and more moderate wage settlements.

With regard to the challenge around redistribution, the past years have seen the introduction and extension of policies aimed at more equity in access to social services. These have important redistributive effects, and in the case of education and training, land reform and urban development, will also have favourable consequences for economic growth in the longer term. There has been some redistribution of wage income over the past two decades, partly as a result of union pressure. A continuation and possible acceleration of this process has been made possible by increases in productivity. Improvements in education, skills, labour effort and management are now crucial for wage increases and are increasingly being addressed in industrial negotiations.

Higher economic growth has not yet been translated into significant employment creation. This is to some extent to be expected, as many firms began the upswing with substantial unused capacity and economic restructuring aimed at improved international competitiveness has required cost reductions, including some shedding of labour. However, in the absence of rapid employment growth, unemployment has increased, so that the distribution of income exhibits an increasing dichotomy between those inside the formal economy and those on its edges. Accelerated economic growth associated with stronger employment creation is the key to continued progress towards an equitable distribution of income and improved standards of living for all.

APPENDIX 2

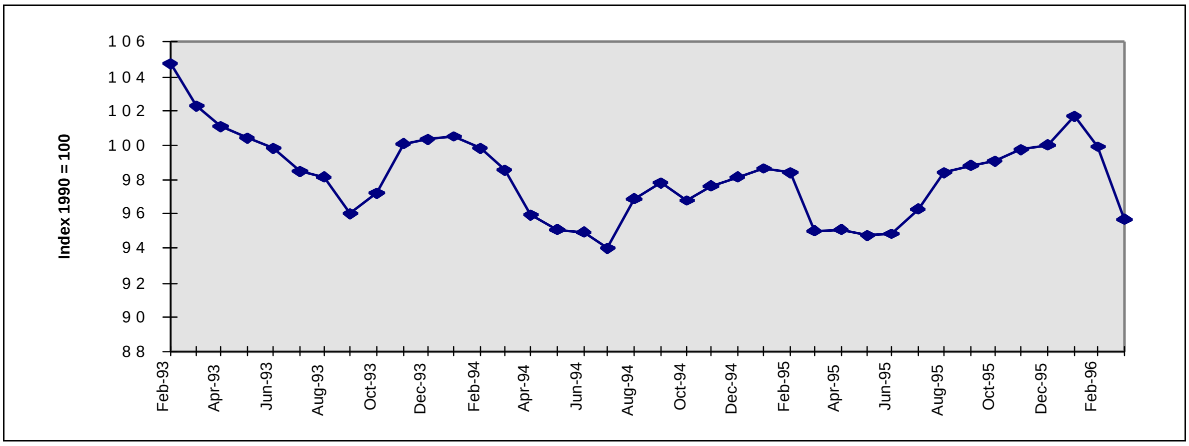
AN INTERPRETATION OF THE RECENT DEPRECIATION

Since mid-February the foreign exchange market has been the focus of intense speculative pressure, leading to a significant real depreciation of the rand. These developments were to some extent the result of unfounded rumours and increased uncertainty over the direction of Government economic policy, but also reflected the fact that the exchange rate had become overvalued and that an adjustment was overdue.

The table and graph below place the depreciation in perspective. The February adjustment appears to have been a purchasing power parity correction which brought the real exchange rate back to its 1994 level. It is also clear that this level is not as low as those that prevailed in 1985.

Real Effective Exchange Rate

1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	Jan96	Feb96	Mar96
108,5	83,7	86,5	100,3	95,8	95,4	100,0	103,0	104,8	100,2	97,2	97,5	101,7	99,9	95,7



During 1995 South Africa experienced a falling rate of inflation, which, coupled with continuing tight monetary policy, resulted in real interest rates that were high by international standards (8 percent vs 2 percent). These high rates helped to attract a net capital inflow in excess of R30bn. This inflow dominated the growing current account deficit, thus placing upward pressure on the nominal exchange rate. The Reserve Bank responded by preventing the nominal appreciation. In the course of 1995, gross reserves increased from R11 to R16 billion and net reserves from R6 to R16 billion.

The stable nominal exchange rate meant that the real rate was appreciating over this period. Such a strong rand did not, however, reflect the underlying fundamentals as the economic recovery was not sufficiently strong to justify a real appreciation and an inflation differential still persisted between South Africa and its major trading partners.

Market participants, lulled into accepting that the nominal rate would remain stable, maintained uncovered positions in the belief that the real interest rate differential would be enough to compensate holders of rand assets for any expected depreciation. The markets also displayed a false sense of complacency about the stability of the foreign exchange market. The fact that the rand market is relatively thin and therefore subject to a high degree of volatility appears to have been ignored. Moreover, the financial rand, which previously insulated the commercial rand from such volatile capital movements, no longer existed. This underlying reality was hidden during 1995 since it is relatively easy to contain fluctuations in the exchange rate when upward pressure on the currency coincides with the need to accumulate foreign reserves.

The February depreciation was finally triggered by unsubstantiated rumours concerning President Mandela's health and possible exchange control relaxation, as well as a rise in US bond rates. During the subsequent two weeks intervention in the spot market amounted to just over R1 billion. The Reserve Bank's efforts were, however, concentrated in the forward market where the oversold position increased by R5 billion. Although this eased the pressure on the spot market and the reserve position, it could create a fiscal burden in future.

The depreciation in April, which resulted in a further decline of the real exchange rate of approximately 9 percent, can be attributed to the following:

- rumours of Minister Liebenberg's resignation;
- rumours of an impending removal of exchange controls;
- perceptions of divergent views between business and labour; and
- perceptions of policy indecision within government.

The initial policy reaction to the April crisis included further intervention on the spot and forward markets as well as an increase in the Bank rate by one percentage point. Although the interest rate increase was not a welcome development from a growth perspective, it had the effect of assisting in stabilising the foreign exchange market.

How the exchange rate crisis is managed from here onwards is critical to South Africa's economic fortunes. The commercial banks have already reacted by increasing their lending rates by a further one percentage point. This will clearly have a more depressing effect on growth and employment in the remainder of 1996 and beyond. In the absence of a clear and credible macroeconomic policy framework the currency weakness will continue with further financial market reactions, raising the spectre of a fully-fledged recession with inflation accelerating and escalated capital flight.

However, the depreciation of the Rand also represents a significant window of opportunity. The integrated strategy is designed to take advantage of the implied shift in the prices of tradables and non-tradables, and to lay the basis for an export-led revival of the economy. But this will only occur if the depreciation is not dissipated through increased wages and prices and if it is supported by appropriate monetary, fiscal and trade policies - in short the integrated macroeconomic policy package.

APPENDIX 3

THE MACROECONOMIC OUTLOOK OF CURRENT POLICIES

In this appendix results are reported of simulation exercises based on current fiscal and sectoral policies utilising inputs from four macroeconomic models of the economy. The projections described here are derived from an adaptation of the Reserve Bank's econometric model, but are broadly consistent with results obtained using models of the Development Bank of Southern Africa, the Bureau for Economic Research and the World Bank.

Model characteristics

1. The base scenario assumes a decline of almost 10 percent in the real effective exchange rate in 1996. This implies a partial reversal of the exchange rate movements which have occurred in April 1996, with the rate averaging about R4,30 to the US$ during 1996. For the rest of the period 1996-2000 an almost constant real exchange rate is assumed.

2. The main fiscal assumptions in the base model are:
    - a reduction in the budget deficit to 3 percent of GDP by the 2000/01 fiscal year, broadly consistent with current fiscal targets;
    - a decline in real government consumption expenditure as a proportion of GDP to about 18 percent in the year 2000;
    - a decline in tariff revenue relative to dutiable imports from 10 percent to 8 percent, broadly in keeping with the present commitments to the World Trade Organisation;
    - an average increase in the government real wage of about 1 percent per year, based on the agreement reached in the Central Bargaining Chamber and projected inflation;
    - average real increases in general government investment and capital formation by public corporations of between 2 percent and 3 percent per year.

3. Real interest rates remain positive through the simulation period, but fall somewhat with a projected lower inflation environment in the second half of the period.

4. Modest increases in real wages in the private sector are anticipated throughout 1996-2000, associated with productivity improvements and relative stability in labour relations.

Key results

1. As is widely expected, GDP growth reaches a cyclical peak in 1996 of about 3,3 percent and then falls somewhat before recovering to about 3 percent again in 1999 and 2000. Growth is mainly the result of steady increases in fixed investment and manufactured exports.

2. The current account of the balance of payments remains in deficit throughout, but improves to around 1 percent of GDP as a result of relatively weak growth. Without any gains in competitiveness, substantial foreign direct investments are not likely and the current account deficit is financed largely by public borrowing.

3. Government consumption expenditure in the year 2000 is about 2 percent higher than in 1996 in real terms.

4. Inflation rises to nearly 11 percent in 1997 as a result of the exchange rate depreciation and falls slowly thereafter, consistent with adherence to fiscal and monetary policy guidelines.

5. Private saving remains fairly stable, averaging just under 21 percent of GDP, while government dissaving falls to below 1 percent of GDP in 2000.

6. With an estimated output elasticity of 0,4, formal non-agricultural employment growth averages 1 percent per year. Allowing for somewhat faster growth of informal and semi-formal employment (elasticity = 0,7), which accounts for 50 percent of total employment, annual employment creation averages 100 000 between 1996 and 2000 and unemployment rises from 35 percent to 38 percent. Nearly two-thirds of new jobs are non-formal.

In sum, the base scenario represents a stable macroeconomic trajectory in the presence of adherence to deficit reduction guidelines, but export and output growth are insufficient to reverse the worsening unemployment trend. The base model assumes that the deficit reduction programme will be adhered to, and envisages a reduction in real government consumption expenditure relative to GDP. The resulting reduction in government borrowing for consumption purposes represents an enhancement of the capacity of the domestic economy to finance private sector investment and somewhat improves long-run growth potential.

Base Scenario Projections: 1996-2000

Model characteristics	**1996**	**1997**	**1998**	**1999**	**2000**	**Average**
Fiscal deficit (% of GDP) (fiscal year)	5,1	4,5	4,0	3,5	3,0	4,0
Real government consumption (% of GDP)	19,8	19,5	19,1	18,6	18,1	19,0
Average tariff (% of imports)	10,0	9,0	9,0	8,0	8,0	8,8
Average real wage growth, private sector	0,8	1,5	1,7	1,3	1,4	1,4
Average real wage growth, government sector	4,8	0,4	0,4	0,3	0,0	1,2
Real effective exchange rate (% change)	-9,6	0,7	0,1	0,1	0,0	-1,8
Real bank rate	7,0	6,0	5,0	4,5	3,7	5,2
Real government investment growth	2,6	2,4	2,2	2,2	2,4	2,4
Real parastatal investment growth	3,0	2,5	2,5	2,5	3,0	2,7
Real private investment growth	6,3	4,2	4,4	5,8	7,1	5,6
Real non-gold export growth	9,6	7,5	6,4	5,5	5,3	6,9
Results	**1996**	**1997**	**1998**	**1999**	**2000**	**Average**
GDP growth	3,3	2,0	2,5	2,9	3,3	2,8
Inflation (CPI)	8,4	10,9	9,6	9,3	9,1	9,5
Employment growth (non-agricultural formal)	0,9	1,0	0,8	0,9	1,3	1,0
New jobs per year ('000s)	97	101	84	103	134	104
Current account deficit (% of GDP)	1,8	1,3	1,1	1,1	1,6	1,4
Real export growth, manufacturing	12,5	10,4	7,5	6,6	5,4	8,5
Gross private savings (% of GDP)	20,5	20,7	20,8	20,8	20,6	20,7
Government dissavings (% of GDP)	3,1	2,6	2,0	1,4	0,9	2,0

APPENDIX 4

THE MACROECONOMIC OUTLOOK OF THE INTEGRATED STRATEGY

The simulation results reported here introduce several policy adjustments to the base scenario sketched above, illustrating the possible macroeconomic consequences of the proposed integrated strategy. The key growth drivers, namely the investment and export projections, were tested for feasibility and consistency on all the models and subjected to econometric analysis. There is a strong redistributive thrust to the policy shifts envisaged which is not reflected here due to the macroeconomic nature of the modelling framework.

Model characteristics

1. A real effective exchange rate depreciation of 8,5 percent, averaging R4,25 to the US$ for the full 1996 calendar year, and maintenance of this real rate over the 1996-2000 period.

2. A tighter fiscal stance, reducing the deficit to 4 percent of GDP in 1997/98, falling to 3 percent by 1999/00, resulting in the virtual elimination of government dissaving by 2000.

3. Accelerated tariff reform, bringing forward by two years the scheduled adjustments on clothing, textiles and vehicles and reducing all other lines by 5 percentage points on average in 1997. This improves competitiveness and dampens inflation.

4. A reduction in the average annual increase in the private formal sector real wage from 1,4 percent to 0,7 percent, brought about by wage moderation within the collective bargaining system and sectoral shifts in favour of more labour-intensive industry.

5. Strong increases in investment by public authorities and public corporations, accelerating in real terms to 17 percent and 10 percent, respectively, between 1999 and 2000.

6. Additional growth in real non-gold exports, particularly manufacturing, rising to over 10 percent per annum in 2000, driven by improved competitiveness.

7. Additional foreign direct investment averaging US$509 million over the period, induced by the more favourable investment environment.

Key Results

1. GDP growth improves markedly relative to the base scenario, increasing to just over 6 percent in 2000 and averaging 4,2 percent over the period. Much of this expansion is associated with manufacturing export growth averaging over 10 percent per year accompanied by increased public and private sector investment activity.

2. Gross private savings rises somewhat as a percentage of GDP, due to fiscal discipline, increasing the availability of domestic financing for the accelerated investment.

3. Inflation is lower due to the tight fiscal and monetary stance and the containment of wage increases.

4. The current account deficit increases due to the higher growth, partly financed by foreign direct investment inflows.

5. Employment creation in the formal sector increases from 1,0 percent to 2,9 percent on average per year, brought about in part by an increase in the employment elasticity relative to output growth. Reinforced by increased non-formal employment induced by income growth, job creation increases to an average of some 270 000 per year and just over 400 000 in the year 2000.

The main strength of the integrated strategy lies, however, in the growth prospects after 2000. Annual GDP growth averaging 5 percent or higher, fuelled by strong private sector capital formation, export growth and improvements in labour productivity, leads to employment growth of some 500 000 annually, increasingly dominated by higher formal sector wage growth.

Integrated Scenario Projections: 1996-2000

Model characteristics	**1996**	**1997**	**1998**	**1999**	**2000**	**Average**
Fiscal deficit (% of GDP) (fiscal year)	5,1	4,0	3,5	3,0	3,0	3,7
Real government consumption (% of GDP)	19,9	19,5	19,0	18,5	18,1	19,0
Average tariff (% of imports)	10,0	8,0	7,0	7,0	6,0	7,6
Average real wage growth, private sector	-0,5	1,0	1,0	1,0	1,0	0,8
Average real wage growth, government sector	4,4	0,7	0,4	0,8	0,4	1,3
Real effective exchange rate (% change)	-8,5	-0,3	0,0	0,0	0,0	-1,8
Real bank rate	7,0	5,0	4,0	3,0	3,0	4,4
Real government investment growth	3,4	2,7	5,4	7,5	16,7	7,1
Real parastatal investment growth	3,0	5,0	10,0	10,0	10,0	7,6
Real private sector investment growth	9,3	9,1	9,3	13,9	17,0	11,7
Real non-gold export growth	9,1	8,0	7,0	7,8	10,2	8,4
Additional foreign direct investment (US$ m)	155	365	504	716	804	509
Results	**1996**	**1997**	**1998**	**1999**	**2000**	**Average**
GDP growth	3,5	2,9	3,8	4,9	6,1	4,2
Inflation (CPI)	8,0	9,7	8,1	7,7	7,6	8,2
Employment growth (non-agricultural formal)	1,3	3,0	2,7	3,5	4,3	2,9
New jobs per year ('000s)	126	252	246	320	409	270
Current account deficit (% of GDP)	2,2	2,0	2,2	2,5	3,1	2,4
Real export growth, manufacturing	10,3	12,2	8,3	10,5	12,8	10,8
Gross private savings (% of GDP)	20,5	21,0	21,2	21,5	21,9	21,2
Government dissavings (% of GDP)	3,1	2,3	1,7	0,7	0,6	1,9

APPENDIX 5

THE MACROECONOMIC IMPLICATIONS OF A FISCAL EXPANSION

As part of the analysis of the strategic options for South Africa, the possibility of utilising a fiscal expansion as the primary basis for a growth strategy was explored. Such a strategy would normally be aimed at stimulating aggregate demand with the aid of large-scale increases in government spending. The evident attraction of this option lies in the fact that it complements the urgent need for accelerated provision of services and infrastructure.

An area of concern immediately arises. The experience of the past two years casts doubt on the capacity of the public sector to absorb significant additional resources and on the prospects for reprioritisation in the absence of budget compression. A fiscal expansion may therefore exacerbate the unacceptable level of wastage in the public sector inherited from the past.

To investigate the macroeconomic feasibility of a public expenditure driven growth strategy, the effects of an increase of 10 percent per annum in real general government expenditure and in parastatal fixed investment for the period 1997 to 2000 were simulated on the econometric model of the Reserve Bank, and compared to the baseline growth scenario.

The results of the simulations are reported in the table below. Increased spending drives up interest rates which crowds out private investment. The growth rate, after an initial surge therefore declines and falls below the baseline. There is an improvement in employment as a result of government employment growth, however real wages are eroded by inflation. A growing proportion of the increased expenditure goes towards debt servicing. The major problem areas are a current account deficit that increases to well over 4 percent of GDP, a fiscal deficit which rises to 16 percent of GDP and an inflation rate that reaches 15 percent in the year 2000.

Results from two growth scenarios		**1996**	**1997**	**1998**	**1999**	**2000**	**Average**
GDP growth	Baseline	3,3	2,0	2,5	2,9	3,3	2,8
	Alternative	3,3	4,2	2,8	2,9	2,9	3,2
Inflation	Baseline	8,4	10,9	9,6	9,3	9,1	9,5
	Alternative	8,4	11,1	12,1	13,4	14,8	12,0
Current account deficit (% of GDP)	Baseline	1,8	1,3	1,1	1,1	1,6	1,4
	Alternative	1,8	3,4	3,6	3,9	4,4	3,4
Government deficit (% of GDP)	Baseline	5,1	4,5	4,0	3,5	3,0	4,0
	Alternative	5,1	7,0	9,4	12,5	16,2	10,0
Employment growth	Baseline	0,9	1,0	0,8	0,9	1,3	1,0
	Alternative	0,9	3,1	2,2	2,6	2,8	2,4

Furthermore, it should be noted that these models do not provide for realistic expectations. Modern financial markets are aware of the fact that unsustainable increases in government expenditure cause balance of payments and debt servicing problems. These expectation effects, given South Africa's relatively large public debt and limited foreign reserves, would precipitate capital flight at an early stage of the expansion. The outcome would be further currency instability and a possible monetisation of the budget deficit.

These conclusions are not surprising. The case for a public expenditure driven growth strategy rests on a version of the Keynesian model developed for a closed economy with constant prices prevalent in the 1950s and 1960s. In a modern open economy with mobile capital it is not possible to expand government expenditure without a deterioration in the budget and foreign balances and an increased exposure to a loss of confidence.

This analysis is confirmed by international experience. During the 1970s and 1980s several South American countries opted for growth and redistribution strategies characterised by large-scale government spending. The effects in all of these cases were similar: an initial period of sharp increases in output and employment, followed by severe macroeconomic bottlenecks in the forms of balance of payments crises, massive currency deprecation, large government deficits, high inflation and sharply declining real wages and growth rates.

In conclusion, large-scale increases in government spending as a macroeconomic strategy will create major macroeconomic imbalances in the form of high inflation, serious balance of payments difficulties and poor long term growth and employment prospects. This does not imply that increases in government spending aimed at addressing backlogs should not be considered under current circumstances - the macroeconomic strategy presented in this document does in fact provide for substantial spending in this respect. It does suggest, however, that increased government spending of the magnitudes required for it to serve as the foundation of growth is likely to defeat the very purposes of the strategy.

APPENDIX 6

A REVIEW OF RECENT FISCAL DEVELOPMENTS

Since 1993, the main goal of fiscal policy has been to achieve an annual reduction in the budget deficit of about 0,5 percent of GDP, together with a reduction in government consumption expenditure and avoidance of permanent increases in the tax burden. It is also envisaged that there should be an increase in public sector investment spending.

The table below indicates that the budget deficit represented 7,9 percent of GDP in 1992/93, and is budgeted to be 5,1 percent in 1996/97. For the general government as a whole and measured on a national accounts basis, current dissaving peaked at 5,9 percent of GDP in 1993 and fell to an estimated 4,0 percent in 1995. Although these trends represent a significant reduction in the public sector borrowing requirement, this has partly been the result of lags in spending and a robust recovery of revenue during the economic upswing. The underlying fiscal stance has probably remained fairly stable. Given the rising trend of debt service payments, however, the underlying deficit remains a cause for concern.

The actual spending outcome in recent years has been lower than budgeted mainly due to greater end-of-year rollovers, which can to a large extent be carried forward. Some rollovers reflect accrued commitments, including substantial unspent RDP funds. Accelerated delivery and tighter budgetary allocations must in due course lead to a reversal of the trend.

The conventional deficit excludes extraordinary transfers to offset liabilities incurred over a longer period by the government pension fund on early retirement benefits and by the Reserve Bank on the foreign exchange forward book. There are several further aspects to note:

- Debt cost is recorded on a cash flow basis and does not include provision for the discount at which stock is issued, estimated at about 0,5 percent of GDP.
- Inflation-adjusted accounting, incorporating the decrease in the real value of the debt associated with inflation, would reduce debt service charges by about 4 percent of GDP.
- Annual contributions to the government pension fund to improve the pension funding level over-state the level of remuneration by about 0,2 percent of GDP.

Non-interest current expenditure on the national budget has fallen from 25,5 percent of GDP to an estimated 22,3 percent in 1996/97, although outlays in the earlier years included some once-off expenditures. Increases in expenditure associated with the democratic transition were matched by a temporary tax surcharge on income which took effect in 1994/95 and 1995/96. Expenditure containment has been most effective in respect of transfers to local authorities and to businesses, partially offset by an increase in transfers to households (mainly social grants). As remuneration comprises nearly three-quarters of government consumption expenditure, containment of public sector employment growth and/or real wages are key elements in managing the consumption spending aggregate in future.

Although capital expenditure on the national budget has been increasing, actual spending has lagged, largely due to unspent RDP funds. Local authorities have also had some difficulty in maintaining capital expenditure. For the public sector as a whole, this has been compensated for by a stronger recovery in investment by public corporations. The considerable work on programme design done since 1993 will shortly be reflected in increased capital spending.

The higher tax-GDP ratio in 1994 and 1995 reflects, in addition to the cyclical upswing, the effect of the transition levy, phased out with effect from the 1996/97 year. Sales of oil reserves have also contributed to revenue in recent years. Tax reforms since 1993 include:

- consolidation and simplification of the personal income tax schedules;
- reduction in average income tax rates while raising the maximum marginal rate to 45 percent;
- elimination of discrimination between men and women in the tax code;
- lowering of the corporate tax rate to 35 percent; and the secondary tax on companies to 12,5 percent;
- abolition of import surcharges;
- withdrawal of the non-resident shareholders' tax;
- reduction of the marketable securities tax and stamp duty from 1 percent to 0,5 percent;
- increase in the rate of estate duty and donations tax from 15 percent to 25 percent;
- increases in excise duties, including significantly higher duties on tobacco products;
- extension of VAT to certain financial services and abolition of the financial services levy;
- introduction of a 17 percent tax on the gross interest and net rental income of retirement funds.

The combined effect of recent tax reforms has probably been roughly neutral with respect to the overall burden. Several measures have had a favourable impact on the distortionary effects of the tax system, while the overall tax incidence has remained progressive. However, annual adjustments to the personal tax schedule have not fully compensated for the effects of inflation. There has been a strong focus on improving the capacity of the tax authorities and an important step was the establishment of a more independent revenue service.

Total government debt at the end of 1995 amounted to 57 percent of GDP. Foreign debt is less than 5 percent of the total, although a proportion of domestic debt is also held by non-residents. The debt-GDP ratio has risen markedly in recent years, reflecting historically high budget deficits, lower inflation, high real interest rates and the issue of stock to cover liabilities of the former regional governments, forward cover losses of the Reserve Bank, accelerated pre-funding of pensions and provision for early retirement of civil servants. Improved debt management has been identified as a priority of the Department of Finance.

National Budget Estimates (% of GDP)	**1992/93**	**1993/94**	**1994/95**	**1995/96**	**1996/97**
Tax revenue	23,2	23,8	24,7	24,7	25,1
Non-tax revenue	0,6	0,7	0,4	0,6	0,3
Other receipts	0,4	0,4	0,0	0,3	0,4
Total revenue	24,2	24,8	25,2	25,6	25,8
State debt cost	4,9	5,3	5,4	5,8	6,1
Current expenditure	25,5	23,7	23,5	22,7	22,3
Capital expenditure	1,7	2,0	1,9	2,5	2,5
Extraordinary transfers	0,0	3,8	0,0	0,6	0,0
Total expenditure	32,1	34,7	30,8	31,7	31,0
Budget deficit (excl extraordinary transfers)	7,9	6,1	5,6	5,5	5,1

APPENDIX 7

THE REPRIORITISATION OF EXPENDITURE AND THE RDP FUND

A commitment to maintain fiscal discipline while effecting a reorganisation of expenditure in line with the objectives of the reconstruction and development programme has been a cornerstone of fiscal policy since 1994. To achieve this the government established the RDP Fund as a dedicated financing channel to prioritise key developmental projects.

Until its abolition, the RDP fund was a budget allocation scheduled to increase by R2,5 billion per year. In their first year projects appeared directly on the RDP fund vote, thereafter they were assumed under the relevant departmental vote.

RDP Allocations (R million)	**1994/95**	**1995/96**	**1996/97**
Urban infrastructure and development	841	1722	1999
Rural infrastructure and development	116	898	1387
Health services	971	1887	1760
Education	100	511	1000
Protection services	12	284	390
Other	783	285	964
Total allocation	2823	5587	7500
Roll-over of unspent allocations	1947	4245	4643

The bulk of RDP funds have been allocated to social spending. In the area of urban development, the focus has been mainly on infrastructure and to a lesser extent housing, while rural development spending largely concentrated on land reform and water supply. Spending on health has been either in the form of bridging finance to provinces or in support of the primary health care initiative. The contribution to the education budget has been relatively modest, although R1 billion was set aside in the 1996/7 allocation for school building. The “other” category comprises a range of projects, often with a capacity building emphasis.

At a time of very tight budget constraints a significant increase in social infrastructure spending was achieved through the mechanism of the RDP Fund. It is indeed doubtful whether a switch in spending of this order would have been possible in its absence. The RDP Fund has now been abolished in recognition of the ability of the normal budget process to allocate resources to priority areas.

The extent of reprioritisation of the overall budget is shown in the table below which presents figures for the consolidated national and provincial budgets. The most notable change has been the decline in defence expenditure. However, the spending trends in other components of protection services has limited the scale of the relative reduction in spending within the overall function. The continued increase in the proportion of the budget allocated to interest payments, which has been compounded by falling inflation and high real interest rates, has reduced the amount available to other functions. Despite this, there has been an increase in the budget share allocated to social services. The increase in the social services allocation reflects the increase in spending on infrastructure, housing and welfare, and will increasingly come to reflect the impact of new education and health policies. The decline in economic spending has been achieved by a reduction in spending on transport, agriculture and export promotion.

Functional Allocation of Consolidated Budget	**1993/94**	**1994/95**	**1995/96**
General Government	7,5	8,9	7,0
Protection Services	17,6	18,3	16,8
Defence	8,1	8,7	7,6
Police, Prisons & Justice	8,7	9,5	9,2
Social Services	44,1	44,1	46,0
Education	21,1	21,3	21,3
Health	10,6	10,5	10,0
Welfare	8,2	9,2	9,7
Housing	1,2	1,1	1,9
Other Social	2,5	1,5	2,8
Economic Services	13,9	12,0	11,4
Interest	16,9	16,8	18,8
Total	100%	100%	100,0%

Economic Allocation of Consolidated Budget	**1993/94**	**1994/95**	**1995/96**
Current	92,3	92,3	91,7
Wages	36,3	38,1	36,1
Interest	16,9	16,8	18,8
Capital	7,7	7,7	8,3
Total	100%	100%	100%

APPENDIX 8

MANAGING THE PUBLIC SECTOR WAGE BILL

Fiscal discipline is synonymous with the proper management of wages and salaries within the public service, since remuneration comprises almost 50 percent of the non-interest budget. However, containment of the wage bill without maintaining adequate conditions of service for civil servants reduces the overall efficiency of government and is in the end counter productive. The Government's approach to restructuring the public service is aimed at:

- achieving equity and efficiency within the service;
- repositioning various skill categories higher up the salary scale;
- achieving parity between conditions of service in the public and private sector;
- simplifying the complicated grading system and the rigid occupational classification;
- increasing departmental autonomy in the determination of the personnel structure.

During 1996/97 the restructuring package will cost the exchequer an additional R7,4 billion, increased to R8,5 billion with savings to be implemented from July 1996. This will be financed with R6,5 billion set aside under the improvement of conditions of service vote, a supplementary appropriation of R950 million, R550 million of projected savings on the wage bill and R450 million from reduced contributions to the pension fund. The settlement takes the total wage bill from R56,7 billion in 1995/96 to R64,1 billion in 1996/97. For each of the subsequent two years the wage bill will increase by an amount of R6,5 billion, thus raising the wage bill to R70,6 billion in 1997/98 and to R77,1 billion in 1998/99. The real increment in the wage bill will be 3 percent in 1996/97 and 0,5 percent in 1997/98, and it will decline in the following year.

The restructuring agreement provides for utilising any savings that result from the right sizing of the civil service to fund additional salary increases, although the overall increase in the wage bill must remain within the limits set out above. Right sizing will involve the reallocation of resources currently budgeted against unfilled posts, the elimination of posts that are no longer required and the removal of supernumerary officials. It is estimated that there are around 135 000 unfilled posts, of which 50 000 can be immediately eliminated resulting in a saving of R2 billion. The estimated 25 000 supernumerary officials in the provinces due to the incorporation of previous administrations will be offered severance packages. The defence force is scheduled to reduce its staff complement by up to 40 000.

The granting of severance packages is at the discretion of director generals in affected departments. Severance packages will be self financing through the application of savings from unfilled posts, the utilisation of accumulated rollovers, and other savings at the departmental level. The Departments of State Expenditure, Finance and Public Service will carefully monitor expenditure to ensure that the right sizing does not place any additional burden on the budget. Further right sizing is anticipated in 1997/98 and 1998/99 as departmental managers review their organisational structures.

APPENDIX 9

THE OUTLOOK FOR FISCAL POLICY

The fiscal component of the integrated package is a more rapid reduction in the budget deficit towards the targeted 3 percent of GDP. The intention is to reduce the deficit to 4 percent in the 1997/8 fiscal year, and thereafter at 0,5 percentage points per annum. In this appendix the expenditure implications of this fiscal strategy are analysed with the aid of the Medium Term Expenditure Model of the Department of Finance.

The results of two sets of expenditure projections are reported below, corresponding to the macroeconomic scenarios described earlier. In the modest-growth baseline projection the deficit declines to 4,5 percent of GDP in 1996/7 and at 0,5 percent in the subsequent years. The available resources for government expenditure increase at a slow 1 percent per annum from R161 billion to R167 billion in fiscal 2000/1. The faster deficit reduction associated with the integrated strategy places tighter limits on expenditure in 1997/8. However, the additional resources generated by the improved growth performance more than compensate from 1998/9 onwards, with expenditure over the period as a whole, increasing by an average of 2,3 percent per annum.

The cumulative additional resources available for public expenditure with 1995/6 expenditure as base of the integrated strategy amount to R42 billion. A continuation of current policies, on the other hand, would release a total R26 billion in additional government funds.

	1996/7	1997/8	1998/9	1999/0	2000/1
Baseline					
Growth rate	3,3	2,0	2,5	2,9	3,3
Deficit as % of GDP	5,1	4,5	4,0	3,5	3,0
Resource envelope (1995 millions)	161 111	161 173	162 503	164 438	166 995
Integrated					
Growth rate	3,5	2,9	3,8	4,9	6,1
Deficit as % of GDP	5,1	4,0	3,5	3,0	3,0
Resource envelope (1995 millions)	161 423	160 248	163 574	168 691	178 981

In order to determine the implications for line departments, a set of medium term expenditure projections broken down by economic category were generated. The results are summarised in the table below.

Cumulative additional expenditure 1996/7-2000/1	Baseline	Integrated
Remuneration (R billion - 1995 prices)	13 475	17 678
Goods and services	1 125	4 761
Current transfers	-21 125	-21 125
Capital expenditure	9 145	21 773
Interest	23 260	18 490
Total additional resources	**25 880**	**41 577**

The remuneration items in each projection incorporate the effects of the recent agreement on public sector restructuring in term of which the nominal wage bill for 1996/7 and the subsequent two fiscal years has been fixed. Due to the lower inflation envisaged under the integrated package the real cost of remuneration will be higher than in the baseline. The differential is, however, compensated for by the lower anticipated debt servicing costs. The larger deficit and higher real interest rates incorporated in the baseline projections will mean that some 84 percent of the cumulative additional resources available for public expenditure will have to be spent on interest payments alone. This contrasts with a corresponding figure of 43 percent associated with the integrated strategy.

In both sets of medium term expenditure projections assumptions were made to effect a switch in expenditure from current transfers to capital expenditure. In each case significant spending cuts were assumed in respect of transfers to businesses (GEIS, agricultural subsidies, etc), extra budgetary accounts, local authorities, and to a lesser extent, households. In the baseline this would provide capital resources incrementing at approximately R1 billion per annum. In the integrated case, capital expenditure would be able to rise by R2,5 billion per year, sufficient to fund substantial housing, land reform and infrastructural development programmes.

The critical challenge facing fiscal policy is to ensure that the deficit target for the current financial year is not exceeded and to effect sufficient cuts in real spending in the short term to achieve a 4 percent deficit in 1997/8. To this end the Department of Finance has launched an audit of various expenditure programmes, beginning with those funded through the RDP Fund, to identify possible savings.

APPENDIX 10

THE EFFECTS OF RECENT TRADE LIBERALISATION

After a decade of gradually moving away from import-substitution policies, a far reaching programme of liberalisation was launched in 1995 aimed at increasing competitiveness. The key proposals were contained in an offer to GATT effective from January 1995 replacing all quantitative import controls on agricultural and industrial products with ad valorem tariffs, simplifying and rationalising industrial ad valorem tariffs and proposing a phased reduction of tariffs over periods varying between 5 and 8 years. This appendix considers the empirical evidence of the effect of the tariff reductions implemented thus far. The main concern is that subsectors with the largest tariff reductions would have faced the most competition leading to lower output and employment.

Changes in Tariffs, Output & Employment - 94-95	**Employment**	**Output**	**Exports**	**Imports**	**Tariff change**[1]
Food	-1.5	0.0	25.8	26.1	15.4
Beverages	-5.8	5.7	-11.8	22.2	64.3
Leather Products	3.6	7.0	15.0	10.2	-78.7
Wood Products	-5.1	4.8	-16.2	18.2	-20.0
Paper Products	4.8	10.9	71.0	35.7	-40.0
Printing and Publishing	2.1	-3.9	12.1	12.5	-81.8
Glass Products	-3.9	6.6	-14.5	26.8	-52.9
Other Non-Metallic Mineral Products	-7.1	9.1	29.0	37.8	-50.0
Iron and Basic Steel	0.8	14.0	22.9	28.6	-72.7
Non-Ferrous Metal	-3.4	17.9	119.3	122.9	-16.7
Metal Products	-2.2	5.4	55.1	29.8	-56.3
Machinery	13.1	12.5	66.8	22.5	-77.8
Electrical Machinery	-3.0	23.4	58.7	32.3	-58.8
Motor Vehicles	9.4	15.8	19.1	41.0	-62.5
Other Transport Equipment	-4.9	-14.2	..	..	0.0
Other Industries	-3.5	-11.7	-6.7	-18.6	-12.5
Tobacco	-6.7	-2.3	69.8	-8.1	110.0
Textiles	-7.6	12.0	16.5	15.8	-7.9
Clothing	9.9	14.1	18.0	-8.7	-4.0
Footwear	7.6	5.7	2.6	40.6	20.0
Furniture	6.3	8.5	39.2	37.6	-40.0
Chemical Products	-1.4	6.4	43.7	28.5	-36.4
Rubber Products	7.6	8.6	58.3	31.3	-71.0
Plastic Products	14.6	10.2	49.7	28.4	-81.0
Total Manufacturing	**1.1**	**7.4**	**33.7**	**27.5**	**-5.6**

1. Change in tariffs between 1990 and 1995. It should be noted that clothing and textile tariffs were increased in many cases in 1992.

At the sectoral level the evidence is mixed. Among the sectors that faced the largest declines in nominal protection, some increased both output and employment, while others showed the opposite trend. However, these sectors are also not the major employers in manufacturing. The five sectors that faced the largest tariff reductions in 1995 account for only 17 percent of total manufacturing employment.

An analysis of trends among major employers - food, clothing, motor vehicles, electrical machinery and metal products - showed that restructuring need not be contractionary. Despite tariff cuts, a range of firms managed to expand output and employment.

The recovery has undoubtedly eased the potentially negative effects of liberalisation. Between 1994 and 1995 manufacturing output grew by 7,4 percent in real terms, while exports increased rapidly in almost all sectors despite a real appreciation of the currency. These trends have been accompanied by substantial private investment in manufacturing.

Firm-level responses to the pressures entailed by liberalisation are diverse. There is evidence of production processes being reorganised through the introduction of additional shifts, the consolidation of production lines and the alteration of product mixes. Increasing numbers of firms are seeking foreign linkages to acquire technology. In labour-intensive industries firms may resort to sub-contracting to increase flexibility and reduce adjustment costs.

Organised labour may experience the adjustment costs differently. Union employment is typically concentrated in larger traditional firms which may encounter higher adjustment costs, while union membership cannot be extended to new market entrants immediately. In fact, it is doubtful whether the data summarised above captures adequately the changes in employment over recent years.

In summary, preliminary indications are that the aggregate costs of trade liberalisation have been kept low, partly as a result of the economic recovery and a resurgence in exports. The recent depreciation of the rand should shift relative prices in favour of exporters. The integrated strategy is designed to maintain these benefits and limit their erosion through inflation.

APPENDIX 11

MEMORANDUM ON TAX INCENTIVES FOR INVESTMENT

It is proposed that an accelerated depreciation tax allowance scheme to enable existing manufacturing entities to expand in response to the challenge of globalisation, and a tax holiday scheme aimed at new projects in key regions and industries, designed to favour labour absorbing manufacturing activities, should be introduced.

Accelerated depreciation tax allowance

The standard tax allowance for investment in manufacturing plant and equipment at present allows for depreciation at 20 percent per annum over five years. On buildings in the manufacturing sector, the allowance is five percent per year over 20 years.

For a limited fixed period, depreciation allowances in respect of plant and machinery used in a manufacturing process will be allowed at 33,3 percent per year over three years and in respect of new buildings for manufacturing purposes at 10 percent per annum over a ten year period.

The foregoing accelerated depreciation provisions will only apply in respect of new and unused qualifying plant and equipment which is both acquired and brought into use for the first time during the period 1 July 1996 to 31 September 1999.

Details will be made available by the Commissioner for Inland Revenue.

Tax holiday

A tax holiday scheme is to be introduced to contribute to the achievement of South Africa's industrial development goals. It is structured as follows.

Projects which meet certain basic conditions will be awarded a tax holiday, the duration of which will depend on three criteria. The basic qualifying conditions, which will include a sufficient level of domestic value added in a manufacturing process (determined relative to sub-sectoral industrial averages) and evidence of a commitment to key economic goals including human resource development, foreign exchange conservation, and environmental responsibility, are not intended to be unduly restrictive.

The key criteria relate to labour absorption, regional location, and industrial priority. For each of the criteria satisfied a project will be awarded a cumulative two year holiday, up to a maximum of six years.

- Labour absorption will be determined by reference to the proportion of value added devoted to wages and salaries.

- Regional priorities will be determined according to an assessment of regional potential for industrial development and regional need. Qualifying locations, which may be defined as manufacturing development corridors or manufacturing development zones, will be designated by the Minister of Trade and Industry after discussions with provincial governments and taking into account the re-evaluation of the Regional Industrial Development Programme that is to be completed in the near future.

- Priority industries will be defined by the Minister of Trade and Industry in the following categories: labour intensive industries, critical industries with strong economic linkages, sensitive industries affected by tariff reform, and future industries defined in terms of their potential to secure a larger share of global consumer expenditure.

Only new entities will qualify. Regulations defining value added requirements, labour coefficients, development corridors and zones, and priority industries will be released in due course. The tax holiday scheme will be introduced in the last quarter of 1996 and the window for entry into the tax holiday scheme will extend for a three year period. The tax holiday will come into affect after the entity becomes liable for tax, after taking into account the accelerated depreciation allowances referred to above. However, all incentives granted under the tax holiday programme will expire in the tenth financial year after the project has been approved.

The tax holiday scheme will be managed by a board, which will operate according to clear and transparent regulations issued by the Minister of Trade and Industry.

APPENDIX 12

FOREIGN DIRECT INVESTMENT

Increased openness to international trade and capital flows is one of the hallmarks of the more rapidly growing developing economies world-wide. Foreign direct investment plays an important part in encouraging growth in several ways:

- modern technology is frequently transferred through investment flows;
- skills, management expertise and high level training accompany international investment projects;
- access to international sources of finance is enhanced; and
- access to global markets is facilitated.

Following the debt problems experienced in the early 1980s by many countries which had borrowed excessively and faced severe adjustment problems when interest rates increased and international trade slowed, the advantages of foreign direct investment are now widely appreciated. While short-term capital and portfolio flows can meet balance of payments capital account financing requirements under certain circumstances, the risks associated with depending on internationally mobile loan financing are considerable. On the one hand, changed expectations which lead to capital outflows can precipitate serious balance of payments difficulties. On the other, excessive capital inflows associated, for example, with high interest rates and a strong growth performance, can put undue upward pressure on the currency and interfere with domestic financial management. International experience favours foreign direct investment as a more stable source of international finance and as a crucial element in a more outward-oriented growth strategy.

Accelerated investment in the South African economy requires international capital inflows to complement domestic savings and finance the increased imports of capital and intermediate goods which accompany faster growth. The growth model described in appendix 4 suggests that the current account deficit in a period of high growth might reach some 3 percent of GDP, or perhaps US$5-6 billion. The strategy implies that perhaps 15 percent of the foreign savings required would be in the form of direct investment, mainly in export-oriented manufacturing.

Since the 1994 elections, South Africa has received net capital inflows of some R30bn. Most of the investment has taken the form of portfolio flows, which can be quickly reversed as has occurred in recent months. There has been little direct foreign investment. Redressing this imbalance requires attention to the fundamental determinants of international investment decisions and the underlying macroeconomic expectations which may be relevant. These might include:

- political and economic stability, including macroeconomic stability and clarity about economic policy;
- sustained high rates of economic growth;
- labour market stability and flexibility;
- investment incentives;
- the tariff regime;
- protection of property rights; and
- various determinants of expected investment returns.

Macroeconomic and other policies which aim to deal with these factors in the context of an export-oriented strategy can be expected in due course to lead to stronger foreign direct investment flows. International evidence suggests that growth itself is a powerful stimulus of foreign investment. The sustainability of the growth path can be weakened by excessive reliance on foreign capital, however. Higher flows of foreign direct investment are more likely in the presence of a strong domestic savings performance, underpinning prospects for longer term industrial expansion.

Several developments are needed for South Africa to attract a more substantial volume of foreign direct investment:

- an overall macroeconomic environment conducive to growth and an expanding domestic and regional market;
- removal of exchange controls;
- improved domestic savings and steady reductions in the fiscal deficit;
- a tax regime favourable to foreign investment;
- restructuring of state assets so as to create opportunities for equity investment in public corporations by foreign partners;
- improved labour market flexibility and increased training for a more skilled workforce; and
- reduced crime and improved social stability.

APPENDIX 13

AN ANALYSIS OF LABOUR MARKET TRENDS

Recent trends in the labour market are discussed below. The analysis is based on the *standardised employment series (SES)*, which remains the most satisfactory index of long term trends, although it is no longer fully compatible with available survey evidence.

Employment by Sector ('000s)	**1950**	**1960**	**1970**	**1980**	**1990**	**1994**
Agriculture, forestry, fishing	1018	1033	1076	1010	892	861
Mining, quarrying	488	601	657	769	758	614
Manufacturing	510	642	1083	1460	1517	1476
Electricity, gas & water	24	33	46	79	91	71
Construction	94	123	322	399	468	413
Trade, catering & accommodation	364	513	737	944	1017	925
Transport, storage & communication	248	315	361	502	439	340
Financial and business services	57	120	190	292	448	469
Community & personal services	75	133	182	262	319	318
Government services	268	443	629	976	1325	1463
Domestic services	641	695	882	868	794	767
TOTAL	3787	4651	6165	7561	8068	7717
Growth per annum		2.1%	2.9%	2.1%	0.7%	-1.1%
Non-agriculture-domestic private sector	1860	2480	3578	4707	5057	4626
Growth per annum		2.9%	3.7%	2.8%	0.7%	-0.9%

These estimates indicate that commercial agricultural employment has been in decline since the 1970s. Employment in mining peaked in the mid-1980s at just over 800 000 and has since fallen to little more than 600 000. The contraction in these sectors, and the apparent decline in domestic service, are structural trends which will not be reversed by growth alone.

Manufacturing employment has remained at about 1,5 million since 1980, while employment in construction, electricity and transport has fallen significantly since its 1984 peak. Employment in trade reached just over 1 million in 1990 and has since fallen by 9 percent. The only sectors to record growth through the 1980s and early 1990s have been finance (up by 60 percent since 1980), private services (up 21 percent) and government (up 68 percent). Overall employment growth has fallen from 2,3 percent per year between 1950 and 1980 to just 0,7 percent a year between 1980 and 1990 and -1,1 percent annually since 1990.

Informal and unregulated employment has increased over the past two decades, accounting for perhaps 2 million people[1]. Open unemployment has nonetheless increased from an estimated 19,6 percent of the

[1] In the absence of reliable evidence on the growth of informal and semi-formal employment, the total employment figures reported here take the 1994 estimates of the official October Household Survey as point of departure, and the difference between the 1994 SES figure and the OHS formal employment aggregate as a measure of unregulated employment. The emergence of this category of employment, outside of the SES estimates, is taken to be almost entirely a feature of the post-1980 period.

labour force in 1980 to nearly one-third in the mid-1990s. Survey evidence indicates, furthermore, that another 2-4 million people, mainly in rural areas, are "discouraged" work-seekers who would be in the labour market were there realistic prospects of employment.

Employment and Unemployment ('000s)	**1980**	**1994**	**Growth 80-94**
Estimated labour force	10258	14297	2,4%
Standardised employment series	7561	7717	1,5%
Semi-formal unregulated employment	23	349	21,5%
Informal sector activities	662	1575	6,4%
Total	8246	9641	1,1%
Open unemployment	2012	4656	6,2%
Percentage of labour force	19,6%	32,6%	

The main source of the decline in employment growth has been the secular deterioration in output growth of the economy. The elasticity of formal non-agricultural employment with respect to output growth has been comparatively high: output growth of 6,2 percent in the 1960s was associated with employment growth of 3,7 percent, while output grew at 3,5 percent in the 1970s and employment at 2,8 percent. The unemployment trend has been exacerbated, however, by a more recent decline in labour-output ratios. In agriculture, mining, and domestic service the downward trend in employment seems firmly established. During the course of the 1980s, the responsiveness of employment in several other sectors of the economy to output growth appears to have weakened. Sectoral trends between 1985 and 1994 are illustrated below.

Sectoral Output & Employment Growth	**Employment**		**Value added**	
	('000s) 1985	growth 1985-94	(Rm) 1985	growth 1985-94
Agriculture, forestry, fishing	921	-0.7%	10907	2.4%
Mining, quarrying	790	-2.5%	26130	-0.9%
Manufacturing	1484	-0.1%	58872	0.2%
Electricity, gas & water	94	-2.8%	9143	2.7%
Construction	461	-1.1%	8875	-2.0%
Trade, catering & accommodation	961	-0.4%	35599	0.5%
Transport, storage & communication	518	-4.1%	16977	1.4%
Financial and business services	386	2.0%	32441	1.5%
Community & personal services	277	1.4%	4037	1.7%
Non-agriculture-domestic private sector	4971	-0.7%	184825	0.5%

The links between real wage increases, output growth and employment over the past decade are complex. A simple logarithmic regression of non-agricultural formal private sector employment on the corresponding output and real wage series yields an output elasticity of 0,7 and a wage elasticity of -1,2, broadly consistent with international comparable evidence. Account should also be taken, however, of the effect of the price of capital and technology choice on employment.

Several general structural features of the domestic labour market can be noted:

- Alongside the regulated market, a complex unregulated market exists which has grown in importance. There are in reality no sharp lines between market segments: wage levels and working conditions vary along a continuum. Sub-contracting, substitution of casual for formal employment and considerable flexibility in the structure and organisation of smaller enterprises are important features of recent trends.
- Within the unionised sector, remuneration typically includes a growing non-wage element, which has contributed significantly to the overall rise in the costs of labour. Although the magnitude of wage effects on employment are subject to considerable uncertainty, it is likely that wage-bargaining in unionised sectors has contributed somewhat to the slowdown in employment creation and to a rising gap between remuneration in unionised and unregulated segments of the labour market.
- Apartheid-based migrant labour flows have evolved into more complex rural-urban linkages, both between urban and rural households or household members and involving longer term migration. The pace of urbanisation has been slower than observers were predicting a decade ago, which is consistent with the slow rate of formal job creation.
- Government has contributed disproportionately to employment creation over the past decade and public sector job creation has somewhat exceeded the average growth of the labour force since the early 1980s.
- As has occurred elsewhere, services have become increasingly important sources of employment, and indeed provide the only sector outside of government in which employment growth has continued during the 1990s.

Account must also be taken of global economic forces:

- Relative wages now play a major role in an international division of labour in which low wage products are almost exclusively produced in the developing world;
- International trade between developed and developing countries places downward pressure on unskilled wages and upward pressure on skilled wages;
- Greater labour market flexibility has emerged in many countries, improving prospects of the unemployed finding work but widening the wage distribution.

As South Africa proceeds with trade liberalisation and adapts to international competition, downward pressure will be placed on unskilled wages. If this is not accommodated by the labour market, then unemployment will rise and irregular, insecure forms of employment will increase. Employment of skilled workers and their wages are, by contrast, likely to rise as skills are in relatively short supply.

Institutions of collective bargaining are important vehicles for securing a stable and sufficiently flexible employment trajectory. Progress has been made in this regard, and there has been a marked reduction in the incidence of industrial unrest or of confrontational relations between business and labour. The collective bargaining system will need to strike an appropriate balance between regulating job security, working conditions and promoting training and productivity enhancement strategies, while at the same time ensuring labour market flexibility, especially at the lower end of the wage distribution.

In the context of a broader strategy aimed at accelerating growth, labour market measures which facilitate job creation for unskilled and semi-skilled work-seekers are needed to enhance the labour absorption associated with economic expansion.

APPENDIX 14

THE PROSPECTS FOR GOVERNMENT EMPLOYMENT

Some 1,5 million people are employed by general government, comprising national and provincial departments (1 162 000 employees), statutory bodies (70 000) and local authorities (260 000). Over the past decade, employment by general government departments and agencies has increased by nearly 20 percent, offsetting somewhat the decline in private sector employment over this period. However, the trend in more recent years has been more stable, with increases in education and police compensated for by declines in defence and local services.

The trend in real wages over this period is also of interest. Over the whole public sector, remuneration per worker increased by about 10 percent in real terms between 1986 and 1995, driven partly by improvements in wages at lower skill levels and partly by the sectoral shift in favour of educators and other higher-earning occupational groups. Average remuneration in the private sector increased by roughly the same margin over the period.

The police force currently numbers just under 145 000. Given the severity of the crime problem and the need to expand policing in under-serviced areas, there is a compelling case for some expansion in police services. Correctional services employ nearly 30 000 people at present, and some increase in staffing of prisons may be needed. The National Defence Force employs 120 000 people, and envisages a phased reduction in this number. Overall, total employment in the protection sector should remain fairly stable over the period to the year 2000, with increases in police personnel offset by reductions in defence.

National and Provincial Government Employment	**Employment**	**Percentage**
Protection services	277 500	23,9
Health services	210 500	18,1
Education	429 300	36,9
Other services	244 900	21,1
Total	1 162 200	100%

The emerging primary health care strategy of the national health authorities envisages fairly rapid expansion of employment of health personnel in primary care facilities. Curtailment of growth and possible reductions in staff allocations to the hospital sector are implied by the proposed reorientation of health services. Growth in health services employment of 1 to 2 percent annually over the next five years should be possible, and would permit progress with the extension of the primary health network, while retaining appropriate personnel levels in hospitals.

Although there may be some scope for rationalisation of educational administration, total employment in this sector will need to grow in response to anticipated enrolment growth of 3 percent per annum. Increased employment of educators in public schools might feasibly be held to under 2 percent per year, while college and higher education expansion is likely to require a somewhat higher growth rate. Innovative financing arrangements and containment of real salary increases will be necessary if these growth targets are to be achieved.

Other government functions account for some 240 000 public service jobs. Organisational restructuring might permit cutbacks of perhaps 20-30 000 employees. Sustained employment reduction cannot be expected, however, unless accompanied by explicit decisions to terminate programmes, close regional offices, or devolve activities to the private sector. It must also be emphasised that in several crucial areas of general administration, serious personnel shortages have been reported.

Employment by local authorities has fallen over recent years. This trend should now be reversed, as consolidated authorities take responsibility for revised jurisdictions, municipal infrastructural development gets under way and service delivery is improved. The ongoing maintenance and service provision associated with improved services under local jurisdiction should be expected to lead to growth of between 50 000 and 100 000 jobs by the year 2000.

The main area for increasing employment is as a result of the expanded capital spending in the fields of agriculture and land reform, urban infrastructure and housing, social infrastructure construction and road construction and maintenance. It is estimated that capital spending of approximately R1 billion is needed in these areas for every 20 000 jobs, although the employment impact of these programmes will depend crucially on the extent to which labour intensive construction techniques are adopted. In the improved fiscal context of accelerated growth, and provided expenditure on current transfers and the normal government wage bill is contained, it would be possible to increase capital spending by an average of R2,5 billion per annum. A programme aimed at 250 000 jobs by 2000 would then be a realistic, if daunting target.

There are also compelling grounds for expanding the existing provision for special employment initiatives, while paying close attention to long term benefits and effective programme management. Rural land improvement and municipal infrastructure development are possible clusters of such activities. Government cannot undertake to absorb all potential work seekers through such projects, but can nonetheless provide jobs and limiting training opportunities to a significant proportion of the unemployed poor through well designed and carefully managed public works projects.

To conclude, in view of the need to contain public sector remuneration in GDP and the fact that the public sector restructuring process involves a realignment of salaries and wages in several occupational groups, careful management of the size of the public service is crucial. Although the scope for reductions in the size of the public service is uncertain, right-sizing initiatives should have the effect of reversing the growth in administrative personnel. There is more scope for increased employment at local government level associated with social and infrastructural development projects. These initiatives will include activities in which significant numbers of unskilled and semi-skilled workers could be employed, bringing down somewhat the average wage of total public sector employment. Government funded capital projects are an important source of demand for labour in the present context of widespread unemployment, and should be targeted at the end of the market where employment needs are greatest.

APPENDIX 15

THE PROSPECTS FOR EMPLOYMENT CREATION

A balance needs to be struck between encouraging high productivity employment and the expansion of lower wage jobs in order to reduce unemployment. As is illustrated below, sufficient job creation to reverse the deteriorating unemployment trend can be achieved if appropriate labour market reforms and public sector development initiatives are adopted.

A simple model of the determinants of sectoral employment trends is used below to compute future employment on the basis of projections regarding sectoral output growth and real wage movements. There are unavoidable judgement calls to be made in specifying the relevant elasticities to apply in an exercise of this nature, but it has been possible to utilise a range of evidence regarding the main assumptions.

The model takes as point of departure an employment structure based on the 1994 October Household Survey and Standardised Employment Series. The labour force is estimated to grow at 2,5 percent per annum initially, declining marginally thereafter.

The results of two employment projections are reported below, broadly consistent with macroeconomic scenarios described elsewhere. Higher economic growth in the integrated strategy contributes to a stronger employment performance. However, the model also incorporates changed assumptions about wage trends and the responsiveness of employment to output growth, consistent with the industrial and trade policy proposals of the integrated strategy, a more flexible labour market and a stronger emphasis on labour-based development projects in public sector spending.

Unemployment is projected to increase from 33,5 percent in 1995 to 37,8 percent in 2000 in the base run, in which GDP growth averages some 2,8 percent. The annual increase in job opportunities rises from 97 000 in 1996 to 134 000. Unemployment rises to 46 percent by the year 2020.

Unemployment in the integrated strategy reaches 34,3 percent in 1996 and then falls to 32,7 percent in 2000. By the year 2020, unemployment will have fallen to an estimated 8 percent. By 2000, new job creation has reached 409 000 per annum and is particularly strong in the manufacturing, construction, trade and private services, with important contributions from the public service, government administered development projects and the unregulated sectors of the economy. The increase of 833 000 new jobs created relative to the base run can be decomposed as follows:

Sources of increased employment in the integrated strategy	**Formal sector**	**Non-formal**[1]	**Total**
Higher output growth	189 000	119 000	307 000
Increased government induced employment	195 000	7 000	202 000
Improved output elasticities and wage moderation	229 000	8 000	238 000
Interaction of growth and policy shifts	79 000	7 000	87 000
Total	692 000	141 000	833 000

1. Domestic service, semi-formal contractual employment and informal sector activities.

Close to 30 percent of the increase in employment in the integrated strategy arise from changes in the flexibility of labour markets and employment-enhancing shifts in other policies. Institutional and microeconomic reforms are the key to reversing the structural barriers to labour absorption in the economy.

Also evident in the sectoral trends is the critical role of growth in trade and services in ensuring a reversal of the unemployment trend. The primary sectors contribute little to employment growth. Manufacturing and construction are important growth sectors, but it is in trade and services such as tourism that there are the most favourable responses of employment to output growth. It is clear, furthermore, that labour-based development projects, which would mainly be the responsibility of local authorities, have a significant contribution to make to employment creation.

Base run assumptions

Non-primary formal private sector employment is assumed to respond to the real wage trend by a factor of 0,4 after a lag of one year, implying that a 1 percent rise in the real wage lowers employment by 0,4 percent. A smaller wage effect is assumed for mining and none for agriculture.

The secular declines in agricultural and mining employment are projected to continue at 1 percent and 2 percent per year respectively, which is somewhat slower than in recent years, while the employment elasticities with respect to output in both sectors are taken to be 0,2. The output elasticities in the manufacturing and transport sectors are set at 0,35, in construction and electricity at 0,5 and in trade and private services at 0,75.

Regular government service employment is kept constant in the first year and rises 10 000 per year thereafter. Labour-based projects as part of RDP development strategies add a further 25 000 jobs on average per year.

The model incorporates a positive response in the semi-formal and informal sectors to growth and to increases in formal sector real wages, reflecting the apparent trend towards casualisation in certain sectors. Urban contractual employment increases in response to growth with an elasticity of 0,8, and in response to formal private sector real wages with a positive elasticity of 0,3. The broader informal sector responds to GDP growth with an elasticity of 0,6 and to the private real wage trend with an elasticity of 0,1.

Integrated strategy

The integrated strategy model retains the same wage elasticity assumptions as the base run, but the lower private sector real wage trend in this strategy reduces the negative impact on formal employment. Stronger output growth improves formal, semi-formal and informal employment. In addition, the model allows for substantial increases in the responsiveness of employment to output growth from 1987 onwards due to greater labour market flexibility and to support measures for more labour-intensive sectors.

The secular declines in agriculture and mining are reduced to 0,5 percent and 1 percent respectively, while the output elasticities rise to 0,4. Output elasticities of 0,65 are assumed in manufacturing, electricity, construction and transport sectors and 0,85 in trade and private services.

In these projections, public service employment grows by 10 000 in 1996, rising gradually to 30 000 per year in 2000. Development projects administered by public authorities account for 25 000 additional jobs per year.

	Employment 1995	Employment Projections - 2000			
		Base Run		Integrated Strategy	
	(000's)	(000's)	growth	(000's)	growth
Labour force	**14 658**	**16 487**	**2,4%**	**16 487**	**2,4%**
Unemployment rate	33,5%	37,8%		32,6%	
Agriculture	850	827	-0,5%	867	0,4%
Mining	596	534	-2,2%	571	-0,8%
Manufacturing	1 492	1 555	0,8%	1 719	2,9%
Electricity, water	72	75	0,9%	80	2,3%
Construction	413	410	-0,2%	506	4,1%
Trade	953	1 034	1,6%	1 111	3,1%
Transport	343	351	0,5%	383	2,3%
Other services	798	877	1,9%	923	2,9%
Government service	1 463	1 503	0,5%	1 568	1,4%
Development projects	20	120	-----	250	-----
Domestic service	773	801	0,7%	852	1,9%
Semi-formal	360	411	2,7%	431	3,7%
Informal sector	1 609	1 762	1,8%	1 833	2,6%
Total employment	**9 742**	**10 261**	**1,2%**	**11 094**	**2,7%**

APPENDIX 16

DETAILS OF THE ECONOMETRIC MODELS

The quantitative assessment of the various policy proposals presented in the document was predominantly derived by means of simulations with several econometric models of the South African economy. The models concerned are the macro-econometric models of the SA Reserve Bank, the World Bank and the Bureau for Economic Research and the CGE models of the Development Bank of Southern Africa and the World Bank. Various cross-checks were performed on the different models in order to limit the effects of specific model design features or of specific parameter estimates on the simulation results. For purposes of consistency the final results were derived from a single model. The Reserve Bank model was selected for this purpose, but the results are broadly consistent with results obtained using all the other models. A brief description of the different models is presented below.

The SA Reserve Bank Model: The SARB model is based on the standard income-expenditure framework. It incorporates specific supply-side elements. These consist of an input-output conversion matrix, in which final demand components are transformed into value-added inputs per productive sector, and of a Cobb-Douglas production function which generates a measure of potential output and of the output gap. The latter feeds into imports, investment and into prices via a price expectation term in the determination of wages. The model also includes a monetary sector which determines interest rates and the money supply. The real Bank rate is treated as an exogenous policy variable.

The World Bank Econometric Model: The World Bank econometric model follows the income expenditure format. However, it has a number of unusual features. Firstly, by incorporating an explicit production function (a two-level nested CES with three factors of production) the model allows for switching between a demand constraint and a supply constraint. Secondly, it distinguishes between skilled and unskilled labour and provides for supply constraints in the skilled market. Thirdly, the model tracks the impact of changes in the distribution of factor incomes.

The Bureau for Economic Research Model: The BER model is similarly based on the income-expenditure approach and also deals with the impact of supply-side factors. As in the case of the SARB model, the supply-element is derived from a production function-determined potential output gap which affects prices, imports and investment. In addition, the BER model includes a policy reaction function for the Bank rate and an endogenous treatment of the R/$ exchange rate.

The Development Bank of Southern Africa Model: The DBSA model differs from the econometric models described above in that it is essentially a dynamic computable general equilibrium model resting on a social accounting matrix and various real-financial interactions. The model does, however, incorporate conventional macro-economic relationships.

The World Bank CGE Model: The World Bank CGE model is a fairly standard computable general equilibrium model with profit-maximising producers, utility-maximising consumers and flexible prices that clear all markets except the market for unskilled labour. The model is highly disaggregated with 94 productive sectors, 13 labour skill categories and 24 household types.