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Policies to Promote Growth and Employment in South Africa

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World Bank
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POLICIES TO PROMOTE GROWTH
AND EMPLOYMENT IN SOUTH AFRICA

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The findings, interpretations, and conclusions expressed in this paper are entirely those of the author(s). They do not necessarily represent the views of the World Bank Group, its Executive Directors, or the countries that they represent and should not be attributed to them.
Foreword

This study is published by the World Bank in its informal series of Discussion Papers on the South African Economy. It draws on research supported by discussions and interaction with staff from a wide range of South African institutions.

Since 1994, South Africa has made undeniable progress across a number of critical areas. On the political front, democratic institutions are well established, and the “re-invention” of government that is continuing through the creation of new tiers of government (provincial and local) has changed the environment for governance and service delivery. On the economic front, the government has pursued policies that have restored and maintained macroeconomic stability in the context of a difficult global environment.

But despite these areas of success, there exists a widespread perception that South Africa’s economic performance since 1994 has been disappointing. Real GDP growth has been erratic, formal sector job losses have continued unabated, and the key objectives of poverty reduction and improved service delivery remain largely unmet.

This study examines the pressing challenge of generating sustainable growth, job creation, and poverty reduction in South Africa. In doing so, it draws on a broad range of analysis and research on related topics undertaken by World Bank staff over the last few years, as well as work by other researchers in South Africa and elsewhere. The underlying message is that the challenge facing South Africa will not be solved by one (or more) “quick fix” solutions, but instead demands concerted initiatives across a range of issues that reflect the underlying dependencies and “interconnectedness” of the economy. We hope that this study (and its supporting materials) can contribute to the discussions and debate that will help South Africa move forward towards a better future.

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This report was prepared by Jeffrey Lewis (AFTM1), Task Manager, drawing on research undertaken by the World Bank as part of its efforts to promote analytic work and dialogue on South African development issues. Contributors include David Lindauer (Consultant) on unemployment and labor markets; Vandana Chandra (AFTM1) on tourism; Vandana Chandra, Lalita Moorty (AFTM1), Jean-Pascal Nganou, Bala Rajaratnam, and Kendall Schaefer (Consultants) on the large and SMME firm surveys; James Heintz (Consultant) on wage subsidies; Lawrence Edwards (Consultant) on trade and employment; Yvonne Tsikata (PRMEP) on South African trade policies and SADC tariff harmonization; Sherman Robinson and Karen Thierfelder (Consultants) on SADC trade integration; and Channing Arndt (Consultant) on HIV/AIDS. Valuable comments on earlier drafts were provided by Shantayanan Devarajan, Alan Gelb, Philippe Le Houerou, Fahrettin Yagci and other participants in World Bank review meetings.
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EXECUTIVE SUMMARY

Introduction

The most pressing problem facing South Africa today is the absence of sustained economic growth and job creation, which are essential to reduce poverty and improve living conditions. The transition to a multi-racial democracy in 1994 posed difficult political, social, and economic challenges, and South Africa’s noteworthy achievements in surmounting these challenges have been widely recognized. But the events of last few years demonstrate clearly that the challenge did not end with the transition of power to a new government. What lies ahead is the daunting task of ensuring that South Africa’s rich natural and human resources are employed for the benefit of all, promoting sustainable livelihoods, improving social conditions, and alleviating poverty.

Inheriting an economy in disarray and faced with external pressures and questions over credibility, in 1994 the new government was forced to concentrate on macro policy concerns, especially the establishment of a credible and prudent fiscal stance, efforts to reduce inflation, and the needed reunification of the dual exchange rate system. The policy perseverance exhibited over the last five years has yielded tangible macro stabilization successes and enhanced policy legitimacy. However, the growth-and-employment challenge facing South Africa is a daunting one. Investment rates are low, FDI inflows disappointing, and the unfinished agenda of structural reforms leaves South Africa at a disadvantage within an increasingly competitive global environment. The legacy of apartheid is evident in the pervasive distortions in all factor markets: for labor, as evident in the scale and persistence of unemployment and inadequate investment in human capital; for capital, in the low savings/investment rates and limited FDI; and for land, where land reform and rural development efforts must reverse policies that over decades have virtually eliminated the small farming sector.

Given South Africa’s success in macro stabilization, the current study confronts the problem areas of growth, jobs, and poverty reduction within a broad economywide framework. This working paper synthesizes findings from recent World Bank analysis of different sectors and features of the South African economy. While its focus is broad, it does not try to present all the components of a comprehensive growth strategy – in some areas, it points instead to issues where further investigation is called for. The main objective of the study is to contribute to the economic debate in South Africa by highlighting the policy imperatives that should be addressed to promote growth in a complex international and domestic economic environment.

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1 This study draws on recent World Bank analysis of Sources of Growth, Trade and Employment, Local Economic Development, the Impact of HIV/AIDS, and Rural Development Strategy. See the discussion in the full paper and the references that follow the paper for a more complete listing of sources and background materials.
In the full report, Chapter 1 provides an economic overview of South Africa today, including background on the policy framework pursued by the government following the end of apartheid in 1994, as well as a synopsis of economic performance since then. Chapter 2 considers growth from the perspective of the primary factors of production (labor, capital, and land), and evaluates the growth impact of factor market conditions and other policies that affect productivity. Chapter 3 identifies selected areas of policy reform that could help to ease current constraints to growth, examining proposals to improve the investment climate, encourage the SMME sector, expand labor demand, and promote rural development. Chapter 4 focuses on the potential role of trade reform and the important contribution that expanding trade opportunities (both in SADC and globally) can make to faster growth and employment creation in South Africa. Chapter 5 draws together the different policy measures and, using an economywide model, describes alternative growth scenarios indicative of the possible impact of reform initiatives on growth and employment. It also highlights the special challenge to the economy posed by the HIV/AIDS pandemic. Annex 1 examines dimensions of South African unemployment, Annex 2 investigates how economic linkages affect job creation potential in different sectors of the economy, and Annex 3 looks at the possible contribution of tourism development to growth and employment creation.

Economic Structure and Performance

Current growth and employment performance reflects long-term trends. The topics addressed in this study are not new: the real growth and employment performance of the South African economy reflects a secular deterioration that has been occurring for decades. GDP growth has fallen steadily, from an average of nearly 6 percent during the 1960s, to around 3 percent during the 1970s, 2 percent in the 1980s, and erratic performance throughout the 1990s, averaging 1.3 percent (around the rate of population growth). After a prolonged period of decline, the economic rebound that began in 1994 was short-lived and weak, peaking at only 4 percent before dropping back off as a result of external pressures and business cycle movements. Throughout this period, employment has dropped, most sharply among the unskilled and semi-skilled workers: between 1981 and 1999, the level of formal sector employment for this group declined in every year but three, losing a total of 1.3 million jobs. Unemployment has climbed steadily, recently rising as high as 38 percent (including discouraged workers).

Structural features of the South African economy exacerbate the growth and employment challenge — the apartheid-era legacy leaves distortions every bit as pervasive and costly as those inherited by many of the economies emerging from the former Soviet Union. Compared to other middle income economies, South Africa is highly urbanized, and while half the population is rural, agriculture accounts for less than 6 percent of GDP (and only 9 percent of employment). The relatively small agricultural sector, along with a stunted informal sector, imply that South Africa is missing two standard labor “shock absorbers” that operate in other economies (especially in Africa) during periods of adjustment. The spatial dimension of apartheid meant that millions of South Africans were deliberately located miles away from urban centers where the jobs were, fostering the emergence of complex migrant worker systems and transport patterns that remain in place today. Discrimination in the provision of education and training opportunities meant that generations of black South Africans were prevented from acquiring the skills that would make them eligible to pursue productive employment opportunities.
Factor Markets and Recent Growth Performance

In South Africa, as in many other countries, the primary limits to sustained growth derive from “structural supply side” concerns, not “demand management” issues which typically receive so much attention. Business cycle booms may last a long time or a short time, and may have “soft” or “hard” landings, but the basic logic is that, whatever the timing and magnitude, the cycles will continue. The more fundamental question involves the determinants of the underlying growth rate around which these cycles occur: why does South African growth cycle between 0-4 percent, rather than 2-6 percent?

To extend the supply-side metaphor further, we can consider the problem from the perspective of standard models of growth: economic performance will depend on the level of supply and efficiency of use of factors of production (including labor, land, and capital, both physical and human) as well as the overall productivity with which these factors are combined to produce goods and services.

Employment, Unemployment and Labor Markets

High unemployment and negligible job creation characterize South African labor markets. Overall unemployment is currently estimated at nearly 36 percent, varying from near zero for the highly skilled groups to over 50 percent for unskilled and semi-skilled workers. Formal sector employment has declined steadily throughout the 1990s, and the growth in informal employment has been insufficient to absorb the rapidly growing labor supply. South African labor markets are relatively inflexible. From a simple growth accounting perspective, therefore, the low employment growth helps “explain” South Africa’s slow economic growth. But this merely pushes the question back one level: what causes the low employment generation? One common factor often identified is the “inflexibility” of the labor market. The argument is that the industrial labor relations system heavily favors “insiders” who have regular jobs, especially with private employers, at the expense of “outsiders” who disproportionately include the unemployed and discouraged workers. Furthermore, within the industrial labor relations system, trade unions have the upper hand, creating a large union effect with wage gains only loosely tied to productivity increases. Industrial or Bargaining Councils enhance union power, by having the authority to extend statutory wages to currently uncovered firms within sectors. Pro-labor legislation also is associated with benefit (e.g., maternity leave, normal working hours, overtime differentials, etc.) and employment security provisions that reduce flexibility.

Real wages have grown rapidly for skill groups with the highest unemployment. There is substantial evidence in South Africa that supports the market inflexibility view. As noted already, unskilled and semi-skilled unemployment has risen steadily since the early 1970s (from below 10 to over 50 percent); over the same period, real remuneration to this group has grown by an average of 3.5 percent annually, much faster than productivity growth, which supports the argument that these workers have been gradually “priced out” of the market. In addition, since 1995, government has enacted legislation and regulations aimed at redressing some of the inequalities that had carried through from the apartheid era, which also may have hampered employment creation by raising the cost (if not necessarily the wages) of labor.
Capital, Investment, and Financial Markets

Savings levels are low. Low labor utilization is not the only distinctive factor markets feature in South Africa. Domestic savings are also low by international standards (compared to other middle income countries), and have been declining fairly steady over the last two decades, from an average of 22 percent of GDP during the 1980s to only 14 percent during 1998. Much of the decline was due to falling government savings, which fell by 8-10 percent of GDP (from +4-5 percent to –4-5 percent) between the early 1980s and early 1990s, although the fiscal restraint since the mid-1990s has reduced government dis-savings to fairly negligible levels.

Low savings and limited FDI inflows constrain investment. One consequence of low and declining aggregate savings performance is the constraint that it places on the resources available for investment. This constraint is not absolute: if foreign savings supplement available domestic resources, higher investment levels can be sustained. The advent of a democratic and multi-racial government in 1994 was expected to end South Africa’s pariah status and usher in a period of significant foreign investment interest. But so far, this has not occurred. South Africa has been attracting only a small share of the overall pool of foreign direct investment (FDI) directed to emerging markets. During 1994-2000, FDI in South Africa averaged less than 1 percent of GDP. By comparison, over the same period, FDI/GDP averaged 2.5-3 percent for Argentina, Brazil, and Mexico, 4-5 percent for Hungary and the Czech Republic, and 3-5 percent for Malaysia, the Philippines and Thailand. With limited additional foreign resources available, investment has remained constrained to 15-16 percent of GDP throughout the 1990s. Such low investment levels also help to “explain” South Africa’s poor growth performance over the last decade.

The South African financial system is highly developed and well managed, even by first-world standards. Most financial institutions are privately-owned and run, South African regulatory authorities are comprehensive and widely respected, the national payments system is modern, the court system is conducive to timely and unbiased settlement of disputes, and foreign banks are permitted to enter and operate with relative ease. The breadth of financial products and services is unparalleled in other emerging market economies, and there is depth as well: the stock market is the 13th largest in the world, and the bond market offers first-world size and liquidity.

Despite its strengths, the financial sector has not been effective at advancing South Africa’s development objectives. Since the early 1990s, the financial system has been modernized and strengthened. These changes have been motivated by the challenges posed by globalization, as well as the recognition that adaptation is needed to address the problems created by neglecting the needs of a majority of the population for decades. However, efforts to enhance the contribution of the financial sector to growth and poverty reduction have been only partially successful. The banking sector has been quite sophisticated at dealing with the requirements of big business, but largely ineffective in providing financial services to small and medium enterprises and poor households. There has been limited expansion of deposit facilities to low-income groups, but efforts to develop wholesale-retail networks to provide loans to small business have been ineffective. The impact of liberalization has also been limited by interest rates: since 1996, real interest rates have averaged 11 percent, placing severe pressure on domestic borrowers. Persistence of such high rates is driven largely by the sizable “risk premium” demanded by international markets concerned with South Africa’s vulnerability, as well as general skittishness about emerging markets.
Land and Land Reform

Land ownership in South Africa is exceedingly skewed, and the small farming sector fairly negligible in size. The pattern of land ownership and use in South Africa provides further evidence of the extreme distortions caused by the persistent pursuit of apartheid policies. While many other countries are characterized by unequal distribution of agricultural land, the path followed in South Africa’s rural areas virtually eliminated the small farming sector, establishing in its place a dualistic structure of highly mechanized white large farms and overcrowded black homelands and dormitory towns. In 1994, average landholding by blacks was 1.3 hectares, compared to 1,570 hectares by whites, and the white-owned, large-scale farm sector accounted for 90 percent of the agricultural value added and owned 86 per cent of the agricultural land.

Recent redesign of the market-based land reform program should improve its effectiveness and enhance rural development if sufficient resources are provided. As part of the broader program of agricultural liberalization, the new government adopted an ambitious land reform program based on three components: (1) restitution, to provide cash or in-kind compensation to those removed from their lands after 1913; (2) land tenure reform, to improve tenure security by recognizing individual and communal ownership rights; and (3) redistribution, to provide land to rural blacks through a market-assisted process that provides one-time grants to means-tested eligible participants and assistance in completing the process. The program introduced in 1994 was an exemplary market-assisted model, but failed to deliver on its ambitious target of redistributing 30 percent of total agricultural land within five years. The government has recently redesigned the land reform program. While the underlying market-assisted orientation remains unchanged, the new program is simpler, and allows beneficiaries to use it more flexibly, according to their objectives and resources. Implementation is decentralized, with assistance provided at the district level, and approval at the provincial level.

Productivity and Incentives

Uneven progress on policy reforms that focus on improving productivity and competitiveness has limited the economic response. In a broad economic context, productivity refers not only to the efficiency with which primary production factors are combined, but also how well economic activity is supported by the underlying incentive structure and enabling environment. In practical terms, this suggests the need for further in key areas of policy concern, such as the trade regime, competition policy, privatization, exchange rate management and foreign exchange controls, public expenditure policies, human capital development, etc. While the government has made progress in these areas, it has been uneven. As a result, the unfinished agenda remains substantial, and adversely affects efforts to make the economy more productive.

- In trade policy, the initial reform momentum has not been easy to sustain. Tariff reforms have lowered average protection and eliminated most non-tariff barriers, but dispersion of effective protection remains high, and the structure of protection remains complex (45 different rates). Elimination of export incentives as a result of WTO accession has raised the anti-export bias for many commodities, but so far South Africa has failed to create a functioning duty drawback or tariff rebate system that would allow exporting firms to obtain inputs at world prices. Resources have been devoted to negotiating preferential trade agreements (with the EU, SADC, and possibly with Brazil and India) which will bring some
benefits, but may have diverted attention from the more fundamental need to improve incentives and create a more level playing field for all.

- **Privatization and sectoral deregulation** have proceeded relatively slowly, disappointing potential international investors and sending mixed signals regarding the strength of Government’s commitment. Articulation of a comprehensive framework for restructuring state assets (including privatization) was completed only recently, and despite the inclusion of substantial projected privatization proceeds in the latest Budget, substantial uncertainty remains about the scope and pace of the program.

- **Relaxation of restrictions on capital outflow** has encouraged South African investment abroad, to the benefit of the domestic investors and the recipients (many in the other SADC countries), but concerns over the domestic policy stance and economic outlook have contributed to disappointing FDI inflows.

- **Promotion of real exchange rate stability** has been challenged by both international and domestic pressures. Defensive currency interventions to support the Rand following the 1997-98 Asian crisis generated a net open foreign exchange position five times the size of actual reserves. While defensive interventions have ceased and this exposure has been substantially reduced, South Africa’s weak reserve position (the open position still exceeds reserves) remains a concern to international investors, generates substantial actual and potential fiscal costs, and limits the credibility of efforts to maintain a stable exchange rate.

**Improving the Policy Environment**

The report identifies selected areas in which additional policy reforms could begin to ease current constraints on growth. We argue that while there is no “quick fix” for the difficulties facing the South Africa economy, there are nevertheless key areas in which concerted action can generate forward momentum and over time, make a sizable difference for growth and employment creation. While the proposed policy measures cover numerous aspects of the economy, the underlying theme is the over-arching need to improve the investment climate for physical and human capital in South Africa. As such, this theme encompasses not only direct measures (such as efforts to improve the quality and quantity of physical investment, or enhance opportunities for skill accumulation for the poor), but also indirect measures aimed at making the economy more competitive and attractive to investors (through improvements in labor markets, enhanced trade competitiveness, promotion of SMMEs, etc.)

The findings and policy directions that emerge from the more detailed analysis include:

- **Encouraging FDI** could bring sizable benefits, not only by providing a stable source of long-term finance, but also by the technology transfer and international market access associated with strategic partnerships with South African industry. South African efforts to date to encourage FDI have concentrated on restoring and maintaining macro stability. While this may be sufficient to encourage short-term (and easily reversed) portfolio inflows from abroad, it is not by itself sufficient to induce more desirable long-term investment in new or existing production facilities. To achieve this outcome, tangible progress must begin in the
other concerns identified by both domestic and international investors: widespread crime and violence, skills shortages and difficult labor relations, the HIV/AIDS epidemic, etc.

- **Accelerating privatization** together with **market liberalization** can provide an important additional stimulus to FDI as it draws foreign firms in directly (through the purchase of assets) and indirectly (by sending a strong signal of the Government’s continuing commitment). While the current administration has committed to a revised strategy which would complete the restructuring for the four largest SOEs (in transport, telecommunications, electricity, and defense) by 2004, the broader investor reaction has been quite muted, with concerns expressed over the slow pace and relatively limited scope of actual privatization. This would appear to be an area where faster progress would bring immediate benefits.

- **Targeted investment incentive schemes** should be approached with caution. In South Africa, the Spatial Development Initiatives (SDIs) have concentrated on huge capital-intensive projects oriented towards exploitation and “beneficiation” of mineral resources, so the incentives for ordinary manufacturing enterprises have been limited, and the employment creation minimal. International evidence suggests that schemes such as this frequently fail to attract the expected new investment, and are often costly and result in resource misallocation. Attention would be better directed towards efforts to improve the overall business climate. There may be some benefit from promotion of non-minerals exports through export processing zone or duty drawback schemes, especially if these efforts concentrate on employment creation.

- The **SMME sector in South Africa appears relatively underdeveloped**: three-quarters of South African firms have more than 100 workers, compared to an average of only one-fifth in a sample of nine other middle income countries. SMMEs appear constrained by inadequate demand, limited access and high cost of capital, and relatively weak support and procurement programs from Government. The sector is not especially dynamic: most recent employment growth has occurred through creation of new SMME firms, while existing firms have been reducing labor use, suggesting only limited success in the growth and maturation of a viable and vibrant SMME industry segment. Efforts to increase SMME access to finance and address skills shortages would appear to be especially important. Promoting SMME expansion through targeted programs has had only limited success: survey evidence suggests that both awareness and usage of existing promotional programs is very low, and attention should be directed to consolidation of these programs before new initiatives are considered.

- **Labor market flexibility** is an area of critical concern in South Africa, a viewpoint supported in surveys of South African managers and international investors. The evidence on unemployment by skill class and remuneration trends also provides confirmation that job creation among the unskilled and semi-skilled labor force has been constrained by rising real wages. Recent efforts to introduce modest changes in labor legislation to offset “unintended” employment consequences have proven contentious, and illustrate the difficulties in reforming labor market institutions and practices. But initiatives to enhance flexibility and market efficiency must be continued, if the steady growth in unemployment is to be reversed. Attention should perhaps focus on introducing greater wage flexibility for special groups (youth, high-unemployment areas) and reconsidering plans to extend minimum wage levels to currently uncovered groups (agricultural and domestic workers).
• Education and training policies need to fill the growing “skills gap.” While improved “flexibility” would no doubt expand employment, it will not be enough. Efforts must also be made to augment the skills base of the labor force, to improve their employability and productivity. Large and SMME firms identified skills shortages as among the most critical constraints to expansion. Existing training schemes are a start, but are inadequate in scale to deal with the magnitude of the problem, and tend to focus more on upgrading the skills of those already employed rather than providing skills to the unemployed. More resources and more aggressive efforts need to focus on enhancing the “employability” of the unemployed.

• Targeted employment subsidies could provide another means to encourage job creation. While there are administrative difficulties inherent in designing schemes that subsidize only new jobs (rather than existing ones), these difficulties can be minimized. Moreover, there is widespread evidence that these schemes can be large enough to have an impact while still remaining affordable. These schemes also provide a means to encourage the private sector to meet more of the training requirements to expand the skills base, and can also provide a mechanism (albeit limited) to circumvent some of the wage distortions that currently discourage job creation.

• Accelerating rural development can also provide a source of dynamism. South African agriculture has already undergone substantial structural change. The recent overhaul of the land reform program, together with efforts to target infrastructural investment and technical assistance towards areas where redistribution is occurring, can create conditions for rural-based expansion that will both promote growth and improve equity. Recent evidence suggests that administrative difficulties associated with land reform have been reduced, so that channeling sufficient budgetary resources to the program can yield improved results.

• With evidence suggesting that the trade liberalization is incomplete, and that the pace has slowed in recent years, consideration should be given to embarking on a phased program of tariff reforms that would continue the progress made during the early liberalization period. Such a program should bring down average rates (given that South Africa does not compare all that favorably with its competitors) and also reduce the number of different rates from its current high level (nearly 50) to no more than a half dozen (as promised in its WTO offer).

• From an economic vantage point, the ongoing trend towards preferential trade agreements (both within and beyond Africa) generates clear gains to South Africa and the other SADC economies, and efforts to promote and accelerate integration initiatives should be continued. But analysis suggests there are also clear limits to the gains that can be achieved from increased regional trade. In particular, while promotion of a SADC free trade area will yield benefits to all participants, SADC’s small size relative to the global economy and the internal trade imbalances will likely limit the medium-term scope for trade expansion. South Africa gains more from free trade with the EU then it will from a SADC free trade area; for the rest of SADC, the gains from greater access to the EU are proportionately even larger. However, there is still scope for substantial gains for SADC members from cooperation in other key areas, such as investment incentives, standardization of the regulatory environment, etc.
Looking Forward: The Gains from Reform

The preceding analysis identifies key areas for action in an effort to identify a comprehensive program of reform that could promote growth and employment. But it should be acknowledged that the report is limited in several crucial areas. First, although the report draws on extensive additional research, many of the key reform proposals (e.g., wage subsidies, targeted SMME programs) will require substantial further investigation regarding the likely impact and fiscal cost and affordability, before final decisions are made about moving forward. Second, given existing resource limitations (both financial and administrative), there is little effort made to prioritize or identify sequencing for different interventions and actions.

In order to provide some indication of the possible implications of policy initiatives on growth and employment, we have used an economywide model to construct alternative forward-looking scenarios that allow for quantification of the effects. While these scenarios are designed to reflect only the most salient aspects of the proposed policy reforms, the results still suggest that there could be important gains over the medium term, and momentum towards a development trajectory in which South Africa’s potential is more fully realized. More specifically, these findings suggest that:

- A pro-growth reform scenario (that includes tariff reform, improvements in the export incentive environment, successful privatization/investment promotion, and successful encouragement of domestic investment) could increase GDP growth rates by 1 percentage point (from current 3 percent levels), increase job creation, and lead to a more rapid decline in the unemployment rate, although the results suggest that the duration of the growth surge could be curtailed if the skills shortage is not addressed.

- A second pro-growth and skills accumulation/labor reform scenario (which starts from the reform scenario and adds faster skills accumulation, and wage subsidy/market flexibility initiatives that slow the growth in real wages) would have an even bigger impact. Growth would accelerate even more (to 5 percent annually), faster skill accumulation would alleviate the slowdown, and the unemployment rate for the lower skilled groups would decline from 50 percent to 30 percent over the next decade.

Finally, the potential economic impact of the HIV/AIDS pandemic demands attention. The implications of the pandemic will be profound for millions of families, and it will place extraordinary pressure on institutions that confront its direct effects, such as the health care system for the care of those living with AIDS and social services/systems for the care of dependents of AIDS victims. Population growth will slow from 2.3 percent annually early in the 1990s to zero, and labor force growth will slow as well. But the changes induced throughout the economy will extend far beyond the direct loss of productive workers: recent estimates point to overall GDP declines (relative to a “no AIDS” alternative) of 19 percent by the end of the decade (8 percent in per capita terms). Of this decline, only one-eighth is directly attributable to slower labor force growth; the rest reflects the possible impact on productivity, private consumption, and government expenditure and financing patterns. This conclusion highlights the importance of paying greater attention to the budgetary and financing implications of HIV/AIDS, especially the impact on key government spending programs (health, education, welfare) as well as the broader consequences for fiscal balance.
POLICIES TO PROMOTE GROWTH
AND EMPLOYMENT IN SOUTH AFRICA

1. SOUTH AFRICA TODAY

A. INTRODUCTION

The most pressing problem facing South Africa today is the absence of sustained economic growth and job creation, which are essential to reduce poverty and improve living conditions. The transition to a multi-racial democracy in 1994 posed difficult political, social, and economic challenges, and South Africa’s achievements in surmounting these challenges have been widely acclaimed. But seven years into the post-apartheid era, the transition is not over—what lies ahead is the daunting task of ensuring that South Africa’s rich natural and human resources are employed for the benefit of all, promoting sustainable livelihoods, improving social conditions, and alleviating poverty.

At the outset, it is important to acknowledge the important successes that have been achieved. During the last five years, South Africa has moved to restore the macro foundations for sustainable growth. Within the context of GEAR (whose program covered the 1996-2001 period), the Government reduced the fiscal deficit and government dis-savings, shifted spending to human capital development and poverty alleviation, and forced down inflation from 15-20 percent in the 1980s to below 5 percent (before the mid-1998 “Asian flu” exchange rate turmoil). The end of trade sanctions, lower trade barriers, and an increasingly open capital account spurred South Africa’s reintegration in the world economy. And previously disadvantaged groups began crossing the boundary into the formal economy from which they had been excluded, increasing their demand for government services, opening bank accounts, and competing for jobs.

But despite this macroeconomic “success,” concerns over slow growth and employment trends are widespread and growing. Throughout the 1990s, formal employment figures have dropped, and unemployment has climbed inexorably, reaching 37 percent of the working age population (including discouraged workers). The turbulence which has rocked international financial markets over the last few years has affected South Africa as well, damaging confidence, slowing recovery, and threatening macro stability. And the rapid spread of the HIV/AIDS pandemic in South Africa (there are currently more HIV+ people in South Africa than in any other country) already threatens the hard-won health and social service delivery gains of recent years, and poses an even more fundamental challenge to long-term poverty reduction.

The current study attempts to move beyond the emphasis on macroeconomic issues and confront the more fundamental challenge of generating sustainable growth, job creation, and poverty reduction in South Africa. It is not that the earlier concern with the macro environment
was wrong, or that it is no longer a priority: indeed, this focus was clearly appropriate in the early years after apartheid, when issues of stabilization and economic legitimacy were paramount, and it is precisely the success of these efforts that allow us to focus now on structural concerns and weak real economic performance. South Africa must re-ignite growth, not only to provide income for the poor and jobs for the unemployed, but also because the stability that comes from maintaining low inflation without growth will prove short-lived. Without renewed growth, the pressures on fiscal policy to stimulate the economy are likely to mount, and South Africa’s hard won fiscal sustainability and macro stability placed at risk.

B. SUCCESSFUL POLITICAL TRANSFORMATION

However daunting the challenges that a modern South Africa must face in the future, the unique achievement embodied in its own creation can not help but provide inspiration that solutions can be found. The events leading up to the birth of the new South Africa in April 1994 captivated the world, and promised hope not only for South Africans, but for all of Sub-Saharan Africa. With the adoption of a new Constitution and Bill of Rights guaranteeing the equal rights of all its citizens, regardless of race, South Africa demonstrated that it is possible to move from internal conflict and confrontation to reconciliation and commitment to creating a new, more equal society. The national election and transfer of power from President Mandela to President Mbeki in May 1999 provided further evidence of the robust good health of South Africa’s political system.

But South Africa’s political transformation runs deeper than a new constitution. The new South African government has pursued a sweeping experiment to build the institutions that influence governance, service delivery, and growth. It created new tiers of government (provinces and local governments); managed the process of creating metropolitan governments; and established new fiscal and intergovernmental systems. December 2000 witnessed nationwide elections in 240 newly constituted local jurisdictions, amalgamated from more than 800 racially and geographically fragmented localities inherited from the apartheid era. The impact of these changes is as important as the more publicized political transition, for it has enabled South Africa to move from political fragility to stability, where the rules of the game are accepted by all.

In the political arena, the government has demonstrated its commitment to building a more equitable, multi-racial society. Emphasis has been on promoting reconciliation (through initiatives such as the internationally acclaimed Truth and Reconciliation Commission) and on creating conditions for faster growth and social transformation. But there persists a strong tension between demands for justice and the need for realism. At one level, the orthodox policy stance served to reassure the first-world segment of South Africa that the transformation of society and the economy would be gradual. However, the aspirations of the third-world segment remain unmet: there are still no jobs, improvements in social service delivery have failed to satisfy the pressing needs, and the old apartheid-based discrimination has for many been replaced by one based on wealth and economics.
C. THE POST-APARtheid Economic Policy Environment

From the start, the policy challenges facing the new Government were exacerbated by the legacy of apartheid. First was the compelling need to promote economic inclusion. South Africa already had a core economy with all the foundations and infrastructure of a market system: property rights, judicial system, banking system, capital markets, and so on. Therefore the challenge was not to create a market economy overnight, but rather to find mechanisms for making the existing market economy more competitive, while creating instruments to ensure that those who had been excluded could be integrated into an expanding market economy.

The RDP and GEAR

Even before the 1994 election and subsequent transition, the ANC led efforts to develop a medium-term vision for the new South Africa. The resulting Reconstruction and Development Programme (RDP) outlined a comprehensive plan to reduce poverty and inequality, emphasizing both economic growth as well as efforts to improve service delivery and human resource development for previously disadvantaged groups. In May 1994, the RDP was adopted by the new Government as the centerpiece of its economic policy.

Despite widespread support for its goals, the RDP implementation experience also provided an early indication of the difficult balancing act that would be demanded from the government. The newly elected, representative government needed to pick a path through the increasingly vocal and rapidly growing demands of its core constituencies, while simultaneously striving to reassure domestic and foreign investors, as well as international donors. The RDP was originally designed as a separate institutional structure, with a national RDP ministry (located in the President’s office) initiating research and designing projects, which were then implemented by provincial RDP structures. But introduction of this new separate institutional framework created confusion, especially occurring in a context of even greater institutional upheaval (including the absorption of the “homelands” and creation of nine new provinces, extensive turnover in high level civil service staff, etc.) Lines of authority were muddled (did the RDP have supervisory or approval authority over other departments?) and financial accountability unclear. In 1996, the RDP office was closed (although a separate RDP fund continued for some time afterwards), and since then, there has been no central agency at the national level responsible for the design, implementation, coordination, and monitoring of poverty-related programs.

In addition to objectives targeted by the RDP, the new government faced other problems as well: high inflation, declining GDP growth, and a large fiscal deficit. Macro policy focused on establishment of a credible and prudent fiscal stance, a World Trade Organization-linked program for long-term trade liberalization, and the reunification of the dual exchange rate system followed by progressive lifting of exchange controls. Efforts were initiated to defuse the confrontational politics that characterized the apartheid era through the creation of consultative procedures that involved government, business, and trade unions in debate on economic and labor policies. The transition from opposition politics to leadership in the Government of National Unity (GNU) demanded extensive consensus building and compromise in key areas such as state asset restructuring and privatization, labor relations, and decentralization.
In 1996, faced with external pressures and instability in the Rand, and concerns over the commitment to sound macro policies, the Government introduced the GEAR (Growth, Employment and Redistribution) macro framework (see Box 1.1). To restore confidence and enhance credibility, the GEAR built upon (rather than revised) the strategic vision set out in the RDP by committing Government to specific macro targets, and including a phased fiscal deficit reduction plan that was deliberately more ambitious than its predecessor. Moreover, the GEAR represented a deliberate effort to improve policy coordination: the development of the strategy involved participants from all key Government departments (including the Reserve Bank), and was endorsed by Cabinet and introduced in Parliament by (then) Deputy President Mbeki as the “central compass” that would guide all other Government programs.

Uneven Policy Implementation

In the five years since committing itself to the GEAR framework, the Government’s policy stance has remained largely unchanged. And this policy perseverance has yielded tangible benefits: key macro stabilization objectives have been achieved, including a reduction in the central budget deficit from 10 percent (in the last year of the apartheid regime) to under 3 percent of GDP, a fall in inflation to the lowest level in 30 years, and a substantial rise in foreign exchange reserves (see the next section for a fuller discussion of economic performance).

But in a broader context, the GEAR outcome is more mixed: progress on implementing the pressing agenda of structural reforms has been uneven in many key areas:

- **In trade policy**, tariff reforms have lowered average protection and eliminated most non-tariff barriers, but dispersion of effective protection remains high, and the structure of protection remains complex (45 different rates). The elimination of export incentives means that the anti-export bias for many commodities has risen as well, and South Africa lacks a functioning duty drawback or tariff rebate system that would allow exporting firms to obtain inputs at world prices.
In the labor market, the Government has pushed ahead with a variety of initiatives intended to address discriminatory policies and practices by providing better protection for workers’ rights and improving the benefits and conditions of employment. But in the process, there is growing concern that these efforts have had unintended consequences for job creation, which is a critical issue in an economy with an unemployment rate that is nearly 40 percent and rising. Moreover, little has been done to address concerns over labor market distortions that hamper employment of young or unskilled workers, including widespread reliance on collective bargaining arrangements that are being expanded to include groups previously outside the system.

Privatization and sectoral deregulation have proceeded relatively slowly, disappointing potential international investors and sending mixed signals regarding the strength of Government’s commitment. Articulation of a comprehensive framework for restructuring (including privatization) was completed only recently, and despite the inclusion of substantial projected privatization proceeds in the latest Budget, substantial uncertainty remains about the scope and pace of the program.

Relaxation of restrictions on capital outflow has encouraged South African investment abroad, to the benefit of the domestic investors and the recipients (many in the other SADC countries), but concerns over the domestic policy stance and economic environment have contributed to disappointing FDI inflows.

Efforts to promote real exchange rate stability have been challenged by both international and domestic pressures. Externally, South Africa’s growing integration into a globalized world economy together with the unexpected and large “shocks” affecting various emerging markets resulted in episodes of severe external pressure, including most notably the “Asian flu” contagion during 1997-98. But defensive currency interventions to support the Rand during this period generated a net open position in the foreign exchange market that was nearly five times the size of actual reserves at its height in June 1998. While this open position has been reduced substantially in the last few years (and defensive interventions have ceased), South Africa’s weak reserve position (the open position still exceeds reserves) remains a concern to international investors, generates substantial actual and potential fiscal costs, and limits the credibility of efforts to maintain a stable exchange rate.

Overall, the mixed performance on the structural reform agenda means that the pre-conditions for a sustained supply response remain unmet. Based on the GEAR package of policies, it was forecast that growth would accelerate to 6 percent by 2000, with job creation reaching 400,000 jobs annually. Compared to these targets, South Africa’s economic performance has been disappointing: GDP growth has remained low, formal employment continues to fall, and the key objectives of poverty reduction and improved service delivery remain largely unmet.
D. AN OVERVIEW OF ECONOMIC PERFORMANCE

The South African Economy: The Structural Legacy

South Africa is one of the richest and economically most important countries on the African continent. With 42 million people, a GDP of US$127 billion, a rich natural resource base, and a total area of 1.2 million square kilometers, the country dominates the Southern African sub-region and accounts for more than a third of the output of all sub-Saharan Africa. It has a sound market economy, with a well-developed private sector and the most advanced industrial capacity on the continent.

But for decades, the apartheid system prevented South Africa from achieving its potential. Apartheid’s legacy is widespread inequality and poverty among the African population, with highly unequal socio-economic outcomes in the midst of plenty. Even more than other “dual” economies, South Africa is really two societies in one. At one extreme, is a modern, “first world” society – there is electricity, running water and modern sanitation in almost every home; two thirds have at least a high school education, childhood mortality rates are low and poverty is minimal. At the other extreme, there is another society – where half have less than a primary school education, over a third of children suffer from chronic malnutrition, only a quarter of the households have electricity and running water, and less than a fifth have modern sanitation.

Structural features of the South African economy exacerbate the growth and employment challenge — the apartheid-era legacy leaves distortions every bit as pervasive and costly as those inherited by many of the economies emerging from the former Soviet Union. Compared to other middle income economies, South Africa is highly urbanized, and while half the population is rural, agriculture accounts for less than 6 percent of GDP (and around 9 percent of employment). The relatively small agricultural sector, along with a stunted informal sector, imply that South Africa is missing two standard labor “shock absorbers” that operate in other economies (especially in Africa) during periods of adjustment. The spatial dimension of apartheid meant that millions of South Africans were deliberately located miles away from urban centers where the jobs were, fostering the emergence of complex migrant worker systems and transport patterns that remain in place today.

Stabilization Without Growth

As noted earlier, the macroeconomic stance adopted by the new government has successfully restored and maintained macroeconomic stability. In particular, commitment to and achievement of a program of fiscal restraint has reduced the deficit from nearly 10 percent to 2 percent in 1999/00, well below the target of 2.8 percent (see Figure 1.1). The deficit reduction has occurred through a combination of strengthened revenue performance (through improvements in tax administration), as well as more effective spending controls. Budget reform was viewed as critical to the post-apartheid program of reconstruction and development, and establishment of a Medium Term Expenditure Framework (MTEF) was the centerpiece of the budget reform process. The MTEF encompasses all national sectoral as well as provincial expenditures over a four-year period, and includes both recurrent and capital expenditures.
Further stability has been achieved through the Reserve Bank’s efforts to reduce inflation, which have produced a steady downward trend during the 1990s, except for a brief upsurge associated with the Asian financial crisis spillover to South Africa (see Figure 1.1). Following the crisis, the Reserve Bank responded to perceived changes in monetary relationships with a shift in monetary policy in September 1997, when it ended its sole reliance on broad money and credit as performance indicators, shifting instead to a broader “eclectic” set of measures, including M3, credit, the exchange rate, capital flows, and international reserves. The Reserve Bank also announced its intention to phase out foreign exchange market intervention (which had produced the costly increase in the net open forward position), and replaced its discount window with a liquidity auction as its primary intervention mechanism. More recently, in February 2000, the authorities formally adopted an inflation-targeting framework that commits the Reserve Bank to achieving a CPIX target range of 3-6 percent for 2002 (CPIX is an index that excludes mortgage interest costs from the full CPI), and recent evidence suggests that the target is likely to be reached, despite pressures from a weakening Rand and rising oil prices.

But despite these successes, the real growth performance of the South African economy over the last several years has failed to reverse the secular deterioration that has been occurring for decades. GDP growth has fallen steadily, from an average of nearly 6 percent during the 1960s, to around 3 percent during the 1970s, 2 percent in the 1980s, and erratic performance throughout the 1990s (averaging 1.3 percent). After a prolonged period of decline, the economic rebound that began in 1994 was welcome but short-lived and weak, peaking at only 4 percent before dropping back off as a result of external pressures and business cycle movements (see Figure 1.2). The 3.1 percent growth achieved during 2000 hopefully indicates another period of expansion, although the 2.0 percent outcome for the 1st quarter of 2001 does not bode well.
Moreover, even the brief economic recovery during 1994-96 was not sufficient to reverse the steady decline in formal employment occurring throughout the 1990s (see the discussion in Chapter 2). Unemployment is extremely high, and has been worsening steadily (see Annex 1). Estimates for 1999 range from a high of 36 percent (using an “expanded” definition that includes discouraged workers, who are available for work but not working) to 22 percent (using a “narrow” definition that includes only those actively searching).

**Exchange Rates, Trade Flows, and External Vulnerability**

South Africa entered the post-apartheid era with a distorted exchange rate and trade policy regime that reflected the cumulative impact of decades of isolation and a complex pattern of international trade and investment sanctions. The abolition of the financial Rand mechanism in 1995 ended the dual exchange rate regime that had helped provide support during the sanctions period, and signaled the opening moves in a progressive strategy of easing (and eventually eliminating) exchange controls.

Since 1995, the Rand has been administered via a managed floating exchange rate regime, where the extent of “management” has varied over time.\(^2\) Prior to the Asian crisis, the Reserve Bank periodically chose to intervene in the foreign exchange market through forward market operations, in order to absorb speculative pressures, prevent “excessive” depreciation and interest rate increases, and reduce volatility. Although there was no acknowledged target level (or range) for the Rand, there was clear evidence of the Reserve Bank’s willingness to attempt to resist exchange rate pressures that were not viewed as “fundamental.” The Asian crisis represented a watershed of sorts: after the net open forward position increased by more than US$10 billion in two months as part of a futile attempt to resist external pressures, a reassessment of the intervention strategy has occurred, and the Reserve Bank has avoided further interventions that would increase the open position (and has successfully reduced net exposure by nearly two-thirds, from almost US$23 billion to US$8 billion at present).

\(^2\) See Yagci (2001) for a useful discussion of exchange rate regime choices within the African context.
In trade policy, liberalizing the external trade regime has been one of the central and more visible elements of South Africa’s drive to achieve accelerated economic growth and symbolic of its break with past economic policies. The combination of sanctions-induced distortions and the typical (for the time period) reliance on inward-looking development strategies helped produce a distorted and non-dynamic traded sector. But since the 1994 transition, changing trade and exchange rate policies, together with accelerated integration into global markets, has led to a rapid growth in merchandise exports, related in part to improved export incentives (see Figure 1.3).³

Overall, South Africa remains quite vulnerable to external pressures arising from shifts in sentiment, as evidenced by several different episodes of externally provoked crisis and adjustment in the last several years that resulted in prolonged periods of capital flow instability, exchange rate volatility, and high interest rates. While the financial system is sound and well-regulated (see the discussion of financial markets in Chapter 2) and likely able to withstand such pressures, there is nevertheless a substantial “real” economic cost associated with these pressures and their aftermath. Defensive foreign exchange market interventions during the “Asian flu” episode that began in May 1998 increased the Reserve Bank’s net open forward position to nearly US$23 billion, an enormous amount relative to net international reserves of US$5 billion during the same period. Since that time, the Reserve Bank has avoided further defensive interventions, and the reserve position has improved substantially (although the net open position of US$8 billion still exceeds actual reserves), although this vulnerability continues to concern international markets and constrain Reserve Bank policy flexibility.

³ A more thorough discussion of trade policy and its impact on trade is provided in Chapter 4.
South Africa’s debt structure provides another source of external vulnerability, in addition to the weak reserve position. By standard indicators, South Africa’s external debt is not particularly large: foreign currency-denominated external debt was estimated at US$28.9b in 2000, equivalent to 23 percent of GDP, while debt service was only 11 percent of exports. But there are two areas of concern. First, more than half of this total external debt is classified as short-term (maturity of less than one year), leaving South Africa vulnerable to sudden shifts in international markets. Adding short-term debt to scheduled medium and long-term amortization provides a rough measure of annual external re-financing requirements: this is nearly 11 percent of GDP, which is particularly large in light of the weak reserve position. Second, the South African government borrows extensively in Rand (both through domestic and international issues), with a sizable portion held by foreigners. While this does eliminate exchange risk (which is one of the government’s objectives), it also creates an alternative channel of vulnerability because of the liquidity of these instruments: a sell-off of these holdings by foreigners (precipitated either by international or domestic events) would translate quite rapidly into domestic interest rate volatility, which could trigger (or exacerbate) a domestic crisis.
2. FACTOR MARKETS AND GROWTH PERFORMANCE

A. INTRODUCTION

The preceding outline of South Africa’s recent performance describes an economy that has consistently performed poorly relative to expectations. In 2000, instead of the 6 percent GDP growth and 400,000 new jobs forecast in the GEAR, GDP growth was only 3 percent and employment in the formal sector continued to decline. The factors underlying this growth shortfall are of course numerous and complex, and include both the influence of external factors as well as domestic conditions, some of which reflect normal business cycle behavior. Indeed, changes in domestic business conditions can have a powerful impact on short-term economic performance, and can provide a strong rationale for focusing on “demand management” measures or adjustments in monetary policy.

But over a longer time frame, the primary limits to sustained growth derive from “structural supply side” concerns, not “demand management” issues. In the medium to long term, it is not the ebb and flow of cyclical patterns that fundamentally constrain growth opportunities in the economy. Business cycle booms may last a long time (such as the recent record-breaking ten-year expansion in the US) or a short time, and may have “soft” or “hard” landings, but the basic logic (despite rhetoric about the “new economic paradigm”) is that, whatever the timing and magnitude, the cycles will continue. The more fundamental question that must be addressed involves the determinants of the underlying growth rate around which these cycles occur: why does South African growth cycle between 0-4 percent, rather than 2-6 percent?

To provide some perspective on this issue, we consider what has been happening to the utilization of the primary factors that determine growth in any economy: labor, capital, and land. This examination includes not only consideration of long-term trends in supply (labor supply growth, investment) but, perhaps more important, the effectiveness with which these resources are utilized (labor, land, and capital and financial market efficiency).

B. EMPLOYMENT, UNEMPLOYMENT AND LABOR MARKETS

Labor Supply and Unemployment

Table 2.1 provides a summary of the skill composition of employment and unemployment in the South African economy in 2000. Overall, unemployment is estimated at 36 percent (see Annex 1 for a more complete examination of the definition, level and composition of South African unemployment). Semi-skilled and unskilled labor represent half of the work force, but two-thirds of the unemployment. Informal labor (which has similar skill characteristics to the semi-skilled and unskilled group) accounts for 40 percent of total unemployment. The unemployment rate among skilled labor is substantially lower, but not zero.

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4 The highly skilled category includes professional, technical, managerial and executive positions; the skilled category includes clerical, sales, service, production foremen and supervisors, communications and transport workers; semi-skilled and unskilled includes all others.
Table 2.1: Employment and Unemployment by Labor Skill Category, 2000

<table>
<thead>
<tr>
<th>Category</th>
<th>Labor supply (thousands)</th>
<th>Employment (thousands)</th>
<th>Unemployment (thousands)</th>
<th>Unemployment rate (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly skilled labor</td>
<td>1350</td>
<td>1350</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Skilled labor</td>
<td>3495</td>
<td>2928</td>
<td>567</td>
<td>16.2%</td>
</tr>
<tr>
<td>Semi-skilled and unskilled labor</td>
<td>7359</td>
<td>3669</td>
<td>3690</td>
<td>50.1%</td>
</tr>
<tr>
<td>Informal labor</td>
<td>2547</td>
<td>1494</td>
<td>1053</td>
<td>41.3%</td>
</tr>
<tr>
<td>Total</td>
<td><strong>14751</strong></td>
<td><strong>9441</strong></td>
<td><strong>5310</strong></td>
<td><strong>36.0%</strong></td>
</tr>
</tbody>
</table>

Source: South Africa CGE model based on statistics provided by Quantec Research.

As evident in Figure 2.1, job creation over the past three decades in the unskilled and semi-skilled labor category has been dismal. Total employment (formal sector and informal sector) of unskilled and semi-skilled laborers in 1999 was 8 percent lower than the level in 1970. While the number of informal sector jobs quadrupled between 1970 and 1999, the formal sector has been marked by massive job shedding. Formal sector employment of unskilled and semi-skilled laborers in 1999 was only three million compared with four million employed in 1970. Between 1981 and 1999, the level of formal sector employment declined in every year but three, losing a total of 1.3 million jobs in the space of less than two decades.

![Figure 2.1: Semi-skilled and Unskilled Labor Supply and Employment](image)

**Labor Market Flexibility**

A common argument used to explain low employment generation in South Africa is the nation’s “inflexible” labor market, although the mechanisms at work are not necessarily identical.
to those in the EU, where the terminology was first adopted. The industrial labor relations system heavily favors “insiders”, those who have regular jobs, especially with private employers, at the expense of “outsiders”, who disproportionately include the unemployed and discouraged workers. And within the industrial labor relations system, trade unions have the upper hand. This has created a large union wage effect with wage gains only loosely tied to productivity increases. Industrial or Bargaining Councils enhance union power, by having the authority to extend statutory wages to currently uncovered firms within sectors. Pro-labor legislation also is associated with benefit (e.g., maternity leave, normal working hours, overtime differentials, etc.) and employment security provisions that reduce flexibility.

Data on unemployment rates by skill class are presented in Figure 2.2. The data show that, for all classes of labor, unemployment rates were quite low in the early 1970s. However, since 1976, unemployment rates for unskilled and semi-skilled labor have increased steadily. In 1995, the unemployment rate for this group surpassed 50 percent, and has since continued to climb even further. In contrast, the unemployment rate for highly skilled workers has been

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5 The terms “flexible” and “inflexible” as descriptions of the labor market gained popularity in the 1980s as analysts sought explanations for diverging trends in unemployment between the EU and the U.S. Proposals to increase labor market flexibility in the EU were detailed in the OECD Jobs Study and called for (a) increasing wage flexibility by reassessing statutory minimum wages and shifting taxes away from labor; (b) reforming employment security provisions by loosening restrictions on dismissals warranted by changing economic conditions, and by easing employment rules governing employees on fixed term contracts; and (c) changing unemployment insurance systems by limiting the length of benefits and reviewing eligibility conditions (OECD, 1994).


7 The data series on employment, unemployment and real remuneration in Figures 2.1-2.3 were derived from official South African statistical sources by Quantec Research.
negligible throughout the period, while the rate for skilled labor began to climb more recently and has also reached a fairly significant level.

While there are numerous factors that contribute to the differential patterns of unemployment by skill group, the pattern of wage growth appears particularly significant. Figure 2.3 shows the trends in real remuneration per employee by skill class since 1970. In 1999, real remuneration per highly skilled worker was at 90 percent of the 1970 level, while real remuneration per skilled worker increased to 110 percent of the 1970 level. In contrast, real remuneration per unskilled and semi-skilled worker in 1999 had grown to 250 percent of the 1970 level. Based on these data, the neoclassical conclusion that unskilled and semi-skilled labor has to a large extent been priced out of the market seems unavoidable. Employment growth has, given slow economic growth rates, gone hand in hand with wage moderation as in the highly skilled and skilled segments. In contrast, employment compression (see Figure 2.1) has been associated with substantial real remuneration growth in the unskilled and semi-skilled segment.

But rapid wage growth is not the only factor that may have hampered employment creation and contributed to labor market inflexibility. Since 1995, government has enacted legislation and regulations aimed at redressing in the formal workplace some of the inequalities that had carried through from the apartheid era. The main regulatory reforms have been the Labor Relations Act (LRA) of 1996 which, among many other things, focuses on workers rights to organize, conflict resolution and hiring and firing laws. The Basic Conditions of Employment Act (BCEA) of 1997 focuses on better working conditions for all workers who are employed and workers’ rights in the workplace, among other things. The Employment Equity Act seeks to
correct racial imbalance through, among other things, affirmative action. The Skills Development Levy of 1998 seeks to encourage firms to provide more worker training.\(^8\)

While it is difficult to quantify the individual or collective impact of this legislation, it does at least appear to contribute to the impression of inflexibility (see Chapter 3 for a discussion of recent survey results in Johannesburg). South African business leaders cite labor regulations and union activities as discouraging employment creation. The World Economic Forum’s Global Competitiveness Report (1999: Tables 7.02-7.05, 7.09) ranks South Africa at the bottom of its fifty-nine nation comparison on whether labor regulations on wages, hours or dismissals favor flexibility. The Competitiveness Report asks groups of domestic business leaders to rank their agreement or disagreement with statements such as, “Hiring and firing practices are flexibly determined by employers.” On this question South African executives strongly disagreed. Relative to the rankings of business counterparts in other economies, South Africa came in dead last on most matters concerning flexibility, labor relations and the work ethic of the labor force.

C. CAPITAL, INVESTMENT AND FINANCIAL MARKETS

Savings, Investment and Capital Accumulation

Domestic savings in South Africa are low by international standards (compared to other middle income countries), and have been declining fairly steady over the last two decades, from an average of 22 percent of GDP during the 1980s to only 14 percent during 1998. There has also been a significant change in the composition of savings (see Figure 2.4). Government savings was responsible for much of the overall decline, as it swung from positive rates in the

\[\text{Figure 2.4: Components of Gross Domestic Saving, 1970-99}\]

\[
\begin{array}{|c|c|c|c|}
\hline
\text{Year} & \text{Percent of GNI} & \text{Savings rate, domestic} & \text{Savings rate, private} & \text{Savings rate, government} \\
\hline
1970 & 20 & 10 & -10 \\
1972 & 18 & 9 & -1 \\
1974 & 16 & 7 & 2 \\
1976 & 14 & 5 & 4 \\
1978 & 12 & 3 & 6 \\
1980 & 10 & 1 & 8 \\
1982 & 8 & -1 & 10 \\
1984 & 6 & -3 & 12 \\
1986 & 4 & -5 & 14 \\
1988 & 2 & -7 & 16 \\
1990 & 0 & -9 & 18 \\
1992 & -2 & -11 & 20 \\
1994 & -4 & -13 & 22 \\
1996 & -6 & -15 & 24 \\
1998 & -8 & -17 & 26 \\
\hline
\end{array}
\]

Source: SARB as presented in Jonsson and Teferra (2000).

\(^8\) One area that merits further investigation is the possible distinction between wage levels and movements versus changes in total labor costs (i.e., wages, benefits, and regulation costs).
early 1980s (around 4-5 percent of GDP) to negative rates in the early 1990s (-4-5 percent of GDP), and more recently moved steadily back towards zero. Private savings has been fairly stable, albeit with a downward trend during the latter part of the 1990s, as household savings has dropped steadily from around 4 percent of GDP in 1992 to almost zero in 1999.

While the graphical evidence suggests that the decline in savings rates reflects long-term trends, the heightened expectations since 1994 regarding investment and growth requirements has generated substantial attention to analyzing the factors that might underlie this performance. Available empirical research on determinants of savings has found that: (1) as government saves more, private savers tend to save less (limited Ricardian equivalence), so that the recent improvement reduction in government dissavings has been associated with lower private savings; (2) private household savings are responsive to changes in corporate savings behavior (households “pierce the corporate veil”), so that as firms save more, households tend to save less; and (3) the extensive financial liberalization that has occurred in South Africa appears to be negatively related to private and household savings rates.9

One consequence of low and declining aggregate savings performance is the constraint that it places on the resources available for investment. This constraint is not absolute: to the extent that foreign savings can supplement available domestic resources, higher investment levels can be sustained for prolonged periods. While South Africa’s history of apartheid-induced isolation limited its appeal as an international investment destination for much of the 1980s and early 1990s, the advent of a democratic and multi-racial government was expected to end its pariah status and usher in a period of significant foreign investment interest. But the evidence to date suggests that this has not occurred. South Africa has been attracting only a small share of the overall pool of foreign direct investment (FDI) directed to emerging markets. During 1994-

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99. FDI in South Africa has averaged less than 1 percent of GDP; for 2000, estimates are that this figure fell below 0.5 percent. By comparison, over the same period, FDI/GDP averaged 2.5-3 percent for Argentina, Brazil, and Mexico, 4-5 percent for Hungary and the Czech Republic, and 3-5 percent for Malaysia, the Philippines and Thailand.

With limited additional foreign resources available, investment levels have remained constrained at around 15-16 percent of GDP throughout the 1990s. There is evidence, however, that the sectoral composition of investment has been changing; in particular, it appears that the highest investment rates during the 1990s occurred within manufacturing sectors, perhaps reflecting the consequences of trade liberalization and broader economic reform.10

Financial Markets

The South African financial system is highly developed and well managed, even by first-world standards. Most financial institutions are privately-owned and run, South African regulatory authorities are comprehensive and widely respected, the national payments system is modern, the court system is conducive to timely and unbiased settlement of disputes, and foreign banks are permitted to enter and operate with relative ease. The breadth of financial products and services is unparalleled in other emerging market economies, and there is depth as well: the stock market is the 13th largest in the world, and the bond market offers first-world size and liquidity.

Since the opening of the economy in the early 1990s, the financial system has undergone a comprehensive modernization and strengthening process. These changes have been motivated by the challenges posed by globalization, as well as the recognition that the financial sector needs to adapt in order to address the problems created by decades of neglect of the needs of a majority of the population. While the crisis generated by “Asian flu” contagion in 1998 tested the depth and resilience of the South African financial system, the overall impact was fairly minimal (no major bank failures, problem loans remaining at only around 5 percent), and there were no lasting adverse effects on financial markets or macro performance. South African financial institutions have relatively low foreign exchange exposure, which means that periodic external shocks (such as the Asian crisis) do not automatically translate into systemic financial risk and domestic crisis.

While efforts at financial liberalization date back two decades (interest and credit controls were eliminated in 1980), the faster progress began in the early 1990s. Competition among domestic institutions increased, two large mutual (private) insurance companies have “demutualized” and become publicly listed companies, and foreign banks entered (or in some cases, re-entered) domestic niche markets, although with only limited retail activities. Meanwhile, gradual relaxation of the complex web of foreign exchange restrictions has permitted greater diversification of asset holdings for South African financial institutions, corporations, and individuals. Household access to credit has been fostered, as banks and other financial institutions have increasingly allowed pensions to be used as collateral for housing loans, and special mortgage accounts have been established that allow homeowners to flexibly borrow and repay up to the value of their property.

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But despite this record of innovation, efforts to enhance the contribution of the financial sector to growth and poverty reduction have been only partially successful. The banking sector has been quite sophisticated at dealing with the requirements of big business, but largely ineffective in providing financial services to small and medium enterprises and poor households. There has been limited expansion of deposit facilities to low-income groups, but efforts to develop wholesale-retail networks to provide loans to small business have been ineffective (see Chapter 3 for a discussion of the impact of access to credit on firms).

Finally, one continuing source of concern (and frequent complaint) is interest rates: since 1996, real interest rates have averaged 11 percent, placing severe pressure on domestic borrowers. Persistence of such high rates is linked to the sizable “risk premium” demanded by international markets concerned with South Africa’s vulnerability, which is related to its weak reserve position and growth prospects, as well as general skittishness about emerging markets.

D. LAND AND LAND REFORM

The Distribution of Land

The pattern of land ownership and use in South Africa provides clear evidence of the extreme distortions caused by the persistent pursuit of apartheid policies. While many other countries are characterized by unequal distribution of agricultural land, the historic path followed in South Africa’s rural areas virtually eliminated the small farming sector, establishing in its place a dualistic structure of highly mechanized white large farms and overcrowded black homelands and dormitory towns (Deininger and May, 2000). The discriminatory policies date back to the Native Lands Act of 1912, which effectively prohibited blacks from owning, renting, or sharecropping on lands outside the designated reserves, which represented only around 8 percent of South Africa’s land area. Subsequent efforts relocated most blacks who had legitimate farming operations into the homelands, where tenure restrictions, high population density, and lack of capital and market access made commercial agriculture virtually impossible. An estimated 475,000 people were relocated between 1960 and 1983 (Deininger and May, 2000).

The Native Lands Act was repealed in 1993, shortly before the 1994 elections and transition to the new government. But addressing the distorted allocation of land remained a massive challenge: the average land held per person was 1.3 hectares by blacks compared to 1,570 hectares by whites, and the white-owned, large-scale farm sector accounted for 90 percent of the value added and owned 86 per cent of the agricultural land (Deininger and May, 2000). This task was exacerbated by the need to create new provincial and local government structures, a widespread shortage of administrative capacity, and the legacy of mis-directed agricultural policies which included subsidies to capital and fertilizer, public sector marketing monopolies, and a legislative environment that undermined the operation of other factor markets.

The new government introduced a broad-based program of liberalization in the agricultural sector, which included efforts to: (i) reform the input and output marketing system; (ii) reduce concentration in the agro-processing sector; (iii) restructure the system of rural financial intermediation; (iv) revise land sub-division legislation and other legal acts that had been established with the express goal of discriminating against the black population; and (v) upgrade agricultural support services and invest in an improved physical and social infrastructure.
in the former homelands. One outcome was the emergence of a more active land market: more than 6 percent of all agricultural land changed hands in both 1997 and 1998, real land prices declined by more than 15 percent between 1994-99, more than 10 percent of all agricultural land in the commercial farming areas was up for sale in 1999, and around the same percentage available for rent (Deininger and May, 2000).

Land Reform

As part of the broader program of agricultural liberalization, the new government adopted an ambitious land reform program in 1994 that was designed to redress the apartheid legacy, foster national reconciliation, promote economic growth, and reduce poverty. The three central components of the reform program included: (1) restitution, to provide cash or in-kind compensation to those removed from their lands after 1913; (2) land tenure reform, to improve tenure security by recognizing individual and communal ownership rights and creating an administrative infrastructure to improve access for previously disadvantaged groups; and (3) redistribution, to provide land to rural blacks through a market-assisted process that provides one-time grants to means-tested eligible participants and assistance in completing the process (Deininger, 1999).

Box 2.1: South Africa’s Land Reform Program: What Went Wrong?

A recent paper identified a number of weaknesses in the 1995-99 land reform program:

- Implementation of the program was slow due to a combination of excessive bureaucracy and overcentralization of the process
- The farms delivered by the program may not have been economically viable because of insufficient land size and quality, and inadequate technical assistance and infrastructure
- Excessive reliance on public sector implementing agencies
- Inadequate attention to need for additional services—infrastructure, markets, incentives, health
- Remaining legal impediments (e.g., failure to repeal Sub-division of Agricultural Land Act) hampered implementation of market-assisted approach
- Focus on reaching “poorest of the poor” limited scope and underemphasized poverty reduction gains from more broadly-based rural growth

Source: Kirsten, Ngqangweni, and van Zyl (2000).

While the land reform program introduced in 1994 was widely touted as an exemplary market-assisted model, it failed to deliver on its ambitious target of redistributing 30 percent of total agricultural land within five years (see Box 2.1), and the objectives of increasing efficiency and growth and reducing poverty have not been achieved. In recognition of these difficulties, the government has recently redesigned the land reform program. While the underlying market-assisted orientation remains unchanged, the new program is simpler, and allows beneficiaries to use it more flexibly, according to their objectives and resources, including defining the project size and type. Implementation is decentralized, with assistance provided at the district level, and approval at the provincial level. While it is too soon to evaluate the success of the revised program, it does offer hope that over time, a competitive and commercial small-scale agricultural sector can emerge, supported by well-functioning markets for land.
3. IMPROVING THE POLICY ENVIRONMENT

A. INTRODUCTION

As outlined, the growth-and-employment challenge facing South Africa is a daunting one. Investment rates are low, FDI inflows disappointing, and the unfinished agenda of structural reforms leaves South Africa at a disadvantage within an increasingly competitive global environment. The legacy of apartheid is evident in the pervasive distortions in all factor markets: for labor, as evident in the scale and persistence of unemployment and inadequate investment in human capital; for capital, in the low savings/investment rates and limited FDI; and for land, where land reform and rural development efforts must reverse policies that over decades have virtually eliminated the small farming sector.

In this chapter, we begin to identify additional policy reforms that could begin to ease current constraints on growth. We argue that while there is no “quick fix” for the difficulties facing the South Africa economy, there are nevertheless numerous areas in which concerted action can generate forward momentum and over time, make a sizable difference for growth and employment creation. While the proposed policy measures cover numerous aspects of the economy, the underlying theme is the over-arching need to improve the investment climate for physical and human capital in South Africa. As such, this theme encompasses not only direct measures (such as efforts to improve the quality and quantity of physical investment, or enhance opportunities for skill accumulation for the poor), but also indirect measures aimed at making the economy more competitive and attractive to investors (through improvements in labor markets, enhanced trade competitiveness, promotion of SMMEs, etc.)

B. CHANGING THE INVESTMENT CLIMATE

With an average investment/GDP share of around 16 percent in recent years, investment levels in South Africa are quite low by international standards (especially for its income level), and for some analysts searching to unlock the “puzzle” of low growth, no further efforts need be made to identify the culprit: It seems obvious that South Africa will not grow faster and generate more jobs without higher investment (see Box 3.1).

Perceived Constraints to Investment and Growth

One useful perspective on this issue comes from asking what different groups perceive to be the major constraints to investment and growth in South Africa. To explore this further, we draw on the results of a series of surveys undertaken by the World Bank (in conjunction with the Greater Johannesburg Metropolitan Council) in 1999, focusing on local (i.e. metropolitan) economic development.11 We look first at the results from the large firm survey, which included 325 firms (larger than 50 employees) across eight manufacturing sectors located in the Greater Johannesburg Metropolitan area (approximately one in seven).

11 The overall effort included separate surveys of large manufacturing firms, small, medium, and micro-size firms, informal firms, households with informal workers, training providers, and credit providers. More background and results from the surveys used in this report can be found in Chandra, Moorty, Rajaratnam, and Schaefer (2001) and Chandra, Moorty, Nganou, Rajaratnam, and Schaefer (2001).
To link up to the question of “constraints” on growth, we focus on the section in which the CEOs of the large firms were asked what they perceive as the obstacles to their firm’s growth. CEOs were asked to rank key constraints, using a “major problem”, “moderate problem”, “not a problem”, or “not applicable” scale. For each of the responses, an index has been constructed, that allows comparison across the categories. Then, using information obtained from interviews with senior managers, we examined the impact of these constraints on firm performance and operations in 1998/99.

Figure 3.1 presents the index of CEO ranking of obstacles to investment and growth. The most important obstacles identified and the evidence to support them include:

- **Crime and theft** were rated by 94 percent of firm CEOs as the major obstacle to firm growth (and therefore are given an index value of 100). Interviews with managers supported this ranking: 83 percent of firms reported they had suffered from some type of crime during 1998, with many listing more than one incident. 61 percent of firms reported that employees had been victims of crime while traveling to or from work. 60 percent of firms reported that they had increased spending on crime prevention between 1997 and 1998; spending on security averaged 1.6 percent of revenues. There was a positive but low correlation between annual crime prevention expenditure and sales per employee and investment in 1998. Employee expansion during 1997-98 was negatively correlated with crime prevention spending.

Box 3.1: Investment Quantity and Quality

The belief that “growing faster requires more investment” lies at the heart of the growth paradigms that have dominated development economics for several decades. From the “only capital matters” framework of the original Harrod-Domar model to the “capital and labor accumulation drive growth” premise of the Solow model, the emphasis has been on the creation of more capital, because of the presumption that this would automatically generate growth.

But the evidence suggests that “invest more to growth more” is not enough, at least in Africa. At an aggregate level, it is difficult to find strong empirical support for the notion that higher investment generates (or is even correlated with) higher growth. For example, in one recent study, World Bank researchers looked at the link between investment (both public and private) and growth in a sample of 29 African countries over the 1970-97 period (Devarajan, Easterly, and Pack, 1999). Their initial regression in fact did show a positive relationship between private investment and growth (and no relationship between public investment and growth). But on closer examination, this positive link depended entirely on the inclusion of Botswana in the sample. In other words, the influence of Botswana (with high investment and high growth) in the total sample was strong enough to create the appearance of a statistically significant relationship for the whole sample. But when Botswana is omitted (so the sample shrinks to 28 countries), the link disappears as well, and one is left with the result that investment and growth are (statistically) unrelated.

This of course does not imply that investment levels do not matter at all. Indeed, it is hard to find examples of sustained high growth in developing countries without investment/GDP rates of 25 percent or higher. Instead, the appropriate conclusion from the empirical literature is more nuanced: while low investment almost surely implies low growth, a push for higher investment must concentrate on issues of investment quality as well. More capital by itself will not automatically lead to faster growth.

To link up to the question of “constraints” on growth, we focus on the section in which the CEOs of the large firms were asked what they perceive as the obstacles to their firm’s growth. CEOs were asked to rank key constraints, using a “major problem”, “moderate problem”, “not a problem”, or “not applicable” scale. For each of the responses, an index has been constructed, that allows comparison across the categories. Then, using information obtained from interviews with senior managers, we examined the impact of these constraints on firm performance and operations in 1998/99.

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12 The index permits ranking of constraints. If a firm reported an obstacle to be a major problem, the answer was weighted by 2. If a firm reported an obstacle to be a moderate problem, the answer was weighted by 1. Obstacles that were not a problem or not applicable were weighted by zero. Alternative weights were constructed, the rankings were statistically tested, and the current weighting system proved robust. The ranking reflects both the percent of firms responding to the question and the severity of rating.
• CEOs ranked the cost of capital or credit as the next most important constraint. In the full survey, 61 percent of firms reported being adversely affected by higher interest rates during 1998. But as to whether lowering interest rates would lead to investment growth, only 30-40 percent of the firms reported that they would expand investment in response to a fall in the interest rate. This somewhat puzzling outcome might reflect the typical sources of finance for South African firms: firms mainly relied on internal savings to finance their working and investment capital. The smaller firms (50-100 employees) in the sample were more likely to change their borrowing and investment plans as a result of the 1998 interest rate hike.

• Depreciation and/or volatility of the Rand was identified as the next most prominent obstacle to business growth. There was a difference here between the largest firms (more than 200 employees), that depend more on export markets (85 percent sell in foreign markets) and more consistently hedge their foreign currency exposure through forward contracts (60 percent purchased forward contracts) and the smaller firms. The potential of export opportunities is apparent in the fact that 60-80 percent of the larger firms (100 employees and larger) said they began to export more in response to the 1998 Rand crisis. However, the overall response of firms to the currency depreciation in 1998 was muted despite various export promotion programs, excess capacity in 80 percent of firms, forward contracts that permitted imports at a stable Rand price, and strong global demand. While the survey does not address why firms did not export more, it is possible that concerns over future volatility and market conditions outweighed the benefits of depreciation.

• The impact of recent labor regulations was also identified by firm CEOs as important. Survey questions reveal just how complex the area of labor relations is in South Africa, how varied are the conditions facing different firms, and how difficult it is to disentangle the effects of labor legislation and regulation from underlying economic and industry trends. Although half of large firms face collective wage bargaining at the sector or industry level, 14 percent are not bound by collective agreements at all, suggesting that the impact of
bargaining arrangements is not uniform. Looking at the impact of the four major changes in labor market regulation since 1995 (Labor Relations Act, Basic Conditions of Employment Act, Employment Equity Act, and Skills Development Act), while almost 40 percent of firms said they adjusted by hiring fewer workers, or using more machinery, nearly 30 percent of firms also said that the regulations had improved labor relations, and 15 percent asserted they had helped raise labor productivity.

- **Corruption and administrative costs** in government was rated as the next obstacle. The survey focused on this issue by exploring administration of the regulations and procedures required to obtain licenses and permits. 75 percent of middle managers reported that the licensing and permit procedures were reasonable; it appears that the time costs are more important than financial costs. Despite the relatively high ranking from CEOs, corruption in government did not appear so prevalent, as only around 1 percent of firms reported that they were asked to pay bribes (although there may have been some bias in senior managers’ response to this question because of the perceived “official” nature of the survey).

- **Finally, a shortage of skilled labor** was highlighted as an important constraint. When asked to identify what skill classifications were scarce, 80 percent of firms indicated that it was extremely or moderately hard to find managerial and professional staff. Service and craft skills were extremely or moderately hard to find for 70 percent of firms. These results are consistent with the observed patterns of unemployment in the economy, where those with professional skills are fully employed, there is moderate unemployment among skilled workers, and extremely high unemployment among the semi-skilled and unskilled workers. In terms of worker attributes, firms indicated a strong preference for hiring workers with relevant work experience, a worrisome outcome in an environment where a large segment of the unemployed have been without a job for a long period (and many have never held a formal job).

While there are limitations inherent in the subjective ranking of constraints by CEOs, there is other evidence that supports the broad findings. For example, when 1400 firms included in the National Enterprise Survey were asked to choose among seventeen different possible constraints to investment, the major obstacles identified included interest rates, crime and social issues, labor regulations, and (especially for small firms), uncertainty over government economic policy, a list which broadly conforms with the survey results reported here (Gelb, 2001).

**Measures to Encourage Foreign and Domestic Investment**

In addition to the constraints to investment identified by existing firms in South Africa are the attitudes and perceptions of potential foreign investors. South Africa is an investment-grade “emerging market,” and enjoys a mature relationship with international capital markets. Analysts agree that South Africa has delivered sound macro fundamentals, and it has been praised for its success in bringing down the deficit, pursuing a prudent external borrowing strategy, controlling public expenditure, reducing taxes, reducing inflation and improving access to information. Moreover, the financial sector is first-class; the Reserve Bank is a globally respected banking regulator; banks are privately owned and well-run; foreign banks are permitted to operate with ease; problem loans are minimal; the Johannesburg stock exchange is the 13th biggest stock market in the world; bond markets have first-world size and liquidity; and the breadth of financial products and services is unmatched in other emerging economies.
But despite these features, South Africa has been attracting only a small share of the overall pool of foreign direct investment (FDI) directed to emerging markets. During 1994-2000, FDI in South Africa has averaged less than 1 percent of GDP. Why does FDI matter for South Africa? Most obviously, FDI represents an inflow of foreign savings, which can be an important supplement in South Africa given the relatively low levels of domestic savings noted earlier. For many other emerging markets, FDI inflows have provided a reliable source of foreign savings that has permitted a sustained boost in investment levels. But there are other benefits frequently associated with FDI as well. When undertaken by multinational firms accustomed to international competition, FDI can bring with it important technology and skills transfer. Also, since FDI projects often have a strong export orientation, the trade balance improves, increasing the economy’s import capacity and providing an important stimulus to job creation.

To a large extent, the measures that will improve the investment climate for domestic investors will also encourage inward flows of FDI. The concerns identified in the survey of CEOs and middle managers of large firms in South Africa (which included foreign-owned firms) include many of the factors that have been identified as issues by potential foreign investors. But one difficulty is that tangible change in many of these areas is not easy to achieve in the short run. Widespread crime and violence, the HIV/AIDS epidemic, difficult labor relations, relatively high labor costs, and skills shortages are all factors that negatively affect domestic investment and FDI, but which can only be mitigated in the longer run. As will be argued in later sections, these are key areas where change is needed, but it is unrealistic to expect a rapid turnaround, and even less reasonable to anticipate that such efforts will translate quickly into changed foreign investor perceptions.

Recently there has been renewed discussion over the use of targeted investment incentives to encourage investment and job creation. South Africa has long experience with various types of targeted schemes: for example, the Spatial Development Initiatives (SDI) have provided a mechanism for government to identify regions with high growth potential and pressing needs, and intervene selectively to provide critical infrastructure or other facilitating investments. But traditionally these initiatives have concentrated on huge capital-intensive projects oriented towards exploitation and “beneficiation” of mineral resources, so the incentives for ordinary manufacturing enterprises has been limited, and the employment creation minimal. Overall, South Africa has had little experience with efforts to encourage non-mineral export activities through export processing zone or duty drawback and rebate schemes.

If targeted schemes are pursued, care needs to be made to ensure that they are well targeted and fiscally affordable. It is also important to avoid approaches that strive to “pick winners” (either geographically or sectorally) or create complex procedures and selection criteria that create excessive additional administrative burdens for Government or discourage participation by possible beneficiaries. Evidence on the effectiveness of targeted incentives generally suggests that such measures rarely attract additional investment, are costly, and often distort incentives that lead to further resource misallocations (see Pigato, 2001). Instead,

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13 However, note that the actual financing package structure associated with a new “FDI project” may generate a much lower inflow of resources, especially if it includes joint venture arrangements (in which the local partner provides significant financing) or other forms of local finance, or requires large capital investments with high import content.

14 Here one should distinguish between short-term (and easily reversed) portfolio inflows (into bond and equity markets) versus more valuable long-term investment in existing or new productive enterprises.
investors are drawn to locations that facilitate their participation in the competitive global environment. This involves factors such as the general business framework (ease of entry and exit, fairness and speed of dispute settlement), existence of supply networks, adequacy and cost of infrastructure, and availability and quality of technical and professional services.

Beyond such general incentive programs, one relatively straightforward means to stimulate FDI would be to accelerate the pace of privatization of major state-owned enterprises (SOEs). South African privatization initiatives have occurred within the context of broader efforts to “restructure” state assets, a process which is viewed as including corporatization, commercialization, and both partial and full privatization. During the 1994-99 period, actual progress was quite limited; however, the current administration has produced a revised strategy, with a commitment to complete the major restructuring for the four largest SOEs (in transport, telecommunications, electricity, and defense) by 2004. Work on an IPO for shares of Telkom (additional to the 30 percent stake already sold) is underway, and the 2001/02 Budget includes an estimated R18 billion in privatization receipts over the coming year. But despite these clear signs of progress, the broader investor reaction has been quite muted, with concerns expressed over the slow pace and relatively limited scope of actual privatization. This would appear to be an area where faster progress would bring immediate benefits.

The impact of faster privatization occurs through two channels. First, there is the direct inflow related to the privatization itself: for example, over the last five years, the only two quarters in which gross FDI approached $1 billion coincided with the receipt of proceeds from the sale of a 30 percent share of Telkom (in 1997) and a 20 percent share of South African Airways (in late 1999). And unlike the portfolio flows that in South Africa (and elsewhere) have been so de-stabilizing during turbulent periods, privatization achieved through some form of “strategic partnership” with foreign firms generates a long-term investment commitment.

Second, there is an indirect channel, as the decision to move forward decisively with the privatization program sends a clear signal to foreign investors of the Government’s commitment to creating and maintaining and “investor friendly” climate. In a global environment where commitments to reform are easily made, and often just as easily broken or reversed, successful privatization initiatives seem to purchase credibility that otherwise is hard to accumulate. The experience with the Telkom privatization suggests that accelerating privatization would increase FDI, as international investors seek exposure in South African non-tradable sectors. The Government’s current policy is still more directed towards commercialization rather than privatization, thus foregoing an opportunity to attract more stable capital flows, apart from the opportunity to improve efficiency and competition.

C. SMALL, MEDIUM AND MICRO ENTERPRISES

The previous section looked at constraints to investment, growth, and employment creation largely as perceived by larger, more established manufacturing firms. A different perspective comes from examining issues from the vantage point of the small, medium, and micro enterprises (SMMEs) that exist largely outside the boundaries of the formal economy.

The SMME sector in South Africa presents a bit of a puzzle. In many developing economies, SMMEs have been an important source of growth, competitiveness, and employment growth – SMMEs tend to be more labor intensive, and can often meet the demands of
international competition more flexibly. But in South Africa, this segment is relatively under-developed: emergence of a more vibrant, export-oriented SMME sector appears to have been crowded out by factors such as the sanctions-related closure of export markets to South Africa, a trade regime that promoted capital-intensity in domestic markets, and distortions and regulations in domestic factor markets that have hampered the emergence or expansion of informal and/or startup firms. Looking forward, it is clear that measures that can promote SMME growth can be a crucial element in South Africa’s transition to higher growth.

Features of the SMME Sector

One corollary to the relative under-development of the SMME sector in South Africa is that little is known about the composition and features of this segment of the economy. To fill in some of the blanks and enhance our understanding of this diverse sector, the World Bank has undertaken a survey of SMME firms in the Johannesburg area. The 1999 SMME survey consisted of 792 formal firms in the Greater Johannesburg Metropolitan Area (GJMA). While there is some risk that limiting the survey to one metropolitan area in Gauteng province may provide a misleading picture, there are some benefits as well: according to the Department of Trade and Industry, Gauteng province has the highest density of SMME firms, accounting for 34 percent of the population (DTI, 1997). Moreover, because Johannesburg represents an integral part of South Africa’s industrial sector, lessons learned from the Johannesburg survey could apply more generally to other metropolitan areas and the broader national economy.

The Johannesburg SMME survey covers firms with a wide variety of characteristics and suggests that the SMME tier in Johannesburg is characterized by significant heterogeneity. As part of the survey design, the SMME survey aimed to cover approximately 100 firms across 4 production sectors and 4 service sectors. Firms in the SMME survey have as few as one employee and as many as 49 employees; about one-third of the firms are less than 4 years old, one-third are between 4 and 10 years old, and many are more than 20 years old.

The SMME sample was also divided into different size-classes: Size 1 firms employ 1-5 workers, Size 2 firms employing 6-20 workers, and Size 3 firms employing 21-49 workers. Approximately half of the SMME sample is accounted for by Size 2 firms (395 firms), the other half is evenly divided between firms in Size 1 (202 firms) and firms in Size 3 (195 firms).

The majority of the SMME firms sampled are registered as domestically-owned independent units. Approximately 60 percent of firms in Size 3 and 75 percent of firms in Size 1 are registered in this manner. For the remaining firms, between 20 to 30 percent are head offices or holding companies, between 4 to 6 percent are branch offices or subsidiaries, and 2 percent are foreign-owned. Regarding the legal status of firms, around 40 percent of the sample are closed corporations. For Size 1 firms, another 35 percent are sole proprietorships. For Size 3 firms, another 43 percent are PTY limited companies.

\[15\] The SMME survey presented here was part of the same collaborative effort on local economic development undertaken with the Greater Johannesburg Metropolitan Council that was described in the previous section. See Chandra, Moorty, Rajaratnam, and Schaefer (2001) and Chandra, Moorty, Nganou, Rajaratnam, and Schaefer (2001).

\[16\] As defined by the Department of Trade and Industry (DTI), an SMME firm is one that employs less than 50 workers. A formal SMME firm is one that is registered and pays VAT.
One of our interests concerns the growth (or lack thereof) of the SMME sector since the end of apartheid, and in particular whether post-apartheid firms face different constraints than pre-apartheid firms. This differentiation is especially important for analyzing such issues as access to finance, access to international markets, skill levels, desire to expand, and ability to benefit from affirmative promotion programs. Figure 3.2 illustrates the proportion of firms in each age category by size-class. Post-apartheid firms are those that are less than 4 years old and constitute between 20 to 40 percent of the sample. As expected, there is a relatively higher proportion of firms employing less than 6 workers that are young (i.e. post-apartheid). Conversely, among firms who employ more than 20 workers, over two-thirds of them are between 4 to 20 years old.

Figure 3.3: Primary Reason for Starting an SMME

- Had formal sector job experience and saw opportunity
- Got tired of searching for a job
- Retrenched from a formal or informal job
- Joined the family business
- I had similar business experience in another country
- Other
In addition to the demographic features of SMME firms, the SMME survey also sought to characterize the typical SMME entrepreneur in Johannesburg, and identify how the entrepreneurs get started doing business. Over two-thirds of the entrepreneurs interviewed in the SMME survey had business experience prior to starting their firm. As shown in Figure 3.3, 73 percent of SMME entrepreneurs had formal sector job experience and perceived an opportunity to make more money by starting their own business. Most of the remaining entrepreneurs joined the family business (12 percent) or were retrenched (8 percent). Including retrenched workers, less than 15 percent of SMME entrepreneurs were previously unemployed individuals.17

Constraints to SMME Growth

In parallel with the large firm survey discussed earlier in this chapter, the SMME survey sought to illuminate the factors that SMME entrepreneurs viewed as constraining firm expansion and job creation. While limitations in the scope of the survey (Johannesburg only, only four manufacturing and four service sectors included) suggest that caution should be exercised in assuming that the findings are easily generalized to the entire economy, the results can nevertheless help shed some light on the problems facing SMME firms, and the extent to which their problems are the same as or different from those facing larger firms.

Figure 3.4: Necessary Conditions for SMME Employee Expansion

The first way in which SMMEs were asked to report on constraints to growth was by asking what conditions would be necessary in order for the firm to employ 10 more workers. The results are shown in Figure 3.4. The most important conditions identified include:

17 These results are somewhat different from much of the prior research on SMMEs in South Africa, which found that the main reason for starting an SMME was unemployment. This research tends to show that 40 to 60 percent of entrepreneurs formed their business as a result of being retrenched or unemployed. This divergence may be due to differences in the time of the survey, in the geographical area examined, or in the age structure of firms.
SMME firms report that, in order to expand, they must have an increase in demand and an increase in business visibility. Both conditions suggest that SMMEs first and foremost need a larger customer base to expand employment. While there is potential for increasing business competitiveness, SMME firms’ customer base will be largely determined by aggregate demand conditions in the economy. As such, the SMME tier is not necessarily any less constrained by low aggregate demand than the large firm tier and will not be able to expand rapidly in a poor or slow-growth economic environment. In fact, SMMEs may be more vulnerable to changing aggregate demand conditions because their financial resource base is smaller.

SMME firms also identified high interest rates and/or limited access to capital as important constraints to employment expansion. Savings are the main source of start-up and working capital for the firms in this survey, while bank loans constitute a much smaller share. In fact, approximately half of the firms surveyed have not even used a bank loan in the last five years. Data from the survey reveals that the majority of firms that do not borrow are not necessarily limited by lack of access to capital. But where access is an issue, it is related to firm size, age, and race of owner. Thus, for the 20 percent of firms that reported that insufficient access to capital kept them from expanding, and for the younger, smaller, black-owned firms who are relatively more constrained by collateral requirements, the issue of access to financing mandates continued attention.

In addition to the issue of access to capital, high interest rates were also noted as a constraint. Although the share of bank loans used to finance start-up or working capital is low compared to the share of savings, approximately one-half of firms surveyed did report using formal credit in the last five years to meet their business needs. Firms that borrowed from banks confirmed that interest rates have had a negative effect on their business. However, one-third of firms reported that recently declining interest rates have made no difference to their business. This suggests that interest rates may still be too high and that the cost of capital is not the sole factor inhibiting investment and growth in SMMEs.

Insufficient Government contracts and weak support programs were identified as another constraint. SMME firms perceive governments to have a vital role in their development and identified a number of interventions government can take to increase SMME competitiveness, marketability, and visibility. SMME firms want improved support systems and increased procurement. With regard to support programs, survey data show that both awareness and use are extremely low. Moreover, data suggest that despite the SMME procurement strategy that is in place, the percent of firms procuring and winning tenders is still low.

The survey also pointed to a number of other aspects of the SMME sector that will affect its growth potential. First, around 15 percent of the SMME sample answered that they do not desire to expand. This result may reflect an age component or simply a desire to avoid problems associated with becoming larger such as increased labor regulations or licensing requirements. But it does indicate that a portion of the sector might not be all that responsive to changing policies or economic conditions, which in turn could limit growth and employment creation.
Finally, the influence of international trade in the current performance and future prospects of SMME firms appears relatively limited, at least according to the survey results. Only around 22 percent of the SMME firms in the sample engaged in international trade. The average share of output exported varied from 20 percent in 1997 to 15 percent in 1999. The four industrial sectors exported only 11 percent of their output. This is in contrast to many other countries, where the SMME sector has been strongly oriented towards external markets, and consequently much more successful than larger firms at adopting new technologies, developing new markets, and responding to changing international conditions. If the low prevalence of trade holds throughout the South African SMME sector, then it suggests that an important potential source of dynamism and growth is missing.

Encouraging SMMEs

In the survey, SMMEs were asked to prioritize government policies that would aid in their growth. For local authorities, SMMEs rank improving the business environment, both through safety and security (listed as first priority by 75 percent of firms) and infrastructure provision as the most important priority. In addition to the business environment, SMMEs rank ethical standards, attitude of local officials, and public transport as important local priorities. Given that SMMEs are looking for increased procurement and promotion programs, the fact they denote relations with the government as important is not surprising.

Figure 3.5: SMME Firm Priorities for National Government Intervention

In terms of what national government can do to help SMME growth, Figure 3.5 illustrates the rankings. Policy stability and interest rates are ranked equally as the top national priorities, a ranking that reflects the importance SMMEs placed on the constraint associated with the cost and availability of capital. Education and training is ranked as second most important followed by promotion of SMMEs in public services and efficient and flexible wages. Each of these three priorities directly addresses the issue of SMME competitiveness and again confirms that SMME firms identify an important role for government in facilitating their growth and development. Comparing these priorities with those that emerged from the discussion about large firms, to a
large extent, the groups appear to face similar difficulties. Sluggish domestic demand, high interest rates, limited access to capital, and skills shortages each appear on the list of concerns.

But there are some differences to be considered as well. For example, the pattern of SMME firm births and deaths has implications for employment potential within the SMME tier. Among the firms surveyed, employment growth over the past two years has generally occurred due to the emergence of new firms, while existing firms have actually been laying off workers. Whether or not existing SMME enterprises are able to grow and expand their workforce is, thus, a vital issue for the tier’s potential to absorb the unemployed. The SMME tier is often expected to generate rapid employment growth given the labor-intensive nature of production. If the SMME tier is characterized by a high degree of turnover, in that firms are able to emerge, survive for a few years, then die off, then the SMME tier will lack the type of dynamism necessary for sustained and significant reductions in unemployment.

Despite concerns expressed about interest rates, it is not clear that actions to lower rates will have much success in promoting SMME growth. The share of bank borrowing in financing SMME investment is low, although one-half of the SMMEs surveyed borrowed from banks in the last five years. For these firms, declining interest rates should lead to increased investment by lowering the cost of capital and by lowering the opportunity cost of retained earnings. Since lending rates averaged around 20 percent during 1996-98, firms that used bank capital reported being adversely impacted by the high cost of credit. Interestingly, 45 percent of firms surveyed noted that lowering interest rates is necessary for them to add another 10 employees and expand employment. However, when asked how they viewed the decline in interest rates (of around 5 percentage points) that had occurred in the months before the survey, just over 15 percent thought that interest rates were still too high, while 33 percent reported that the decline had made no difference to their business. So it may be that high interest rates have a less immediate impact on investment and growth in SMMEs than demand conditions or other constraints.

Efforts to promote SMME access to finance might have more impact, but the interaction of this factor with other constraints is hard to disentangle. For example, while half of SMME firms had not used a bank loan in the last 5 years, two-thirds of this group claimed the reason was that they did not need a loan. This in turn might reflect either sluggish demand throughout the economy, in which case an upturn in growth might make the access to capital more binding, or the fact that the firms had adequate self-finance so that access to credit will not be an issue.

There would appear to be scope for improving the effectiveness of the various SMME promotion programs that are in place. When given a list of more than a dozen promotion programs supported by DTI and its implementation counterparts, Khula and Ntsika, the only program used by more than 10 percent of SMMEs was the South African Bureau of Standards. For all other programs, both awareness and usage was quite low; the only bright spot is the fact that among those firms that were aware of Ntsika programs, usage rates were fairly high. Looking forward, awareness of promotion programs needs to be increased, an effort that may benefit from targeting firms in the sectors and size-classes where programs are most relevant. In addition to awareness, quality and user-friendliness of programs should be improved to ensure that usage follows awareness.
D. EXPANDING LABOR DEMAND

With a labor force that grew by 2.3 percent per annum during the 1990s, average annual GDP growth of 2 percent for the decade was insufficient to absorb new entrants, let alone to reduce the large numbers already unemployed. Substantially more rapid economic growth is essential for improving the nation’s employment situation and for alleviating poverty. But explanations other than slow growth are required to account for South Africa’s pervasive joblessness. Slow growth characterizes the majority of low and middle income economies, yet almost none confront the high unemployment South Africa faces.

Improving Labor Market Flexibility

The World Bank-GJMC survey of large firms in the Johannesburg metropolitan area provides some confirmation for the importance of labor market flexibility. One-third of the largest firms in the group (greater than 200 employees) must deal with three or more unions. 45 percent of the full sample are bound by collective bargaining arrangements (at the sector or industry level); 30 percent experienced at least one strike during 1998; the average time required to retrench an entry level workers was 2.7 months. But the impact of the labor market environment was also somewhat variable: while around 23 percent of firms reported that each of four recent labor regulations lowered employment, around 70 percent of firms pointed out that individual regulations had no effect on employment decisions. Given that firms may be unable to separately pinpoint the effect of any one labor regulation, we also asked them about their cumulative response to all four regulations combined: 40 percent of firms reported that they had done one or more of the following: (i) hire fewer workers; (ii) substitute labor with capital; and (iii) hire more temporary workers. However, 60 percent of the firms still reported that all labor legislation combined had no cumulative impact on their employment decisions.

There can be little doubt that along some margin, perhaps a fairly wide margin, South Africa’s labor market institutions and regulations have constrained more rapid growth in employment. But can these problems of inflexibility account for African unemployment rates in excess of 30 percent? If greater flexibility were achieved, by how much would unemployment fall? According to Statistics South Africa, in 1999 formal employment (excluding agriculture) amounted to about 6.5 million jobs. Unemployment, according to the expanded definition, equaled 5.9 million. Improved labor market flexibility would expand employment. But it is hard to imagine that greater flexibility in the institutional setting would double African employment.

Recognizing that the labor market reforms introduced over the last several years might have had unintended consequences on employment creation, in July 2000 the Department of Labor proposed a number of amendments to existing legislation. More important features of the proposed revisions would: require bargaining councils to consult with “non-parties” before the agreements can be extended to them; introduce a six-month probationary period during which less strict dismissal procedures can apply; clarify workers’ rights when retrenchment, business

18 Standing, Sender and Weeks (1996: Chapter 6) argue that the employment consequences of South Africa’s labor regulations have not been satisfactorily identified. They imply a relatively muted impact of the institutional and regulatory environment on employment. Fallon and Lucas (1998) present the opposing case.

19 Analysis by Fallon and Lucas (1998) suggested that union and bargaining council effects could perhaps explain around a quarter of total unemployment.
transfer, or insolvency occurs; eliminate the “premium” for Sunday work; reduce the notice period to a week for those employed less than 6 months; allow collective bargaining agreements to vary the number of hours worked; and allow bargaining councils to increase the ordinary work week beyond 45 hours. Despite the fact that these initiatives are fairly modest, they have evoked strong criticism from organized labor, and have yet to be formally submitted to Parliament or ratified. The difficulty in introducing even minimal changes such as these suggest that the goal of achieving a major increase in market “flexibility” will remain hard to achieve.

Skills Shortages

Augmenting the skills base of the South African labor force will increase growth and create jobs. Decades of apartheid policies that restricted education and training to whites has led to enormous under-investment in the skills of the black majority, who have been denied the opportunity to invest in their most productive assets: their human capital. Furthermore, in the last decade, steady emigration among the better educated groups has further eroded the skills base. ²⁰

Evidence of the skills shortage can be found in the World Bank-GJMC large firm survey, conducted in 1999. Approximately 80 percent of firms reported experiencing extreme to moderate difficulty in finding people with managerial and professional skills. Around 70 percent of firms reported extreme to moderate difficulty in finding people with service and craft skills. At the other extreme, 95 percent of firms indicated there was no particular difficulty in finding unskilled workers. Given South Africa’s apartheid past, we found that skills were closely tied to race, with whites dominating the managerial/technical positions and the Africans occupying the unskilled positions.

In terms of hiring preferences, there is an apparent mismatch between the attributes sought by firms and the characteristics of the labor force. Two-thirds of firms preferred to hire production workers with work experience and a secondary education, whereas those currently unemployed tend to have lower education levels and no work experience. More than 90 percent of firms indicated that they would prefer to hire production workers (semi-skilled) from the 25-45 age group, an outcome which suggests that employment prospects for new entrants (aged 15-24) will continue to be limited.

Moreover, despite the fact that firms found it difficult to find skilled workers, we found that only 35 to 45 percent of firms surveyed provide training to approximately a third of their workers. Firms were reluctant to reveal how much they spent on training. We found no compelling evidence to show that firms were reluctant to invest in training because they were apprehensive about losing their trained workers to other firms. Less than 5 percent of trained workers left the firms after being trained.

This pattern of skills shortages but only limited training expenditures is apparent among SMME firms as well. African labor constitutes the majority of SMME semi-skilled employment.

²⁰It is possible to argue that there is in fact no conclusive evidence of a skills shortage – for example, job vacancy rates do not seem excessively high, and the real remuneration data for highly skilled workers presented earlier shows a modest decline over the last 30 years, which hardly suggests growing scarcity. But as Fallon and Lucas (1998) point out, the issue is not so much whether there is in fact persistent “excess demand” for higher skilled workers, but rather whether or not the skills base is sufficient to support higher economic growth.
However, whites dominate skilled occupations and women are still under-represented in SMME employment. Also, despite the presence of African labor in semi-skilled occupations, SMMEs face an important skills shortage: data from the survey shows that 30 to 45 percent of firms reported difficulty in finding skilled labor. Despite difficulty in finding skilled labor, and complaints regarding competitiveness, SMME firms are not providing extensive training. In fact, less than 20 percent of firms reported engaging in any form of skills training. This finding may be a result of resource constraints and/or lack of awareness to training programs. In fact, SMME firms do report they would like national authorities to improve education and training.

Such results point to the need for design and implementation of effective training programs. In recent years, there has been increasing recognition of the importance of skills development through worker training at all levels of civil society: labor force, unions, business sector and government. Government has enacted the Skills Development Act of 1998 that allows firms to claim a reimbursement against training costs, and segments of the private sector have introduced initiatives to accelerate worker training. But targeting and financing such efforts at the appropriate level can be difficult: for example, many of the schemes put forward to date seem targeted more at upgrading skills for those that are already employed, rather than providing skills to the unemployed. And the budgetary implications need to be taken into account as well: current plans to finance expanded government training programs through a “skills development levy” collected as a payroll tax could have unintended adverse consequences by raising the cost of labor even higher that it already is.

Even more problematic is the issue of whether there is a case for Government to engage in aggressive and large-scale training of the unemployed. If an aggressive skills development strategy is indeed an attractive option, at what level should it be pitched? Given that less than half of large firms provide training to their own workers, are there policy options that would provide incentives for firms to train workers on a larger scale? Despite evidence that firms do not lose workers following training, is there a strong case to be made for an active government role because of externality or public good arguments? The possibility of direct subsidization of employment creation is taken up below.

**Subsidizing Employment Creation**

Employment subsidies (sometimes called wage subsidies) describe a general set of labor market interventions that increase employment by lowering labor costs while sustaining the average wage income of employees. The government subsidizes employment by paying a portion of the costs of employing workers or, more commonly, providing tax breaks based on the number of employees or new jobs at a particular firm. Frequently, employment subsidy programs are targeted at less skilled workers or individuals that have been unemployed for a relatively long duration. Because employment subsidies increase employment without reducing average wage income, they can form part of a strategy of redistribution as well as job creation (see Box 3.2).

An employment subsidy is often considered a tool in a broader set of “active” labor market policies with the goal of boosting labor demand. Because employment subsidies attempt to increase the number of jobs by reducing labor costs, they can be characterized as supply-side policies. Demand-side employment creation policies, in contrast, emphasize increasing expenditures on domestically produced goods and services in order to create jobs. In recent years, increasingly integrated global markets have placed constraints on the ability to pursue...
traditional demand-side policies, particularly for small, open economies such as South Africa. On the other hand, many supply-side strategies for job creation – for example, downward wage flexibility – have been criticized for their lack of attention to questions of income distribution (see, for example, Freeman 1995). For a country with a history of such pronounced inequalities as South Africa, a focus on issues of redistribution remains important. Employment subsidies provide a possible tool for pursuing job creation and redistribution simultaneously.21

Employment subsidies address another important issue often raised concerning the limitations of lowering wage incomes to create jobs. Wage reductions can provide a disincentive for employees to work productively and can create workplace tensions that reduce productivity. Therefore, questions of equity aside, there can be limits to the extent of profitable wage reductions. In such a situation, employment subsidies can be used as a strategy for increasing employment through lower labour costs without producing negative consequences for productivity and competitiveness.

21 However, reliance on wage subsidies may lead to the imposition of one distortion (the subsidy) to offset another (wage/labor costs rigidities), with potential unintended and adverse consequences. Effective targeting of the subsidy is crucial.
Note that employment subsidies and demand-side job creation policies are not mutually exclusive – indeed, they are often closely linked. For example, because employment subsidies increase the incomes of previously unemployed workers without lowering the average wage income of others, they could lead to increases in demand for goods and services produced in South Africa. Likewise, if expectations of future demand for goods and services are sufficiently pessimistic, the effectiveness of employment subsidies could be sharply curtailed. Therefore, employment subsidies should not be seen as a substitute for other approaches to job creation, but rather as one of a number of possible tools.

One of the characteristics of South Africa’s industrial structure noted already is its relatively high (and increasing) capital intensity, which has contributed to the slow growth in employment. While devising industrial policies to change this outcome has proven difficult, an employment subsidy program could begin to make a difference, since the primary function of an employment subsidy is to decrease the costs of labor. A decrease in the cost of labor has two direct effects which impact the level of employment: a substitution effect, in which labor is substituted for other inputs (for example, capital equipment and machines), and an accumulation effect, in which lower labor costs raise expected profits and leads to greater capital investment.

As an example, consider a general employment subsidy (that is, the subsidy amount is based on total employment) financed entirely through a tax on fixed capital assets such that total revenues are exactly offset by total transfer payments. Note that such a policy would have the effect of increasing the employment effect of the subsidy beyond the effects of the reduced cost of hiring because the cost of employing scarce capital resources would rise. Relatively labor-intensive firms would be net beneficiaries of the policy because the total amount of the subsidy they receive would necessarily be greater than the total taxes on capital assets. Likewise, highly capital-intensive firms would pay more in taxes than they receive in subsidies. Financing the employment subsidy with a capital assets tax would mean that highly capital-intensive firms could actually see their profit rates decline under the policy.

What would be the impact of such an employment subsidy policy? First, industries whose employers experience a substantial profit gain will respond by investing more, if macroeconomic, political and other conditions are favorable. Likewise, capital-intensive firms will experience a reduction in their after-tax profit rate and invest less. The trend will be towards more labor-intensive production in South Africa on average. This is precisely the long term objective of an industrial policy aimed at raising the rate of job creation: to provide incentives for capital to move from capital-intensive sectors that provide few jobs to sectors in which a limited amount of investment generates large numbers of jobs.

A general employment subsidy financed through a capital-assets tax has several advantages over a marginal subsidy (or hiring subsidy) targeted at a specific population group.

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22 A more detailed description of such a subsidy policy can be found in Heintz and Bowles (1996).

23 If a transitional period and assistance for sectoral relocation did not accompany the policy, however, an employment subsidy and tax proposal of this type could impose considerable social costs on workers in the capital-intensive industries. But it is still likely that more workers would find themselves located in sectors expanding under the positive incentives provided by the subsidy and tax. For South Africa, calculations for the manufacturing sector estimate that there would be over four times as many workers in firms that benefit from such a policy than in firms that would see their profit rates fall (Heintz and Bowles, 1996).
First, administrative costs are likely to be much lower than with a marginal subsidy. Second, there would be no problems associated with firms attempting to substitute subsidized workers for unsubsidised workers. Third, the subsidy would increase the long-run employment growth potential of the economy by reallocating investment resources to high-employment industries. Finally, this form of an employment subsidy would not be subject, on average, to the windfall gains typically associated with a general subsidy extended to all employees.

However, such a policy proposal is not without its shortcomings. For example, developing an acceptable means of determining the value of fixed capital assets in order to assess tax liabilities could prove to be difficult. In addition, there is no guarantee that the jobs generated by such a policy would necessarily go to those individuals at greatest risk of unemployment. For these reasons, an alternative subsidy scheme – a marginal, target subsidy – could be an option.

What would a targeted employment subsidy program for South Africa look like and what would be the size of the costs and benefits of such a policy? The answer to this question depends on choices of design and scale. However, an example of a possible employment subsidy program can be described. For this purpose, we examine a marginal employment subsidy program, probably designed as a hiring subsidy, targeted at unemployed persons with limited (or no) labor market experience. The goal is to increase the number of jobs for unskilled workers and match currently unemployed workers with the new employment opportunities.24 Recent econometric analysis has demonstrated that prior labour market experience can significantly decrease the subsequent probability of entering unemployment in South Africa (Kingdon and Knight 2000). Therefore, targeting this group would likely extend benefits beyond those associated directly with new employment opportunities to include improvements in employability after the employment subsidy has expired. In addition, the subsidy will be aimed at relatively unskilled workers and low-wage jobs. In terms of the October Household Survey (OHS) classifications, these jobs would fit under the heading of “elementary occupations.”

Using existing information on the responsiveness of employment to wages (in particular, the wage elasticity of labor demand), along with data on other structural features of South African employment, it is possible to calculate some illustrative outcomes. Creating enough new jobs to reduce unemployment among those with no previous employment experience or with previous jobs in “elementary occupations” by 5 percent (around 113,000 new jobs) would require total subsidy payments of around R644 million, which represents only 0.3 percent of total non-interest expenditures in the budget. Of course, this does not include the costs of administering the program but even if the total expenditure were doubled to cover these costs, the total budgetary demands would be quite affordable (see Box 3.3 for a summary of international experience).

This section has outlined how a targeted employment subsidy program for South Africa could increase employment of less skilled workers with little previous labor market experience. While such policies could not solve the country’s widespread unemployment problem, they could form an important part of a comprehensive job creation strategy. While the number of new jobs created would be modest relative to the size of the unemployed population (and quite small

24 One cautionary note: this example is meant to be illustrative of the benefits, fiscal demands and costs of an employment subsidy policy. Many aspects of policy design – for example, the administrative details – are ignored in order to focus on key economic relationships.
relative to the fiscal requirements of a general employment subsidy), increases in the economic benefits of greater employment relative to the costs of the program can be substantial. Total fiscal demands are small relative to the size of South Africa’s budget – that is, such a policy is affordable, considering current public resources. Finally, medium to long-run gains in employability can extend benefits of the policy beyond the term of the subsidy.

Box 3.3: Employment Subsidies in Developing Countries

Evaluation of subsidy programs in developing countries has produced some general conclusions:

- Employment subsidies appear to increase the employment (or re-employment) of the targeted group. That is, the policies, to varying degrees, appear to work.
- The short-run increases in employment tend to be modest. Therefore, the success of the programs is moderated by the fact that the overall impact is relatively small.
- In some cases, “deadweight losses” can be substantial in terms of substituting subsidized workers for non-subsidized ones.
- Linking the programs to training and job placement activities can substantially enhance the employment effects of the subsidies.
- Long-run improvements in employability can be substantial, indicating that benefits extend well beyond the termination of the actual subsidy.

Illustrative examples of subsidy programs can be found in:

- **Argentina** – employment subsidies were adopted as a strategy to address rising rates of unemployment in the 1990s. Beginning in 1993-94, Argentina used both a public employment program and employment subsidy programs. The first subsidy program was effectively a hiring subsidy and paid a fraction of the wages of employees that were hired for at least four months. Participation was quite small – amounting to several thousand workers per month. Subsequent programs targeted SMMEs and the forestry industry. Participation rates remained low: in 1996, participation averaged about 20,000 participants per month (0.2 percent of the urban labor force).
- **Chile** – employment subsidies in Chile are more closely tied to training programs than in Argentina and represent training subsidies more than actual employment subsidies. Participation in the program has been relatively good – over five years approximately 115,000 persons participated. In addition, a program of retraining and subsidized reemployment for mine workers displaced by the decline in coal mining in Argentina was implemented following negotiations.
- **Hungary** – employment subsidies have been used to address high levels of unemployment, and many of these programs are targeted at youth. In 1995, participants in Hungarian employment subsidy programs accounted for 16.7 percent of participants in all active labor market programs, amounting to over 42,000 individuals. Employment subsidies are often combined with job placement and training programs. The size of the youth employment subsidies depend on the educational requirements of the job being subsidized. The subsidy lasts 9-12 months, and the employer commits to employ the participant for a minimum of 3 months after the subsidy ends.
- **India** – has generally adopted public employment programs, rather than employment subsidies, to deal with problems of joblessness, although training subsidies exist for apprenticeship programs for vocational employment. India also has adopted self-employment subsidy programs to encourage economic opportunities in the informal and self-employment sectors. One scheme, which has assisted 1.6 million participants, is aimed at individuals, aged 18 to 35 years, living in towns with populations under 1 million.

E. RURAL DEVELOPMENT

The Potential Contribution of Rural Areas

The challenge of development in rural areas remains a high priority for South Africa. Rural poverty remains severe – approximately 70 percent of South Africa’s poor people live in rural areas, and around 70 percent of the rural residents are poor. While addressing rural needs was a priority of the new government that took office in 1994, progress has been limited, as investments in rural infrastructure and service delivery have been slow, and the pace of the land reform program has been disappointing.

But South Africa’s rural areas are not just a problem waiting to be solved: they represent an important potential source of untapped dynamism in the economy. Agriculture presents promising opportunities for growth. South Africa’s commercial agricultural sector has adapted remarkably well to the policy changes of the 1990s. It is competitive, well placed to remain so, and provides appropriate price and market signals to new entrants, whether in household gardening or in new commercial ventures. Moreover, South Africa will benefit from a number of developments shaping global agriculture. Trade liberalization should whittle away at the protection, subsidies, and policy-induced surpluses of Western Europe and North America, gradually shifting additional agricultural production to middle and lower income countries of Africa, Asia, and Latin America. The next round of the WTO will take this issue up more vigorously than did the last, and the accession of Central European countries into the European Union is increasing internal pressure on the subsidy policies of the EU. Knowledge-based agriculture applying the insights of genetic and other research will be increasingly important in the future, and South Africa has a strong base in applied agronomic and veterinary science. South Africa can provide out of season fruits, vegetables, and flowers to the exacting European markets, and its extensive grazing lands can supply livestock products for growing markets in South and East Asia. Demand for medicinal plants, herbs, and other non-traditional products is growing, and South Africa has current production and strong potential in this area.

Because South Africa’s agriculture is already well linked to domestic and international markets, increased production will not immediately face constraints of demand or marketing that often dampen supply growth in other countries of the region. New small and medium commercial producers in areas reasonably well served by infrastructure can market their products through channels that already exist. Thus, although the marketing network needs to be strengthened and expanded to serve new farmers, improvements can build on a strong base. Many of the factors favorable for agriculture also pertain to forestry, where South Africa has established strength and potential to grow.

As noted in the previous section, South Africa’s tourist industry is growing rapidly and is supported by a new public promotional campaign. Trends in tourism worldwide indicate that tours based on heritage, culture, ecology, and adventure are growing more rapidly than the traditional beach and museum trips. Many of the popular new tours lead visitors into rural areas. Indirect earnings from tourism are 1.6 times direct earnings, including employees’ local expenditure of their additional earnings and expansion of goods and services to serve tourists.

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25 This section draws extensively from Brooks, van Zyl, and Townsend (2000).
Growth in agriculture and tourism complement each other well—much of the infrastructure (roads, electricity, etc.) is dual use, and agricultural landscapes, unlike those of industry or mining, do not detract from an area’s scenic beauty.

Growth in agriculture, tourism, forestry, and other primary activities generates additional incomes through linkage in expenditure and employment. Agricultural growth generates demand for inputs and the retailing activities associated with delivery (transport, financial services, advisory services). Farm families spend their higher earnings on goods and services, some of which are produced locally. Moreover, farm families traditionally save a high proportion of income, and a common use of savings is investment in the farm enterprise, thereby contributing to future growth. Linkages with the local economy tend to be higher for small farms than for large farms, in part because they are more labor intensive in their direct operations, and in part because they are likely to purchase labor intensive goods and services (such as outlays for ceremonial occasions, transport, construction from local materials, etc.). For this reason, a land reform program that allows small farmers with low or moderate incomes to purchase entire large farms (in sections) or underutilized portions of large farms contributes to agricultural growth and stimulates the local economy more than would agricultural growth from the large farm sector.

**Box 3.4: Features of the Revised Land Reform Program**

After a review in mid 1999, significant changes in the redistribution program were announced in early 2000. The revised program includes:

- a new package of financial support for redistribution of agricultural land, with flexibility to accommodate applicants wishing to engage in a wide variety of agricultural activities, from household gardening to production for markets.
- A strengthened institutional framework for transfer of land and accelerated agricultural development.
- Increased opportunity for participation at the local level and approval at the district and provincial levels.
- Increased requirement for initiative and contribution by beneficiaries.
- Decentralized implementation, with responsibility and authority shifted down to the lowest feasible level of government.
- Assurance of quality through ex-post checks and audits, and through monitoring and evaluation.


**Accelerating Rural Development**

Recognizing the disappointing results to date, the government is moving in three different areas to accelerate rural development: land reform, strengthening local governments, and improving public investment mechanisms. The land reform program (discussed in Chapter 2) has been redesigned, retaining its original objectives, adding new flexibility to meet additional objectives, and incorporating features to speed implementation and increase the commitment of beneficiaries. The revised program (see Box 3.4) fully reflects lessons from the South African experience between 1994-99 and experience elsewhere in the world with market-assisted land reform. With a good program of public education, active monitoring and evaluation, and training for key personnel at the local level (participants, local officials, NGO staff, CBO members), the program should achieve the objectives that eluded its predecessor.
More active land reform will increase demand for complementary public investment and provision of services. Government efforts are being channeled through the existing Consolidated Municipal Infrastructure Program (CMIP), which emphasizes poor areas where services and infrastructure lag. Changes are proposed in the CMIP program to expand its impact and foster synergy with the land reform program, in part by giving communities a greater voice in determining how the CMIP funds allocated to their areas are used. The formula for allocation of CMIP funds can be modified to take explicit account of incremental infrastructure needs where land reform is moving rapidly, which will allow targeting both equity and growth.

Revising and expanding the CMIP program (including the matching grant facility and the priority setting sub-committee at the local level) will simultaneously serve the Government’s objectives to strengthen local government, improve capacity, and increase participation of rural communities. Following redistricting undertaken during 2000, local authorities now consist of approximately 60 districts covering the entire country and encompassing around 300 municipalities. The municipalities are formed through a demarcation exercise amalgamating the even larger number of transitional rural councils, transitional local councils, and other local bodies. Over time, as the municipal councils demonstrate experience and competence in administration of programs and management of money, they can assume more functions at the local level, including technical review of proposals and disbursement of funds. Initially these functions will reside at the provincial level in cases where local authorities lack capacity. For example, in the weaker localities, the municipal sub-committee will initially only rank the proposals by priority, but will not undertake technical review, nor approve and reject proposals, nor disburse funds. Functions will shift downward as capacity measurably improves.

In conclusion, two points are worth highlighting. First, the South African rural development strategy is basically sound. With the overhaul of the land reform program, there is an opportunity for real progress in land redistribution. Moreover, the CMIP and ongoing program of decentralization and capacity building at the local level provide a strong basis for improving the delivery of infrastructure and services to rural areas, in the process making an essential contribution to improving the welfare of the rural population. Second, while progress can and should accelerate over the disappointing pace achieved since 1994, it must be recognized that rural South Africa is beginning what will be a long-term process. Instead of the unrealistic targets for the 1994-99 land reform, it is now expected that the rural restructuring will require 15-20 years at least, which means that the improvements in the incomes and conditions of the rural poor will be spread over an equally long period.
4. TRADE AND GLOBALIZATION

A. INTRODUCTION

During the 1990s, South Africa’s “openness” has increased dramatically, and the role of international markets and linkages has played an important part in its growth and structural transition. While the process of trade liberalization dates from the early 1990s, the pace of South Africa’s integration (or re-integration) into the world economy accelerated following the democratic transition in 1994. Accession to the WTO, negotiation of a free trade agreement with the EU, and discussions over a SADC free trade area collectively mark the growing contribution of trade to the prospects and prosperity of the economy.

In this chapter, we consider the contribution that trade expansion and liberalization has made to economic performance, especially with regard to employment and growth. We also evaluate how the trend towards greater globalization will affect the economy, with especial attention to the impact of the EU-South Africa trade agreement and SADC free trade area.

B. TRADE POLICY REFORM: A SCORECARD

Following the April 1994 elections, the new government inherited an economy that had experienced decline for nearly two decades and which was emerging from a three and a half year recession. Reversing this decline in an increasingly globalized economy has since been a key priority. Liberalizing the external trade regime has been one of the central and more visible elements of South Africa’s drive to achieve accelerated economic growth and symbolic of its break with past economic policies.

South Africa’s trade policy was historically guided by three interrelated strategies: import-substituting industrialization, the development of “strategic” industries (in coal, arms and oil) as international opprobrium and isolation increased, and the deliberate development of mineral-related exports through upstream mineral beneficiation. The resulting trade regime was characterized by numerous quantitative restrictions (QRs), a multitude of tariff lines, wide dispersion, and various forms of protection (formula, specific and \textit{ad valorem} duties and surcharges). Numerous exemptions resulted in a tariff collection ratio that was a third of the statutory rate. In agriculture, QRs and specific duties and a maze of price controls, import and export permits and other regulations in many cases eliminated any foreign competition. The overall result was a complex, highly discretionary regime with a significant anti-export bias.\textsuperscript{26}

In the early 1990s, the authorities began moving towards a more outward-oriented industrialization strategy. These reforms deepened in 1993 through a series of discussions on the future direction of trade policy between the outgoing regime, key ANC policymakers, trade unionists and the business community. After South Africa became a signatory to the Marrakech Agreement of the GATT in 1994, the pace of trade liberalization quickened. The key aspects of the liberalization were contained in an Offer of phased tariff reductions-cum-harmonization within chapters made to the World Trade Organization. The details of the draft Offer were

\textsuperscript{26} Holden (1992) analyzes the historical trade policy regime. Belli et al. (1993) present a detailed description of the regime as of 1990.
discussed extensively with industrialists and the labor unions through the National Economic Forum. In addition, debates were held with a Southern Africa Customs Union technical group and task groups of key domestic industries. These discussions influenced the final Offer presented to the World Trade Organization Secretariat. The new tariff program officially took effect in January 1995, and its early adoption by the new government signaled its strong commitment to trade reform.

### Table 4.1: South African Tariff Changes at a Glance

<table>
<thead>
<tr>
<th></th>
<th>All rates 1990</th>
<th>All rates 1996</th>
<th>All rates 1999</th>
<th>Positive rates 1999</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of tariff lines</td>
<td>12500</td>
<td>8250</td>
<td>7743</td>
<td>2463</td>
</tr>
<tr>
<td>Number of different rates (bands)</td>
<td>200</td>
<td>49</td>
<td>47</td>
<td>45</td>
</tr>
<tr>
<td>Min rate, %</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Max rate, %</td>
<td>1389</td>
<td>61</td>
<td>55</td>
<td>55</td>
</tr>
<tr>
<td>Unweighted mean rate, %</td>
<td>27.5</td>
<td>9.5</td>
<td>7.1</td>
<td>16.5</td>
</tr>
<tr>
<td>Standard deviation, %</td>
<td>n.a.</td>
<td>n.a.</td>
<td>10.0</td>
<td>8.6</td>
</tr>
<tr>
<td>Coefficient of variation, %</td>
<td>159.8</td>
<td>134.0</td>
<td>140.3</td>
<td>52.2</td>
</tr>
</tbody>
</table>

Note: “Positive rates” includes only non-zero tariff lines; “all rates” includes positive rates, zero, and not available entries.

Initially, considerable progress was made in rationalizing the very complex tariff regime that prevailed in the early 1990s, and with lowering the overall level of nominal and effective protection (see Table 4.1). Between 1990-96, the average economy-wide tariff fell from 28 to 10 percent, while the average manufacturing tariff dropped was reduced from 30 to 16 percent (although this is still approximately twice the level of the average manufacturing tariff in China at the time of WTO accession). The maximum tariff rate was cut to 61 percent (40 percent if “sensitive” industries are excluded), the number of tariff lines was cut by a third, and the number of separate tariff “bands” or rates cut from 200 to 49.

But despite this strong initial progress, the overall picture at present is less clear. As Table 4.1 suggests, since 1996 the pace of rationalization has slowed considerably, with only a small reduction in the number of tariff bands, a modest decline in the maximum tariff, and a small increase in the tariff code dispersion, as measured by the coefficient of variation. Moreover, while South Africa has a low (average) tariff rate compared to other middle-income countries, this is in part attributable to the very large number of “0” rated items (around two-thirds of lines in 1999), which artificially lowers the average – the average tariff for those products with positive rates was around 17 percent, while the overall average (including zeroes) was only 7 percent. In addition, many middle-income countries have in place well-developed duty drawback or rebate systems that allow exporting firms to obtain inputs at world prices, and avoid the impact of higher average tariffs.

Looking past average tariff levels, the structure of protection in South Africa remains problematic (see Table 4.2). The cascading pattern (high on consumer goods, moderate on intermediate goods, low on capital goods) typical of protection in many developing countries remains evident in South Africa, with the result that less progress has been made in rationalizing effective protection, as illustrated by the continued large range and dispersion at the more disaggregated 4-digit ISIC level. More importantly, while effective protection has fallen in the aggregate, it has not fallen by enough to reduce the overall anti-export bias once the role of
falling export incentives is taken into account. Including export incentives, the anti-export bias (based on nominal protection/incentive rates) was estimated in 1996 at 1.32 (1.45) for the economy (manufacturing). This was an increase over the 1993 estimates (1.19 and 1.27 respectively) and is primarily a result of the phasing out (as required by the WTO) of the General Export Incentive Scheme (GEIS).  

More recent analysis of trade liberalization (Fedderke and Vaze, 2000) supports the thesis that the overall impact on the structure of protection has been mixed. After calculating average effective protection rates separately for the 1988-93 and 1994-98 periods, they conclude that half of South Africa’s GDP is produced in sectors where effective protection rose between the two periods, while only 15 percent comes from sectors where protection has fallen. This suggests that although average tariffs have fallen (as shown in Table 4.1), they have tended to fall proportionately more on inputs into production, rather than output, leading to increases in effective protection.

**C. CHANGING TRADE PATTERNS**

Trade tariffs and trade liberalization are of course not policy objectives, but only instruments of policy. The relevant measure of the effectiveness of policies is whether they contribute to desired changes in trade flows, and in turn whether these contribute to the ultimate objectives of promoting sustainable growth.

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27 The anti-export bias calculated solely on the basis of import protection showed declines for both manufacturing and the economy. These results highlight the importance of implementing other support programs for exporters to compensate for the loss of GEIS.
Table 4.3: South African Trade Flows, 2000

<table>
<thead>
<tr>
<th>Sector</th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Structure</td>
</tr>
<tr>
<td></td>
<td>(billion $)</td>
<td>(percent)</td>
</tr>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>1043</td>
<td>2.9%</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>11805</td>
<td>32.6%</td>
</tr>
<tr>
<td>Food processing</td>
<td>2211</td>
<td>6.1%</td>
</tr>
<tr>
<td>Textiles and apparel</td>
<td>591</td>
<td>1.6%</td>
</tr>
<tr>
<td>Leather goods and footwear</td>
<td>170</td>
<td>0.5%</td>
</tr>
<tr>
<td>Wood and furniture</td>
<td>509</td>
<td>1.4%</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>654</td>
<td>1.8%</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>683</td>
<td>1.9%</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1786</td>
<td>4.9%</td>
</tr>
<tr>
<td>Rubber, glass, plastic, non-metallic minerals</td>
<td>3482</td>
<td>9.6%</td>
</tr>
<tr>
<td>Basic metals</td>
<td>4300</td>
<td>11.9%</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>3508</td>
<td>9.7%</td>
</tr>
<tr>
<td>Trade</td>
<td>1045</td>
<td>2.9%</td>
</tr>
<tr>
<td>Tourism</td>
<td>378</td>
<td>1.0%</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>2321</td>
<td>6.4%</td>
</tr>
<tr>
<td>Financial &amp; business services</td>
<td>1485</td>
<td>4.1%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>36187</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: South Africa CGE model. Sectors with very low trade shares have been omitted from this table.

Table 4.3 describes the sectoral composition and relative importance of trade flows. For exports, the strong resource-based orientation (despite diversification over the last decade) is evident in the nearly one-third share for mining, with an additional one-fifth associated with non-metallic minerals and basic metals. Basic metals and mining are outward-oriented, with more than half of their output exported; for most other sectors, the share of exports is between 10-20 percent. On the import side, machinery and equipment accounts for 40 percent of total imports (and nearly half of domestic demand). More generally, sectoral import dependence appears somewhat higher than export orientation, as imports represent more than 20 percent of total demand in six different sectors. It is also worth noting that at this level of aggregation, trade flows are strongly “two-way” – in most sectors, there are sizable exports and imports, illustrating the fact that categorizing sectors as “exporters” or “importers” can be problematic.

Focusing next on manufacturing exports and imports, three sets of factors have played a role in determining trade volume and patterns in South Africa. First, trade policy reforms work on relative prices, and change the incentive patterns in two ways: they reduce the incentives for import-substituting activity and encourage exports, and they increase the tradable/non-tradable exchange rate, in a sense substituting for a depreciation. Second, the experience of middle-income countries has shown that a competitive exchange rate and favorable world demand conditions are critical determinants of the export performance of manufactures. In South Africa, there has been debate over how strongly exports respond to exchange rate movements, and whether a nominal depreciation leads to a real depreciation – or whether the gains from depreciation would tend to be dissipated in wage demands, ultimately leading to inflation. Finally, domestic and foreign demand conditions and (especially) the sanctions imposed between 1985 and about 1991 shaped the flows of imports and exports.
Tsikata (1999) investigated export demand and supply econometrically to isolate and better define the impact of these different variables. Over the 1970-96 period, these results suggest that exports are highly sensitive to real exchange rates, world demand, and trade policy. The short-run exchange rate elasticity is 0.8, highlighting the importance of the real exchange rate in encouraging exports (see Figure 1.3 for a portrayal of the relationship between the exchange rate and total merchandise exports over the 1979-99 period). Tsikata found that a 1 percent reduction in tariffs results in an 0.86 percent long-run increase in manufactured exports. In other words, the anti-export bias introduced by protection declines when that protection is lowered. Further, given that South Africa imports a significant portion of its intermediate inputs, a lowering of import tariffs enhances competitiveness by reducing input costs. Foreign demand is also an important determinant of the demand for exports, entering with a long-run elasticity slightly over one. Sanctions had the expected dampening effect for the years 1986-1991, while there is also a statistically significant post-sanctions export boom captured in a dummy over the 1991-96 period.

Despite the strong evidence in support of a dynamic export response, the sectoral pattern of export expansion has attracted substantial attention. There is some evidence to suggest that trade liberalization and increased trade with the rest of the world have induced a structural change in production towards capital-intensive sectors. This shift is paradoxical as the high unemployment and abundance of unskilled labor in South Africa suggest that the economy should become less capital intensive as it adapts towards the relative labor abundance.

Part of the explanation for this unusual pattern of factor use is historical. One economic legacy of apartheid is a structure of production that is fundamentally inconsistent with the country’s factor endowments, most notably in the phenomenon of high capital intensity in the presence of abundant labor. But a half dozen years after the democratic transition (and almost a decade after restructuring began) there is little evidence that this peculiar pattern is being eroded, and indeed, trends in trade and employment suggest the problem may be getting worse.

Lewis (2001) presents evidence on whether the pattern of export growth reflects any movement towards trade in products in which South Africa would appear to have a comparative advantage, using a classification scheme based on the dominant factor input: agricultural or mineral-resource natural resources, unskilled labor, technology, or human capital.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural resource intensive</td>
<td>24.0</td>
<td>19.6</td>
<td>25.2</td>
<td>71.0</td>
<td>8.6</td>
</tr>
<tr>
<td>Unskilled labor intensive</td>
<td>8.9</td>
<td>6.8</td>
<td>40.5</td>
<td>20.5</td>
<td>36.0</td>
</tr>
<tr>
<td>Technology intensive</td>
<td>17.5</td>
<td>15.1</td>
<td>13.1</td>
<td>3.5</td>
<td>26.9</td>
</tr>
<tr>
<td>Human capital intensive</td>
<td>49.5</td>
<td>58.5</td>
<td>19.3</td>
<td>4.5</td>
<td>26.5</td>
</tr>
<tr>
<td>Total exports</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The resulting classification of export structure by factor intensity is counter-intuitive, especially when compared to other countries (Table 4.4). The results show that South Africa has a remarkably low (and declining) share of exports that use unskilled labor, and a relatively high share of exports using more skilled labor. All of the Asian economies (including a much wealthier Korea) have a higher proportion of unskilled labor-intensive exports. These results suggest that South Africa is not taking full advantage of its comparatively abundant labor supply.

These results also help explain why the manufacturing sector has not seen any major job creation despite the rapid growth in exports. The largest export expansion has occurred in relatively (human and physical) capital-intensive sub-sectors, and the unskilled labor-intensive category has performed poorly relative to most of the other sectors.

The longer term structural trends (Figure 4.1) are revealing. With the exception of the “blips” occurring during 1994-95 (which were perhaps associated with classification changes and the end of sanctions), the compositional changes are fairly steady. The pattern suggests a shift of comparative advantage as industrialization occurs: unskilled labor-intensive manufactures have fallen in relative importance, and both agriculture and mineral resource-intensive exports have also declined in importance. Trade policy has likely played an important role in these outcomes. Agricultural trade policy, for instance, long aimed at protecting and regulating the domestic market, embedding myriad regulations and an anti-export bias that discouraged production for export and steadily increased the importance of agriculture resource-intensive goods. With agricultural trade and market liberalization, these goods face increased competitive pressures responsible now for their declining shares.

But at another level, the results are counter-intuitive. In an economy with abundant unskilled labor, one would not necessarily anticipate the share of unskilled labor intensive exports to be so low, and to decline steadily during a period when unemployment rates have risen (and the number of formal sector workers has declined in absolute terms). This may in fact reflect the alleged “inflexibility” of South African labor markets, characterized by rising real wages and increasing unemployment among lower skill groups over a longer period.
The performance of the human-capital intensive sectors is also very relevant – after increasing steadily (except for the blip) until around 1996, they have since stagnated as a share of total exports. This could reflect in part the growing shortage of skilled labor, a frequently identified constraint to growth in South Africa. As early as 1993, a survey of 200 manufacturing firms consistently ranked the “shortage of skilled technical and managerial labor” extremely high in an overview of constraints; more recently, the World Bank-GJMC survey of executives from 325 large firms concluded that skills shortages were one of the most important constraints to higher growth, investment, and job creation.\(^{28}\) Rapid growth of human-capital sectors could be jeopardized unless a sizable increase in skilled labor overcomes the growing skill shortage.

Since we are interested in growth determinants, it is useful to consider the extent to which changing trade levels and patterns have contributed to growth and structural change in the South African economy, and how this contribution compares to international experience from other liberalizing economies.

Edwards (2001) analyzes the contribution of demand-side factors to the output growth of the South African economy for the 1984-97 period, using the standard input-output growth accounting framework. This input-output methodology is used to decompose the sources of sectoral and aggregate growth into contributions from domestic demand expansion, export expansion, import substitution and changes in intermediate input use (see Edwards (2001) or Lewis (2001) for a description of the methodology). These contributions are then related to the

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changing trade regime in order to provide insight into the extent to which domestic trade policy has affected the structure of production.

Edwards finds that the relative importance of the different demand factors influencing growth varied considerably across the periods. The results for 1984-88 and 1993-97 are fairly typical of results in other decomposition studies, while those for the recessionary period 1988-93 are more volatile. Concentrating on the most recent period, between 1993-97 improved domestic demand has led the recovery, contributing 61 percent of the increase in total gross output, while export growth accounted for 54 percent of the rise in gross output. Much of this is due to growth in demand for manufactures. On the import side, South African firms were unable to retain domestic market share, with negative import substitution (or import penetration) occurring within both final demand and intermediate goods – during 1993-97, this represented -44 percent of the increase in total gross output.

Although import penetration appears high, this does not imply that the recent trade liberalization has been de-industrializing. First, the negative effect of import penetration was not confined to the latter two periods of diminishing protection, but was also negative during 1984-88 when protection rose. Second, the relatively low import penetration since 1993 (during a period of re-investment in import-intensive machinery & equipment as output growth recovered), suggests that domestic production has remained relatively resilient in the face of trade liberalization. Third, output growth due to exports has kept pace with losses due to import penetration – indeed, net trade has positively affected growth since 1993, and accounted for 10 percent of the rise in total gross output between 1993-97. This is even more significant when considering that domestic demand recovered and suggests a rise in export orientation brought about through trade liberalization.

**D. THE IMPACT OF REGIONAL TRADE AGREEMENTS AND GLOBALIZATION**

The last decade has seen a proliferation of economic integration and regional trading arrangements in both the developed and developing world. While much attention focused on the high profile creation of groupings such as NAFTA and the adoption of the single currency by the EU, regional arrangements sprung up in virtually every part of the world as well. This has been especially true for South Africa, as the international tendency towards regional arrangements has coincided with its emergence from the isolation of the apartheid era, and re-integration into the world economy. In this section, we turn from consideration of the impact of changing trade policies and trade structure on the South African economy, to a broader consideration of how South African involvement in different preferential regional arrangements affects the performance and prospects of South Africa and its SADC partners.

In parallel with the rest of the world, there has been a proliferation of preferential trade and/or integration initiatives in Southern Africa. Negotiation of a European Union (EU)-South Africa free trade agreement (FTA) was successfully completed in early 1999, but only after more

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29 Fedderke and Vaze (2000) find that even though sectors that experienced an increase in protection had less import penetration, the converse is not universally true, so that there are a number of sectors that experienced declines in protection and no subsequent increase in imports.

30 Net investment in machinery and equipment by the manufacturing sector rose 62 percent between 1993 and 1997.
than two years of difficult and contentious discussions. While the agreement should yield real benefits to the South African economy, they will be slow to emerge: the phasing in of South African access to EU markets will occur over ten years, while the reduction of South African tariffs on EU products will come over twelve years. Moreover, the EU agreement has placed strains on initiatives now underway to form a free trade area within the Southern African Development Community (SADC), of which South Africa is a prominent member, and raised questions regarding the continuing viability of the South African Customs Union (SACU) arrangement by which customs revenues are shared among South Africa and its smaller neighbors (Botswana, Lesotho, Namibia, and Swaziland).

But these are not the only initiatives. Other schemes are under discussion, and the overlapping membership of many countries in Southern Africa raises questions over the consistency or even feasibility of satisfying the conflicting obligations, and raised tensions among the various institutions and their members. For example, in August 1996 SADC agreed to negotiate a trade protocol aimed at achieving free trade among its members; negotiations were completed (with some outstanding issues) and the formal process began in September 2000, when ten SADC members (all but Zambia, DR Congo, Angola, and Seychelles) signed an agreement that would liberalize 85 percent of intra-SADC trade by 2008. Both the CBI and COMESA also plan trade liberalization-cum-harmonization, with COMESA launching a free trade area among 9 of its 20 members in November 2000. The COMESA mandate would appear to have considerable overlap with the trade liberalization aspects of the SADC agenda. While South Africa was invited to join COMESA in May 1994, it refused, leading a number of other countries to delay ratification of the COMESA trade agenda. A September 1995 SADC meeting determined that dual membership was incompatible and that SADC states would have to resign from COMESA, a decision which contributed to the recent decision by Tanzania to withdraw from COMESA, and pressures in Malawi to follow suit. The practical issue of how several countries (Mauritius, Malawi, and Zimbabwe, with Zambia soon to follow) can simultaneously implement a free trade area with both SADC and COMESA partners remains unresolved.

In evaluating the likely impact of preferential trade agreements in southern Africa, one important consideration is the economic dominance of South Africa. It accounts for 71 percent of SADC GDP and about 22 percent of its population. The economic structures of the SADC countries also reflect great heterogeneity. Countries with relatively larger endowments of skilled and semi-skilled labor (such as South Africa, Zambia and Zimbabwe) which followed import-substituting industrialization tend to have the largest manufacturing sectors. They also have relatively small agricultural sectors, accounting for less than 10 percent of GDP in each country. Mining accounts for a high proportion of GDP in Angola, Botswana and Namibia.

The distribution of gains and losses from preferential trade arrangements between countries depends on the existing and expected trade patterns among the participants. During the 1990s, the absolute volume of intra-SADC trade has grown, and the share of intra-SADC trade in total trade has increased as well. This expansion is due in part to a post-apartheid “boom” effect and increased trade liberalization, as was discussed in the earlier section on determinants of

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31 SADC was formed in 1992, and includes Angola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. Until recently, SADC took a “sector coordination” approach to its agenda, with different member countries responsible for coordinating sector programs, based where possible on the relative strengths of each economy. The recent decision to reorganize and centralize these coordination functions may help make SADC institutions and the secretariat more effective.
Box 4.1: Features of the Southern Africa CGE Model

The southern Africa model is from a class of trade-focused multi-country computable general equilibrium (CGE) models designed to analyze the impact of trade liberalization. The southern Africa model focuses on trade relations between developed and developing countries and on the impact of trade liberalization and integration on economic growth and welfare. The model includes eight regions: three in Africa (South Africa, rest of southern Africa, and rest of sub-Saharan Africa), and five others (European Union, High-Income Asia, Low-Income Asia, North America, and Rest of World). For each region, the model includes seventeen sectors (six primary, six industry, and five services) and five factors of production (capital, land, natural resources, and two labor categories). Each regional economy has a separate CGE model which determines: sectoral supply, demand, exports, imports, and market-clearing prices; factor supply, demand, and market-clearing wages; and the equilibrium real exchange rate, given a specified balance of trade. The regions are linked by trade flows. World prices for all goods are determined endogenously, equilibrating sectoral export supply and import demand on world markets. Domestically produced and traded goods are specified as imperfect substitutes, which provides for a realistic continuum of “tradability” and two-way intra-sectoral trade, rather than assuming that all goods are either perfect substitutes in world markets or are not traded at all.

The southern Africa CGE model, like other multi-country CGE models, has a medium to long-run focus. We report the results of comparative static experiments in which we “shock” the model by changing some exogenous variables and then compute the changed equilibrium solution. We do not explicitly consider how long it might take the economy to reach the new equilibrium, or what other adjustments (such as investment changes, technology transfer, productivity shifts, etc) might occur as well. The model’s time horizon has to be viewed as “long enough” for full adjustment to occur, given the shock. While useful for understanding the pushes and pulls the economies will face under the creation of an FTA, this approach has obvious shortcomings. In particular, it does not consider the costs of adjustment, such as transitional unemployment, that might occur while moving to the final equilibrium.

Given the medium to long-run focus of the analysis, the model incorporates a simple macro closure that does not account for any short-run adjustment mechanisms (such as Keynesian multipliers). In each regional model, aggregate real investment and government consumption are assumed to be fixed proportions of aggregate GDP. The trade balance in each region is also assumed fixed (with the real exchange rate adjusting to equilibrate aggregate exports and imports), so domestic savings are assumed to adjust to achieve macro equilibrium.

Our southern Africa simulation model is constructed around an eight-region, seventeen-sector, five-factor, social accounting matrix (SAM) estimated for 1995. Our SAM is aggregated from the full GTAP (Global Trade Analysis Project) 1995 data set (version 4).


South African trade flows. However, despite the trend, only a small proportion of exports from SADC countries are sold within the bloc (13 percent, compared to 18 percent initially in MERCOSUR, and 33 percent for the European Commission at its inception). Notwithstanding the serious difficulties with intra-regional African trade statistics, South Africa has also apparently replaced a major portion of imports that OECD countries previously supplied to SADC: in 1985, SADC imports from other SADC countries represented 3.1 percent of total imports, while by 1996, this had risen to 6.8 percent.32

32 The analysis in this section is based on UN COMTRADE data, which has some major weaknesses: a number of SADC countries (notably Zambia and Tanzania) have not reported in over a decade; during the sanctions years from 1986-1992 South Africa did not report, rendering the aggregate data for SADC virtually meaningless for those years. However, for the five countries that do have complete information post-1992 (Malawi, Mauritius, Mozambique, South Africa and Zimbabwe), we can derive a clear picture and relevant insights.
In order to provide a preliminary empirical assessment of the impact on South Africa and the rest of southern Africa of the various regional integration and liberalization arrangements, we used a multi-country, computable general equilibrium (CGE) model to analyze the impact of trade liberalization on countries, sectors, and factors (see Box 4.1). We use the model to simulate a series of alternative scenarios, starting with the impact on the EU and South Africa of the recently signed FTA between those two countries. Then we consider the effects of expanding this agreement to include the rest of southern Africa, either by entering a parallel FTA with South Africa or by including all three countries in the FTA. Finally, we assess the effects of additional multi-lateral liberalization, either in conjunction with an FTA among the EU, South Africa, and the rest of southern Africa or independent of any regional agreements in the area.

We find that a FTA between the EU and South Africa has a much bigger impact on South Africa than on the EU. South African real GDP increases by 0.44 percent and real absorption increases by 0.31 percent, whereas there are only negligible changes for the EU. These lopsided gains reflect differences in both trade dependence and the bilateral tariff structure. South Africa is heavily dependent on EU export markets, with 32 percent of total exports going to the EU. The dependence is especially strong for commodities such as livestock, fruits and vegetables, other agriculture, and food processing against which the EU has larger tariffs. In contrast, only 1.5 percent of EU exports go to South Africa, with the largest share at 2.0 percent in the energy and mineral sector. For the EU and South Africa, there is no trade diversion, as trade with the FTA partner and with other countries both increase; there is only relative trade creation as trade with FTA partners increases by more than trade with other countries. We also find that the rest of southern Africa benefits from the bilateral FTA between EU and South Africa, although the gains are slight—in other words, the EU-South Africa FTA is not a “beggar thy neighbor” policy.

Examining the liberalization alternatives for the rest of southern Africa, we find that the EU is more important than South Africa for trade and growth in the rest of southern Africa — it gains far more from a trilateral FTA than from a FTA with South Africa alone. As with the EU-South Africa FTA, the rest of southern Africa is heavily dependent on the EU as an export market. Indeed, the rest of southern Africa is even more dependent on the EU than is South Africa, with 40 percent of its total exports going to the EU. The dependence is quite strong for certain sectors such as food processing, apparel, fruit and vegetables (all over 70 percent), and forestry and fishery (over 60 percent). In contrast, only 3.5 percent of total exports from the rest of southern Africa go to South Africa, limiting the scope for gains from elimination of South African tariffs on these flows. These results also suggest that the South African economy is not large enough to serve as a growth pole for the whole region—the EU markets are far more important for southern Africa than the South African market.

To conclude, it should be emphasized that our empirical results do not “predict” or “forecast” what the different alternatives will bring. The model is somewhat stylized, and our representation of the different possible arrangements is quite crude. For example, in the EU-South Africa free trade scenario, we assume all tariffs between the two economies are immediately set to zero, rather than phased in over time and with some exclusions; we also make no attempt to capture the other dynamic effects that should be associated with such an agreement, such as increased investment flows, changing production technologies, or skill upgrading. The results should instead be interpreted as providing a guideline to relative magnitudes and some indication of where the bigger effects will occur.
5. LOOKING FORWARD: CHALLENGES AND PROSPECTS

A. INTRODUCTION

The earlier chapters of this report have looked at the structure and performance of the South African economy from a number of different angles: the scope and characteristics of unemployment, the structure of labor demand in the economy and the linkages among sectors, key areas in which policy interventions could encourage faster growth and job creation, and an assessment of the impact of trade and globalization on the economy.

In this final section, we pull these various perspectives together, and provide a view of South Africa’s future in which current constraints on growth are partially eased, and economic performance improves beyond current levels, allowing sustained job creation and poverty alleviation. Because the impediments and distortions in the economy are longstanding and large, they will take time to eliminate, and the benefits will accrue slowly. But as our analysis suggests, moving forward in a number of areas simultaneously can create important synergies and momentum towards a development trajectory in which South Africa’s full potential is achieved.

B. ALTERNATIVE SCENARIOS

In this section, we use a South Africa CGE model (see Box 5.1 and Annex 1) as a means to explore the potential impact of policies to accelerate growth and job creation in the medium term. Based on exogenous data changes and the dynamic updating rules, we use the model to generate projections for 1998-2010. For 1998-2000, we use historical data as inputs, so the model results (roughly) track actual performance during that period. For 2001-2010, the model generates “projections,” based on the assumptions and updating relationships provided. In our analysis, we are primarily focusing on the differential impact of proposed policy changes. By changing our assumptions about future policy parameters or trends in key variables (such as tax rates, capital inflows, or productivity growth), we use the CGE model as a simulation laboratory to conduct controlled experiments to understand how these factors are likely to affect growth and other key macro variables. In particular, we compare a hypothetical status quo base scenario (assuming no major policy changes or initiatives) to two alternative “reform” scenarios, using the model to decompose the factors underlying the performance differences between trajectories.

Table 5.1 describes in more detail the assumptions made in the base scenario and each of the different experiments presented. As described earlier, we are most interested in how each of the policy alternatives affects economic performance relative to the base scenario. The two reform scenarios are “composite” scenarios, with each one incorporating a number of policy reforms and parameter changes.33

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33 Of course it is possible to decompose each scenario further in order to evaluate the marginal effect of each policy or parameter change, but we have chosen the composite approach instead.

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Box 5.1: Modeling Growth Opportunities

To allow more thorough consideration of the link between growth and employment creation, we have developed an economywide computable general equilibrium (CGE) model that permits us to assess the impact of different policy measures or economic conditions on the economic performance of the South African economy. The South African CGE model belongs to a class of models that have been applied to issues of trade strategy, income distribution, and structural change in developing countries. Features of this type of model that make it particularly suitable for looking at the potential links between policies and performance (see Arndt and Lewis, 2000, for more details):

- CGE models simulate the functioning of a market economy, including markets for labor, capital, and commodities, and provide a useful perspective on how changes in economic conditions will likely be mediated through prices and markets.

- Unlike many other partial equilibrium or aggregate macro approaches, CGE models are based on a consistent and balanced set of economywide accounts (called a Social Accounting Matrix, or SAM), which requires (among other things) that key behavioral and accounting constraints (such as budget constraints and balance of payments equilibrium) are maintained, which in turn serves as an important check on the “reasonability” of the outcomes.

- Because they can be fairly disaggregate, CGE models can provide an economic “simulation laboratory” with which to examine how different factors and channels of impact will affect the performance and structure of the economy, how they will interact, and which are (quantitatively) the most important.

The base year for the data in the South Africa model is 1997; the model has then been used to generate an “estimated” revised benchmark for 2000. The model contains twenty-one productive sectors (aggregated down from 45 sectors in the original SAM), as shown in Table 4.1. There are five primary factors of production (professional, skilled, and unskilled labor, informal labor, and physical capital), five household categories representing income distribution quintiles, seven different government functional spending categories, and three government investment categories.

The basic CGE model is a one-period annual model, and for some purposes (such as the calculation of “equilibrium” labor coefficients earlier in this chapter), we will use it to carry out fairly simple “comparative statics” experiments. In some cases, because the policy changes under consideration do not affect the economy only in a single year, we make the model move forward and look at growth trajectories. To do this, we “dynamize” the model by building in a set of cumulating and updating rules, and providing a time path of the exogenous variables (world prices, capital inflows, etc). The dynamic relationships are fairly straightforward: Growth in the total supply of each labor type is specified exogenously, and for the informal, unskilled and skilled labor groups (for which unemployment exists), the growth trajectory of real wages is also provided. Sectoral capital stocks are adjusted each year based on investment, net of depreciation, and investment is assumed to respond to differential sectoral profit rates. Sectoral productivity growth (TFP) is exogenous, so that any policy changes that affect productivity favorably must be specified exogenously.

Source: Arndt and Lewis (2000).
Table 5.1: Features of Alternative Scenarios

<table>
<thead>
<tr>
<th>Status quo base</th>
<th>Assumptions for 2001-2010 include:</th>
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<tr>
<td></td>
<td>• continued modest inflation (5-6%)</td>
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<td></td>
<td>• steady but small real exchange depreciation (1% annually); continued low FDI inflows</td>
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<tr>
<td></td>
<td>• no major changes in government trade, labor, or investment policies</td>
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<tr>
<td></td>
<td>• labor force growth by skill reflects expected demographic impact of HIV/AIDS epidemic</td>
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<tr>
<td></td>
<td>• exogenous real wage growth of 2% for unskilled workers (slower than the historic growth real wage rate growth of 3.5% annually from 1970-99)</td>
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<td>• total investment determined by sum of (domestic and foreign) savings components</td>
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<tr>
<th>Pro-growth reforms</th>
<th>Starts from status quo base run and adds:</th>
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<tbody>
<tr>
<td></td>
<td>• 50 percent cut in tariff rates phased in over two years (2001-2002)</td>
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<tr>
<td></td>
<td>• improvements in trade environment increase “responsiveness” of exporting sectors</td>
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<tr>
<td></td>
<td>• privatization/investment promotion efforts attract $2b annually in net FDI inflows</td>
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<tr>
<td></td>
<td>• private domestic savings rates rise by 25% (imposed as 5% annual increments in enterprise savings rates over 5 year period)</td>
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</table>

<table>
<thead>
<tr>
<th>Pro-growth and skills/labor reforms</th>
<th>Starts from pro-growth reform run and adds:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>• improved training leads to 1% faster annual growth in professional &amp; skilled labor groups</td>
</tr>
<tr>
<td></td>
<td>• wage subsidy &amp; increased market flexibility lowers unskilled real wage growth 1% annually (from 2% to 1%)</td>
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</tbody>
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Figures 5.1 and 5.2 summarize the macroeconomic and labor market outcomes of the different simulations. Looking first at a comparison of the pro-growth reform scenario with the status quo base run, we can see that the combined macro impact works through two distinct channels. First, the increase in FDI and domestic savings is apparent in the trends in the investment/GDP share – the initial increase in 2001 is largely due to the $2b increase in FDI (which is around 1.5 percent of GDP), while the subsequence upward movements reflect the incremental growth in savings by domestic firms and households. From 2005 onwards, the investment/GDP share holds steady at 20 percent, up from around 16 percent in 2000. Second, the decline in tariff protection and increased “elasticity” of the export response leads to a sustained increase in export growth rates (after the initial drop driven by the real exchange rate appreciation from the FDI inflows) which permits faster growth in imports as well (again after the initial surge from the exchange rate appreciation along with lower tariffs).

In terms of GDP growth, the result is a steady acceleration in growth over the early part of the period from the fairly constant 3 percent rate achieved in the base run. This higher growth is driven primarily by the faster capital stock growth resulting from higher investment rates. In terms of labor, both skilled and unskilled & semi-skilled employment grow more rapidly as well, with employment in each group growing about 1 percentage point faster during the middle of the decade (1 percent faster growth in these two groups represents an extra 75,000 jobs per year). The drop off of growth in skilled labor that occurs in 2008-2010, and the corresponding deceleration in GDP growth, reflects the end of “surplus” skilled labor in the economy, as the unemployment rate for this group drops to zero, and skilled labor (along with professional labor) becomes a scarce factor of production. Unemployment among the unskilled & semi-skilled also drops faster and further than in the base run, with the unemployment rate declining from 50 percent to 44 percent (the overall unemployment rate for the economy drops by a quarter from 36 to 27 percent over the entire period).
Figure 5.1: Macro Outcomes of Alternative Scenarios, 2001-2010

GDP Growth Rates

Investment/GDP Share

Export Growth Rates

Import Growth Rates
Figure 5.2: Labor Outcomes of Alternative Scenarios, 2001-2010

- **Unskilled & Semi-skilled Labor Employment Growth**
  - 2001: 0.0%
  - 2002: 1.0%
  - 2003: 2.0%
  - 2004: 3.0%
  - 2005: 4.0%
  - 2006: 5.0%
  - 2007: 6.0%
  - 2008: 7.0%
  - 2009: 8.0%
  - 2010: 9.0%

- **Unskilled & Semi-skilled Labor Unemployment Rate**
  - 2001: 30.0%
  - 2002: 35.0%
  - 2003: 40.0%
  - 2004: 45.0%
  - 2005: 50.0%
  - 2006: 55.0%
  - 2007: 60.0%
  - 2008: 65.0%
  - 2009: 70.0%
  - 2010: 75.0%

- **Skilled Labor Employment Growth**
  - 2001: 0.0%
  - 2002: 1.0%
  - 2003: 2.0%
  - 2004: 3.0%
  - 2005: 4.0%
  - 2006: 5.0%
  - 2007: 6.0%
  - 2008: 7.0%
  - 2009: 8.0%
  - 2010: 9.0%

- **Skilled Labor Unemployment Rate**
  - 2001: 0.0%
  - 2002: 4.0%
  - 2003: 8.0%
  - 2004: 12.0%
  - 2005: 16.0%
  - 2006: 20.0%
  - 2007: 24.0%
  - 2008: 28.0%
  - 2009: 32.0%
  - 2010: 36.0%
Recognizing the importance of the skilled labor constraint that emerges towards the end of the decade, the next simulation starts from the pro-growth scenario and adds a number of changes attributable to skills accumulation and labor market reforms. First, we assume that efforts to encourage more training and faster skills accumulation are successful, so that the professional and skilled labor groups are each able to grow 1 percentage point faster over the entire period (for professional labor, this means an increase from 2.7 to 3.7 percent in 2001). Second, we anticipate that efforts to encourage employment through wage subsidies and/or wage moderation and flexibility are somewhat successful, so that (on average) the growth rate of real wages is slowed by 1 percentage point over the period.

From the results shown in Figures 5.1 and 5.2, it is evident that these skill and labor initiatives affect economic performance through different channels than in the earlier experiment. The investment/GDP profile is virtually identical to the previous experiment, and the export and import trends are only slightly stronger. But the greater availability of highly skilled (professional) labor eases a binding constraint on the economy, and growth is able to accelerate more rapidly, reaching 5 percent by the latter part of the decade. An increased supply of skilled labor allows the growth surge to last longer before full employment of this group is reached, so the deceleration in GDP growth occurs several years later. Finally, the effect of wage moderation on job creation for the unskilled and semi-skilled workers is sizable: by 2008, employment is growing twice as fast for these workers (150,000 new jobs a year, rather than 75,000), and the unemployment rate drops from 50 percent in 2001 to 30 percent in 2010.

These alternative scenarios illustrate how an economywide model of South Africa can be used to evaluate policy options that could promote growth over the medium term. While the representation of policy packages remains relatively broad (and short on administrative detail), the results nevertheless suggest that, with concerted effort in a number of key areas, there is substantial scope for raising medium-term growth and job creation.

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34 In each case, the “new” workers are moved from the immediately lower skill class in order to make the “net” increase in labor supply equal to 1 percent.

35 Note that this does not necessarily mean that real wage growth for existing workers is reduced. One percent slower growth in average wages (which is all that matters in the model) could just as easily come about by providing a 10 percent wage subsidy that is applicable to (or taken up by) 10 percent of the firms in the economy. It would be possible to represent such variations more carefully in the model, but the underlying response would be largely the same.
C. THE IMPACT OF HIV/AIDS

The analysis of the previous section focused on “upside” scenarios, in which different packages of institutional and policy reform would lead to higher medium-term growth and faster job creation. But it is also important to recognize that there are various “downside” scenarios that could be considered as well, in which external conditions (a prolonged slowdown in the OECD countries, another round of crises in emerging markets) or domestic events (recession, drought) impact the economy and limit Government’s ability to pursue pro-growth policies.

Without wading through a long list of possible adverse factors, there is nevertheless one that deserves mention at this point because of its severity: the impact of the HIV/AIDS pandemic. South Africa now stands at the brink of a full-blown AIDS crisis. Recent demographic work summarized in two reports prepared by ING Barings (1999, 2000) estimates that, since the onset of the AIDS epidemic, more than 500,000 South Africans have died of AIDS-related causes. By 2015, this number is projected to grow by a factor of 20, to more than 10 million deaths. By 2008, overall life expectancy in South Africa is forecast to fall from its pre-epidemic high of 65 years to only 40 years.

The key question now is how to deal with the impending crisis. The epidemic has moved beyond its earlier status as a health issue to become a development issue, with social, political, and economic dimensions. The implications of the pandemic will be profound for millions of families as the primary family wage earners and/or caretakers fall sick, require care, and eventually die. The pandemic will, without doubt, place extraordinary pressure on institutions that confront its direct effects, such as the health care system for the care of those living with AIDS and social services/systems (broadly defined) for the care of dependents of AIDS victims.

There is also fairly wide agreement that the implications will not be confined to the households and institutions in the direct path of the pandemic. This consensus stems mainly from the massive scale of the problem. It seems obvious that any change that reduces the population growth rate from around two percent to zero in the space of a decade, as the pandemic is projected to do, could be expected to sharply influence a host of economic and non-economic variables. Since the pandemic brings about this reduction in population growth mainly by killing individuals of prime working age (25-45 years), there is legitimate concern over economic impacts. Moreover, with the median span between infection and death estimated at 8-10 years, the social and economic impact will be much more slow-moving the epidemic itself.

While the pandemic will certainly influence rates of economic growth, it may also induce a wide range of structural changes in South Africa. At a minimum, the onset of the pandemic implies departures from past trends in rates of accumulation of factors of production (e.g., differential infection rates of skilled and unskilled labor) and changes in consumption patterns of government and households (e.g., more health care spending) with at least some of these consumption pattern changes financed by switching from investment to current expenditure. These changes will interact with policy and existing economic structure to create pressures causing the economy to evolve along lines quite different from the likely path in the absence of the pandemic. Box 5.2 provides a list of the possible factors and the impact channels through which they might affect the economy.
One direct impact channel emerges from the slower population growth caused by the epidemic. According to ING Barings (1999), the rate of South African population growth will slow from 2.3 percent annually to zero by 2010 as a result of HIV/AIDS. The projections of labor force growth by skill category used in our quantitative analysis of growth scenarios in the previous section are drawn from the same source, and reflect the differential impact on the availability of skills within the economy. For example, the rate of growth of the unskilled and semi-skilled labor force is forecast to slow from almost 3 percent in 1997 to –0.2 percent by 2010, while skilled labor growth declines only from 1.6 to 1.0 percent.
But as the numerous impact channels listed in Box 5.2 suggest, it is important to realize that the population effect is only a small part of the story. Utilizing a variant of the South Africa CGE model presented here, Arndt and Lewis (2000, 2001) analyze the potential impact of HIV/AIDS on the South African economy. In addition to declines in labor supply, they also incorporate reductions in labor productivity (due to the incidence of HIV/AIDS among workers), total factor productivity (due to increased hiring and training costs, absenteeism), shifts in household spending (towards health related expenditures), and higher government spending (partially deficit financed) on health and social services. As shown in Figure 5.3, the impact on GDP could be quite large: their figures suggest that total GDP could decline by as much as 19 percent by 2010, or 8 percent in per capita terms relative to a hypothetical “no AIDS” scenario. Moreover, decomposing the total decline in GDP (Figure 5.4) into the contribution of different components, they find that the direct impact of reduced labor supply accounts for only one-eighth of the total drop in GDP, while the largest impact comes from the “crowding out” of investment linked to higher health expenditures. While not definitive, these results suggest that the adverse impact of these additional effects (which are not incorporated in the scenarios presented earlier in this chapter) could be substantial.

![Figure 5.4: Decomposition of Decline in Real GDP in 2010](image)

Finally, it is worth considering the impact of the pandemic on the unemployment story. A naive analysis might forecast that the unemployment rate should fall at least relative to a “no AIDS” scenario, since after all, the growth rate of the unskilled and semi-skilled labor pool is considerably slower. But Arndt and Lewis (2001) find that despite this slower rate of growth in the unskilled and semi-skilled labor pool, unemployment rates for this category of labor differ very little between the “AIDS” and “no AIDS” scenarios. This is partly due to the reduced overall economic growth rates: while the supply of unskilled and semi-skilled labor is smaller, the aggregate demand for labor is smaller due to the smaller size of the economy. The shifting pattern of growth has some impact as well: for example, lower investment rates translate into reduced demand for key labor-intensive sectors (such as construction) that in turn lower labor demands.
D. CONCLUSIONS

The starting point for this paper was the premise that the most pressing problem facing South Africa today is the low rate of economic growth and virtual absence of job creation, which are both crucial to progress in reducing poverty and improving living standards. In the study, we have deliberately moved away from the past emphasis on macro stabilization concerns, and instead confronted the more fundamental issues of growth determinants. By grounding the discussion of policy options firmly in the empirical realities, the study hopefully makes a contribution towards broader discussions about policy alternatives. From the analysis, a number of conclusions and policy directions emerge:

• It remains critically important for South Africa to maintain *credible and consistent macroeconomic policies*. The shift in emphasis towards growth-oriented policies does not mean that macro concerns are no longer relevant. Instead, it reflects the belief that the gains from macro stability will be wasted if not matched by growth and jobs.

• But South Africa’s growth performance since 1994 demonstrates that *macro stability is not enough*. Prudent fiscal and monetary policies are necessary, but certainly not sufficient, to generate sustained growth. What is needed is equal progress on the agenda of needed structural reforms that were outlined in the GEAR, but not fully addressed.

• *Structural features* of the South African economy exacerbate the growth and employment challenge. Foremost among these features is the unparalleled dualism of the economy, that results in the uneasy co-existence of a modern economy next to pervasive underdevelopment and persistent poverty. The small size of the agricultural sector, stunted informal sector, and extreme spatial distortions inherited from apartheid limit the productive opportunities available to the poor.

• South Africa’s *unemployment levels* are virtually without precedent: 36 percent of the total labor force in 1999, with similar levels throughout the 1990s. Such high and persistent unemployment means that the incidence of unemployment is not confined to small “pockets” of joblessness: the unemployed include large numbers of men and women, youths and prime-aged adults, and urban and rural dwellers.

• Analysis of growth opportunities and the potential for job creation should start with the recognition that different production activities and technologies involve very different patterns of *labor use and skill intensity* (see Annex 2). Focusing on direct labor use alone can be misleading, because linkages among sectors of the economy can change drastically the employment creation generated by expanding production. But equally important are the limitations imposed by resource constraints: no matter how attractive it might appear to expand labor-intensive activities, if crucial complementary inputs (capital, management capacity) are in short supply, the short-run potential for employment creation will be limited.

• While no single sector or individual policy change can provide a “quick fix” to the growth problem, there are a number of policy areas in which change could begin to create forward progress and create further momentum for change. Given that South African investment performance remains disappointing by international standards, one imperative is the need to *improve the investment climate*. 
Targeted investment incentive schemes should be approached with caution. In South Africa, the Spatial Development Initiatives (SDIs) have concentrated on huge capital-intensive projects oriented towards exploitation and “beneficiation” of mineral resources, so the incentives for ordinary manufacturing enterprises have been limited, and the employment creation minimal. International evidence suggests that schemes such as this frequently fail to attract the expected new investment, and are often costly and result in resource misallocation. Attention would be better directed towards efforts to improve the overall business climate. There may be some benefit from promotion of non-minerals exports through export processing zone or duty drawback schemes, especially if these efforts concentrate on employment creation.

Encouraging FDI could bring sizable benefits, not only by providing a stable source of long-term finance, but also by the technology transfer and international market access associated with strategic partnerships with South African industry. Accelerating privatization together with market liberalization can provide an important stimulus to FDI as it draws foreign firms in directly (through the purchase of assets) and indirectly (by sending a strong signal of the Government’s continuing commitment).

The SMME sector in South Africa appears relatively underdeveloped, apparently constrained by inadequate demand, limited access and high cost of capital, and relatively weak support and procurement programs from Government. The sector does not appear especially dynamic: most employment growth in recent years has occurred through creation of new SMME firms, while existing firms have been reducing labor use, suggesting only limited success in the growth and maturation of a viable and vibrant SMME industry segment. Efforts to increase SMME access to finance and address skills shortages would appear to be especially important. Promoting SMME expansion through targeted programs has had only limited success: survey evidence suggests that both awareness and usage of existing promotional programs is very low, and attention should be directed to consolidation of these programs before new initiatives are considered.

Labor market flexibility is often cited as a critical concern in South Africa, as evident in various surveys of managers. The evidence on unemployment by skill class and remuneration trends also provides confirmation that job creation among the unskilled and semi-skilled labor force has been constrained by rising real wages. Recent efforts to introduce modest changes in labor legislation to offset “unintended” employment consequences have proven contentious, and illustrate the difficulties in reforming labor market institutions and practices. But initiatives to enhance flexibility and market efficiency must be continued, if the steady growth in unemployment is to be reversed. Attention should perhaps focus on introducing greater wage flexibility for special groups (youth, high-unemployment areas) and reconsidering plans to extend minimum wage levels to currently uncovered groups.

While improved “flexibility” would no doubt expand employment, it will not be enough. Efforts must also be made to augment the skills base of the labor force, to improve their employability and productivity. Large and SMME firms identified skills shortages as among the most critical constraints to expansion. Existing training schemes are a start, but are inadequate in scale to deal with the magnitude of the problem, and tend to focus more on upgrading the skills of those already employed rather than providing skills to the
unemployed. More resources and more aggressive efforts need to focus on enhancing the “employability” of the unemployed.

- **Employment subsidies** could provide another means to encourage job creation. While there are administrative difficulties inherent in designing schemes that subsidize only new jobs (rather than existing ones), these difficulties can be minimized. Moreover, there is widespread evidence that these schemes can be large enough to have an impact while still remaining affordable. These schemes also provide a means to encourage the private sector to meet more of the training requirements to expand the skills base, and can also provide a mechanism (albeit limited) to circumvent some of the wage distortions that currently discourage job creation.

- Accelerating rural development can also provide a source of dynamism. South African agriculture has already undergone substantial structural change. The recent overhaul of the land reform program, together with efforts to target infrastructural investment and technical assistance towards areas where redistribution is occurring, can create conditions for rural-based expansion that will both promote growth and improve equity. Recent evidence suggests that administrative difficulties associated with land reform have been reduced, so that channeling sufficient budgetary resources to the program can yield improved results.

- With evidence suggesting that the trade liberalization is incomplete, and that the pace has slowed in recent years, consideration should be given to embarking on a phased program of tariff reforms that would continue the progress made during the early liberalization period. Such a program should bring down average rates (given that South Africa does not compare all that favorably with its competitors) and also reduce the number of different rates from its current high level (nearly 50) to no more than a half dozen (as promised in its WTO offer).

- From an economic vantage point, the ongoing trend towards preferential trade agreements (both within and beyond Africa) generates clear gains to South Africa and the other SADC economies, and efforts to promote and accelerate integration initiatives should be continued. But analysis suggests there are also clear limits to the gains that can be achieved from increased regional trade. In particular, while promotion of a SADC free trade area will yield benefits to all participants, SADC’s small size relative to the global economy and the internal trade imbalances will likely limit the medium-term scope for trade expansion. South Africa gains more from free trade with the EU then it will from a SADC free trade area; for the rest of SADC, the gains from greater access to the EU are proportionately even larger.

- To evaluate the possible implications of policy initiatives on growth and employment, we construct alternative forward-looking scenarios that allow for quantification of the effects. These findings suggest that a pro-growth reform scenario (that includes tariff reform, improvements in the export incentive environment, successful privatization/investment promotion, and successful encouragement of domestic investment) could increase GDP growth rates by 1 percentage point (from current 3 percent levels), increase job creation, and lead to a more rapid decline in the unemployment rate, although the results suggest that the duration of the growth surge could be curtailed if the skills shortage is not addressed. A second pro-growth and skills accumulation/labor reform scenario (which starts from the reform scenario and adds faster skills accumulation, and wage subsidy/market flexibility initiatives that slow the growth in real wages) would have an even bigger impact. Growth
would accelerate even more (to 5 percent annually), faster skill accumulation would alleviate the slowdown, and the unemployment rate for the lower skilled groups would decline from 50 percent to 30 percent over the next decade.

• Finally, the potential economic impact of the HIV/AIDS pandemic demands attention. The implications of the pandemic will be profound for millions of families, and it will place extraordinary pressure on institutions that confront its direct effects, such as the health care system for the care of those living with AIDS and social services/systems for the care of dependents of AIDS victims. Population growth will slow from 2.3 percent annually early in the 1990s to zero, and labor force growth will slow as well. But the changes induced throughout the economy will extend far beyond the direct loss of productive workers: recent estimates point to overall GDP declines (relative to a “no AIDS” alternative) of 19 percent by the end of the decade (8 percent in per capita terms). Of this decline, only one-eighth is directly attributable to slower labor force growth; the rest reflects the possible impact on productivity, private consumption, and government expenditure and financing patterns. This conclusion highlights the importance of paying greater attention to the budgetary and financing implications of HIV/AIDS, especially the impact on key government spending programs (health, education, welfare) as well as the broader consequences for fiscal balance.
REFERENCES


ANNEX 1: UNDERSTANDING SOUTH AFRICAN UNEMPLOYMENT

A. INTRODUCTION

Statistics on South Africa's unemployment rate are repeated so often, both at home and abroad, that one wonders if they have lost their ability to shock. At an estimated 36 percent of the total labor force, and 44 percent of the African labor force, South Africa’s reported unemployment rates for 1999 almost are beyond credibility.36 And 1999 was not an isolated observation: similar levels have been reported throughout the 1990s (see Table A1.1).

High unemployment is not unique to South Africa. Double digit and persistent unemployment was a prominent feature of the Great Depression in the United States. More recently, Spain weathered almost two decades of record setting unemployment rates within the European Union. Economic transition in Eastern Europe and Central Asia often has been accompanied with massive job loss and subsequent joblessness. But South Africa remains unique even within this group. Unemployment in the United States during the Great Depression (1930-39) never exceeded 25 percent; at its peak, Spanish unemployment rates reached 24 percent (1994); and despite massive layoffs and plant closures, most transition economies report open unemployment rates only in the high single digits or in the teens. In pointing out the extreme nature of current unemployment conditions in South Africa, Schlemmer and Levitz (1998: 15) found only two countries with similarly high levels of reported unemployment, FYR Macedonia (34 percent, 1999) and Reunion (34 percent, 1993). But both are small nations – FYR Macedonia has two million inhabitants and Reunion under one million – and atypical in a number of ways. As a major middle-income economy, South Africa’s unemployment experience stands apart.

One has to wonder how an economy persistently can maintain reported unemployment levels where better than one out of every three members of the labor force remain unproductive? How a society can continue to cope with the dissatisfaction and frustration that must accompany this lack of economic opportunity and degree of economic idleness? How individual households can survive when so much of their available labor time is not productively engaged and contributing to family income?

B. MEASUREMENT

With African unemployment rates at 30 percent or higher, and well beyond levels experienced almost anywhere else, it is not surprising that the validity of South Africa’s unemployment rates has been questioned. Challenges to the official numbers generally fall into two categories:

- Are all those who are identified as unemployed actually not working?
- Are all those who are not working actually part of the labor force?

36 The rates reported are from the "expanded definition", which includes discouraged workers (those who are not working, who would like to work but who are not actively seeking employment), as reported by Statistics South Africa (2000), Table F. Excluding discouraged workers, the "official" unemployment rate falls to 23 percent for the total labor force and to 29 percent for Africans only.
Table A1.1: National Unemployment Rates in South Africa, 1990s
(Percent of Labor Force)

<table>
<thead>
<tr>
<th>Year</th>
<th>Narrow Unemployment a</th>
<th>Broad Unemployment b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>23.3</td>
<td>-</td>
</tr>
<tr>
<td>1998</td>
<td>25.2</td>
<td>-</td>
</tr>
<tr>
<td>1997</td>
<td>21.0</td>
<td>22.9</td>
</tr>
<tr>
<td>1996</td>
<td>19.3</td>
<td>21.0</td>
</tr>
<tr>
<td>1995</td>
<td>-</td>
<td>16.9</td>
</tr>
<tr>
<td>1994</td>
<td>-</td>
<td>20.0</td>
</tr>
<tr>
<td>1993 c</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Table A1.2: African Unemployment Rates in South Africa, 1990s
(Percent of Labor Force)

<table>
<thead>
<tr>
<th>Year</th>
<th>Narrow Unemployment a</th>
<th>Broad Unemployment b</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>29.2</td>
<td>-</td>
</tr>
<tr>
<td>1998</td>
<td>32.0</td>
<td>-</td>
</tr>
<tr>
<td>1997</td>
<td>-</td>
<td>29.3</td>
</tr>
<tr>
<td>1996</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1995</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1994</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1993 c</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

a. Narrow unemployment is referred to as Official Unemployment by Statistics South Africa and excludes “discouraged workers.”
b. Broad unemployment is referred to as Expanded Unemployment by Statistics South Africa and includes “discouraged workers.”
c. Data for 1993 only are based on the SALDRU data set not the October Household Survey.

Sources:
SSA (1998): Statistics South Africa, Unemployment and Employment in South Africa, Table A and Figure A.


The debate over who is or is not working primarily revolves around the inclusion of subsistence agriculture and informal sector activity as employment. Especially in a sharply dualistic economy such as South Africa’s, individuals engaged in subsistence farming on garden plots or “survival employment” in informal activities may not perceive of themselves as employed. In their eyes, employment may mean having a wage-paying job in a private firm or government. If such perceptions are common, self-identification of employment status will lead
to an underestimate of actual employment and an overestimate of unemployment. Individuals also may choose to disguise their economic activity from enumerators for other reasons, including a desire not to report income sources to any government official.

Standing et al. (1996) argue that the non-recording of own-account agricultural work, especially by women, results in an overestimation of African unemployment rates. Schlemmer and Levitz (1998) similarly argue that “casual and hidden” employment in the informal sector may account for one fifth or more of those identified as unemployed (all races) by the official expanded definition. However, Klasen and Woolard, (1999) while agreeing with the direction of bias found in other studies, believe the magnitudes are much lower. Their examination of the data concludes that “the generally bleak picture of very high unemployment rates presented in the household surveys is broadly accurate.”

The second reason why reported unemployment rates may be “too high” involves the distinction between being unemployed versus out of the labor force. Open unemployment usually is defined as not working, actively looking for work and being ready to accept employment. Such “narrow” definitions exclude discouraged workers who have given up looking for work in the belief that employment prospects are so bleak that search efforts are futile. In a high unemployment environment such as South Africa’s, it is easy to understand why workers without jobs might behave in this manner. Broader definitions of unemployment include discouraged workers but in so-doing blur the distinction between those counted as part of the labor force and those who are outside of it. These distinctions are difficult to make based on survey responses. For example, how should one classify a prime-aged woman who is caring for her family, not actively searching for a job, but who indicates a willingness to accept a job (at an unspecified wage!) if one were available? Is she a discouraged worker and part of the labor force, or a homemaker and not economically active? If the former, then she raises the unemployment rate; if the latter, she is out of the labor force and not counted as unemployed.

Making such distinctions may seem esoteric and of purely academic interest, but they can have considerable policy significance. Consider the profiles of South African employment and unemployment for African men and women. Employing broad definitions of economic activity, including those who are employed, unemployed and discouraged, the solid lines in Figures A1.1 and A1.2 map the labor force participation rate for the working age population (15-64). The profiles are the familiar inverted-U, reflecting increasing participation from the teens through young adulthood followed by a steady decline in later years. For African men the height of the profile, reaching close to 90 percent in prime ages, is similar to the level and pattern of labor force participation rates in other economies. For African women, inclusion of discouraged workers raises the participation rates to close to 80 percent, levels seen in some, but not all, developing economies. Should the conclusion be that South Africa has both high female unemployment and labor force participation? Or are a large percentage of female discouraged workers actually outside of the labor force and therefore not part of the nation’s unemployment problem?

37 Cross-country comparisons of labor force participation rates can be found in World Bank, The World Development Report 1995: Workers in an Integrating World, Fig. 3.1 and in ILO, Key Indicators of the Labour Market, 1999, Table 1.
Figure A1.1
South Africa: Labor Force Participation of African Men

Figure A1.2
South Africa: Labor Force Participation of African Women
Despite debates over how to count discouraged worker and how to determine the actual magnitude of African unemployment, no credible researcher doubts the massive under-utilization of South Africa’s labor resources nor the hardship joblessness brings to millions of individuals and their families. But resolving the measurement of unemployment remains important for accurately identifying who the unemployed are. Such identification is essential for understanding the burden of unemployment and the design of policy to reduce it.

C. INCIDENCE

With nearly one out of every two economically active Africans identified as unemployed or discouraged workers, joblessness is ubiquitous among South Africans. Nevertheless, the incidence of unemployment reveals a pattern which at times is at odds with the profile of unemployment observed in other economies. Disaggregating the 5.3 million unemployed Africans by gender and location (Figures A1.3 and A1.4) identifies four groups of almost equal size – unemployed urban males (23 percent), urban females (30 percent), rural males (20 percent) and rural females (27 percent). African women represent only 48 percent of the African labor force, but account for 57 percent of the unemployed. Similarly, rural Africans, at 43 percent of the labor force, have a higher unemployment rate than their urban counterparts and represent 47 percent of the unemployed.

The proportionally higher rate of unemployment among women as compared to men is not unique to South Africa. According to data compiled by the ILO, female unemployment rates exceed those of males throughout the European Union as well as in the middle income economies in Latin America. In high unemployment Spain, female unemployment rates consistently are reported at levels fifty percent greater than those for men. The gap in South Africa is nowhere near as large. The ILO has few observations from Africa, so it is difficult to gauge gender differentials in South Africa relative to neighboring nations.

In high-income economies, the tendency for women to have higher unemployment than men is associated with differences in labor force attachment. Because of child bearing and other gender related roles, labor force turnover for women is greater, implying higher levels of frictional unemployment (that is, time spent searching for employment). On the other hand, if women enter and exit the labor market more frequently than do men, their status as economically active or not compromises the measurement of “true” unemployment. Higher female unemployment also may be a consequence of gender differences in the distribution of employment by occupation and industry. Service sector employment, which tends to be female dominated, also tends to have higher turnover and subsequent job loss. Which of these factors explains the situation in South Africa is not clear, but along this dimension of unemployment what distinguishes South Africa is not gender differentials, per se, but the incredibly high level of unemployment among both men and women.
Figure A1.3
South Africa: African Labor Force

- 3.6 million Urban Males (30%)
- 2.6 million Rural Males (22%)
- 3.2 million Urban Females (27%)
- 2.5 million Rural Females (21%)

Figure A1.4
South Africa: Total African Unemployment

- 1.2 million Urban Males (30%)
- 1.1 million Rural Males (20%)
- 1.6 million Urban Females (23%)
- 1.4 million Rural Females (27%)
In rural communities, unemployment usually is lower than in urban areas because of traditions of work sharing in agriculture. In his study of labor market outcomes in the 1980s, Turnham (1993) compares urban and rural unemployment rates for eighteen low and middle income economies. In sixteen economies, the urban rate exceeded the rural rate, and for the sample as a whole urban unemployment averaged fifty percent higher than the rural rate. (Only Lesotho and Tunisia displayed rural unemployment rates that were higher than urban ones.)

The flexible work arrangements in farming that reduce rural unemployment in other nations play less of a role in South Africa because much of the rural labor force is not engaged in agriculture. Among all races, only 10 percent of those employed in 1999 were engaged in agriculture. The very split between urban and rural, which in most settings is synonymous with agriculture versus non-agriculture, means something else in South Africa. Urban/rural distinctions in South Africa reflect geography as well as historical/political distinctions. Urban areas include formal and informal settlements within municipal or local authority boundaries. Rural areas include “population concentrations adjacent to municipal borders”38 and capture some high-density peri-urban settlements within the “old” Self-Governing Territories (or Homelands.) In South Africa, the urban/rural distinction may capture less about relative population densities or the spatial distribution of economic sectors, than about the historical degree of economic marginalization. If so, rural unemployment exceeding urban rates is both understandable and a formidable challenge to resolve.

The ages of unemployed workers are another dimension of the incidence of South African unemployment that previous research has drawn attention to. As in many economies, especially those that have experienced rapid population growth rates, unemployment among the young is high and decreases with age. Table A1.3 displays this pattern for black South Africans. An estimated two out of every three economically active Africans between 15-24 are unemployed according to the broad definition. For those 45-54 the rate drops to 25 percent.

But it would be a mistake to identify unemployment primarily as a problem of unemployed youths and young adults. This becomes evident when one examines the age distribution of the unemployed. The youngest age group, 15-19, makes up 18.5 percent of the African working age population (ages 15-64) and has an estimated unemployment rate of 69 percent, but represents only 5 percent of total African unemployment. This is because the labor force participation rate of this young age group is under 10 percent. Most teens are not unemployed but are economically inactive, presumably, because they are attending school. If youthful unemployment includes those in ages 15-24, its share of total unemployment reaches 30 percent – a significant share of the over all total. But this still implies that 70 percent of the unemployed are 25 or older and in their prime working years. Slightly more than half of all the unemployed are between 25-39, highlighting that there is an adult unemployment problem of a magnitude as daunting as the unemployment and economic inactivity of younger workers.

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38 This quotation is from the definition of urban versus rural contained in the Coding Scheme for the October Household Survey, 1999. The rather tortured definition runs on for almost a page in length, with no specification of population density. The stated classification principles involve geographic location and settlement type, with the latter referring to the predominant kind of dwelling.
Table A1.3: South Africa: The Age Distribution of African Unemployment, 1999

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Unemployment Rate (%)</th>
<th>Share of the Unemployed (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-19</td>
<td>69</td>
<td>5</td>
</tr>
<tr>
<td>20-24</td>
<td>68</td>
<td>25</td>
</tr>
<tr>
<td>25-29</td>
<td>52</td>
<td>24</td>
</tr>
<tr>
<td>30-34</td>
<td>41</td>
<td>17</td>
</tr>
<tr>
<td>35-39</td>
<td>34</td>
<td>12</td>
</tr>
<tr>
<td>40-44</td>
<td>30</td>
<td>8</td>
</tr>
<tr>
<td>45-49</td>
<td>25</td>
<td>4</td>
</tr>
<tr>
<td>50-54</td>
<td>25</td>
<td>3</td>
</tr>
<tr>
<td>55-59</td>
<td>22</td>
<td>2</td>
</tr>
<tr>
<td>60-64</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Statistics South Africa, October Household Survey, 1999

These high rates of reported adult unemployment raise another vexing measurement issue. When those who report themselves as without work and desiring employment are asked, “Have you ever worked?”, over half of all such adults (those 25 and older) indicate they have never worked (Klasen and Woolard, 1999). Is this believable? Can such high percentages of adults, both men and women, have never worked in their lives? Or is the definition of work being interpreted systematically in very narrow terms? And if so, how much confidence can be placed in current estimates of unemployment and its incidence?

Although the level of unemployment reported by the survey data must be called into question, there is little doubt that unemployment in today’s South Africa is both widespread and higher than is usually found in middle income economies. In terms of the incidence of unemployment, it does not appear confined to well-defined pockets of pervasive joblessness. Large numbers, and high percentages, of men and women, of youths and prime-aged adults, and of urban and rural dwellers, all report not having a job and desiring one.

D. SUSTAINABILITY

With unemployment pervasive among the African population, it is essential to understand how the household economy supports its unemployed members and for how long this system can be sustained. The October Household Survey asks those it determines as unemployed, “How does [this individual] support him/herself?” Three quarters of the unemployed report that they are “Supported by persons in the household.” Persons not in the household support another twenty-two percent. Other forms of support, including unemployment insurance and pensions, are cited in less than five percent of all cases. This profile of household support of the unemployed shows little difference between men or women, or urban versus rural.

39 In addition to citing unemployment insurance or pensions, other possible answers include support by charity, savings, or other (e.g., student loans).
These findings on the reliance of the unemployed on other individuals highlight a key difference between South Africa’s unemployment situation and that of Europe’s, a comparison often made by South African policymakers. On the demand-side of the labor market, regulations and union power, in both settings, may contribute to slow employment creation because of “inflexible labor markets.” But in Europe this demand-side explanation for high unemployment is matched on the supply-side by the relatively generous benefits of a welfare state. Such benefits make it possible for Europe’s unemployed to maintain themselves and, at least indirectly, explains how the EU sustains elevated unemployment levels. South Africa’s welfare state plays a much smaller role, weakening “inflexible labor markets” as the explanation for persistent unemployment.

African households, with minimal support from the state, must maintain their members whether they are working, out of the labor force or unemployed. How long have African households been supporting large numbers of economically inactive and unemployed workers? Data prior to 1993 are not readily available to judge whether the extraordinary levels of reported unemployment in the 1990s are a new phenomenon or just a continuation of past trends. At a minimum, high rates have persisted for a decade with some evidence that rates have increased since 1993. Even if the household system of support for the unemployed has demonstrated considerable resiliency, it must be under stress.

A slowly growing economy has not expanded employment opportunities appreciably nor have real earnings grown substantially for those fortunate enough to have employment. Demographic pressures are rapidly expanding the younger – and most likely to be unemployed – age cohorts in the labor force. The AIDS epidemic is diminishing the earnings capacity of many households while increasing their expenditure burdens. In the face of all these pressures, can South Africa’s households continue to cope with the economic burden imposed by high and persistent unemployment? And if not, how will individual households and South African society resolve this potentially explosive situation?

In judging the sustainability and the severity of South Africa’s unemployment problem, two related issues warrant consideration: is African unemployment voluntary or involuntary, and is unemployment a close correlate of poverty?

The notion that open unemployment in low and middle income economies often is voluntary has a long tradition in the development field. In the absence of a welfare state the very survival of the poor requires employment, even if returns to work are extraordinarily low. Only those with alternative sources of support – usually new entrants and the more educated – can “afford” unemployment. This reasoning lead Myrdal (1968) to dismiss open unemployment in South Asia as a “bourgeois problem.” More recent analysis challenges Myrdal’s conjecture.

40 The potential role of the South African welfare state in “supporting” unemployment is discussed in Klasen and Woolard (1998). A correlation exists between a household’s receipt of pension income and the existence of unemployed household members, especially in rural areas. The authors hypothesize that state provided old-age pensions draw family members with poor job prospects to join the households of older relatives, especially parents. Particularly in the country-side, where employment opportunities are limited, the provision of pensions, therefore, contributes indirectly to elevated rural unemployment rates.

41 One exception is a study by Knight (1978). Starting with census data, Knight employs a set of assumptions about labor force participation and employment growth to estimate African unemployment rates. He concludes unemployment may have ranged between 20-30 percent throughout the 1960s and 1970s.
Turnham (1993) suggests that the huge variance in unemployment rates across countries cannot be readily explained by viewing unemployment as a “luxury.” In addition, micro evidence repeatedly finds high unemployment among the poor, including casual labor in India. High urban unemployment in African cities does not seem driven by the relative affluence of job seekers, but by a failure of labor demand to keep up with rapidly growing labor supply (Turnham, 1993: Chapter 2).

Debate over the voluntary versus involuntary character of unemployment in South Africa also has a long history. Early debate cited evidence of rising real wages for Africans employed in the formal sector, especially mining, as proof of minimal supply-side pressure to restrain wage growth. If rising real wages coexisted with open unemployment, then, according to this line of argument, one could conclude that unemployment must be voluntary (Gerson, 1981). Knight (1978: 119) provided the counter-argument. He explains the simultaneous rise in African wages with high unemployment as the result of institutional wage setting and limits on African mobility. He concludes, “…in so far as voluntary unemployment reflects a preference for family life [in African Homelands], this behavior should be seen as optimization within an inhuman set of political and institutional constraints.”

Kingdon and Knight (2000) return to the question of whether African unemployment in contemporary South Africa is voluntary or involuntary. They find that the unemployed are “…substantially disadvantaged vis-à-vis the informally employed in terms of income, expenditure, living conditions and quality of life casting doubt on the luxury unemployment view.” Remaining unemployed, rather than entering the informal sector, seems less a matter of choice than a reflection of barriers-to-entry in the informal sector. The authors conclude that most African unemployment is involuntary.

If most African unemployment is involuntary, it logically follows that unemployment and poverty will be closely correlated. Gross data comparisons bear this out. Sixty percent of all Africans fall below national poverty lines while almost one out of every two members of the African labor force is identified as unemployed or as a discouraged worker. The overlap between unemployment and poverty must be huge. More detailed analysis supports this conclusion. For all South Africans, unemployment rates among members of poor households are almost four times the rates among non-poor households (Office of the Deputy President, 1998, Table 10). Reducing African unemployment must be part of a development strategy to alleviate poverty.
ANNEX 2: SECTORAL LINKAGES AND EMPLOYMENT

A. INTRODUCTION

In this annex, we look at the role of intersectoral linkages, and the extent to which structural features affect employment creation potential. Table A2.1 portrays the structure of production, value added, and total employment in the South African economy. As noted earlier, agriculture accounts for only around 6 percent of GDP and 9 percent of employment, which are relatively low shares for an economy at South Africa’s level of income. While the manufacturing sectors are diversified, in total these represent only 20 percent of value added, and 16 percent of GDP. Services are quite large, with the 18 percent value added share of financial and business services highlighting the relatively advanced character of the financial sector in South Africa. The last column in the table presents the sectoral capital/labor ratios, providing further evidence of the enormous variance in factor intensities across sectors. According to these data, capital/labor ratios vary by more than a factor of 100, suggesting that the pattern of future growth will have an enormous impact on both investment needs and labor absorption.

Over a sufficiently long time horizon, individual economies can undergo substantial structural transformation – for example, the significant decline in the relative importance of the mining sector in South Africa over the last two decades provides clear evidence of such a transformation. But in the short to medium term, the structural features of the South African economy outlined in Chapter 2 will exert a strong influence on the feasible growth paths and expansion opportunities. In particular, there are considerations of scale that emerge from the existing structure that will affect how much different sectors can contribute to future growth. In other words, no matter how dynamic a specific sector might be in terms of generating growth and employment, if it represents only a very small share of economywide production, it will be difficult to have a very large aggregate effect on the five million unemployed South Africans.

B. LABOR AND SKILL INTENSITIES

Focusing on the challenge of employment creation, it is obvious that different activities and sectors in the economy might provide sharply different contributions to job growth as a result of differences in the underlying production technologies. For example, expanding output by R100 million from a highly capital-intensive steel plant might require only a few additional employees, while a similar expansion from a labor-intensive garments plant might require hundreds or even thousands of workers.

To illustrate this point, Table A2.2 presents data on labor intensities for different South African production activities. Looking first at the consolidated figures for all skill categories (in the last column), the range in labor intensity is substantial, from a low of 0.7 workers/million R in the typically capital-intensive petroleum sector to a high of over 48 workers/million R in the personal and social services sector. More generally, those sectors with higher than average labor intensities (using the economywide average of 7.4 workers/million R as a reference point) include activities such as agriculture, mining, light manufacturing (including textiles and garments, wood and furniture, and leather and footwear), construction, tourism, personal services, and government. The low labor-using sectors include food processing, the intermediate and capital equipment sectors, and more specialized service sectors (financial, medical).
### Table A2.1: Output, Value Added and Factor Use, 2000

<table>
<thead>
<tr>
<th>Sector</th>
<th>Output structure</th>
<th>Value added structure</th>
<th>Employment structure</th>
<th>Capital/labor ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>3.8%</td>
<td>5.6%</td>
<td>9.2%</td>
<td>63.80</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>5.8%</td>
<td>6.2%</td>
<td>6.7%</td>
<td>193.33</td>
</tr>
<tr>
<td>Food processing</td>
<td>8.8%</td>
<td>3.5%</td>
<td>2.3%</td>
<td>181.72</td>
</tr>
<tr>
<td>Textiles and apparel</td>
<td>1.5%</td>
<td>1.0%</td>
<td>2.4%</td>
<td>21.74</td>
</tr>
<tr>
<td>Leather goods and footwear</td>
<td>0.3%</td>
<td>0.2%</td>
<td>0.3%</td>
<td>25.56</td>
</tr>
<tr>
<td>Wood and furniture</td>
<td>1.1%</td>
<td>0.7%</td>
<td>1.2%</td>
<td>32.31</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>2.5%</td>
<td>1.7%</td>
<td>1.1%</td>
<td>119.37</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>1.8%</td>
<td>0.8%</td>
<td>0.2%</td>
<td>2544.12</td>
</tr>
<tr>
<td>Chemicals</td>
<td>3.8%</td>
<td>2.2%</td>
<td>1.0%</td>
<td>285.75</td>
</tr>
<tr>
<td>Rubber, glass, plastic, non-metal. mins.</td>
<td>5.4%</td>
<td>3.2%</td>
<td>1.8%</td>
<td>98.55</td>
</tr>
<tr>
<td>Basic metals</td>
<td>2.9%</td>
<td>2.4%</td>
<td>0.8%</td>
<td>744.54</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>7.0%</td>
<td>4.5%</td>
<td>4.4%</td>
<td>70.77</td>
</tr>
<tr>
<td>Electricity, gas, water</td>
<td>2.7%</td>
<td>3.3%</td>
<td>1.0%</td>
<td>1321.11</td>
</tr>
<tr>
<td>Construction</td>
<td>5.2%</td>
<td>3.1%</td>
<td>6.0%</td>
<td>24.79</td>
</tr>
<tr>
<td>Trade</td>
<td>10.9%</td>
<td>12.7%</td>
<td>10.1%</td>
<td>90.82</td>
</tr>
<tr>
<td>Tourism</td>
<td>1.5%</td>
<td>1.1%</td>
<td>2.5%</td>
<td>30.09</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>7.1%</td>
<td>8.0%</td>
<td>4.2%</td>
<td>500.20</td>
</tr>
<tr>
<td>Financial &amp; business services</td>
<td>15.2%</td>
<td>18.3%</td>
<td>8.6%</td>
<td>574.72</td>
</tr>
<tr>
<td>Medical and health services</td>
<td>1.9%</td>
<td>1.9%</td>
<td>0.7%</td>
<td>171.61</td>
</tr>
<tr>
<td>Social and personal services</td>
<td>2.4%</td>
<td>3.2%</td>
<td>15.5%</td>
<td>4.89</td>
</tr>
<tr>
<td>General gov. and other producers</td>
<td>8.4%</td>
<td>16.3%</td>
<td>20.0%</td>
<td>168.40</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>174.34</strong></td>
</tr>
</tbody>
</table>

Source: South Africa CGE model.

### Table A2.2: Sectoral Labor/Output Coefficients, 2000

(Workers/million R)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Professional labor</th>
<th>Skilled labor</th>
<th>Semi-skilled &amp; unskilled labor</th>
<th>Informal labor</th>
<th>TOTAL labor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>0.08</td>
<td>1.00</td>
<td>16.65</td>
<td>0.69</td>
<td>18.42</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>0.25</td>
<td>1.16</td>
<td>6.01</td>
<td>0.29</td>
<td>7.71</td>
</tr>
<tr>
<td>Food processing</td>
<td>0.16</td>
<td>0.66</td>
<td>1.11</td>
<td>0.07</td>
<td>2.00</td>
</tr>
<tr>
<td>Textiles and apparel</td>
<td>0.52</td>
<td>1.82</td>
<td>9.28</td>
<td>0.45</td>
<td>12.07</td>
</tr>
<tr>
<td>Leather goods and footwear</td>
<td>0.27</td>
<td>0.63</td>
<td>6.61</td>
<td>0.29</td>
<td>7.79</td>
</tr>
<tr>
<td>Wood and furniture</td>
<td>0.36</td>
<td>2.08</td>
<td>5.77</td>
<td>0.32</td>
<td>8.52</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>0.48</td>
<td>1.46</td>
<td>1.23</td>
<td>0.12</td>
<td>3.30</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>0.15</td>
<td>0.25</td>
<td>0.30</td>
<td>0.03</td>
<td>0.72</td>
</tr>
<tr>
<td>Chemicals</td>
<td>0.42</td>
<td>0.68</td>
<td>0.82</td>
<td>0.07</td>
<td>1.99</td>
</tr>
<tr>
<td>Rubber, glass, plastic, non-met. minerals</td>
<td>0.23</td>
<td>0.62</td>
<td>1.55</td>
<td>0.09</td>
<td>2.49</td>
</tr>
<tr>
<td>Basic metals</td>
<td>0.22</td>
<td>0.66</td>
<td>1.19</td>
<td>0.08</td>
<td>2.14</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>0.55</td>
<td>1.30</td>
<td>2.62</td>
<td>0.17</td>
<td>4.64</td>
</tr>
<tr>
<td>Electricity, gas, water</td>
<td>0.37</td>
<td>0.56</td>
<td>1.38</td>
<td>0.56</td>
<td>2.87</td>
</tr>
<tr>
<td>Construction</td>
<td>0.26</td>
<td>1.10</td>
<td>3.52</td>
<td>3.97</td>
<td>8.84</td>
</tr>
<tr>
<td>Trade</td>
<td>0.75</td>
<td>3.37</td>
<td>1.37</td>
<td>1.36</td>
<td>6.85</td>
</tr>
<tr>
<td>Tourism</td>
<td>1.12</td>
<td>9.27</td>
<td>1.80</td>
<td>0.47</td>
<td>12.66</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>0.18</td>
<td>1.30</td>
<td>0.66</td>
<td>2.43</td>
<td>4.57</td>
</tr>
<tr>
<td>Financial &amp; business services</td>
<td>0.70</td>
<td>2.32</td>
<td>0.14</td>
<td>1.12</td>
<td>4.28</td>
</tr>
<tr>
<td>Medical and health services</td>
<td>1.08</td>
<td>1.08</td>
<td>0.10</td>
<td>0.45</td>
<td>2.71</td>
</tr>
<tr>
<td>Social and personal services</td>
<td>3.36</td>
<td>5.40</td>
<td>23.43</td>
<td>15.36</td>
<td>47.55</td>
</tr>
<tr>
<td>General gov. and other producers</td>
<td>6.53</td>
<td>8.09</td>
<td>2.51</td>
<td>0.37</td>
<td>17.50</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>1.01</strong></td>
<td><strong>2.25</strong></td>
<td><strong>2.95</strong></td>
<td><strong>1.21</strong></td>
<td><strong>7.42</strong></td>
</tr>
</tbody>
</table>

Source: South Africa CGE model
But just as important as the overall pattern of labor intensity by sector is the differential skill composition of sectoral labor use. The first four columns show the labor intensities for four different skill groups: professional, skilled, semi-skilled and unskilled, and informal. The range in intensities within several of these skill groups is even larger than for the total. In particular, there are two dimensions worth noting: first, the growth potential for each sector will be influenced by the relative demand for professional labor, which (alone among the four labor categories) is currently “fully employed,” so that future demand for this skill group will have to compete with demands from all other sectors (see Table 2.1). Second, the possible contribution of growth to creating new jobs among the semi-skilled and unskilled group (where the unemployment rate is currently around 50 percent) also varies enormously by sector, from (much) lower than 1 worker per million R in capital-intensive industry (petroleum, chemicals) and skill-intensive services (business, medical) to 5-9 workers per million R in labor-intensive industry (textiles, wood, leather) and even higher in agriculture and personal services.

C. Employment Multipliers

The data on sectoral skill intensity in the previous section portray the enormous range in average labor use across sectors in the South African economy, which in turn influences the potential job-creating impact of growth in each sector. But focusing only on such “direct” labor coefficients misses an important part of the story: in order to produce more output in the textile sector (for example), there is a need not only to hire more workers to work directly in the textile plants, but also to help produce the various inputs (raw materials, energy, transport, business and financial services, etc.) that will be demanded by the textile firms in order to produce this incremental output (as well as the next round of inputs needed by those supplying more to the textile firms, and so on). So the “total” employment creation generated by the output expansion in the textile sector can be thought of as the sum of the “direct” employment increase in the textile sector itself, and the “indirect” employment that occurs in all other sectors that must expand their activities to supply inputs to firms or final products to consumers. The relative importance of such “linkages” is likely to vary among sectors, and may even change the ranking apparent in the earlier data: for example, if a sector that uses little labor is in turn very dependent on inputs from a sector that is very labor-intensive, than overall employment creation could nevertheless be quite substantial.

Using standard input-output accounting techniques and the data available in our South Africa model, it is possible to calculate the magnitude of these “direct” and “indirect” employment effects. Table A2:3 presents the results separately for total employment (all skill groups together) and for semi-skilled and unskilled labor. The first column portrays the direct labor coefficient associated with each sector (identical to the previous table), indicating the incremental workers directly required in each sector to produce an additional R1 million of output. The next column calculates “total” (i.e. direct plus indirect) labor coefficients. These represent the economywide labor requirements to produce an additional R1 million, recognizing the fact that additional intermediate inputs were required to produce the output, which in turn required more workers. The total coefficients are generally substantially larger than the direct coefficients. Intuitively, the increase from the direct to the total coefficients will be larger in activities that use substantial inputs that have high direct labor coefficients themselves. In fact

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42 In technical terms, the total labor coefficients were calculated by applying the Leontief inverse to the direct labor coefficients.
including the linkage effects changes the sectoral ranking of contributions to employment growth: for several sectors (such as processed food and petroleum products) with quite low direct coefficients, the indirect effects are strong enough to move them well up from the bottom of the rankings. The ratio between the total and direct coefficients measures the employment “multiplier” associated with these linkage effects. For petroleum products, the linkage effects create nearly 14 times as many new jobs as are created in the petroleum sector itself.

Traditional input-output based analyses of labor coefficients would end with this move from “direct” to “total” coefficients. But the so-called total coefficients are (despite their name) in fact only partial, derived as they are from a framework in which (1) relative prices are constant; (2) there are no feedbacks to demand from changes in incomes or prices; and (3) there are no constraints or shortages that hamper output expansion. In other words, the changes implicit in each sector’s total coefficient require the unrealistic assumption that the resources (both capital, labor and intermediate inputs) needed to produce one additional unit are available for use at no cost to the rest of the economy. While arguably reasonable for small increments in output, this assumption seems less viable when looking at larger effects.

As a further step in looking at sectoral employment potential, we can use a more sophisticated model of the South African economy to provide an alternative to the input-output based direct and total coefficients. This economywide model simulates the workings of the full economy, so that changes in production affect employment, household incomes, and thereby consumption decisions (as well as other final demand components). In other words, the CGE analysis takes into account that additional production in one sector requires that resources be made available from other sectors, which in turn affects costs and production.

The last column of Table A2.3 contains the model estimates of the general equilibrium impact on total and unskilled employment of R1 million incremental output from each sector. The figures were calculated by specifying for one sector at a time an incremental final demand increase of R1 billion, assumed to come from the government, with the additional spending financed by an increase in net foreign inflows into the economy. Informal, semi-skilled and unskilled, and skilled labor are assumed to be “in surplus”, so that additional labor demand for these skill groups can be accommodated; however, professional labor is fully employed, so that additional labor demands must be met through wage increases and “bidding away” workers from other sectors. Moreover, the physical capital stock in each sector is fixed, so that additional output can be produced only at higher cost through greater use of variable factors; some of the incremental outputs will be obtained through changing trade flows as well.

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43 This South African computable general equilibrium (CGE) model is introduced in Box 5.1, and a more complete discussion is available in Arndt and Lewis (2000).

44 These assumptions are unrealistic, and are chosen only to make keep this experiment simple; more sophisticated model simulations are presented in later sections of this paper.
## Table A2.3: Direct, Total and Equilibrium Labor Coefficients
(Workers per R1 million)

<table>
<thead>
<tr>
<th>Sector</th>
<th>Direct Coefficient</th>
<th>Total Coefficient</th>
<th>Multiplier (total/direct)</th>
<th>CGE Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All labor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>18.42</td>
<td>23.63</td>
<td>1.28</td>
<td>-0.80</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>7.71</td>
<td>12.26</td>
<td>1.59</td>
<td>0.26</td>
</tr>
<tr>
<td>Food processing</td>
<td>1.99</td>
<td>14.22</td>
<td>7.13</td>
<td>0.13</td>
</tr>
<tr>
<td>Textiles and apparel</td>
<td>12.07</td>
<td>22.26</td>
<td>1.84</td>
<td>15.29</td>
</tr>
<tr>
<td>Leather goods and footwear</td>
<td>7.79</td>
<td>15.58</td>
<td>2.00</td>
<td>8.73</td>
</tr>
<tr>
<td>Wood and furniture</td>
<td>8.52</td>
<td>17.11</td>
<td>2.01</td>
<td>12.44</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>3.30</td>
<td>10.22</td>
<td>3.10</td>
<td>-1.13</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>0.72</td>
<td>10.40</td>
<td>14.39</td>
<td>3.96</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1.99</td>
<td>7.20</td>
<td>3.62</td>
<td>-2.32</td>
</tr>
<tr>
<td>Rubber, glass, plastic, non-metal. minerals</td>
<td>2.49</td>
<td>9.29</td>
<td>3.73</td>
<td>0.99</td>
</tr>
<tr>
<td>Basic metals</td>
<td>2.14</td>
<td>7.18</td>
<td>3.36</td>
<td>-0.77</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>4.63</td>
<td>11.56</td>
<td>2.49</td>
<td>3.59</td>
</tr>
<tr>
<td>Electricity, gas, water</td>
<td>2.87</td>
<td>6.48</td>
<td>2.26</td>
<td>-7.16</td>
</tr>
<tr>
<td>Construction</td>
<td>8.84</td>
<td>17.40</td>
<td>1.97</td>
<td>15.51</td>
</tr>
<tr>
<td>Trade</td>
<td>6.85</td>
<td>10.97</td>
<td>1.60</td>
<td>1.00</td>
</tr>
<tr>
<td>Tourism</td>
<td>12.66</td>
<td>20.03</td>
<td>1.58</td>
<td>7.18</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>4.57</td>
<td>9.02</td>
<td>1.97</td>
<td>1.04</td>
</tr>
<tr>
<td>Financial &amp; business services</td>
<td>4.28</td>
<td>7.71</td>
<td>1.80</td>
<td>-7.81</td>
</tr>
<tr>
<td>Medical and health services</td>
<td>2.71</td>
<td>7.74</td>
<td>2.86</td>
<td>-10.69</td>
</tr>
<tr>
<td>Social and personal services</td>
<td>47.55</td>
<td>51.46</td>
<td>1.08</td>
<td>40.17</td>
</tr>
<tr>
<td>General gov. and other producers</td>
<td>17.50</td>
<td>17.67</td>
<td>1.01</td>
<td>1.58</td>
</tr>
<tr>
<td><strong>Semi-skilled and unskilled labor</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agriculture, forestry, and fishing</td>
<td>16.65</td>
<td>19.18</td>
<td>1.15</td>
<td>6.35</td>
</tr>
<tr>
<td>Mining and quarrying</td>
<td>6.00</td>
<td>7.88</td>
<td>1.31</td>
<td>1.44</td>
</tr>
<tr>
<td>Food processing</td>
<td>1.11</td>
<td>8.73</td>
<td>7.88</td>
<td>0.81</td>
</tr>
<tr>
<td>Textiles and apparel</td>
<td>9.28</td>
<td>15.17</td>
<td>1.64</td>
<td>11.81</td>
</tr>
<tr>
<td>Leather goods and footwear</td>
<td>6.60</td>
<td>10.99</td>
<td>1.66</td>
<td>7.06</td>
</tr>
<tr>
<td>Wood and furniture</td>
<td>5.77</td>
<td>10.27</td>
<td>1.78</td>
<td>8.50</td>
</tr>
<tr>
<td>Paper and printing</td>
<td>1.23</td>
<td>4.03</td>
<td>3.27</td>
<td>-1.57</td>
</tr>
<tr>
<td>Petroleum products</td>
<td>0.30</td>
<td>5.01</td>
<td>16.89</td>
<td>-2.89</td>
</tr>
<tr>
<td>Chemicals</td>
<td>0.82</td>
<td>2.86</td>
<td>3.50</td>
<td>-2.27</td>
</tr>
<tr>
<td>Rubber, glass, plastic, non-metal. minerals</td>
<td>1.55</td>
<td>4.73</td>
<td>3.05</td>
<td>0.55</td>
</tr>
<tr>
<td>Basic metals</td>
<td>1.18</td>
<td>3.40</td>
<td>2.87</td>
<td>-1.28</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>2.62</td>
<td>5.44</td>
<td>2.08</td>
<td>1.56</td>
</tr>
<tr>
<td>Electricity, gas, water</td>
<td>1.38</td>
<td>3.02</td>
<td>2.19</td>
<td>-4.44</td>
</tr>
<tr>
<td>Construction</td>
<td>3.52</td>
<td>6.88</td>
<td>1.96</td>
<td>5.09</td>
</tr>
<tr>
<td>Trade</td>
<td>1.37</td>
<td>2.51</td>
<td>1.82</td>
<td>-3.62</td>
</tr>
<tr>
<td>Tourism</td>
<td>1.79</td>
<td>5.51</td>
<td>3.07</td>
<td>-1.31</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>0.66</td>
<td>2.16</td>
<td>3.26</td>
<td>-3.55</td>
</tr>
<tr>
<td>Financial &amp; business services</td>
<td>0.14</td>
<td>1.13</td>
<td>7.87</td>
<td>-8.04</td>
</tr>
<tr>
<td>Medical and health services</td>
<td>0.10</td>
<td>1.84</td>
<td>18.08</td>
<td>-7.42</td>
</tr>
<tr>
<td>Social and personal services</td>
<td>23.43</td>
<td>24.78</td>
<td>1.06</td>
<td>20.18</td>
</tr>
<tr>
<td>General gov. and other producers</td>
<td>2.51</td>
<td>2.57</td>
<td>1.02</td>
<td>-3.30</td>
</tr>
</tbody>
</table>

Source: South Africa CGE model
The results in this final column are quite different than the direct and total coefficients. First of all, coefficients can be either positive, implying that the final demand increment increases aggregate employment in the economy, or negative, implying that aggregate employment declines. A significant number of these equilibrium coefficients are similar in magnitude to the direct and total coefficients, but in more than one third of the sectors, the overall impact on labor is negative. Some of the largest negative numbers (financial services, medical services) are associated with sectors that use professional labor (which is in fixed supply in the economy) relatively intensively: in these cases, the additional professional workers needed in these sectors carry a large “opportunity cost” to the rest of the economy, with many other sectors forced to lower output (and hence employment) as a result, leading to an overall net decline in labor demand in the economy.

What can we conclude from the divergent results associated with these different indicators? First, it is evident that focusing on direct labor creation alone can be misleading, because it ignores the important (and in many cases, much larger) contribution from linkages among sectors and activities in the economy. Second, even incorporating the linkages can be misleading, if one fails to recognize that there are other factors (in this case, professional labor and capital) that are scarce, so that in the short run there are possible costs to the rest of the economy to expanding output in particular sectors. In some sense, this supports the consensus view on the importance of appropriate policy “sequencing” – without sufficient attention to “supporting measures”, the impact of individual initiatives could be limited (or even negative).
ANNEX 3: THE GROWTH POTENTIAL OF TOURISM

A. FEATURES OF SOUTH AFRICAN TOURISM

South Africa is abundantly endowed with natural beauty, temperate climate, and diverse flora and fauna, including exotic wildlife, which offer a natural comparative advantage in the development of the tourism industry. However, with increasing globalization, as countries compete fiercely for tourist flows, a simple endowment of natural beauty, flora and fauna can no longer guarantee a steady and strong flow of tourists. Like many other industries, the tourist industry is increasingly driven by modern technological developments, availability of good infrastructure and hotels, communications systems and affordable leisure time entertainment. Fortunately, South Africa also possesses a relatively developed industrial base, which helps provide other components of the tourism “bundle”: hotels or other accommodation, water, electricity, air and land transport, etc., and has led to substantial international recognition of the potential leading role that tourism development can play in South Africa.45

South Africa also has the potential to benefit in a large way from not only developing its own tourism industry but also extending its tourism industry borders into the rest of the southern African region. Most of this region is relatively untapped in terms of tourism potential. With its superior infrastructure and transport linkages, South Africa can use such an “integrated” package to differentiate southern African tourism from the rest of the continent, and provide a boost to its own and regional economy.

Of course, there is already widespread recognition of the potential contribution of tourism development to South Africa’s economy, and there is evidence that tourism-related activities are expanding. The relaxation of economic sanctions and travel restrictions that came with the end of apartheid increased foreign travel to South Africa quite dramatically: for example, between 1992-1996, the number of foreign visitors to South Africa rose by 80 percent (to 5.2 million annually), and in 1997, South Africa ranked 26th among the top tourism destinations worldwide, the only sub-Saharan African economy in the top 40 (Christie and Crompton, 2001). However, during 1995, three-quarters of these arrivals were from other African countries, suggesting that there is still substantial room for further market penetration among the wealthier European and North American clientele.

In 1996, a government White Paper reviewed the status of the industry, describing in great detail the constraints facing the sector, and laying out an ambitious set of interventions and performance outcomes. It highlighted a number of constraints, including the lack of transparent investment incentives to attract investors; a scarcity of needed infrastructure in regions with the strongest natural resource base for tourism; inadequate tourism education, including training for new/small entrepreneurs; and inadequate marketing of South Africa as a long-haul tourism and business center. More recently, international perceptions of growing domestic crime and violence, concerns over the impact of the HIV/AIDS epidemic, and “spillovers” from regional confrontations in Zimbabwe and DR Congo have also hampered expansion.

45 In 1995, The World Tourism Organization rated South Africa to be “one of the most promising tourism destinations of the African continent.” The Horwath 1995 Worldwide Hotel Industry Review considered South Africa’s tourism potential to be “outstanding, providing peace and harmony remain.”
B. THE BENEFITS FROM TOURISM GROWTH

The case for focusing on tourism as a potential source of growth and employment in today’s South Africa is compelling because of a variety of reasons:

- The tourist industry is relatively labor-intensive but not necessarily high skill-intensive, i.e., it requires some highly-skilled workers and a large proportion of relatively unskilled or semi-skilled workers, particularly in the hotel industry. This matters because (as was discussed in the earlier section on employment multipliers) it means that more rapid development of the tourism industry will not be constrained in the short term by the economy-wide skills shortage because most related skills can be upgraded fairly rapidly through training.

- The industry uses relatively few imported inputs and gives rise to extensive forward and backward linkages in the hotel, food, entertainment, and transport industries. Over time, these linkages can become sources of growth for small and medium size firms, and promote the development of formal-informal sector linkages (such as growth in informal bed and breakfast, cleaning, transport and food industries) in areas with strong tourism.

- At the macro level, the tourism industry can become an important source of foreign exchange and contribute to export diversification. Unlike other non-traditional exports whose growth depends on access to and promotion in foreign markets, strong growth in tourism can be generated by factors and policies which can be largely controlled by South Africa. These include maintaining a competitive exchange rate, controlling crime and providing policy incentives to develop tourism.

What can be said about the growth and employment potential of the tourism sector? One of the first difficulties in addressing this question lies in the lack of clarity over what constitutes the “tourism” sector, and how big it is. For example, the structural data derived from the CGE model and presented earlier portray a “tourism” sector that represents around 1.1 percent of total value added (or GDP) in 2000. But this “tourism” sector in fact represents only the hotel and restaurant sectors, which are an important component of the tourism “package,” but not the only one. The typical foreign tourist would also direct spending towards the transport sector (both air and land), personal services (for guides and non-food entertainment), financial and business services (banks, currency exchanges, credit card companies), as well as others.

These ambiguities are reflected in existing data on the tourism and its potential. With a “hotel and restaurant” share of GDP fairly stable around 1 percent, estimates of the size of the “tourism” sector vary: one international source put the share of GDP at 2 percent in 1994, while a South African tourist agency estimated 4 percent of GDP in 1995 (although there is little reason to believe the share doubled in a single year). Proposed tourism growth “targets” seem equally imprecise: the 1996 White Paper on Tourism speculated that tourism could grow to around 10 percent of GDP in the short to medium term (suggesting 8 percent by 2000 and 10 percent by 2005), although little was said about what this would mean for specific industries.

46 There is an extensive debate over the size of “net” foreign exchange earnings from tourism-based activities, and concern over the extent of “leakage” of earnings because of the required purchase of imported goods and services, profit repatriation, etc. Available empirical evidence suggests that net revenues range from 50-90 percent of total tourism expenditures (excluding airlines), a reasonable ratio when compared to other productive activities (Christie and Crompton, 2001).
The CGE model described in Box 5.1 provides a tool for examining the employment potential associated with expansion of the broader “basket” of tourism activities. We construct a “basket” of tourist activities, comprising all of the hotels and restaurants sector (1 percent of GDP), and parts of the transport (1 percent), personal services (0.5 percent), and financial and business services (0.5 percent) sectors, so that our constructed tourism basket represents a total of around 3 percent of GDP in 1997.\(^{47}\) Using the static CGE model, we conduct a simple simulation to examine the impact of tourism growth: we assume that the capital stock devoted to tourism activities doubles in size. This means that, in the absence of other constraints (of technology, demand, professional labor, etc), tourism activities could double in size, to 6 percent of GDP. Of course, these other constraints do exist, and are captured in the structure of the CGE model, so that the final result will not be an automatic doubling of tourism activities.

<table>
<thead>
<tr>
<th></th>
<th>Value added growth</th>
<th>Employment growth</th>
<th>Total new jobs (000s)</th>
<th>Skilled new jobs (000s)</th>
<th>Semi- and unskilled new jobs (000s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourism</td>
<td>78.1%</td>
<td>61.5%</td>
<td>137</td>
<td>105</td>
<td>16</td>
</tr>
<tr>
<td>Transport and storage</td>
<td>4.6%</td>
<td>-4.2%</td>
<td>-17</td>
<td>-1</td>
<td>-3</td>
</tr>
<tr>
<td>Financial &amp; business services</td>
<td>2.5%</td>
<td>2.3%</td>
<td>18</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>Social and personal services</td>
<td>2.6%</td>
<td>0.9%</td>
<td>12</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>TOTAL (all sectors)</td>
<td>1.9%</td>
<td>2.4%</td>
<td>215</td>
<td>133</td>
<td>57</td>
</tr>
</tbody>
</table>

Summary results from the simulation are reported in Table A3.1. Expansion of the infrastructure “capacity” of tourism increases GDP (by 1.9 percent overall) and employment (by 2.4 percent). But the GDP increment is \textit{smaller} than the 3 percent expansion in the capital stock, reflecting the fact that scarce factors (in this case, professional labor), technology, and market conditions limit tourism growth. Economywide, 215,000 new jobs are created; 150,000 are in the four sectors that make up the tourism “cluster,” with the remaining 65,000 attributable to “multiplier” effects in other sectors. But the number of skilled jobs created is more than twice as large as new semi- and unskilled jobs. Most new skilled jobs are created in the tourism cluster sectors, while the bulk of lower skill job creation occurs in the rest of the economy. Overall, the impact on unemployment is fairly modest: the total unemployment rate declines from 36 to 34.5 percent, while for semi- and unskilled labor, the drop is only from 50.1 to 49.4 percent.

What can we conclude from these results? Our characterization of tourism “expansion” is admittedly fairly crude: we have assumed that the capital stock expands instantaneously, but make no assumptions about other complementary measures that would be needed to allow growth. But even with these limitations, the results are somewhat cautionary regarding the potential of tourism expansion to address the job creation challenge: any sector or activity that represents only a few percent of GDP can likely make only a limited short-term contribution. The model results also suggest that simple extrapolations of job creation potential that do not allow for the constraints of technology and factor scarcity are likely to mislead.\(^{48}\)

\(^{47}\) Our tourism basket is therefore composed of all of the hotels and restaurant sector, around 14 percent of the transport sector, 3 percent of the financial and business services sector, and 16 percent of the personal services sector.

\(^{48}\) We use the direct labor coefficients presented in Table A2.3, which are averages based on current production patterns and labor intensities. If new tourism activities are more labor intensive, the “marginal” labor coefficients are higher than the average, in which case our results may understate employment creation.