THE DETERMINANTS OF LONG-TERM GROWTH IN THE SOUTHERN AFRICAN CUSTOMS UNION (SACU) COUNTRIES: AN EMPIRICAL STUDY

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NAMIBIA

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LESOTHO

SOUTH AFRICA

ATLANTIC OCEAN

INDIAN OCEAN

DECLARATION

In accordance with regulations of the University of Natal, I certify that the contents of this thesis are my own original work unless specifically indicated to the contrary in the text.

I further declare that this thesis has not been presented to any other university.

Signed: _____

Date: 4 December 2001

DEDICATION

In memory of Dr. Elia Kaakunga, Eveline Kaakunga and my grandmother Luise Kaakunga who rose me up with care and love.

ACKNOWLEDGEMENTS

Swaziland, my thank goes to my former JFE colleague Mr. Patrick Dlamini and the staff of the Central Bank of Swaziland.

Finally, I would reiterate my gratitude to my well-deserving family, who through their love and hard toil provided me with the basis for this study by enabling me to complete high school despite their destitution. I, however, accept full responsibility for all errors and omissions.

LIST OF ACRONYMS

ADB	=	African Development Bank
BCL	=	Bamangwato Concessions Limited
BMC	=	Botswana Meat Commission
BoB	=	Bank of Botswana
BoN	=	Bank of Namibia
CMA	=	Common Monetary Area
E	=	Emalangeni
EEZ	=	Exclusive Economic Zone
EIU	=	Economic Intelligence Unit
EPZ	=	Export Processing Zone
GDP	=	Gross Domestic Product
GEAR	=	Macroeconomic Strategy for Growth, Employment and Redistribution
GNP	=	Gross National Product
IMF	=	International Monetary Fund
JFE	=	Joint Facility for Electives
LHWP	=	Lesotho Highlands Water Project
M	=	Maloti
NAD	=	Namibia Dollar
NDP	=	National Development Plan
NDP1	=	First National Development Plan
NSE	=	Namibia Stock Exchange
P	=	Pula
R	=	Rand
RMA	=	Rand Monetary Area
SACU	=	Southern African Customs Union
SADC	=	Southern African Development Community
SAPs	=	Structural Adjustment Programmes
SARB	=	South African Reserve Bank

SNL	=	Swazi National Land
SSA	=	sub-Saharan Africa
TAC	=	Total Allowable Catches
TDL	=	Title Deed Land
UNTAG	=	United Nations Transition Assistance Group
WTO	=	World Trade Organisation

CHAPTER ONE

1. INTRODUCTION

1.1 Background

Economies in sub-Saharan Africa (SSA) continue to experience slow growth, deteriorating living standards and quality of life in spite of considerable investment in the 1970s. These economies at independence compared reasonably well with other developing countries, yet despite attempts at structural transformation mainly through import substitution during the same period and reforms in macroeconomic, trade and sectoral policies in the late 1980s and early 1990s, they have performed extremely poorly.

The future of African countries such as Ghana, Nigeria looked bright in the 1960s, while Botswana which is one of the fastest growing nations in SSA was one of the poorest and least developed economies in Africa in the early 1960s. Between 1960-1973, growth in Africa was more rapid than in the first half of the century. Political self-determination in Africa and economic growth seemed to be proceeding hand-in-hand (Collier and Gunning, 1999). In the 1960s the economic performance of most African economies were far better than that in south Asian economies. Until around 1970, the economic performance of Nigeria was broadly superior to that of Indonesia, but over the next quarter-century outcomes diverged markedly, despite the common experience for both countries of an oil boom in a predominantly agricultural economy.

African economies are being left behind in the process of convergence in world income. Real per capita gross domestic product growth in sub-Saharan Africa has averaged about 0.2 percent annum over the last 25 years in contrast to an average of 2.5 percent of the rest of the developing economies (Easterly and Levine, 1993). What is even more disturbing is the extent of

the deteriorating performance during the 1980s and early 1990s. The growth rate declined from an annual average of 1.91 during 1965-1980 to 1.7 in the 1980s.

Gains in health and education standards achieved in the 1970s have been threatened with reversal in the 1980s as investment and maintenance of social services were disproportionately starved of funding in order to restore fiscal balance. This deterioration is taking place in the face of the growing and very strong empirical evidence of the positive effects on growth from improvements in human capital in the form of educational attainment and health (Barro and Lee, 1993).

The explanations behind this disturbing performance have focused on three main factors inadequate human, technological and institutional capacities, high vulnerability to exogenous shocks, and policy misdirection. In the 1960s and 1970s the focus was on structural transformation and provision of basic needs characterised by enthusiastic support for import substitution and social services programmes. To achieve the goals, emphasis was placed on investments in infrastructure and skill formation, as well as imported intermediate inputs most often inadequately supplied due to the lack of local resources. Equally absent during this period was concern for maintaining a stable macroeconomic environment and incentives to ensure high productivity from investment and a healthy export performance. Agriculture, the mainstay of African economies in terms of income generation, food supply, employment and export earnings, was starved of investment and heavily taxed to support import substitution (Ndulu, 1994).

The crisis of the 1980s brought this initiative to a halt as sustainable resource gaps emerged, worsened by a deterioration in their terms of trade and a sharp rise in the real interest on external debt. The cost of stabilisation in terms of growth and its failure to close gaps on a sustainable basis were partly responsible for a broad adoption of the adjustment with growth approach which emphasised the importance of both financing and policy

reform in reviving growth and achieving macroeconomic stability on a sustainable basis. Where significant social costs to adjustment exist, both theory and experience suggest the need for adopting a longer time frame for the adjustment costs and a critical need for financing in order to partially alleviate poverty in the impetus for the development process in reviving growth on a sustainable basis.

The economic structure of these countries is characterised by a high dependence on imports for investment, production and consumption on the one hand and on the undiversified basket of primary commodity exports which are subject to a continued weakening of world markets on the other. Another characteristic of these economies is the foreign exchange gap. It is considered to be the most constraining on growth and development in SSA, and one that would require more support to alleviate poverty in the process of transforming these economies to more sustainable structures over the long term. Foreign resources inflows are needed to support not only the expansion of productive capacity but also the utilisation of installed capacity and growth in the medium term. The lack of foreign exchange constrained growth in the 1980s as African economies found it increasingly difficult to raise funds from international capital markets and as increased debt servicing of their requirements absorbed a large proportion of their foreign exchange receipts (Ndulu, 1994).

The continued deterioration and extreme volatility in the external terms of trade which led to losses in real income, exarcebated the foreign exchange gap via reduced real export earnings and caused significant managerial stresses on the development process as a result of such instability in earnings. Losses in real income arising from the deterioration in the external terms of trade averaged 3.1 percent of GDP annually in the past 25 years (Ndulu et al, 1999). In addition, the large overhang of external debt in these economies diverted a large proportion of scarce resources from supporting current development efforts into debt servicing. All these factors made achieving external viability elusive which in turn affected the creditworthiness

of these economies to commercial lenders, reduced investment confidence locally and induced capital flight since a large debt stock prompts the anticipation of a future burden on private incomes through taxation-including inflation tax in order to service debt.

The debt/GDP ratio of SSA as a whole has more than doubled from 42.1 percent in the first half of the 1980s to 98 percent during 1986-91. For low-income SSA this ratio increased by almost 170 percent over the 6 years (Ndulu, 1994). Moreover a worsening liquidity problem is also evident from the rising debt service to export ratio. This has tripled from 7.3 percent in 1976-79 to 22.7 percent in 1986-91 for SSA as a whole and almost quadrupled from 6.4 percent to 24.1 percent for low-income countries of SSA over the same period. In Southern Africa, the development crisis that began in the 1970s intensified in the 1980s and presented a difficult challenge to the political leadership, policy advisers and the development community. It required policy measures to reverse the declining trends and place those economies on a path of sustainable growth and development (Hope and Kayira, 1997). There was a need to, among other things, arrest the deepening of poverty, reduce the socio-economic inequalities, lighten the external debt burden, reverse the brain drain, create new employment opportunities, improve the efficiency of the physical infrastructure, improve the balance of payments and narrow the fiscal deficits.

The initial response to the crisis was that of closing the resource gaps at the expense of growth through a reduction of imports and aggregate expenditure. This was buttressed by high conditionality for access to resources from the International Monetary Fund (IMF) and the World Bank under stabilisation programmes (Structural Adjustment Programmes, SAPs).

1.2 Causes of the Crisis[1]

Since the early 1980s, two different views of the causes of the African crisis have emerged: the neoclassical and the structuralist.

1.2.1 Neoclassical View

Mkandawire (1988) noted that neoclassical interpretation is based on the theoretical and empirical corpus of work that essentially derived from a set of theories on the efficacy of the market system in resource allocation. The proponents of the inappropriate domestic policies behind the economic and agrarian crisis in Africa make use of solid neoclassical economic foundations with factor substitution possibilities and the power of the markets and price signals to efficiently allocate scare resources. They also believe in international trade based on comparative advantage and outward-oriented trade strategies. The vagaries of weather come and go and commodity price behaviour is more or less predictable.

According to the neoclassical view, African governments have pursued inappropriate policies, which have seriously undermined overall economic performance in general, and in the agricultural sector in particular. The latter has been directly biased against in the following ways:

- Agricultural export commodities have been taxed at high rates and farmers have received lower prices for their products from inefficiently run state marketing boards;

- The use of widespread import duties and quotas to conserve foreign exchange have forced farmers to pay higher prices for imported inputs or to purchase higher-cost domestic substitutes for agricultural inputs;

- The protection of domestic industrial sector and import-substitution industries through import tariffs, quotas and licenses had led to relatively high prices for the products of these sectors and hence to a deterioration

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[1] This section benefited from a survey by Elbadawi, Ghura and Uwajaren, 1992.

of the internal terms of trade for agriculture;

- Since independence, governments have given agriculture low priority in their development strategy by allocating inadequate investment funds for agricultural research, construction of roads, marketing infrastructure and the provision of schools and health facilities in rural areas;

- In many countries a direct policy of cheap food for the urban population has encouraged a preference for imported food and discouraged domestic food production.

In addition to these direct effects, agriculture has been adversely affected by overvalued real exchange rates.

1.2.2 Structural View

The structuralists have identified a set of poor initial conditions and a set of structural bottlenecks to explain the economic malaise facing almost all African states. These poor initial conditions which are said to have provided SSA with an unfair departure at independence relative to other developing regions are the following:

- At independence, there was an extreme scarcity of adequately trained local managers, scientists and other manpower who understood the resource base available for development and how to best use and manage that limited resource base for maximising welfare,

- Many independent states were politically fragile due to the diversity of cultural background of the people. In many instances, the existing governments spent much of their scarce resources fighting for their political survival instead of focusing on development strategies to enhance welfare,

- At independence, both the infrastructure and the institutions were very

weak to support development,

- The colonial heritage left African states a legacy of heavy external dependence on one or two export crops for their economic survival.

In addition to these poor initial conditions, a list of structural bottlenecks has been identified as:

- Widespread subsistence farming and the predominance of subsistence activities,

- Shortage of trained personnel and scarcity of entrepreneurial capabilities to spearhead and manage development,

- Weak institutions,

- Inappropriate technology and traditional production techniques marked by low levels of productivity,

- Small and fragmented economies,

- Weaknesses in the political structures of African countries in which the interests of the dominant class are served at the expense of the peasant masses,

- Excessive dependence on the foreign sector rendering the African economies extremely susceptible to external shocks,

- Poor weather and prolonged periods of drought,

- Poor soil quality and a degraded environment

- Poor physical infrastructure and transportation networks constraining the integration of various regions.

1.3 Research Problem

During the 1980s there has been a considerable interest in the long-term growth theory in sub-Saharan Africa. This interest was stimulated partly by the poor economic performance of developing countries in sub-Saharan Africa. Furthermore, in southern Africa many countries have experienced political instability that resulted in economic instability. The purpose of this study was to examine the growth experience of a sub-set of these countries comprising the Southern African Customs Union (SACU), namely South Africa, Namibia, Lesotho[2], Botswana and Swaziland.

The Namibian economy is characterised by erratic up and down swings, which primarily results from Namibia's vulnerability to external shocks and adverse climatic conditions. Factors such as the severe drought Namibia experienced between 1992-1995, the world market recession for mineral products including the quota for diamonds imposed by the central selling and other external factors have been serious drawbacks to the Namibian economy. However, despite these problems, the country has not been subjected to Structural Adjustment Programmes like many other countries in sub-Saharan Africa. At independence in Namibia income distribution was highly skewed with limited access for the majority of Namibians to the mainstream of economic activities; high variation in social indicators with lack of access to health, education, housing and sanitary facilities for the majority of Namibians; a trade balance titled in favour of South Africa; concentration of export markets and a non-diversified economy. As a result of these factors, the government launched the First National Development Plan (NDP1) covering the period 1995-2000. The focus of the development plan was on economic growth, job creation, reducing income equalities and poverty alleviation.

In the Kingdom of Swaziland, economic growth was sluggish during the late 1970s. During the late 1980s, the economy of Swaziland performed well, benefiting from a substantial increase in foreign direct investment inflows as

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[2] Lesotho is the only country in the Southern African Customs Union that has entered into the

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sanctions against South Africa tightened. However, during the early 1990s macroeconomic performance deteriorated and real GDP growth remained substantially below the level consistent with non-increasing unemployment. The low level of growth in Swaziland 's economy has been dominated by a lack of manufacturing expansion, reflecting slow growth of inflows of foreign direct investment particularly from South Africa. The fiscal deficit worsened during 1992/93-1994/95, after experiencing a positive fiscal balance during 1987/88-90/91 caused by a strong economic growth fuelled by increased foreign direct investment (IMF, 1997). Thus, the fiscal balance shifted from a surplus of 5 percent of GDP in 1991/92 to a deficit of 6 percent of GDP in 1994/95. In addition to the slowdown in economic growth, the deterioration of the fiscal situation was due to an increase in government expenditure, particularly current outlays.

The limited natural resource base, the unique geographical location of Lesotho, the difficult mountain terrain and the economic and political uncertainties in the sub-region during the late 1980s and early 1990s presented major constraints on the development of Lesotho. Lesotho faces severe drought conditions, continued retrenchment of Basotho miners and uncertainties brought about by political and economic changes in South Africa. There has also been a growing imbalance between the domestic labour supply and the labour-absorptive capacity of the economy, resulting in greater dependence on remittances from workers in South Africa and rising unemployment at home (IMF, 1992). In the mid-1980s economic performance was characterised by low and uneven economic growth, widening budget deficits, and a substantial deterioration in the balance of payments. It was against this background that the authorities embarked on a medium-term economic and structural adjustment programme beginning in 1988/89. It was aimed at increasing efficiency in the public sector, reforming the tax system and streamlining investment incentives.

IMF's Structural Adjustment Programmes (SAPs).

In Botswana, the period under discussion was different from other countries in the sub-region. When Botswana gained Independence on September 30, 1966, it was one of the poorest and least developed countries on earth. Per capita Gross National Product (GNP) was estimated at no more than US$69. British budgetary grants in aid and other grants to the tune of 57 percent financed the recurrent budget of the government. In terms of GDP growth, Botswana's performance has been better than most African countries. The World Bank Atlas shows Botswana's per capita GNP as having grown by an average of 13.2 percent per annum in real terms between 1970 and 1978 against South Africa's 0.7 percent, Zimbabwe's 1 percent, Zambia's 0.9 percent, Nigeria's 4.4 percent, Tanzania's 1.7 percent and Zaire's 2.2 percent (Mogae, 1985).

According to the National Development Plan (NDP) 1979-1985, GDP at market prices went from P43.8 million in 1967-1968 to P333.2 million in 1977-1978 at the 1979 prices, thus increasing more than seven fold in ten years. The CSO estimate shows GDP for 1979-1980 at current prices of P670.9 million as compared to P505.7 million for 1978-79. This is a nominal increase between these two years of 32.7 percent or 10.1 percent in real terms. Behind this impressive record of GDP performance there are structural weaknesses. The share of agriculture went down from 41.8 percent in 1967-1968 to 20 percent by 1977-1978 while that of mining rose from 1.6 percent in 1967-1968 to 14.9 percent ten years later. The other significant change in share of GDP occurred in the trade, hotels and restaurants that went up from 11.4 percent in 1967-1968 to 21.4 percent in 1977-1978 (Ministry of Finance and Development Planning, 1988) as Botswana developed tourism. These structural changes reflect the rapid growth of the mining sector and to a less extent the fall in agricultural output. This impressive economic performance was due to a combination of sound economic management, unusually effective negotiating skills and leadership, a deeply entrenched commitment to consensual governance and a fair amount of luck (Harvey and Lewis, 1990).

The South African economy had a mixture of growth rates. During the year ended June 1970, the South African economy achieved very high rates of growth as reflected in an increase of well over 12 percent in the gross domestic product, despite a shortage of labour and certain types of capital. The upswing in economic activity stemmed from a further substantial rise in total domestic demand, which exceeded the domestic supply of goods and services and exerted considerable pressure on resources, particularly on the supply of skilled and semi-skilled labour. The very high rate of growth in economic activity stemmed from substantial increases in all the major components of gross domestic expenditure, namely private and government expenditure, capital outlays by private and public sectors, and inventory investment (SARB, 1970). In 1975, it was generally agreed that the upper turning point of the business cycle in South Africa was reached in the beginning of the third quarter of 1974. The rate of increase in real domestic expenditure declined substantially from 11.5 percent in 1973/74 to only 6 percent in 1974/95, but was nevertheless still substantially higher than the growth rate in real gross domestic product. The lowest growth of real GDP amounted to a negative 1 percent in the recession year 1985. This low growth rate of real GDP was attributed to a low rate of increase in real private consumption expenditure, a small increase in real gross domestic fixed investment, a decline in gross domestic saving and sanctions imposed on South Africa as a result of the Apartheid policy (SARB, 1988).

Currently South Africa's international competitiveness puts it amongst the top 25 percent of countries. After about R50 billion of foreign capital left the country between 1985 and 1993, the pattern was reversed with the constitutional change and in the wake of the gradual abolition of exchange control. From 1994 to 1996 foreign capital to the tune of R27.4 billion flowed into the country. After 19 years of double-digit inflation, annual price increases have been below 10 percent since 1993 (Calitz, 1997). For the first time large numbers of South Africans are gaining access to education, primary health care and running water. Against this background of conflicting evidence the South African government released its macroeconomic strategy for growth, employment and redistribution (GEAR) in 1996. Key goals are an

economic growth rate of 6 percent per annum and the creation of 409000 jobs by the year 2000. The renewed interest in the theory of the determinants of long-term growth can be explained largely by the critical need to restart or assure growth in some of the economies experiencing such poor mixed economic performance.

1.4. Objectives of the Study

The specific objectives of this study are:

- To investigate empirically the determinants of long-term growth in the SACU countries

- To estimate the empirical relationship between export growth rates, population growth rates and long-term growth.

In an attempt to provide a framework for understanding the determinants of long-term growth, a set of hypotheses have been tested.

These hypotheses are:

1. Government consumption, political instability and population growth rates contribute negatively to long-term growth;

2. Improving terms of trade and human capital formation, a high savings ratio and financial development promote economic growth.

1.5 Bottle-necks in the Data Used

Professor Reginald H. Green who has been trying to collect and systematise data on Namibia over number of years made the following observation:

"Basic data are hard to come by-building up a set is something of a cross between fitting a jigsaw puzzle and playing a detective game –

except that the pieces do not all come from the same puzzle and some of the clues are disinformation, or some other cases."[3]

The limitations have been recognized when compiling the data for the current study. The organization of the data has been influenced by its availability, but presented with a concern to confer the greatest possible observational credence on our analysis. Sometimes important data is limited or lacking, inadequate data on employment, labour force, SACU's trading partners, black market premium, private sector and skills are not always available. Between 1960 and 1970 economic data in some of the countries were not officially published. Some crucial information may be available for one or two periods but not for the length of the period we would have wished to compare namely 1960-1998. This made the presentation and analysis in some cases to be on ad hoc basis.

1.6   The Significance of the Study

The study is important in that policymakers may use this information in formulating efficient resource allocation. As the sources of growth will be determined, the study may yield results that will assist in deciding on how resource allocation should be achieved between various sectors to stimulate growth. An empirical study of this nature is essential in ascertaining the main factors that have contributed to the SACU countries' economic performances. The results may also assist policy makers in setting up growth-oriented macroeconomic policies.

A few words are appropriate about why this study focuses on the SACU countries. The economic structures of these countries are similar, in respect that they are characterised by high dependence on imports for investment, production and consumption. These countries have a common external tariff against the rest of the world. Except for Botswana, the currencies are pegged to the South African at par because the countries are in a monetary agreement (Common Monetary Area, CMA). The fact that economic

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[3] Quoted from Kaakunga E.M., 1990.9.

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development is situated in relational processes raises the question: why do some experience this phenomenon at different times and at different speed than others, and why are the gains of growth unevenly distributed in some societies, both within themselves and in relation to others? Thus, a comparative analysis of growth determinants in the SACU countries is essential for policy makers.

1.7   Outline of the Study

The study embraces chapters structured in the following way: Chapter one contains the introduction, objectives and research problem of the study, followed by chapter two which looks at the Institutional Arrangements in Southern Africa. Chapter three discusses macroeconomic performance in Namibia. The growth, constraints and prospects in the leading sectors as well as the minor sectors are also discussed. Chapter four traces the pre-colonial modes of production and formation of economic policies in Lesotho. Chapter five highlights the performance of the economy in Swaziland. Chapter six looks at the overview of the performance of the South African economy. We trace some recent developments in macroeconomic policies. Chapter seven concentrates on economic performance in Botswana. The constraints to industrial development are also discussed in this chapter. Chapter eight surveys the theoretical and empirical literature review on growth determinants. Chapter nine considers the methodology and presents the estimation and analysis of the results. Chapter ten gives conclusions and policy recommendations.

CHAPTER TWO

2 INSTITUTIONAL ARRANGEMENTS IN SOUTHERN AFRICA

2.1 Introduction

Chapter Two concentrates on the institutional arrangements in Southern Africa. Firstly, it sheds light on the SACU agreement, and highlights the costs and benefits of the CMA agreement for Lesotho, Namibia and Swaziland (LNS) countries. The chapter concludes with the SADC Treaty and discusses whether convergence has occurred among the members of SADC.

2.2 The 1969 SACU Agreement and its Objectives[4]

The origin of the current Southern African Customs Union (SACU) dates back to 1889, when a custom union was established. In 1910, The Cape Colony, Natal, Orange Free State and Transvaal joined to form the Union of South Africa. A new Customs Union agreement was concluded between South Africa and the three High Commission Territories of Basutoland, Bechnualand and Swaziland. In 1915, after South Africa's seizure of Namibia from German sovereignty the customs union was extended de facto to Namibia. After Botswana, Lesotho and Swaziland (BLS) received their independence in the 1960s negotiations began to conclude a new customs union Agreement in response to the changed economic circumstances. The outcome was the 1969 SACU agreement and the Secret Memorandum of Understanding (SMU) which is still in place.

The objectives of the SACU are summarised from the preamble to the Agreement as: creation of a common customs area (CCA) with the application of a Common External Tariff (CET) and equivalent trade regulations for all commodities imported into the CCA;

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[4] SACU Agreement and Maxwell Stamp (1994), unless stated otherwise.

1. free interchange of goods and services between the member countries in the CCA,

2. economic development of the CCA and in particular of the less advanced members and the diversification of their economies,

3. sharing equitable benefits among all members of the Customs Union.

The main provision of the 1969 SACU Agreement relates to intra-SACU trade unrestricted either by tariffs or quantitative restrictions (Article 2 and 3):

1. the setting of a Common External Tariff (CET) (Article 4)
2. the establishment of a Common Revenue Pool (CRP) (Article 13)
3. the arrangements for the allocation of the revenue (Article 14)
4. non-discriminatory pricing of transport rates within the CCA (Article 15)
5. restrictions on trade agreements with non-SACU members (Article 19)
6. specific arrangements for the BLS countries (Articles 6 and 7)
7. specific arrangements for the marketing of agricultural products (Article 12)

2.2.1   The Provision on External-SACU Trade

The members of SACU constitute a common customs area or customs union. Under Articles 4 (i) and 10 the agreement stipulates clearly that the customs tariffs and excise duties respectively prevailing in South Africa shall apply to all members of the SACU. This makes it clear that South Africa is responsible for setting the CET. Further, all the customs, excise and other SACU duties collected in the CCA are paid into the Consolidated Revenue Fund of South Africa. Article 10 and the Secret Memorandum of Understanding (SMU) states that the BLNS countries are bound to apply the South Africa customs and excise legislation.

Trade agreements with non-member states can be entered into if the provisions of such an arrangement do not conflict in any way with the SACU provisions. Article 19 (i) prohibits any individual SACU member entering into a trade agreement with a non-SACU member in terms of which concessions

on the duties in CCA are granted to that country. To the extent that any country enters into an agreement it will be responsible for remitting the forgone revenue to the Common Revenue Pool (CRP).

2.2.2   Provisions on Intra-SACU Trade

The SACU guarantees the free interchange of goods through Articles 2 and 3. To make this effective it is also necessary to guarantee freedom of access and non-discriminatory transport pricing (Articles 15 and 16). A country cannot operate a differential transport tariff for goods within its own area from those carried to or from other parts of the CCA.

Notwithstanding the principle of the free interchange of goods there are a number of exceptions of which the most significant is agricultural commodities (Article 12). Each country is entitled to regulate the marketing of agricultural commodities although they have to apply such regulations on an equitable basis to products from the SACU members. Article 16 is concerned with the freedom of transit and stresses that a member country may take any measures necessary to protect its security interests. The agreement contains provision for a member to take protective action under Article 17 if:

> "As a result of unforeseen developments any product is being introduced into the area of one of the contracting parties from the area of another contracting party in such increased quantities and under such conditions as to cause or threaten serious injury to producers or manufacturers of like or directly competing products in the area into which such goods are introduced."[5]

In the event that a member believes the above is occurring it has have the right to request bilateral consultations with the objective of finding a mutually acceptable solution. The agreement does not allow the affected party (country) to temporarily close its borders. Indeed this is excluded under Article 11 (iii) which explicitly prohibits the banning or restriction of imports

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[5] Quoted from Maxwell Stamp (1994).

from the CCA for the purpose of protecting its own industries producing such goods. The free interchange of goods is also dependent on adequate monetary arrangements for payment. The agreement specifies the South Africa Rand as the unit of account for all SACU trade.

2.2.3 Measures aimed at Development of the BLNS[6]

The agreement recognises the unequal levels of development within the SACU and aims to encourage the development of its less advantaged members. With this objective in mind the Agreement has a number of special provisions for the BLNS targeted at assisting industrial development. These include Articles 6 and 7, which relate to infant industry protection and to the BLNS countries' protection of industries that are of major importance to each respectively. Article 6 is only applicable to the BLNS and permits them to impose a tariff on imports into their areas, subject to the agreement of the other contracting parties, for new industries for up to a maximum of eight years. A new industry is defined as one which has not been established in the country for more than eight years.

Although, Namibia has not used Article 6, it has been utilised infrequently by Botswana, Lesotho and Swaziland (BLS) (specifically Botswana). This is to be expected given the small and fragmented nature of the Namibian and the BLS markets. For such additional protection to be justified, it should lead to a firm lowering its costs through achieving an increased market share. The evidence from developing countries does not support this view, with many infant industries continuing to require protection indefinitely because of an inability to compete (Stamp, 1994). In the case of the BLNS with their small and fragmented markets, the protected firm would account for a high percentage of domestic sales, which would imply mass consumption. Given the low income levels of a high proportion of the population it follows that the poor would have to pay higher prices. Thus on both efficiency and equity

grounds extensive use of Article 6 would appear to be in the interests of the BLNS. Article 7 provides for the BLNS to specify industries which are or are likely to be of major importance to its economy. The particular criteria for industries to qualify under Article 7 are listed in the SMU.

2.2.4 The 1969 Revenue-Sharing Formula

The 1969 revenue-sharing formula is described in Article 14 of the agreement. It is frequently described in the literature on the SACU and the following outline is based on Hudson (1981) and Maasdorp (1990). These Articles explain that all customs and excise duties are paid on a quarterly basis into the Consolidated Revenue Fund of South Africa and are referred to as the Common Revenue Pool (CRP).

The SMU clarifies how the revenue sharing formula makes specific allowance for:

(a) the price-raising effect of South Africa's import control measures

(b) the price-raising effect of South Africa's policy of protection to industries by means of the customs tariff

(c) the polarisation of development characteristic of a situation where less developed areas are linked to relatively much more developed areas in a customs union and

(d) the loss to the other three states of fiscal discretion.

The revenue-sharing formula for the Customs Union is given below

$$R = (A+B+C/D+E+F+G)*(H)*(1.42)$$

Where:

- R is the revenue received by Botswana, Lesotho, Namibia or Swaziland

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[6] Botswana, Lesotho, Namibia and Swaziland.

- A is the total cif value at the border of all imports into Botswana, Lesotho, Namibia or Swaziland inclusive of all customs and excise duties

- B is the value of excible goods produced and consumed in Botswana, Lesotho, Namibia, or Swaziland

- C is the total value of excise duties paid in Botswana, Lesotho Namibia, or Swaziland

- D is the total cif value of imports into the CCA inclusive of all customs and excise duties

- E is the total value of all CCA excisable production and consumption

- F is the value of excisable goods produced and consumed in the CCA

- G is the total value of excise duties paid in the CCA

- H is the Common Revenue Pool consisting of the sum of all customs and excise duties levied within the CCA.

- 1.42 is the enhancement factor

2.2.5 The Administration of the SACU

Article 20 of the agreement established a Customs Union Commission (CUC) in which all members participate. The CUC must meet at least once a year and has the mandate to discuss any part of the SACU Agreement. The CUC seeks to find mutually agreeable solutions. Each member country has the option of accepting or rejecting the proposed solutions. The CUC does not have a permanent secretariat, although it has appointed three committees to facilitate its work. The Customs Technical Liaison Committee formed in 1970, the Trade and Industry Liaison Committee formed in 1973 and the Transport Liaison Committee formed in 1974.

2.3   Common Monetary Area

The Common Monetary Area (CMA)[7] consists of South Africa, Namibia, Lesotho and Swaziland. Botswana was a member until 1976. The CMA is a hybrid of currency board and monetary union. It is a currency board because domestic currency issuance is backed by foreign assets (Tjirongo, 1995). The system does not allow the monetisation of fiscal deficits. However, unlike an orthodox currency board, the monetary systems in Lesotho, Namibia and Swaziland (LNS) are administered by the central banks. The central banks have the mandate to perform the normal functions ordinarily performed by such institutions, including the possibility of extending loans to their respective governments.

In the CMA, the South African Rand is the dominant currency. Appendix 2 (pp.342-345) gives the key aspects of the agreement. The CMA Agreement can be divided into three subdivisions: (i) definitional, (ii) operational, and (iii) economic. The definitional category provides the legal interpretations of the agreement. The second set of articles outline operational procedures such as the collection and exchange of monetary statistics (Articles 10 and 11). The economic provisions of the agreement deal with issues such as legal tender, intra-CMA transfers of funds, access to capital markets, foreign exchange transactions and compensatory payments for seigniorage foregone by the LNS countries for using Rand.

2.3.1   Analysis of Costs and Benefits of CMA Membership[8]

There are different forms and levels of monetary integration (see Tavlas, 1993, Corden 1972). Cobham and Robson (1994) assert that while the costs for any form of monetary integration are the same (i.e. the loss of nominal exchange rate), the benefits are, however, substantially higher with higher

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[7] Like SACU, the Common Monetary Area (CMA), formerly the Rand Monetary Area, evolved from informal monetary integration of the BLS countries with South Africa. The four countries were at one stage ruled by Britain, using the pound sterling as their common currency, later replaced by the Rand.

[8] Tjirongo, (1995), unless stated otherwise.

forms of monetary integration. The earlier literature on optimum currency areas pointed to certain characteristics with respect to factor mobility, size, openness and degree of diversification to determine whether or not monetary integration is beneficial or not (Mundell, 1961, MacKinnon 1963 and Kenen 1969)[9].

2.3.2   Benefits

Benefits in participating in a currency union relevant to the CMA include efficiency gains from elimination of transactions costs, welfare gains from price stability, and less uncertainty in exchange rate movements between the national currencies and that of their major trading partner, South Africa.

2.3.2(a)   Efficiency Gains from Elimination of Transaction Costs

Transactions costs involved in converting one currency into another, gathering and processing information regarding future exchange rate developments, represent a dead weight loss. Using a common currency as a medium of exchange reduces transaction costs. In the word of Tjirongo 1995, De Grauwe (1994) maintains that there are welfare gains to the society as a whole. The welfare gains to the LNS countries as a whole from the elimination of transaction costs are probably substantial because more than 80 percent of LNS imports come from South Africa.

2.3.2(b)   Resource Savings on Foreign Exchange Reserves

A large part of the LNS goods are exported to industrial countries, while nearly all their imports come from South Africa. The advantage of the CMA in this regard is that the payments imbalances within the CMA are settled in the same currency.

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[9] Further discussion on the characteristics with respect to factor mobility, size, openness of the economy and the degree of diversification of the economy is beyond this chapter

2.3.2(c) Certainty of Exchange Rate and Price Stability

A further benefit of the CMA is the elimination of uncertainty facing producers and consumers. Intra-CMA trade patterns reveal that LNS countries are net importers of goods and services from South Africa. With separate currencies, uncertainties faced both by South African producers as well as LNS producers and consumers will increase. In the CMA this uncertainty is avoided since payments imbalances are settled in the same currency.

2.3.3 Costs

Participation in a currency union involves some costs associated with loss of autonomy over monetary and exchange rate policy. The costs may be higher, especially in high inflation-prone countries where seigniorage constitutes a significant source of government revenue (see Dornbusch, 1992). Besides economic factors, political factors may influence a decision either to participate in a currency union or to maintain an independent currency.

2.3.3(a) Potential Loss of Seigniorage

Based on the experiences of developing countries, Cukierman, Edwards and Tabellini (1992) show that country reliance on seignorage significantly increases with the share of agricultural output in an economy, with the degree of urbanisation, and with observed political polarisation and instability. Reliance on seigniorage declines with extent of industrialisation and dependence of an economy on foreign trade. For LNS countries there is a heavy reliance on external tariffs or SACU transfers. Therefore, this may reduce the propensity to resort to money printing to extract inflation tax.

2.3.3(b) Asymmetric Disturbances and Real Exchange Rates

Even if a strong case for a monetary union can be made, relinquishing the exchange rate instrument may involve a cost when the country is faced with

external disturbances (Tjirongo, 1995). One central aspect is whether shocks are symmetric or asymmetric. Different industrial structures may imply that real shocks facing the CMA countries can have asymmetric effects. The second aspect concerns whether shocks are temporary or permanent.

2.3.3(c) Differences in Regional Growth

It is argued that because of relative ease of capital compared with labour migration, monetary integration is likely to result in an acceleration in economic distress and stagnation of certain regions or countries. Economic development of poorer countries and regions is a desirable feature of any monetary system, and it is thus important to question whether a currency union assists in the convergence of per capita income among the constituent parts (Masson and Taylor, 1993).

2.3.3(d) Spill-over Effects of Fiscal and Monetary Policies in South Africa

The hegemonic monetary arrangement whereby money supply and interest rates in the currency union are determined by actions of the Reserve Bank of South Africa, acting in the interest of South Africa alone, has a potential to raise conflict. When South Africa engages in expansionary monetary policy, the ensuing inflationary pressures are transmitted to LNS countries. In this respect, LNS countries lose not only their ability to conduct an independent monetary policy, but experience money supply effects that exacerbate the business cycle.

2.4 Southern African Development Community

Originally known as the Southern African Development Coordination Conference (SADCC) the organisation was formed by the nine founding members States in Lusaka, Zambia on April 1980, following the adoption of the Lusaka Declaration – Southern Africa: Towards Economic Liberation. In

July 1992, in Windhoek a declaration and treaty establishing the Southern African Development Community was signed which has replaced the Coordination Conference.

2.4.1 The Objectives of the Community

As stated in the treaty the objectives of SADC are:
- Achieve development and economic growth, alleviate poverty, enhance the standard and quality of life of the peoples of Southern Africa, and support the socially disadvantaged through regional integration,
- Evolve common political values, systems and institutions,
- Promote and defend peace and security,
- Promote self-sustaining development on the basis of collective self-reliance, and the interdependence of member States,
- Achieve complementarity between national and regional strategies and programmes,
- Promote and maximise productive employment and utilisation of resources of the region,
- Achieve sustainable utilisation of natural resources and effective protection of the environment and
- Strengthen and consolidate the long-standing historical, social and cultural affinities and links among the peoples of the region.

2.4.2 SADC Programme of Action

The programme is made of all the programmes and projects approved by the Council of Ministers. The Programme of Action covers the following sectors:
Transport and Communications
Food, Agriculture and Natural Resources
Industry and Trade
Tourism
Mining
Energy

Human Resources Development

Culture and Information

Politics, Diplomacy, Peace, Defence and Security, Conflict Prevention, Management and Resolution.

2.5   Convergence in Macroeconomic Stability Indicators

According to Jenkins and Thomas (1996) convergence criteria were envisaged by those who drew up the Maastricht Treaty as a precondition for monetary union in Europe. This treaty set outs out the following requirements for eligibility: (i) inflation rates must converge close to the average rates achieved by the three countries with lowest inflation, (ii) long-term nominal interest rates on government debt must converge to a level close to the average of those achieved by three countries with lowest inflation, (iii) exchange rates must be stable for two years prior to European Monetary Union (EMU) without any measures to stop the free flow of foreign exchange, (iv) the deficit-to-GDP ratio must not exceed 3 percent and (v) the public debt-to-GDP ratio must not exceed 60 percent.

2.6   Convergence in SADC

There is no *a priori* expectation of convergence among SADC countries (Jenkins and Thomas, 1996). The main reason is that their economies generally, and labour markets are specifically rigid. These countries are primary commodity exporters, although some export minerals, others rely on tree crops, and others depend on other agricultural output to generate foreign exchange. In other words these countries will respond asymmetrically to external price shocks. Dividing the SADC into SACU and Non-SACU members, the following points have been noted:

- Both fiscal and monetary policy stances appear to be more cautious on average among SACU members than non-SACU members, despite the

fact that all non-SACU members except Angola have engaged in structural adjustment under IMF/World Bank sponsorship;

- There is a greater degree of fiscal convergence among SACU countries, with the range of deficit-to-GDP ratios being much closer to the average in 1993;

- There is a greater degree of interest-rate convergence among SACU countries, with all five averaging positive real interest rates during the early 1990s. This is inevitably the result of all but Botswana being members of a currency union, and Botswana's having a deliberate policy of the Pula's edging up marginally against the Rand;

- The degree of openness to international trade is on average much higher among the SACU countries and

- In almost all non- SACU members the government owns or part-owns at least one of the commercial banks. Some but by no means all state-owned commercial banks have severe bad-debt problems and in some countries, but by no means all, banks experience interventions for non-commercial purposes.

However, our empirical results have shown similar results for SACU countries. Before controlling for the variables that explain the main growth determinants, the empirical results indicate no tendency to unconditional convergence in the SACU countries. As indicated in Chapter 9, after controlling for variables that explain cross-country differences in the rate of technological progress, rates of output growth should converge. The empirical results show that growth rates of real GDP tend towards convergence after controlling for variables that explain growth determinants[10].

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[10] For further explanation see chapter 9.

CHAPTER THREE

3 MACROECONOMIC PERFORMANCE IN NAMIBIA

3.1 Introduction

This chapter aims at discussing both the major and minor sectors in the Namibian economy. It also sheds light on macroeconomic policies in Namibia. Economists have long been interested in the factors which cause different countries to grow at different rates and achieve different levels of wealth. World Bank World Development Report (1991) highlights the scale of global poverty and the importance of economic growth in alleviating poverty in developing countries. High growth rates were experienced in East Asian countries, while sub-Saharan Africa has achieved low or no growth. In Namibia, the last two decades have been identified as decades of no hope to the Namibians as the economy was not only sluggish and at certain points in time experienced negative economic growth. Determining the reasons for this poor performance remains essentially a theoretical and empirical task.

Namibia is a country of sharp contrasts. From many points of view it is a prosperous middle-income country, its per capita income is nearly US$1200, its physical infrastructure is comparable to that of a Western European country, its telecommunications system is one of the most efficient and its public administration is highly developed (World Bank, 1991). From the other point of view, Namibia is a poor country. The majority of the population has a per capita income of about US$85 per year and live under primitive conditions without adequate housing, potable water, sewerage, health services, or education. At independence the Namibian Government has inherited an oversized public administration, as well as a budget that was too short on investment, excessively focused on a minority of the population and of questionable efficiency. The government has been facing four important economic challenges since independence: (a) reactivating growth, (b)

redirecting and restraining the growth of public expenditures (c) reducing poverty and (d) generating employment.

3.2   Economic Growth, Constraints and Prospects

Namibia's economy is characterised by its complex nature in that its economic activity ranges from traditional hunter-gatherer subsistence to the high technology of a modern industrialised sector. The economy's productive capacity is based mainly on the mining sector, agriculture and fishing. Generally, Namibia's economy has always been very open, the emphasis being on primary production for export, while the bulk of processed goods required for domestic market are imported from South Africa. Post-World I economic growth in Namibia was sluggish, with a downward fluctuating tendency prior to 1936, when the Great Depression shut the mines and severe drought cast farming into a throttle hold (Kaakunga, 1990). Over the period 1936-1962, the economy expanded at a real rate of growth of 8.1 per annum while the per capita annual GDP growth rate stood at 5.4 percent.

Figure 3.1: Namibia's GDP and GDP per Capita at 1990 Constant Prices
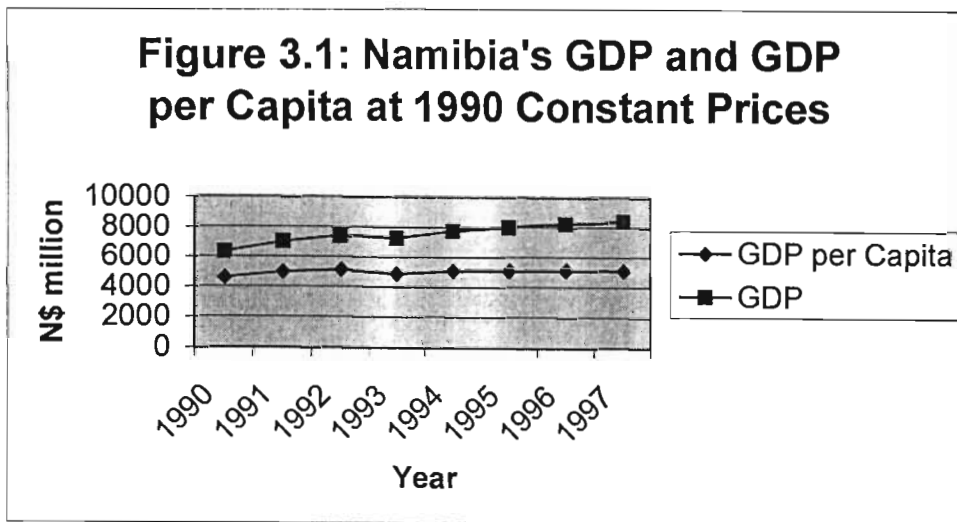
Source: NEPRU, (1998).

Since the 1970s the real GDP has barely grown after growing 9 percent annually during the 1960s. GDP at factor cost declined steadily from 1980-1985 and reaching a 20-year low in 1985. Since then, the economy has grown slowly and, although real GDP at factor cost in 1989 was 1 percent

higher than at the beginning of the decade per capita GDP fell about 21 percent during the 1980s (World Bank, 1991). Although the slow growth of GDP cannot be attributed to a single cause, mining (Namibia's most important sector and its perennial engine of growth) performed abysmally during the 1980s. Save for 1986 and 1988, mining output fell every year of the decade. By 1989 its output was some 4 percent lower than in 1980 (Ministry of Finance, 1994).

Agriculture, another important sector, suffered a severe drought that lasted from 1982 to 1984. In these three years, agricultural output fell 43 percent and, despite a 28 percent increase in 1987, agricultural output in 1989 was some 6 percent lower in 1980. The economy began to grow in 1986 owing to the mining' sector's strong performance in that year. The growth of 1987 was in large measure due to the growth of 28 percent in agricultural production. In 1989, the presence of the United Nations Transition Assistance Group (UNTAG) forces gave a strong push to demand and, save for mining, every sector expanded, with manufacturing leading the way. Nevertheless, because of the decline in the mining sector, overall GDP growth was only 0.2 percent.

It can be seen from figure 3.1 and Table 3.1 Namibia's GDP growth has been erratic since 1990, averaging 2.7 percent between 1990 and 1993. This reflects the vulnerability of the economy to external shocks because of its high degree of openness and its dependence on primary products. The opening of two mines in 1991 improved the mining sector's performance. With Independence and the concurrent extension and recognition of an exclusive 200 (nautical) mile fishing zone, real value-added in fishing increased by 23.4 percent 1992.

Table 3.1: Selected Macroeconomic Indicators Pre and Post Independence

Year	GDP Growth	Total Public Debt	Interest Rates	Inflation Rate	Budget/surplus as % of GDP	Terms of Trade
1987	3.5	794.9	9.50	12.6	-5.3	96.0
1988	0.9	800.4	12.25	12.9	-6.8	110.8
1989	1.8	893.6	17.00	15.1	0.8	111.7
1990	2.0	714.1	18.00	12.0	-3.8	100.0
1991	8.2	859.5	17.00	11.9	-1.4	81.7
1992	7.1	928.8	15.00	17.7	-8.6	80.7
1993	-1.7	1326.1	13.00	8.5	-5.8	77.3
1994	6.6	2026.5	13.00	10.8	-4.9	86.4
1995	3.3	2556	15.00	10.0	-4.4	86.8
1996	2.5	3243.2	17.00	8.0	-6.3	89.1
1997	1.4	2868.7	16.00	8.8	-4.3	79.7

Sources: NEPRU, (1998) and BoN various issues.

The growth of general government services surged with the change in administration. While fishing and fish processing continued to perform well in 1993 (growing by 37.3 percent and 20 percent respectively), a precipitous decline in mining slowed the economy (a decline of -2.2 percent). This was the direct result of a slump in diamond markets, a continued fall in uranium prices, and the weak world economy. Mining's poor performance offset the increase in real value added of fishing and agriculture. Given a population growth rate of about 3 percent, per capita GDP was stagnant between 1990-93. During 1994 and 1995, GDP expanded strongly by 6.6 percent and 3.3 respectively, due to a recovery in the international market which boosted mining output, particularly of diamonds and uranium. The agricultural sector also performed remarkably well in 1994, but output declined significantly in 1995. In 1996 and 1997, the economy was sluggish, with low growth rates of 2.5 percent and 1.4 percent respectively. This poor economic performance was attributed to a substantially lower increase in diamond production and high negative growth rates in other areas such as fishing processing, and electricity and water (BoN, 1998). The increase in interest rates towards the end of 1996 adversely affected construction activities, as well as on the retail trade sector with the higher interest rates dampening growth in consumption.

3.2.1 Revenues

In the early to mid-80s, revenues averaged about 26-28 percent of GDP. Payments from the RSA in lieu of customs and excise duties (i.e. SACU receipts) accounted for the bulk of the Central Authority's revenues. Other sources (mainly company tax, special diamond taxes, and administrative fees and charges) contributed, on average, less than one-half of the total. In the second half of the 1980s, revenues relative to GDP rose by about 8 points to 38.7 percent (World Bank, 1994). Small declines in SACU receipts were more than offset by successive hikes in the sales tax rate, the recovery of the mining sector, and higher receipts from taxes on income and profits. Since independence, the government has maintained a relatively consistent level of total revenue which, expressed as a ratio of gross domestic product (at market prices), has ranged between 35 percent and 40 percent. These trends in revenue therefore show little evidence of a heightened or lessened tax burden. Namibia, like Lesotho and Swaziland relies on revenue from the SACU Common Pool, which contributed around 33 percent to total revenue for the fiscal years 1995/96 and 1996/1997.

Table 3.2: Sources of Government Revenue (1994/95 - 1998/99) (N$ Million)

	1994/95	1995/96	1996/97	1997/98	1998/99
Tax Revenue	3105.1	3607	4114.0	4536.4	5382.5
Direct Taxes	1016.2	1088.8	1353.9	1365.7	1785.5
Indirect Taxes (including SACU Receipts)	2059.4	2482.8	2723.8	2723.6	3556.7
Other Taxes	29.5	36.1	36.4	42.0	40.0
Non-Taxes Revenue	513.5	496.1	498.0	538.4	561.2
Return on Capital	10.7	7.0	14.0	59.8	28.6
Grants	34.2	33.0	33.0	64.0	45.7
Total	3663.2	4143.8	4658.9	5198.6	6107.8

Source: BoN, 1999.

3.2.2 Financing the deficit

During the first half of the 1980s, the government deficit averaged about 20

percent of GDP, most of it financed through support from the Republic of South Africa (RSA). Commercial Banks' borrowing (with RSA guarantee) financed about 6 percent of GDP, and as a result, Namibia's public debt rose from less than 6 percent of GDP in 1980/81 to 32.7 percent of GDP in 1983/84. In the second half of the decade, a significant reduction in budget support from the RSA forced a sharp decline in the overall deficit to an average of 9 percent of GDP, roughly equal to the volume of transfers received. The reduction in the deficit was achieved through an average increase in revenues equivalent to 8 percent of GDP and an average reduction in expenditures of about 3 percent of GDP (World Bank, 1994).

The external debt ratio has varied between 10-14 percent of GDP with the highest level of 14.3 percent in 1992, which steadily declined to 10.4 percent in 1996. However, total Government debt in relation to GDP has risen from 13 percent at the end of 1995/96 fiscal year to 21 percent at the end of 1997/98. The government deficit ratio has displayed mixed levels during the 1990s. It recorded 5.9 percent in 1992/93, reducing to 2.4 percent in 1993/94 and even further to around 2 percent for 1994/95 and 1995/96 before jumping to 6.3 percent in 1996/97. The main methods of financing the government debt have been local borrowing in the form of treasury bills and government stocks.

At the end of 1996, total outstanding public debt stood at N$3.2 billion, representing a 26.7 percent growth, compared with 26.1 percent in 1995. As a percentage of GDP, total public debt increased from 21.0 percent in 1995 to 23.3 percent in 1996. The share of public external debt in total public debt continued to decline. It decreased from 19.4 percent in 1995 to 15.0 percent in 1996. In 1990 it stood at 94.9 percent. The total public debt situation significantly improved in 1997 owing to the cancellation of Namibia's pre-independence debt of N$1.6 billion owed to South Africa. This led to a 55 percent decrease in the government's external debt accounted for reducing the burden to 10.3 percent of the total outstanding debt of N$2803.1 million. Foreign public debt increased by 54 percent to N$545 million in 1998

compared with a 25 percent decline in 1997. This significant increase in 1998 was brought about by disbursements on existing loans as well as new borrowing. Accordingly, the share of foreign debt in total public debt rose from 12 percent in 1997 to 14 percent in 1998, and, as a ratio of GDP, from 2.3 percent to 3.3 percent over the same period.

3.2.3 Investment and Savings

Increased propensity to consume mirrored a reduction in the willingness to invest. Gross fixed investment fell from 27.9 percent of GDP to 16.1 percent in 1989, after bottoming at 13.8 percent in 1985, while public investment declined steadily throughout the decade to slightly more than a third of its level in 1980. Beginning in 1986, private investment recovered mildly, but still ended the decade at only half the level of 1980. Since independence, there has been a slight change in this trend. During the late 1980s the gross domestic savings as a percentage of GDP was very low, falling to 11-12 percent of 1988/89 from 38-39 percent in 1980/81.

Table 3.3: Investment and Savings (N$ Million)

	Public Investment	Private Investment	Savings, net
1989	382	685	284
1990	498	792	1174
1991	467	530	541
1992	656	738	752
1993	556	916	505
1994	648	991	1375
1995	603	1093	1455
1996	661	1173	1504
1997	720	773	871

Source: CSB, 1998.

After Independence the savings/GDP ratio improved substantially, rising to 20-22 percent. On aggregate, savings in the economy has exceeded investments every year since 1981 which resulted in an annual net outflow of savings to finance foreign investments. Until recently these funds had to be invested within the Common Monetary Area (CMA), comprising Lesotho,

Namibia, Swaziland and South Africa. The borrowing of the excess of saving over investment since Independence can be attributed to a combination of factors including the local investment stipulation for pension funds and long-term insurers, an increase in private sector investment opportunities, and slightly higher levels of public investments and investments by parastatal companies. The composition of gross fixed capital formation has been dominated by private investments taking in 1996 63.9 percent of total investments. The percentage in total investment increased shortly after independence, growing at high 40 percent between 1991-1992. But this reversed in 1993 and the change in total investment was −19 percent attributed to a sharp decline in the private investment.

3.3   Expenditure on GDP

3.3.1   Consumption

Despite stagnant income, private and public consumption rose as a proportion of GDP (a striking feature of economic development in Namibia during the early 1980s). As a proportion of GDP, private consumption grew from 45.9 percent in 1980 to 67.3 percent in 1983, ending the decade at 56.2 percent. After independence, private consumption as a proportion of GDP rose from 52.3 percent in 1994 to 54.9 in 1997. Government consumption followed a similar pattern, increasing from 16.5 percent of GDP in 1980 to 30.8 percent in 1984, before falling to 28.4 percent 1989. In the 1990s, government consumption increased to 30.9 percent and 32.0 percent in 1994 and 1997 respectively.

3.3.2   Balance of Payments

During the 1980s the current account of Namibia's balance of payments moved from a small deficit in the initial years (1.0 to 4.0 percent of GDP) to progressively larger surpluses. These peaked in 1986, when they reached N$ 561 million (18 percent of GDP). The balance on the current account

contracted after 1986, as the government of South Africa reduced its financial transfers to Namibia. By 1988, the current account again showed a negative balance equivalent to 4 percent of GDP. The balance of goods and non-factor services has been negative most years, indicating that Namibia has been absorbing real resources from the rest of the world. Towards the end of the 1980s, the balance on goods and non-factor services ranged between 5 and 10 percent of GDP.

Exports and imports of goods stagnated during the early 1980s but grew rapidly late in the decade. Exports ranged from N$940-N$1,100 million in 1980-1984, to approximately N$2,700 million in 1989, prodded by a substantial rise in the price of diamonds. Although imports followed a similar pattern, growth during the second half of the decade was less rapid; from N$900-N$1,100 million in 1980-1983, they increased to about N$2 billion by the end of the decade (BoN, 1992).

The current account has consistently been in surplus though fluctuating between a high 5.2 percent to a low 0.9 percent of GDP during the period after Independence. The balance of trade in goods has been positive in most years, though in 1995 imports exceeded exports, recovering to a slight surplus on the trade in goods account in 1996. The trade in services produced a negative balance of considerable magnitude. In 1996, this deficit was nearly 20 percent of the total value of imported goods. The balance on primary incomes has been increasingly positive mainly due to expanding earnings on portfolio investment abroad. Finally, the net current transfers largely represent Namibia's share out of the SACU Common Revenue Pool.

Table 3.4: Balance of Payments Main Aggregates (1991 - 1996)

	1991	1992	1993	1994	1995	1996
Balance on current account	372	247	246	472	113	35
Balance on merchandise trade fob	248	210	426	230	-405	107
Merchandise exports fob	3376	3825	4221	4794	5076	5801
Merchandise imports fob	-3092	3615	-3975	-4564	-5481	5908
Net services	-938	-976	-823	-774	-922	-1084
Net income	268	47	216	237	432	419
Net current transfers	758	966	785	779	1008	1131
Balance on capital and financial account Excluding reserves	-468	-169	-40	-282	-88	-238
Net capital transfers	80	91	88	154	146	85
Direct investment, net	315	342	152	369	429	584
Portfolio investment, net	-70	45	255	157	393	108
Other long-term investment, net	-712	-801	-774	-1224	-1267	-955
Pension funds	-404	-578	-659	-645	-904	-748
Life assurance	-433	-270	-105	-488	-479	-439
Other	125	47	-10	-91	116	232
Other short-term investment, net	-81	154	239	262	211	-60
Balancing item (net errors & omissions)	62	-97	-86	76	62	-23
Overall balance	-34	-19	298	266	87	98
Change in reserves	34	19	-298	-266	-87	-96
(In percent of GDP)						
Current account	5.2	2.9	4.7	4.3	0.9	2.6
Overall balance	-0.5	-0.2	3.3	2.4	0.7	0.7

Source: BoN, Annual Report (1997).

The capital account shows a consistent net outflow of savings. Namibia continues to be an exporter of long-term capital (pension funds and life and other long-term insurance), mainly to South Africa this is attributed to the limited investment opportunities in Namibia. It is too early to determine the extent of the impact of the domestic asset requirements for pension and life insurance companies introduced in 1994 on the capital account transactions. A net inflow of capital transfers, foreign direct investment (FDI) and portfolio investments further typify the capital account. The increasing portion of the total capital account is taken by foreign direct investment. The introduction of the Namibia dollar and a positive net overall surplus on the balance of

payments has built up the foreign reserves to about 6-7 weeks of import cover (Van Der Linden et al, 1998).

Table 3.5: Namibia: Gross Domestic Product and Expenditure, 1980 - 1997 (Percentages)

	1980	1984	1989	1994	1997
Private consumption	45.9	65.1	56.2	52.3	54.9
Government consumption	16.5	30.8	28.4	30.9	32.0
GDFI	28.0	15.4	14.8	17.6	19.8
Change in inventories	5.2	1.8	2.5	2.3	1.4
Exports of GNFS	73.6	54.2	53.9	53.2	52.7
Imports of GNFS	69.2	67.3	52.7	56.4	60.8

Source: CBS, (1997).

The share of both exports and imports to GDP declined throughout the 1980s and early 1990s, exports from 73.6 percent to 53.2 percent, and imports from 69.2 percent to 56.4 percent. The sum of exports and imports relative to GDP, a frequently used indicator of the degree of openness of an economy, declined from 143 percent in 1980 to 110 percent in the early 1990s. In 1997, this indicator increased to 113.5 percent. This indicator suggests a "closing" of the Namibian economy in response to the international sanctions against the RSA. Classifying the productive sectors into tradable-producing (agriculture, mining, and manufacturing), and non-tradable-producing, the former bore the brunt of the contraction in output during the first half of the 1980s, declining by a cumulative 25 percent in 1985. After a marginal recovery in 1989 tradable sectors had reached 80 percent of their 1980 output. The non-tradable-producing sectors, on the other hand, expanded their output throughout the decade increasing to 30.8 percent by 1989.

The preceding analysis suggests two important differences between the economy of Namibia in 1997, compared to 1980, (i) Namibians, as in most sub-Saharan African economies, consume substantially more and invest considerably less of their income now, (ii) Namibians now sell a lower proportion of their production abroad and also import a lower proportion of what they consume. A sustainable economic recovery will require higher

investment rates and a more dynamic external sector. Namibians will invest more in their own country if the policy environment is favourable to private sector productivity.

3.4 Monetary Policy[11]

Namibia's monetary policy objective has been to support the fixed exchange rate between the Namibia dollar and the South African Rand. This policy has been effective in attaining the ultimate monetary policy objective of price stability, as reflected in a single digit inflation recorded in Namibia over the year 1996. The low inflation achieved in Namibia is a reflection of the restrictive monetary policy pursued by the SARB to achieve price stability, which is transmitted to Namibia via the fixed exchange rate. Namibia's membership of the Common Monetary Area (CMA), which has on the whole proved beneficial to the country, necessitates a monetary policy that supports the fixed exchange rate between the Namibian dollar and the South African Rand.

3.4.1 Money Supply

The national currency, Namibia Dollar (NAD) was introduced in September 1993. The Bank of Narnibia uses two main aggregates, M1 and M2, to track monetary developments. With an average growth rate of 20.2 percent, M1 was the major driving force behind the increase in broad money supply during 1996 (BoN, 1997). The monetary base consisting of bankers' reserves plus currency in circulation increased significantly by 22.5 percent in 1996 compared with an increase of 10.8 percent in 1995. This growth reflects both the increase in currency in circulation and bankers' reserves at the Central Bank. These components increased by N$43 million to N$283 million and N$49 million to N$214 million.

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[11] Bank of Namibia, unless stated otherwise.

The rate of growth in monetary aggregates, which accelerated in the first half of 1997, showed signs of substantial abatement in the second half. The year-on-year growth rate of broadmoney (M2) rose by an average of 23.9 percent over the first six months of 1997, compared with an average increase of 18.5 percent in 1996 (BoN, 1998). In the second half of 1997, the rate of increase slowed to an average of 17.0 percent compared with an average increase of 19.1 percent in the corresponding period of 1996. At the end of 1997, money supply increased by a twelve months' rate of 7.6 percent compared with an increase of 24.3 percent in 1996. Monetary expansion in the first half of 1997 was brought about by a faster growth in net credit to government and a substantial increase in net foreign assets of the banking system. These expansionary forces were offset by a decline in credit to the private sector. The abatement in money supply was primarily the result of the banking system, partly offset by acceleration in credit to private sector and to government. However, from the third quarter of 1998, money supply started to pick up again and at the end of December broad money stood at N$8.0 billion, representing an increase of 10.7 percent over the year compared with the growth rate of 7.6 percent 1997. Narrow money supply (M1), i.e. currency in circulation and demand deposit, rose by 30.1 percent while quasi-money remained more or less of M2 unchanged during the same period

3.4.2   Exchange Rate Developments

The value of the NAD, which is pegged to the South African Rand, has been relatively stable since its introduction in 1993. The major changes came in February 1996, when the value of the NAD depreciated against major currencies. The NAD averaged at N$3.66 against the US Dollar during the last quarter of 1995, then depreciated to 3.85 in June of 1996 and weakened further to N$4.45 at the end of 1996. This depreciation was attributed to uncertainty regarding political stability in South Africa. However, continued weakening of the NAD in the second half of 1996 was a reflection of poor economic fundamentals in South Africa, as indicated in the worsening of the current account, higher inflation rates relative to its major trading partners and

uncertainty over the exchange control liberalisation. During 1996, the NAD weakened from N$6.00 to N$7.79 against the British pound.

Over 1997, the NAD weakened against the US Dollar by 6.7 percent to an average of N$4.61. Against the German Mark (DEM), the NAD strengthened over the first three quarters of 1997, which largely reflected the depreciation of the mark against US Dollar. However, as a result of a rise in interest rates in Germany and a reduction of interest rates in South Africa towards the end of the third quarter, the NAD lost momentum against the DEM in the fourth quarter of 1997. During 1997, the NAD strengthened by 17.3 percent against the DEM. The movements of the NAD against the British pound mostly followed the movements of NAD/US Dollar in 1997. Over the year, the NAD declined by 11 percent against the pound (BoN, 1997). Reflecting the fortunes of the Rand, the Namibia dollar depreciated against the US dollar by 22.9 percent between December 1997 and August 1998. As capital outflows slowed and international market conditions improved, the currency appreciated to N$5.89 to the USA dollar by December. This represented a year-on-year depreciation of 17.2 percent. The Namibia dollar also depreciated by 18.6 percent and 220.0 to the German mark and Japanese yen, year –on-year respectively. It weakened by 11.0 percent against the British pound.

Figure 3.2: Exchange Rate Movements
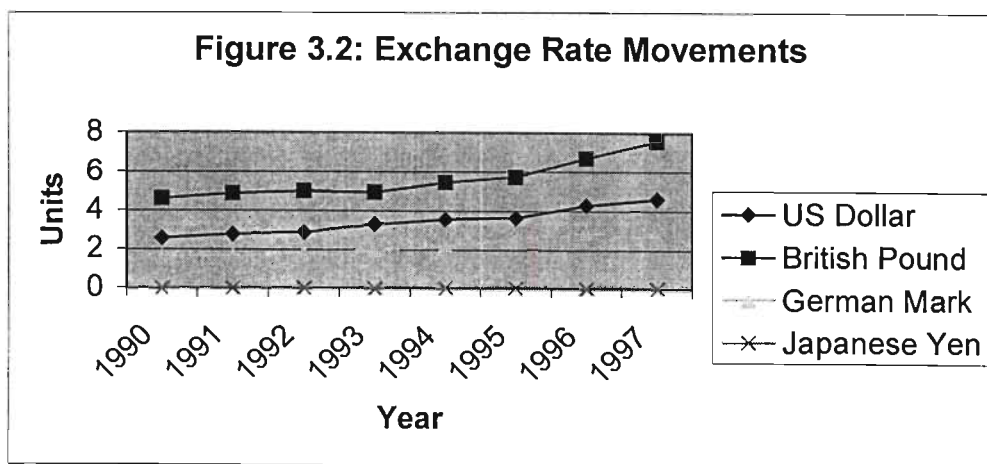
Source: NEPRU, (1998).

3.4.3 Exchange Controls

In the mid-1990s, the exchange control regime in Namibia was characterised by a continuous liberalisation process, which included divesting greater authority to authorised dealers. This move was clearly in conformity with the Bank of Namibia's objective of transforming from a regulatory to a monitoring authority. To this end, the liberalisation process was initially designed to address the South African Financial Rand system, which was abolished during 1995. The second phase of the liberalisation process allowed institutional investors to acquire foreign assets by way of asset swaps. In addition, direct investment abroad by Namibian corporations was also sanctioned.

As a further liberalisation measure, with effect from 20 September 1996 Namibia acceded to Article VIII, Sections 3 and 4 of the International Monetary Fund (IMF) Articles of Agreement. IMF members accepting the obligations of Article VIII are required to refrain from imposing restrictions on payments transfers from current international transactions. Following on this, during 1997, the Bank of Namibia (BoN) virtually abolished all quantitative limits applicable to international payments for goods and services. The BoN has also decided to allow private individuals resident in Namibia to operate Foreign Currency Accounts with local authorised dealers or alternatively, invest abroad up to a maximum limit of N$350000.

Further, Namibian corporations have been allowed to invest substantial amounts in member countries of SADC, dual listing of companies on the Namibia Stock Exchange (NSE) and other SADC stock exchanges. To allow broader investment by private individuals offshore and to facilitate a greater flow of funds, in line with the liberalization process taking place in the CMA, the maximum allowable foreign investment by private Namibian residents abroad was increased from N$350 000 to N$500 000 during 1999. Long-term insurers, pension funds, unit trust management companies and funs managers are allowed to acquire foreign portfolio investments by way of

assets swaps, of up to maximum of 15 percent of their total Namibian assets. Further liberalization continued was for travel allowance and study allowances for students studying outside the CMA. The allowance for resident traveling aboard was increased to a maximum of N$120 000 per person of 12 years or older and N$35 000 per child per calendar year. These limits were N$100 000 and N$30 000 during 1998 respectively. Study allowances have increased from N$100 000 to N$120 000 per annum for a single student and from N$200 000 to N$240 000 for a student accompanied by a spouse who is not studying.

3.4.4   Inflation and Interest Rates

Namibia's inflation rate is largely determined by price developments in its imports over 80 percent of which are sourced from South Africa. The inflation rate has come down considerably to reach a single digit of 8.7 percent in 1997 (see figure 3.3). The reduced inflation rate has significantly improved the real interest rate, which for the first time since independence in 1996 reached the two-digit benchmark. In Namibia, the central bank closely follows the bank rate set by its South African counterpart. This approach is consistent with Namibia's membership of the Common Monetary Area, which allows for the free flow of capital between its members. In 1996, however, the nominal bank rate diverged from the South African rate by 0.25 percent, when the Bank of Namibia took the decision not to follow the increase of 1 percentage point introduced by the South African Reserve Bank.

3.5   Social Service Sectors

3.5.1   Education

Like in South Africa, education in Namibia has also been in crisis for many years. This was due to the spillover of apartheid into Namibia, as Namibia was run as the fifth (neglected) province of the former minority white regime in South Africa. The budgetary allocations to various education authorities were done according to the apartheid policy. The white education authority received the largest share in the education budget. Very shortly after coming

into the office in 1990 the new government pledged to provide equitable access to schooling and from the first year of independence overall enrolment increased by 10 percent, which indicated unfulfilled demand for education. The number of children in primary school grew at an annual rate of 3.5 percent between 1989-90. In secondary education, the increase in enrolment attained a more impressive rate of 11.9 percent per year over the same period.

Figure 3.3: Public Spending on Education and Health
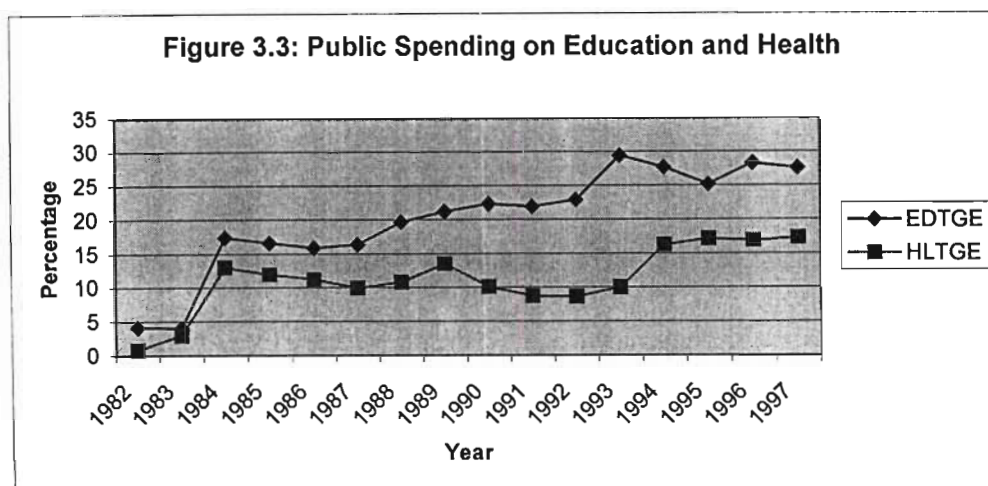
Source: MoF various issues.

The ministry of education is now the largest spending ministry, accounting for one-quarter of public expenditure in 1993/94. Public education accounted for 10 percent of GNP in 1994 (Kaakunga, 1997). The education ministry also absorbs a large proportion of public revenue as the result of rapid growth in education expenditure since independence. The priority given to primary education is reflected in the share of primary education in the ministry of education's budget, which has risen from under 40 percent of the total expenditure to over 50 percent in 1990. The share of secondary and tertiary education fell between 1990 and 1993. Learners in tertiary education receive the largest public subsidy (N$ 13080 per student in 1993/94). The public subsidy per secondary school learner was N$2830 and N$1370 per primary school learner (World Bank, 1995).

From Figure 3.3 it can be seen that the expenditure on education has been very low from 1980-1983, and has increased from 17.4 percent in 1984/85 to 27.3 percent 1994/95. Education expenditures averaged at 7 percent in the early 80s, increased to an average of 18 percent in the late 1980s, and rose again to an average of 25 percent in the 1990s.

Table 3.6: School and Higher Education Enrolments, 1994

Primary schools (grade 1-7)	367300
Secondary schools	
Grade 8-10	77800
Grade 11-12	23900
Total	469000
School teachers	15600
University students	1800
Polytechnic students	600
Technical institutes/other colleges	1900

Source: EIU, 1998/99.

3.5.2 Health

The health sector before independence, like education primary health care focused by providing high quality curative care access to the minority white population to the neglect of the majority of the black population. From figure 3.4 it can be seen that expenditure averaged 5 percent of GDP in the early 1980s, and rose to an average of 12 percent in the late 1980s, and decreased to an average of 11 percent in the early 1990s. In the early 1990s, Namibia has spent about 6 percent of its GNP on public health. Public spending on health was increased substantially after independence but has stayed level in real terms for the past three years. In 1998/99 the N$713 million allocated to health (excluding social services) accounted for 11 percent of total expenditure. But almost 60 percent is absorbed by personnel costs, leaving insufficient money for hospital maintenance, medical equipment and supplies (EIU, 1998/99).

Separating out health care rose from 43.5 percent of the health budget in the first year 1990/91 of independence to 56.7 percent in 1993/94. The budgeted share slips back to 51.3 percent in 1994/95, although the ministry consistently overspends, and, the outturn in 1994/95 could show a continued rise in the share of community health. Specialised health care grew at a slower rate than community health care, and its share of health services fell from 51.7 percent at independence to 39.9 percent by 1993/94. The elimination of the segmentation of health provision by race, and creation of a unified national health system, has reduced the administrative costs of health care. Personnel costs as a proportion of the ministry's budget for health services have risen from 57 percent in 1990/91 to 62 percent in 1993/94. The rise in the share of personnel costs is mainly due to a rise in the number of staff working in primary health care, including an increased number of trainees.

Expenditure on pharmaceuticals has fallen to about N$15 million in 1993/94 from N$16.2 million in 1991/92, following the adoption of an essential drugs policy. Community health based care is a labour-intensive activity, particularly trainee nurses contributed to the rise in personnel expenditures in the community health services budget from N$43 million in 1990/91 to N$93 million in 1993/94 and a budgeted N$103 million for 1994/95. The share of personnel costs in the community health services budget has risen from 48 percent in 1990/91 to 51 percent in 1993/94 (EIU, 1996/97).

Table 3.7: Health Facilities, December 1993

	Southern	Central	North-west	North-east	Total
Hospitals	19	10	8	5	42
State	12	8	4	3	27
Others	7	2	4	2	15
Clinics	52	36	79	59	226
State	44	36	77	53	210
Others	8	0	2	6	16
Health Centres	9	2	12	10	33
State	6	2	8	2	18
Others	3	0	4	8	15
Total	80	48	99	74	31
Population served ('1000)	371	237	676	221	1505
Bed capacity	4284	1379	3204	1017	10774
Bed per '000	11.5	5.8	4.7	4.6	7.2
Bed occupancy	37	26	49	55	42

Source: EIU, 1998/99.

As of 1993 hospital bed availability averaged seven per 1000 people, and the doctor: patient ratio 1:3,600. However, marked regional disparities remain and there is no national insurance provision for Namibians not covered by private medical schemes. The incidence of AIDS has increased rapidly since the first victims were identified in 1986, and the latest World Health Organisation report of November 1998 estimates that 150,000 Namibians – almost 10 percent of the population is infected with the HIV virus. The current five-year national strategic plan of action against HIV/AIDS says the epidemic should be treated as a national emergency because of its projected socio-economic impact, through better integration of regional and local-level preventive activities (EIU, 1998/99). Health services increase the quality of human resources both now and in the future. Health expenditures also increase the quantity of human resources in the future by lengthening the expected working life. Health improvement has one effect that could be considered a social cost: by reducing the death rate it increases population growth which adversely affects the growth of the economy.

3.6 PERFORMANCE OF THE LEADING SECTORS

3.6.1 Agriculture Growth, Constraints and Prospects

Agriculture is the largest employer, supporting directly or indirectly some 70 percent of the population. It is also the second most important sector in terms of contribution to exports with a 12 percent share. Extensive stock farming is the dominant agricultural activity, accounting for 65 percent of the total annual beef output of 77,000 tonnes that is exported mostly to the Republic of South Africa (World Bank, 1991). Agriculture and rural development only account for a modest proportion of total public expenditure in Namibia. However, it is important to consider this expenditure and it's effectiveness because of the importance of the sector to the economy, and the dependence of so many of the poorest citizens of Namibia on agriculture.

Agricultural exports (mainly live animals, hides, skins and wool) account for about 7-8 percent of the total value of merchandise exports and 15 percent meat and meat products are added. The contribution of the agricultural sector to Namibia's GDP remains, however, relatively modest at only about 8 percent. Because of improved climatic conditions and firmer prices during 1993, the real value added in total agriculture grew by 2.9 percent, compared with a growth rate of 3.5 percent in 1992. The 2.9 percent growth in 1993 is a combination of a 3 percent expansion in commercial agricultural output and an estimated 2.5 percent increase in subsistence agricultural output. Due to the drought in 1992, the real value-added growth rate in that year was, of course somewhat boosted by emergency marketing and also by government's drought assistance (Economic Review, 1994).

In 1992, probably in an attempt to recuperate the herd after the drought, both cattle and small-stock marketing showed strong increases in response to the drought, with respective volume increases of 9 and 23 percent. Initially the result of late rains necessitated enhanced marketing, which saw a firmer marketing effort, and total numbers rose by almost 10 percent. However, during the latter half of 1993 it was primarily reflected by stronger average

export prices (Economic Review, 1994). In the mid-1990s, agricultural output continued to be dominated by the commercial sector, which contributed 66.5 percent to the total output in 1996, while subsistence farming contributed 31.5 percent. Its contribution to GDP in 1996 stood at 9.4 percent. This was primarily due to livestock producers rebuilding their herds after the serious droughts of 1994/95 and 1995/96. It can be seen from figure 3.4 that the agricultural contribution to was fairly stable during the 1980s and 1990s.

Figure 3.4: Agriculture contribution to GDP
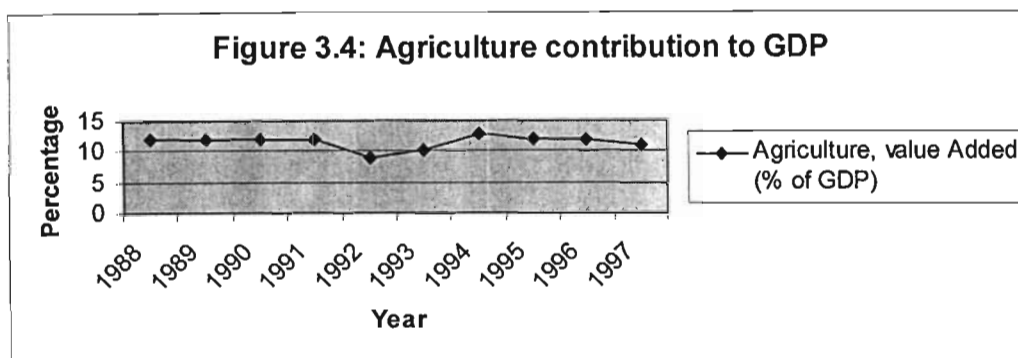
Source: World Bank, 1999.

Land of good quality is a major growth constraint to agriculture, at least with present technological knowledge. Although vast and relatively unpopulated, two major deserts flank Namibia and the land between them is not prime agricultural land. Water is the other major growth constraint. Irrigation potential is probably limited to about 32,000 hectares, of which 18,000 hectares are in communal areas. Owing to evaporation, surface water is extremely limited, and the underground water is dropping. Communal agriculture, which contributes only 15.4 percent to overall sectoral output and which has grown slowly, offers more hope. Extreme inequalities in the distribution of resources and access to marketing channels and services, have marginalised the vast majority of communal farmers and their potential contribution to sectoral output and sectoral growth (World Bank, 1991).

Key actions to realise these prospects may include the following (i) integrating the northern farmers into the national market by opening distribution channels in the north and providing extension, and veterinary services to communal farmers, (ii) improving the road network in the north for transporting inputs

and produce to and from the communal areas, (iii) relaxing transport regulations and (iv) emphasising the production of high-value crops.

3.6.2 Fisheries Growth, Constraints and Prospects

Fisheries is the second most important industry in Namibia after mining. It reached its peak in 1968 and 1969 with a total catch of fish meal 45,000 tonnes of fish oil and 4 million cases of canned fish. The fishing industry 's contribution to GDP expressed in terms of constant (1975) prices dropped continuously from N$8.1 million in 1978 to N$7.2 million in 1979 and to N$6.8 million in 1980. The sector is currently the major contributor to economic growth (i) the value of exports of fish is growing at over 20 percent annually, (ii) the contribution of fisheries to GDP is increasing, having doubled from 3.9 percent in 1991 to 7.6 percent in 1994, (iii) the sector has generated around 6000 new jobs since 1991. After a relatively moderate increase of 5 percent in real value added in fishing during 1991, a notable improvement was recorded during 1992 with real value added increasing by an impressive 38 percent. This is ascribed to the greatly enhanced catches of pelagic fish species together with a considerable increase in the landings of hake (Economic Review, 1993).

The real value added of the fishing industry continued to make considerable progress during 1993, with the growth rate increasing from 23 percent in 1992 to 37 percent in 1993. The higher growth in fishing in 1993 than 1992 was the result of improved catches of both pelagic and demersal fish species, whose respective volumes were 8 and 11 percent above the level in 1992. Foreign trawlers in Namibian waters that led to collapse of the pilchard have illegally exploited the resources. While there were several peripheral factors, two major setbacks can be identified. The first was the licensing by the South African government of two fishmeal factory ships in the late 1960s. The second was an abrupt cessation of research at a critical moment in the mid-1970s. The main product of this exploitation, the very dense pelts, were exported to China, Europe and Northern America (Kaakunga, 1990).

After the near collapse of the pilchard resources in 1980/81 and the closure of the four fish processing factories, a very strict and conservative policy was initiated with regard to the utilisation of the marine resources, including adherence to a six-month catching season. This brought about a slow but steady recovery of the resources with a Total Allowable Catch (TAC) set in 1982 at 30,000 metric tonnes. Special opportunities exist in taking advantage of the qualities of the labour at Walvis Bay in serving fishing vessels and the fisheries sector generally, a position enhanced by the reintegration of Walvis Bay into Namibia. Walvis Bay is developing into the most important fishing base in the South East Atlantic. It is one of the biggest fishing processing centres in the world in a way that seems likely to make it increasingly favoured as a base for vessels operating beyond Namibia and for processing catches from waters outside the Namibian Exclusive Economic Zone.

Figure 3.5: Fisheries contribution to GDP
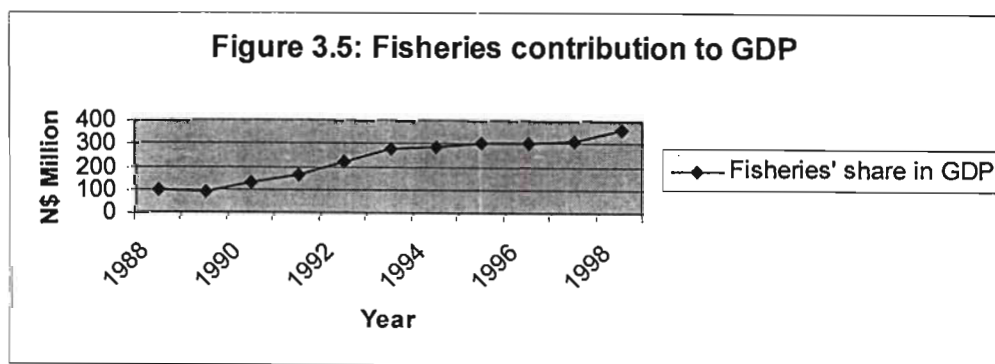
Source: Central Bureau of Statistics, 1999.

After good improvements in fishing output between 1991-993, the growth in has slowed markedly, and in 1996 fish processing output actually shrunk. The total catch had fallen to 495,000 tonnes, the lowest since 1990, and with virtually no pilchards caught the onshore canning industry was forced to lay off half its workforce. However, although white fish activities have continued to expand in 1996 hake catches fell by 10 percent to 117,000 tonnes. Since 1994 export of mainly semi-processed hake to the principal market, Spain have exceeded the value of canned fish exports. The industry faces continuing problems in the short term owing to unfavourable conditions, which caused the virtual disappearance of the pilchard from Namibian waters in

1995-1996. The government slashed the pilchard TAC by more than two-thirds to catch fish in Angolan waters. But in 1996 the TAC was halved to 20,000 tonnes. In terms of contribution to GDP, it can be seen from figure 3.5, that the sector's share in GDP in the 1990s has been increasing and reached a high level of N$361 million in 1998 from N$129 million in 1991.

In 1997, oceanic conditions improved and surveys showed a strong recovery in stocks, with the exception of mackerel. This enabled the government to raise TACs for pilchard and hake sizeably for 1998, and a 25 percent increase in hake landings was recorded during the early part of 1998 season over 1997.

Table 3.8: Total Allowable Catches, 1997 - 1998   (tonnes)

Species	1997	1998	% Change
Pilchard	25000	40000	60.0
Hake	130000	165000	26.9
Horse mackerel	3500000	300000	-14.3
Crab	2500	2000	-20.0
Rock lobster	260	260	0.0

Source: EIU, 1998-99.

At independence the government had proclaimed a 200-km exclusive economic zone (EEZ), and banned fishing by foreign trawlers except for those chartered by Namibian quota-holding companies. The government maintains a strict conservation regime by setting annual total allowable catches (TACs) for the main species- pilchard, hake mackerel, crab and rock lobster in line with regular fish biomass surveys. New exploitation rights providing entitlement to annual quotas by licensees were awarded in 1994, with most of the formerly South African-controlled companies being restructured to bring in Namibian partners. The sector continues to be attractive to investors over 400 applications which were received for replacement four-year rights at the end of 1997, although only 20-25 were to be awarded.

3.6.3 Mining Growth, Constraints and Prospects

Mining is the backbone of the Namibian economy. Over the past 15 years on average it has accounted for:

76 percent of export earnings

38 percent of tax revenues

31 percent of GDP

18 percent of cash wage earning

18 percent of gross domestic fixed investment (World Bank, 1995)

Real value added in the mining and quarrying sector declined during most of the 1980s, falling about 27 percent in that period. Mining's relative contribution to GDP also decreased, from 43.6 percent in 1980 to 31.7 percent in 1989, principally as a result of two factors: depletion of high-grade diamond deposits - which affected the production of diamonds and the imposition of economic sanctions against the Republic of South Africa - which affected the demand for uranium. As a result of diamond depletion, the average carats content fell from 9 to 5 carats per 100 tonnes. Consequently, overall carat production fell by 50 percent, from 1.6 million in 1980 to 0.8 million in 1990 (World Bank, 1991).

The mining sector also experienced a sharp decline in its contribution to Gross Domestic Fixed Investment. At 1980 prices, investment dropped from N$112.4 million in 1980 to N$70.6 million in 1989. During 1982-1986, investment in the sector was only N$15 to N$ 40 million a year. The drop in investment activity resulted principally from depressed mineral prices and economic uncertainty. The 1988-1989 turnaround was caused by an improvement in the prices for minerals/metals. The industry's combined real value added rose by 1.6 percent during 1992, markedly lower than the increase of 8.3 percent recorded during 1991. Although a cut in the diamond export quota was introduced during September 1992, diamond production for the year as whole was still almost 22 percent above that of 1991, which followed a 53 percent increase in diamond output 1991 (Economic Review, 1993).

Figure 3.6: Mining Sector contribution to GDP
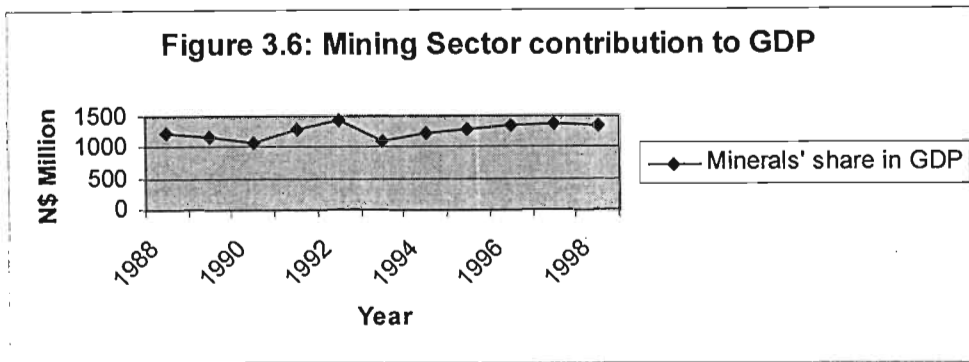
During 1993 the real value added by the mining industry fell by almost 20 percent, with the output of diamonds alone registering a decrease of 28 percent. The background to the slump in diamond output is the reduction in producers' delivery quota towards the end of 1992 in response to the recession in the world diamond market, which in turn led to the downscaling of production at the beginning of 1993. In spite of heavy production losses in 1991 and 1993, precipitated by an oversupplied market from Eastern Europe, uranium output held up quite well with only a mild output decrease of less than 1 percent being recorded during 1993. Copper, lead and zinc output fell by about 5.1 and 25 percent respectively, while in the precious category the output of gold and silver was respectively 6 and 18 below their 1992 levels (Economic Review, 1994).

Mining output rose at a reduced rate of 4 percent in 1996 from 5.8 percent in 1995. This growth was achieved because other mining and quarrying activity increased by 6.7 percent, while diamond output rose by only 2.9 percent. Compared with the previous two years, growth in the mining industry slowed down considerably, declining from 10.5 percent in 1994 to 4 percent in 1996. The mining sector recorded a decline in output in 1998. The sector's production declined by an estimated 4 percent. The major contributing reasons were adverse external factors and the closure of the Tsumeb Corporation Limited (TCL) mines.

Table 3.9: Production of Key Minerals, 1997   (tonnes)

	Output	% Change on 1996	Value (US$m)	% Change on 1996
Diamonds	1415	2.0	552	1.8
Uranium oxide	3425	18.7	115	16.2
Gold (kg)	2433	11.1	27	0.0
Silver	43	2.4	6	-14.3
Copper, blister	22000	6.3	42	16.7
Zinc, concentrates	745600	7	25	47.1

Source: EIU, 1998-99.

Prospecting expenditure increased to N$118m in 1996 but fell back to N$97m in 1997. Offshore diamonds, gold and base metals are the main exploration targets. Diamonds, of which over 95 percent are exceptionally fine gem quality, are mined onshore in Diamonds Area One, north of Oranjemund and inland along the Orange River by Namdeb Diamond Corporation, in which government and De Beers Centenary became equal partners under a 1994 agreement which also rationalised the diamond tax system (EIU, 1998/99). The development of proven underwater mining technology, mainly, but not exclusively by De Beers, and the diamond industry's high profitability in the past decade, have made extracting stones from the middle continental shelf carats and although the stones are smaller between 0.30 and 0.50 carats, they are dominantly gem. By 2000 output was projected to be more than double to 2.25m carats annually, mostly from an expansion in De Beers Marine's (DBM) large-scale operation at depths of over 100 metres in a 600-sq-km area mined under contract to Namdeb. This alone would boost annual export earnings by some US$200m. However, overall diamond employment will decline, as offshore operations are far less labour-intensive than onshore extraction.

After almost halving in 1991-1992 because of weak prices, uranium production from the large but low-grade Rossing mine recovered in 1996/97 to around 70 percent of the operation's 4500 tonnes rated capacity to meet

higher delivery commitment. However, renewed price falls led to the delaying of further output increases. Another setback to the sector was the decision in April 1998 by Gold Fields Namibia (GFN) to liquidate Tsumeb Corporation, (a wholly owned subsidiary and a major base metals producer which operates Namibia's only copper and lead smelter) owing to accumulated losses. The mining activities have expanded into the offshore diamond riches. De Beers Marine (DBM) carries out this expansion's large-scale operation. Given the 95 percent gem content of offshore output, additional export value of at least US$150 million is expected (EIU, 1999).

However, overall diamond employment is expected to decline, as offshore operations are far less labour-intensive than onshore extraction. Total offshore reserves are estimated at 1.5bn-3bn carats and the high quality of stones more than offsets a low average ore grade and small size between 0.30 and 0.50 carats. De Beers has spent over US$500m on developing deep-water mining technology since confirming the presence of large deposits on the middle continental shelf at depths of over 100 metres in the earlier 1990s.

As deposits are generally small and widely scattered, some cannot be readily exploited. The opening of new mining priorities calls for the most up-to-date technologies and vast amounts of risk capital, while water, power, labour and transport facilities must be secured. The political uncertainties that have persisted for many years have acted as further constraints. The present policies already provide the economic environment to attract the high-risk investment capital required to find and develop new mines. It would help, however, if the government were to undertake a marketing programme to "sell" the country to outside investors. A key element of this marketing effort would be the formation of a private sector-oriented policy, which inter alia, will include a clear investment code guaranteeing the safety of foreign direct investment and a reasonable inducement package (s).

3.7   PERFORMANCE OF THE MINOR SECTORS

3.7.1 Manufacturing Growth, Constraints and Prospects

The contribution of the manufacturing sector to GDP for Namibia averaged 7 percent for the period 1946-1960, 5 percent during 1970-1974 and again 5 percent for the period 1975-1983. This 1960-1974 contribution is much lower than for neighbouring countries (Kaakunga, 1990). The secondary sector is dominated on one hand by the processing of minerals, meat and other agricultural products, and by enterprises such as breweries, bakeries, engineering works, and repair shops, mainly serving local markets on the other.

Manufacturing contributed a mere 4.7 percent to GDP in 1988. However, since it employed 9442 people, industry was responsible for about 5.1 percent of total employment in the formal sector. The real value added of the combined manufacturing sector grew by 3.9 percent during 1992, after having shown a decrease of 3.1 percent in 1991. Because of the improved pelagic fish and hake catches, the canning, reduction and filleting plants of the fish processing sector improved their output considerably during 1992. As a result, real value added in fishing expanded by almost 10 percent, which compares well with the 39 percent decrease recorded during 1991 due largely to poor pelagic fish catches. Mainly as a result of a production boost in the meat processing industry and moderate increases in other food and beverage industries, the rest of the manufacturing sector continued to display a steady rate of expansion (Economic Review, 1994).

During 1992 real value added in the meat processing sub-sector increased by 3.1 percent, which followed a 5.2 percent increase in 1991. During 1993 the real value added of manufacturing expanded by 10 percent which was represented by a 20 percent increase in the output of fish products and an almost 5 percent increase in all other manufacturing sectors. The fish processing sector was particularly boosted by improvement in the pelagic fish

species. The white fish plants also experienced higher output results in 1993 than in 1992, but the rate of increase was slightly lower. The contribution to GDP has been fairly stable during the late 1980S and 1990s, as it can be seen from figure 3.7.

Figure 3.7: Manufacturing contribution to GDP
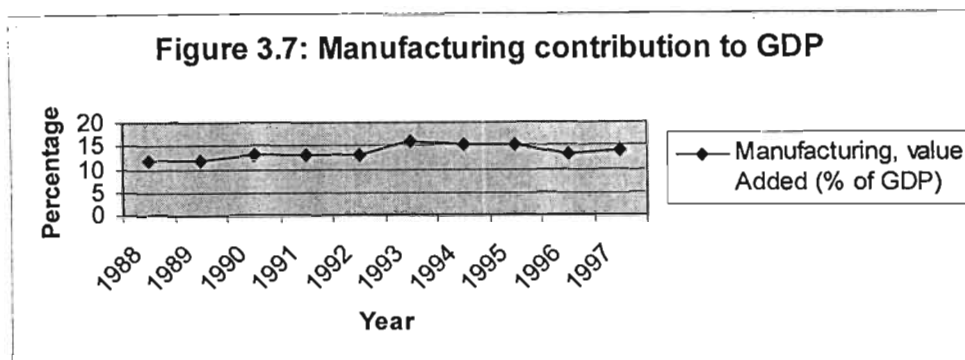
Source: World Bank, 1999.

In 1995, fish manufacturing output shrank by 43 percent. On the other hand meat processing and other manufacturing activity expanded by 3 and 4 percent respectively, supported by the increase in the sale of cattle by commercial farmers during the same year. During 1996, the performance of the manufacturing sector has largely been dictated by the growth in fish processing output, as meat processing and other manufacturing activities have remained fairly stable since 1990. In 1991, when value added in processing fell by 34 percent, total manufacturing output contracted by 6 percent. When processing activity rose by 54 percent in the following year, the overall output increased by 16 percent. Likewise, total manufacturing output declined markedly when processing output decreased sharply by 43 percent in 1996. A 1994/95 census of manufacturing establishments identified 280 firms and total employment of over 21000 in the sector. About half were employed in the food industry, with metal wood and furniture enterprises each employing some 10 percent. At constant prices manufacturing's employment rose from 11 percent to 13 percent in 1991 and in 1997 respectively (BoN, 1998).

The manufacturing sector's contribution to total export earnings increased by two percentage points to 27.5 percent in 1997 (NEPRU, 1999). This was

attributed to an increase in the export of prepared and preserved fish by the same amount. Fish products constituted 62.9 percent of all manufactured exports in 1997, a slight rise compared to 1996. The increased demand abroad for other Namibian manufactured products, particularly beer and beverages in the South African and Angolan markets, strengthened the sector's significance as a foreign exchange earner. The manufacturing sector's share of gross fixed capital formation reached 4.6 percent in 1997, only very slightly above the previous year's level. The surge at the beginning of the nineties was based on investment in fish processing activities.

Numerous internal and external factors, notably (i) the facts of geography and the small, scattered population (the limited domestic market); (ii) lack of skilled manpower; (iii) a generally poor resource endowment; (iv) its small domestic market, Namibia's manufactured goods cannot compete in general with those from the large South African producers (scale economies); and membership of the Southern African Customs Union has limited Namibian access to low-cost imports from overseas markets, while the country's inability to restrict imports of South Africa manufacturing impedes the development of the local industry.

The government has tried to increase the sector's contribution through its industrial policy. Legislation has provided special incentives for manufacturers and exporters, in particular through the Foreign Investment Act of 1990 and the Export Processing Act of 1995. These policies are aimed at enhancing the sector's role in the economy by diversifying its base. The sector is dominated by the food and beverages sub-sector, which is mainly dependent on agro-based inputs.

On the basis of available data, a conscious policy of integrating the manufacturing sector with the rest of the sectors in the economy is required. Its further development must necessarily be based on expanding upon the country's natural endowment, through increased domestic processing of the varied natural resources, in order to enhance the value-added content

accruing nationally. Other industrial policy issues are likely to be important, such as the managerial and technical support for the development of small industries, the possible establishment of credit guarantee schemes for small-scale industries, the regional distribution of industry, training of labour and management.

3.7.2   Tourism Growth, Constraints and Prospects

Tourism has been identified as one of the fastest-growing industries in the world, and contributes more than 9 percent to global GDP. In Namibia, tourism is the third largest contributor to GDP. During the early 1990s, the sector's contribution to GDP has improved, averaged at 5 percent in 1997. It is also the third largest foreign exchange earner, after mining and manufactured products. Tourism receipts have been valued at approximately N$800 million for 1996. The sector contributes more to employment than the mining sector with over 15000 direct jobs (Kaakunga, 1999).

Figure 3.8: Tourism contribution to GDP
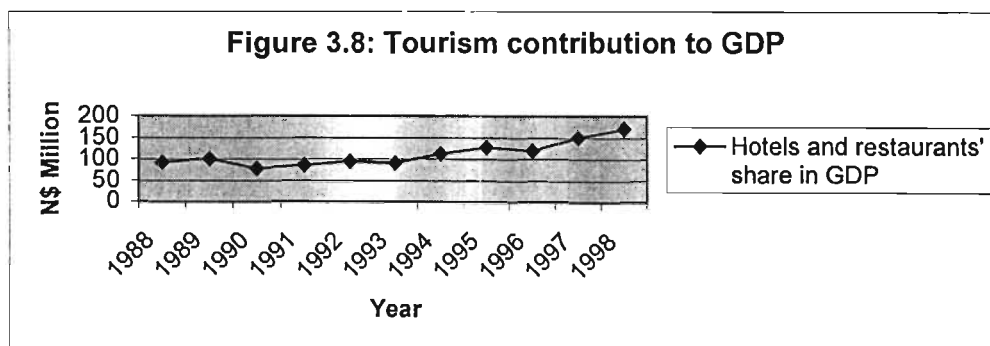
Source: Central Bureau of Statistics, 1999.

The sector's contribution to GDP as it can be seen from figure 3.8 has been increasing since 1990. It has increased from a low level of N$94 million in 1992 to a high level of N$171 million in 1998.

3.7.2(a)   Tourist Arrivals[12]

As a result of political stability, which was brought by independence, the number of visiting tourists has increased. The boost has also been influenced by the depreciation of the Namibian dollar against world major currencies. Most of the foreign tourists come from South Africa, although this proportion declined from 60.8 percent in 1993 to 46.2 percent in 1996, while the proportion of tourists from Europe increased significantly from 19.8 percent on 1993 to 33.0 percent in 1996 (BoN, 1998)

Figure 3.9: Tourist Arrivals
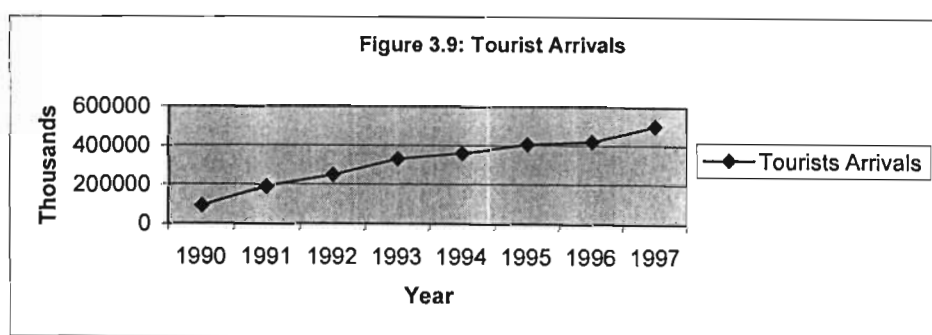
Source: Ministry of Environment and Tourism, various issues.

As cited above, there has been a steady growth in tourist arrivals since 1991, a year after Namibia gained independence in 1990. Tourist arrivals stood at 92000 in 1990 and increased to 190500 by 1991 (see figure 3.9). By 1994, the figure reached to 360576, that is almost four times the level attained in 1990. It can be seen from the diagram that positive growth rates were recorded from 1990 to 1997.

3.7.2(b)   The Contribution of the Tourism Sector to Government Revenue

Tourism's contribution to government revenue stems mainly from the following sources:

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[12] This section has benefited from my earlier work on Tourism Sector in Namibia: Potential, Constraints and Policy Options, unpublished.

- Registration and licences of hotels, restaurants and travel agents and professional hunters
- Personal/employment and income taxes
- Indirect taxes on direct import to the tourism sector
- Entertainment duty[13]

The airport passenger charges have been introduced for the first time in 1997. Only the international passengers paid these charges. However, since the beginning of 1999, this applies to all passengers. The amount has doubled between 1997 and 1998. It is also expected to increase due to the wider coverage of passengers for this charge. A second important source of tourism-related revenue generation can be found in the hotels and restaurant service. The single most important source of revenue in the tourism industry is the corporate tax on the accommodation sub-sector. Total estimated tax revenue was N$8110795 million for 1991. It increased to N$9972646 in 1994. Total government revenue increased from 40.5 percent in 1991 to 71.4 percent in 1994. The estimated revenue stood at N$22242266 in 1997.

New investments have been undertaken in the tourism sector. Consideration has been given to the development of new tourist sites and accommodation in Namibia in order to diversify the flow of tourists. Namibia is also focussing on a new market sector, namely, that of luxury tourism, with the Desert Train connecting Windhoek and Swakopmund three times a week. This train was launched in April 1998. New hotels have been constructed in Oshakati and Luderitz. A five star hotel in the City centre of Windhoek is at the design stage. The approximately N$200 million project could boost the ailing construction sector and also attract more conferences to Windhoek. In 1997, the sector was negatively affected by incidents such as the fire at Mokuti Lodge, which was reopened following reconstruction and extension work in 1998. At Okaukuejo rest camp and Etosha Pan National Park, there were strikes.

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[13] Due to the accounting practice of lumping many taxes together by some of the establishments it is difficult to assess the impact of tax categories separately. However, a partial assessment can at least be undertaken on tourism activities with reliable data. This

3.7.2(c)   Community -Based Tourism Development in Namibia

The community-based tourism development coincides with the worldwide expansion of the social approach embracing the concept of community-based tourism. It is regarded as a tool for natural resource conservation and sustainable community development in the country. Many communities on communal land have established or are interested in running tourism enterprises. Eco-tourism has potential to be both if it is managed properly.

Table 3 10: Tourist Arrivals, 1997   ('000 unless otherwise indicated)

Country of origin	Number	% of Total
South Africa	188	37.5
Angola/ Botswana/Zambia	183	36.5
Other Africa	13	2.6
Germany	55	11.0
UK	13	2.6
Other Europe	33	6.6
Others	17	3.4
Total	502	1000

Source: Ministry of Environment and Tourism, 1998.

Table 3 11: Number of Tourism Establishments ('000 unless otherwise indicated)

Category	1994	1995	1996	1997	1998
Hotels	79	81	84	77	82
Pensions	18	22	22	19	19
Rest camps	42	47	55	61	66
Guest farms	77	93	99	109	118
Total	216	243	260	266	285

Source: Ministry of Environment and Tourism, various issues.

limited approach is being applied in this study to examine the various fiscal issues in industry.

3.7.2(d)   Constraints on Tourism Development

The problem of limited accessibility to the financial markets for investable funds constitutes the most critical bottleneck to the industry development.

The other constraints include the following:

1.   Limited confidence among domestic and foreign investors in making the required investment in tourism development especially on a long-term basis,

2.   Limited promotion of tourism both internally and internationally,

3.   Need for public and industry education on government policies for tourism development,

4.   Piracy of skilled labour from existing tourism enterprises by newly established businesses,

5.   Limited co-operation within the industry and

6.   Very limited statistical data on key variables and parameters for detailed research on tourism.

Despite the limitations of data, it has been amply demonstrated in this chapter that the tourism industry has been playing an active role in the growth of the Namibian economy.   Economic benefits, which have been accruing over the years, include, inter alia, employment and income generation, foreign exchange earnings and revenue accruals.   It is obvious that very effort must be made by government to educate destination communities as to both the socio-economic costs and benefits, which must be minimised and maximised respectively in order to accelerate development.   There is also overwhelming consensus, both private and public, that the sector needs to be adequately capitalised in terms of infrastructural facilities and promotional activities in order for it to survive the competition,which is likely to emerge in the 21st century.

Good access roads, water, electricity and public sanitary facilities are primary requirements if existing and potential destination is to play effective roles in the socio-economic development of the country.   Enhancement of inter-

sectoral linkages, especially development of tourism support industries, must be pursued because of their employment and income generation potential and the minimisation of foreign exchange leakages. Cases in point will include agro-based items (food), high quality beverages and exotic light industrial items specially geared towards tourists' demand. An enabling investment and marketing environment based on social, political and legal considerations or conditions is very important. Economic stability is identified as the engine for accelerated investment in the industry. In this regard, caution in fine-tuning policies and pronouncements on the industry are of essence.

CHAPTER FOUR

4 MACROECONOMIC POLICIES IN LESOTHO

4.1 Introduction

The purpose of chapter four is to look at the macroeconomic performance and macroeconomic policies in the Kingdom of Lesotho. The chapter also examines the impact of the Structural Adjustment Programme policies on production relations, and economic growth in Lesotho since its inception in 1988. The structural adjustment programme is implemented with the support from the IMF and World Bank. Was it progressive or retrogressive? The chapter also highlights the constraints on the economy of Lesotho.

4.1.1 Background

The kingdom of Lesotho is a small and landlocked state entirely surrounded by South Africa. The land of the kingdom consists of four topographical areas: highlands, foothills, lowlands and the Senqu River valley. About 80 percent of the population lives in the lowlands and foothills and the productive land is found in these two topographical areas. The land in the highland and Senqu River valley is suitable primarily for grazing and has low population densities. Lesotho is one of the world's poorest countries. The main source of national income remains remittances by migrants working in the South African mines (WTO, 1998). Lesotho's economic prospects are, however, being transformed by exploitation of its rivers to sell water and hydroelectric power to South Africa. Agriculture is a declining sector, which has suffered from serious droughts in the 1980s and early 1990s.

Figure 4.1: Economic Growth in Lesotho
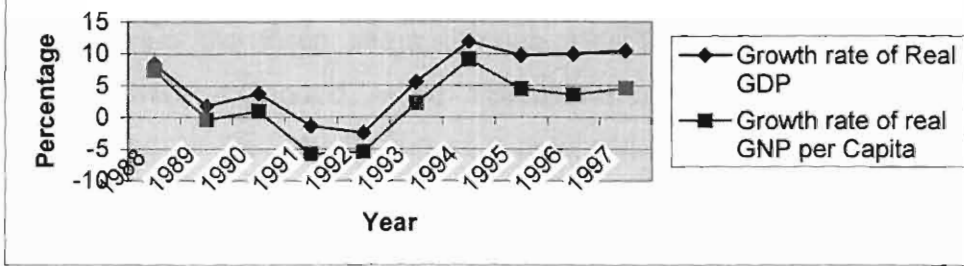
Source: Central Bank of Lesotho, 1992; EIU, various issues.

Since independence the economic performance of Lesotho has been severely hampered by three factors: (i) domestic and regional political instability (the latter associated with South Africa's apartheid destabilisation), (ii) structural constraints such as poor agricultural performance compounded by soil erosion, poor farming systems and low productivity and (iii) poor economic and financial management. In the 1970s GNP grew rapidly, at annual real rate of 9 percent, due largely to increases in the wages and thus the remittances of migrant mine workers. In the 1980s GDP growth slowed on average to the same rate as population growth rate (2.6 percent), though growth performance has been highly variable during this period (EIU, 1989/90). Real contractions were recorded in the early 1980s due to drought, closure of the Letseng Diamond Mine and a decline in capital formation due to constrained government spending and aid receipts falling in real terms.

Growth performance during 1988/89, the first year of the Structural Adjustment Facility (SAF) supported programme was very encouraging, facilitated by favourable weather conditions for agriculture and the implementation of the early phase of the Lesotho Highlands Water Project (LHWP). In contrast, despite rapid growth in exports, the external current account deficit worsened as the programme's fiscal deficit target was not met, and domestic credit limit was exceeded. However, in the two subsequent years under the SAF-supported programme, Lesotho achieved notable improvements in its economic and financial performance (IMF, 1992). Real GDP growth averaged 7.0 percent, investment rose, owing to the acceleration

in the preparatory phase of LHWP, and to continued strength in the manufacturing sector, and substantial fiscal and balance of payments adjustment was attained. On the supply side, considerable progress was made during the three years through 1990/91. In agriculture, irrigation facilities were expanded, while agricultural production and exports were encouraged by the introduction of a revolving fund, financed by the United Nations Capital Development Fund (UNCDF), to provide short and long-term credit to farmers through the commercial banks.

From figure 4.1 it can be seen that in 1994, GDP grew by 11.9 percent in real terms. This growth rate was twice that of 1993 and the highest since 1989. Also in 1994, net factor income from abroad went up, due to a 9 percent increase in mine wages in South Africa. This offset the negative impact of the falling number of Basotho migrants as a result of retrenchments and other socio-political factors. In 1995, real GDP grew 8.9 percent, while GNP grew at 7.4 percent over the previous year. It grew at 10.9 percent and 10.5 percent in 1996 and 1997 respectively (WTO, 1998 and Central Bank of Lesotho, 1997).

The main determinants of this sustained economic performance were growth in manufacturing and construction activities, as well as recovery in agriculture. The construction sector was buoyant due to the building of government offices, work on the Oxbow-Mokhotlong road and the Mohale access road, and the peak activities at both the Katse dam and the Muela Hydropower plant. The strong performance of the manufacturing sector, which produces primarily for the export markets, can be partly attributed to the depreciation of the Rand against major currencies and resulting improved export competitiveness. The good rains during the 1995/96 agricultural season resulted in a recovery of agricultural output of about 8 percent (Ministry of Agriculture, 1997).

The industrial sector is dominated by manufacturing and construction activities. The value added in this sector has been impressive since

independence, at which time Lesotho had virtually no industrial base. However, while growth in the medium and large scale foreign-owned manufacturing sector has occurred, there has been no commensurate growth in the small-scale sector. Potential backward or forward linkages between the foreign and local sectors (e.g. manufacture of packing materials, labels, and zippers for the clothing industry) have not materialised (WTO, 1998).

4.2   Sectoral Performance

4.2.1 Agricultural Sector

The agricultural sector continued to be significant and its performance fluctuated during the 1980s and 1990s. Agricultural processing expanded rapidly in the 1980s with the opening for example, of flour and maize mills and a vegetable cannery. The vegetable cannery's output is for export while the others chiefly serve the domestic market. The excellent rainfall during the 1987/88 agricultural year helped to produce good harvest in 1988. Thus, the contribution of the agricultural sub-sector of the primary sector to real unadjusted aggregate GDP growth at factor cost during 1988 was significantly high at 30.9 percent compared with 10.9 percent in 1987 (Central Bank of Lesotho, 1989). In 1989, the contribution of agriculture to the growth of total GDP in real terms was negative. Estimates show that real value added by agriculture declined by 12.3 percent during the year in contrast to a sharp increase of 21.4 percent in 1988.

During the period 1980–1989, real valued added by agriculture is estimated to have declined annually by a small proportion on average. The largest drop in the value added by agriculture 20.0 percent occurred in 1982 and the second largest fall was in 1989. Agricultural production was adversely affected by the prolonged drought in 1982 while in 1989 the adverse effect were caused by excessive summer rains, early frost, winter drought and cutworm epidemic during the 1988/89 crop year (Central Bank of Lesotho, 1989). During 1990/91 agricultural year output of the five main crops declined in volume

terms. This implies in the volume of food imports or a decline in overall staple cereal domestic supply, and hence a deterioration in self-sufficiency performance. Domestic food production constituted less than 50 percent of staple food requirements. Commercial food imports and food aid bridged this shortage (Central Bank of Lesotho, 1993).

Despite the fact that the majority of population reside in rural areas and about 50 percent depend on crop and livestock activities for their livelihood, the contribution of the sector to GDP declined from around 20 percent in 1980 to an average of 12.5 percent in the 1990s, with 40 percent attributed to crops, although this has fallen significantly (Ministry of Agriculture, 1996a) As a result of soil erosion, Lesotho's arable land has contracted from 13 percent of the total area in the 1960s to 9 percent in 1997. It is estimated that Lesotho's population density per square kilometre of arable land increased from 442 in 1976 to 740 in 1994. With high dependency on agriculture, especially in relation to crop production and declining output in the sector, Lesotho is unable to satisfy its domestic food requirements.

Figure 4.2: Agriculture contribution to GDP
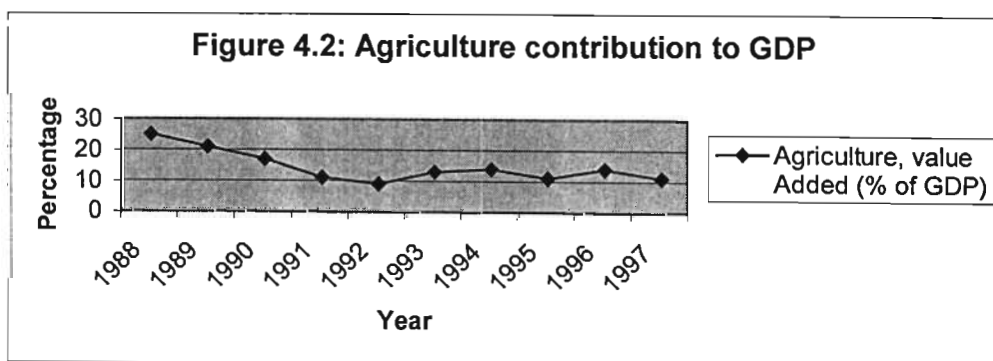
Source: World Bank, 1999.

Food crop production in 1990/91 fell back because of the impact of drought and fell further to an estimated 81000 tonnes in 1991/92 when rains generally failed. Some limited efforts have been made to diversify into high value yield crops for export. Lesotho now produces small amounts of quality asparagus and strawberries.

Despite the fact that Lesotho is an importer of fruit and vegetable, this agricultural sub-sector shows promise both in terms of qualities and quantities. The sub-sector has suffered from distortions introduced by policies that encouraged cereal growing to the detriment of higher-value fresh produce even on marginal lands. Marketing of fruit and vegetables in Lesotho has been hampered by various factors such as seasonal variations, lack of water and irrigation, poor marketing facilities, inconsistent pricing and perceived competition from cheaper products from South Africa. Domestic vegetable production is highly seasonal due to the variations in both rainfall and temperature. The vegetables both imported and produced for consumption are cabbage, which accounts for approximately 50 percent of domestic consumption of imports, followed by potatoes, with beetroot, carrots and tomatoes also comprising a substantial portion of imports (Ministry of Economic Planning and Manpower Development, 1996b).

Table 4.1: Production of Food Crops

	1990/91	1991/92	1992/93	1993/94	1994/95
Maize	49.2	61.1	91.8	149.1	63.4
Maize yield[a]	n/a	n/a	n/a	8.2	6.9
Wheat	6.9	12.0	8.1	12.0	10.6
Sorghum yield	9.9	19.6	52.0	60.7	6.4
Sorghum yield[a]	n/a	n/a	n/a	3.7	4.7
Beans (dry)	2.4	1.5	1.6	2.7	4.5
Peas (dry)	1.0	1.9	0.9	1.4	1.1

Source: EIU, 1998/99.

[a] tonnes/ha

Nearly 60 percent of Lesotho's cultivated land is devoted to the production of maize, 20 percent to sorghum and 10 percent to wheat. Farming in Lesotho is rain-fed and therefore extremely vulnerable to drought conditions. Lesotho has a structural wheat and maize domestic deficit due to growing demand and stagnant productivity. The average production of maize over the last ten years (103,300 tonnes) has not increased. Cereals are by far the most regulated products in Lesotho. Regulations spanning the last three decades

gave sole buying, importing and exporting rights to maize, wheat, beans and peas to the Produce Marketing Corporation. Prices were set above South African prices that themselves were inflated above world prices and which until the late 1980s for all grains, beans and peas. Again these regulations have been amended in recent years so that now only a reference price is gazetted for pulses. The price fixing for cereals was revoked in 1996 (WTO, 1998).

Table 4.2: Estimated Livestock Numbers ('000)

	1991	1994	1995	1996
Cattle	550	600	580	590
Sheep	1450	1200	1131	1200
Goats	880	750	749	750
Pigs	62	60	66	70
Horses	113	120	120	120
Donkeys	152	152	152	152

Source: EIU, 1998/99.

Livestock herds in Lesotho have not shown any significant increase, as a result of the drought of the early 1980s that saw the herd decline to 611000 in 1983 from about 658000 in 1980. From table 4.2 it can be seen that livestock herds increased to 60000 in 1994 from 550000 in 1991. In 1996, livestocl herds recorded a figure of 590000. Natural factors including low birth weights, low and stagnant production rates, high mortality, and low carcass and fleece weights have generally influenced the size and quality of livestock in Lesotho. With the easing of drought, however, mortality levels declined and the national herd recovered in mid 1990s.

4.2.2 Mining Sector

The exploration for minerals has been directed at diamonds, semi-precious stones, dimension stone for production of building sandstone, and ceramic clays. Mineral output has been very limited in Lesotho. There has been a sharp decline in the contribution of the sub-sector to export earnings and

government revenue due to the closure of the Lesotho's large-scale mine by De Beers in 1982. The revenue from diamond exports duty accounts for about 15 percent of total revenue. Diamonds are the principal minerals of commercial value. Until 1976 production, largely from small-scale diggings, averaged 9000 carats a year. In 1977, the Letseng-la-Terae open cast mine was opened, involving an investment of M36 million by De Beers. In 1980 output mostly of large high-quality gem stones reached 105200 carats. In that year 55 percent of Lesotho's exports were from the sale of these diamonds (EIU, 1998/99).

However, operations ceased in 1982, when falling world diamond prices rendered the Lesotho mine uneconomic. Some low-grade diamonds continued to be recovered by digging corporations in the areas of Lemphane and Liqhobong. The diggings produce an average of 500 carats a month and employ up to 1400 due to the highly labour-intensive method used. In 1990, estimated production was 11400 carats with an export value of M6.3 million. In 1994, the mining sector accounted for 0.3 percent of GDP.

4.2.3 Energy

Lesotho's energy is imported with oil in a refined form carried from Durban by rail and most electricity being supplied by Eskom in South Africa. In value terms, energy accounts for 6-8 percent of total imports. It is noted that the government is pursuing a policy to exploit Lesotho's largely untapped hydroelectric potential to achieve self-sufficiency in energy (EIU, 1996/97).

Table 4.3: Primary Energy Balance, 1995   (m tonnes equivalent)

	Oil	Gas	Coal	Electricity	Other	Total
Production	0.00	0.00	0.00	0.00	0.35	0.35
Imports	0.13	0.00	0.06	0.11	0.00	0.30
Exports	0.00	0.00	0.00	0.00	0.00	0.00
Primary supply	0.13	0.00	0.06	0.11	0.35	0.65
Net transformation	0.00	0.00	0.00	0.08	0.00	0.08
Final consumption	0.13	0.00	0.06	0.03	0.35	0.57

Source: EIU, 1996/97.

The principal hydroelectric project is the Highland Water Scheme, a joint venture with South Africa, whose total cost was originally estimated at US$4 billion. Water is impounded by the Katse Dam, which started to fill in October 1995. Construction of access roads and other infrastructure was completed in 1991. Major benefits to drive this project include 3700 new jobs, improved rural infrastructure in the project area under royalty payments from water sales, which are expected eventually to be equivalent in real terms to present levels of the Southern African Customs Union (SACU) revenue (EIU, 1996/97).

4.2.4 Manufacturing Sector

Lesotho has a limited natural resource base and, therefore, the development of the manufacturing sector depends on the establishment of labour-intensive and export of oriented manufacturing and assembly operations. The government has committed itself to creating a framework conducive to the growth of the sector, namely, by the pursuit of an aggressive programme of industrialisation through private sector investment by local and foreign companies. The sector grew at about 1 percent per year in real terms in the 1970s and at a higher rate from 1981. Growth in real value added averaged 12 percent over 1985-1989. In 1991 and 1992, the sector accounted for 15.1 percent and 15.8 percent of GDP respectively. Total sector employment was 18000 in 1991 and 12800 in 1992. The sector's contribution to GDP

remained stagnant between 1995 and 1996 at 16 percent, although the sector's employment rose to 25000 in 1996 (EIU, 1997/98).

Figure 4.3: Manufacturing contribution to GDP
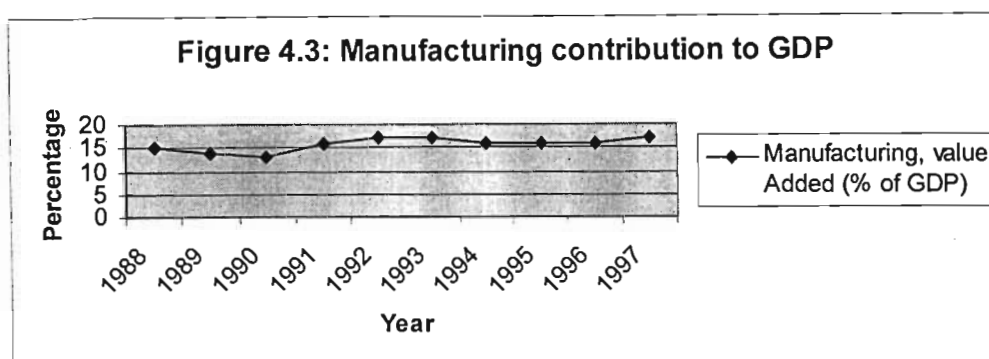
Source: World Bank, 1999.

The contribution of textiles, clothing and leatherwear to total value added in manufacturing rose to an estimated 35 percent in 1992 from 15 percent in 1991 and 33 percent in 1993. About 70 percent of all manufacturing jobs are in these three sub-sectors. Other companies are involved in the production for export of handicrafts, furniture, poultry and tapes-ries or import substitution for products such as bricks, candles, beer and beverage, canned foods and bread and milk products (EIU, 1997/98).

Table 4.4: Value Added by Manufacturing Subsector   (% of total)

	1990	1991	1992	1993
Food and averages	55.8	49.8	39.5	50.9
Textiles, clothing & leather	29.0	36.1	49.9	34.8
Furniture and fixtures	1.5	1.4	1.6	2.4
Printing and publishing	2.3	2.2	1.7	2.4
Chemicals products	2.5	2.7	1.9	2.4
Non-metallic goods	4.8	4.3	2.9	3.8
Iron and steel products	1.9	1.4	1.1	1.4
Others	2.3	2.0	1.5	1.9

Source: EIU, 1998/99.

4.2.5 The Tourism Industry

Lesotho mainly attracts South African tourists, for which it faces increasing competition from other African destinations. The Lesotho National Development Corporation (LNDC) has been promoting tourism actively and a number of hotels, mountain lodges and a national park have been developed. There were 417000 visitors in 1992. There has been an over-capacity in Maseru since the construction of the government-financed Lesotho Hilton. The occupancy rate was 30 percent in 1992, compared with 20 percent in the 1980s (EIU, 1996/97).

4.3   Social Services Sectors

4.3.1   Education

At the end of 1990 Lesotho had 1181 primary schools and 171 secondary schools, 6 technical and vocational schools, 1 teacher-training college and a University. Most schools are operated by religious missions but receive government subsidies. In 1990 nearly 35000 children were in primary schools and approximately 45000 were in secondary schools. Students at University were about 1000 in 1990 (Ministry of Economic Planning and Manpower Development, 1994).

Figure 4.4: Education Activities in Lesotho
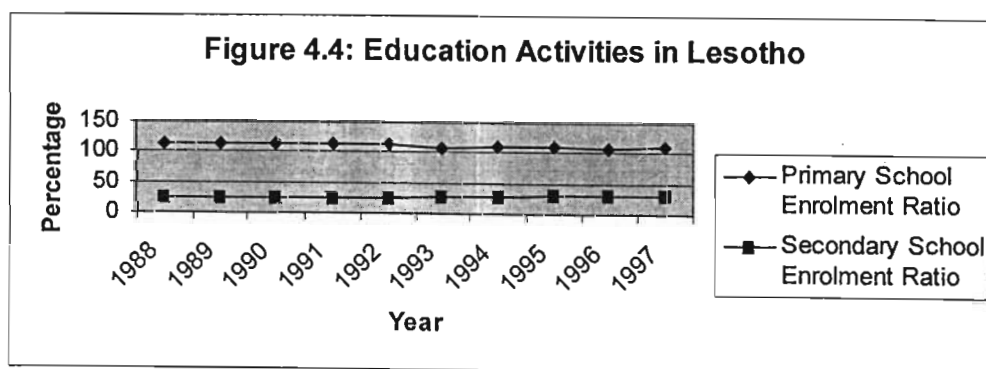
Source: World Bank, 1999.

The quality of education in Lesotho has been on the decline due mainly to the unfavourable learning environment, characterised by severe overcrowding, especially in the lowest standards in primary schools caused mainly by severe shortages of teachers and classrooms 1990. The pupil/teacher ratio has increased from 48:1 in 1980 to 55:1 in 1990 but considered significantly higher than the ratio believed by the government to provide manageable education (Ministry of Economic Planning and Manpower Development, 1994). The pupil/teacher ratios are even higher in the lowest standards where rates of wastage (dropouts and repetition) are highest and where the least qualified teachers tend to be assigned. The pupil/classroom ratios reflect an even worse situation with the average number of about 67 students sharing a classroom. Education and healthcare combined accounted for an estimated 36 percent of total recurrent expenditure in 1996/97 compared with 31 percent in 1991/92 (EIU, 1998/99).

4.3.2 Health

While Lesotho remains free from diseases that are common in tropical Africa, e.g. malaria, and schistosomiasis, diseases associated with poverty, poor sanitation, lack of safe drinking water and general ignorance are widespread. Tuberculous remains the main cause of death amongst adult patients while diarrhoea associated with gastro-enteritis has been the main cause of death among children under five years of age. A world wide epidemic of Aids is the latest killer disease. Changing trends in the traditional social support system have in the recent past resulted in an increase in the volume, scope and complexity of social problems (Ministry of Economic Planning and Manpower Development, 1994). There is one doctor for every 14000 inhabitants and a nurse for very 3000 people. Life expectancy at birth is 54 for men and 58 for women. The country's crude birth rate per 1000 is 38 while the crude death rate per 1000 is 12.

4.4 Macroeconomic Policies

4.4.1 Fiscal Policy

The government's financial position has deteriorated since 1980/81, with a substantial increase in short-term borrowings to finance the deficit. The budget deficit (M250 million, net of grants) rose to 35 percent of GDP in 1986/87, due to some rather optimistic assumptions of the completion of the Highland Water Scheme. First estimates of the outturn suggest that the capital expenditure figure was some M200 million under budget, and the deficit closer to M120 million or 17 percent of GDP. The tax rate was raised from 6 percent to 8 percent in 1985/86, but total revenue from the tax was expected to fall in the future with the introduction of exemptions on basic commodities in October 1987. While current revenue has fallen in real terms, recurrent expenditure has continued to increase rapidly due to increased allocations for security and defence. Estimates for 1983/84 and 1984/85 for capital spending were respectively M137 million and M119 million, with respective outturns at M64 million and M93 million. This was due to over estimations of the government's implementation capacity, and the flow of concessional finance to Lesotho (EIU, 1994/95).

Figure 4.5: Government Budget
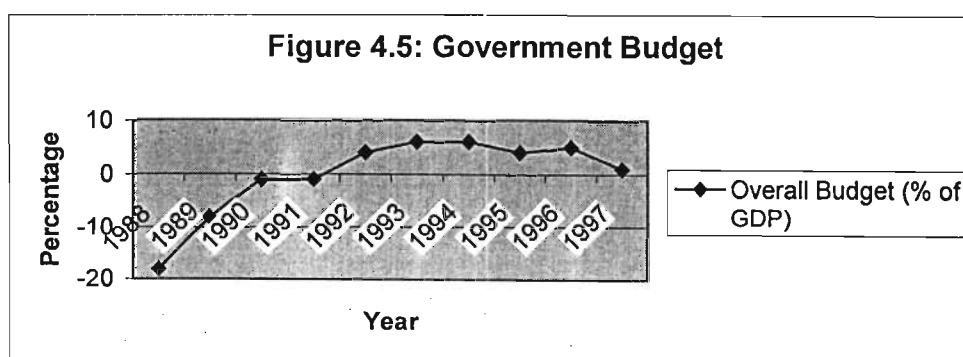
Source: World Bank, 1999.

Disbursed public external debt nearly trebled between 1980 and 1986, reaching US$182.1 million equivalent to about 30 percent of GNP. Public external debt service rose almost fivefold in two years, from US$4.4 million in 1981 to US$21 million in 1983, but the debt service remained low at 4.5

percent due to the high proportion of concessional loans – 70 percent of disbursed long-term public external debt in 1983. In 1985 and 1986 debt service declined (Government of Lesotho, 1996). In the latter year US$14 million was paid in principal and interest, and the debt service ratio stood at just 4.2 percent. In 1997, the debt in loti terms increased sharply from M659 million to M924 million in 1990. Despite the indebtedness of Lesotho during the 1980s, the debt service ratio was low at 2.4 percent in 1990.

The macroeconomic improvements recorded in recent years have been spearheaded by improved fiscal discipline. The 1988 adjustment programme was originally triggered by the fiscal imbalance caused mainly by a rise in military expenditure that assisted to push to 20 percent of GDP (10 percent of GNP). The scope for corrective exchange rate and monetary policies was limited given Lesotho's membership in the regional customs and monetary unions. The only significant short-term means of correcting the imbalance was reducing public expenditure and increasing revenue. In that respect, the stabilisation measures were successful and the fiscal deficit turned into a surplus during the 1990s (see figure 4.5).

Table 4.5: Government Budgetary Operations, 1992 – 1997   (Maloti Million)

	92/93	93/94	94/95	95/96	96/97
Total receipts	1161.4	1400.3	1844.8	2036	2235.8
Revenue Customs grants	1019.6	1262.9	1438.5	1861.6	2044.1
	547.7	746.9	840.9	906.5	1006
	141.8	137.4	143.6	163.2	191.7
Total expenditure	1085.2	1250.7	1432.8	1736.5	2282.9
recurrent capital	723.9	842.1	994.1	118.1	1367.6
	361.3	408.6	438.7	618.34	915.3
Overall balance (incl. Grants)	76.2	149.6	149.3	108.3	-47.1
Government savings	285.7	420.8	444.4	563.5	676.3
financing	-76.2	-149.6	-149.3	-108.3	47.1
foreign	140.8	167.7	103.2	211.2	185.2
domestic, net	-217	-317.3	-252.5	-319.5	-138.1
bank finance	-262.6	-328.2	-277	-309.7	-175
other	45.6	10.9	24.5	-9.8	-16
As percentage of GNP					
Total receipts	35.0	36.8	36.9	38.2	30.7
Total expenditure	32.7	32.8	33.4	35.9	37.1
Government savings	8.9	11.0	10.4	11.7	11.0

Source: WTO, 1998.

Like other SACU members, Lesotho relies on SACU as a source of budgetary revenue. During the 1990s SACU receipts have accounted for more than 50 percent of Lesotho's total budgetary revenue, and more than 70 percent of recurrent expenditure.   These SACU revenues to Lesotho have been significantly influenced by LHWP-related imports.   In terms of tax revenue, the share of SACU receipts in Lesotho is the highest among all the SACU members.   This situation is not obviously sustainable.   SACU revenues are likely to decline as SACU lowers its customs duties under its committed programme of trade reforms, any change in the revenue formula, and in the compensation to the BLNS countries is a central issue in the ongoing SACU renegotiations.   However, Lesotho is expected to raise more revenue the export of water.   From Table 4.5, total receipts as a share of GDP has been fairly stable at 35.5 percent between 1992 and 1997. While total expenditure as a share of GDP has averaged at 34.4 percent during the same period.

Government saving as a share of GDP was 8.9 percent and 11 percent in 1992/93 and 1996/97 respectively.

Recent fiscal policies have focused on boosting non-customs revenues in order to absorb the impact of the expected declining SACU receipts. The external debt rose from about M1 billion to almost M1.9 billion in the period 1991 to 1995, largely because of the Lesotho Highlands Water Project (LHWP). Its overall public debt has been financed through external and domestic sources. Concessional loans constituted 84 percent of the external public debt in 1991, rising to 88 percent in 1995.

4.4.2 Monetary Policy

Lesotho is a member of the Common Monetary Area (CMA), therefore, her currency the loti is pegged to the South African Rand at par. The Central Bank of Lesotho (CBL) is responsible for monetary policy and with the Reserve Bank of South Africa determines exchange rate policy for the loti. The Central Bank also controls external currency transactions and delegates to commercial banks the authority to approve certain types of current payments up to set limits. It also issues licences to financial institutions accepting deposits, insurance companies, brokers and agents.

4.4.2(a)   Money Supply

The monetary aggregates increased considerably less quickly in 1983 than they had done in 1982. Money, which comprises Maloti with the public and demand call deposits with commercial banks, rose by M9.2 million or 11.9 percent during 1983. At the end of 1983 Maloti with the public amounted to M23.1 million or 29.8 percent higher than 1982. Quasi-money grew by M24.7 million during 1983, a rate of increase of 22.8 percent per annum. Money supply, which covers quasi-money plus money, increased by M33.9 million in 1985 an annual rate of growth of 18.3 percent (Central Bank of Lesotho, 1986). In 1989 money supply increased by M65.8 million or 13.4 percent to

M555.8 compared with 26.6 percent rise observed in 1988. Currency in circulation (excluding Rand) increased by M11.5 million or 27.4 percent to M53.4 million compared with 26.2 percent in 1988.

Figure 4.6: Money Supply
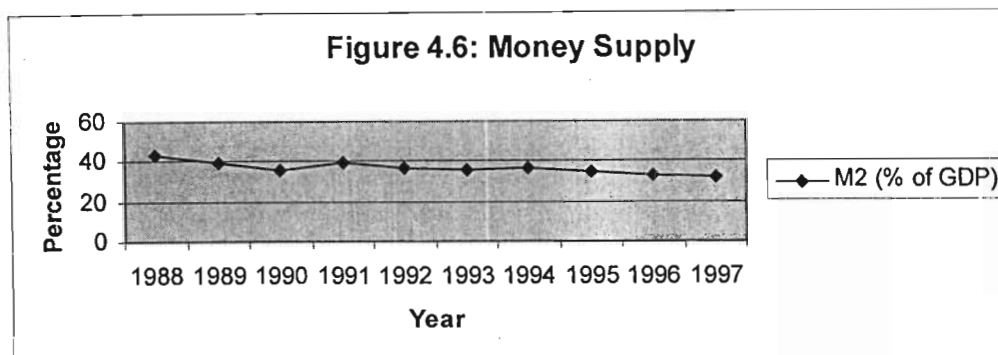
Source: World Bank, 1999.

Money supply (M2) in 1990 increased by 8.4 percent to M602.6 million, significantly lower than the growth of 13.4 percent recorded in 1989. The deceleration was mainly a result of a slowdown in the rate of growth of deposits coupled with an even slower rate of growth in Maloti in circulation. Compared with the rate of inflation measured by the mean annual growth rate in money supply, the growth was 3.1 percentage points below the inflation rate (Central Bank of Lesotho, 1990). In 1992, money supply (M2) continued to demonstrate an upward trend. At the end of the year M2 stood at M741.7 million representing an annual increase of M63.3 million or 9.3 percent. This is compared with an annual rise of 9.6 percent in 1991 and 11.1 percent in 1990.

4.4.2(b)   Prices

Imports from South Africa make up more than 70 percent of the basket of goods and services from which Lesotho's consumer price index (CPI) is compiled. Therefore, price developments follow more or less the trend in South Africa. Nevertheless, divergence may occur because differences in the weighting of goods in Lesotho's CPI is biased towards basic commodities, such as food, while in South Africa's CPI is weighted favour of manufactures. Therefore, during periods of drought, food prices escalate and Lesotho's CPI

rises above that of South Africa; the opposite occurs when good rains allow for good agricultural harvest.

Figure 4.7: Consumer Prices in Lesotho
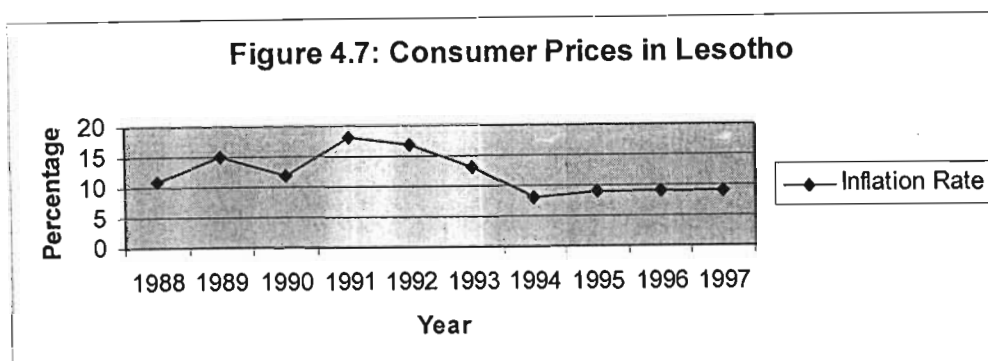
Source: World Bank, 1999.

During the late 1980s there was a substantial abatement of the inflation rate, particularly between 1987 and 1988 compared with 1986. The annual average inflation rate declined from 18.1 percent to 12.2 percent in 1987, and increased to 12.5 percent in 1988. The rapid decline in the rate of inflation was largely due to the exemption of basic commodities from the sales tax (Central Bank of Lesotho, 1988). However, it climbed back to 14.9 percent in 1989. In 1992 it reached a highest level of 16.4 percent but started to decline in 1993 and reached single digits in 1994.

4.4.2(c)   Interest Rates

Interest rates in Lesotho move in line with those in the Common Monetary Area (CMA), particularly in the South African markets. The general pattern of interest rate changes in 1983 was characterised by a sharp decline in the first quarter, followed by a rising trend during the rest of the year. This pattern matched that of South African interest rates which have greater impact on interest rates in Lesotho (Central Bank of Lesotho, 1983). The Central Bank's call deposit rate increased by 3.3 percentage points to 16.8 percent in 1989. At this level it was about three percentage points lower than the corresponding rate in South Africa. During 1992 and 1993, the domestic money market rates declined in line with the developments in the South African money markets. The domestic prime rate was reduced twice by 1

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percentage point on each occasion in February and November to close at 14 percent at the end of 1993. Therefore, the domestic prime rate was 1.25 percentage points below the corresponding South African rate. In response to these changes the commercial banks reduced their lending rates.

Figure 4.8: Interest Rates
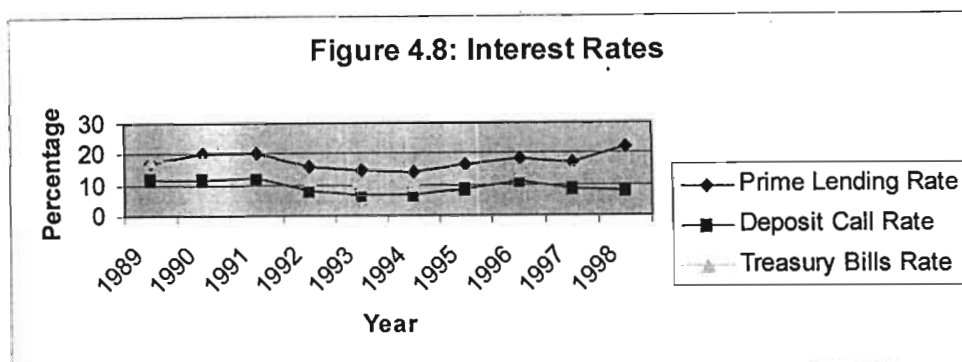
Source: Quarterly Review, various issues, Central Bank of Lesotho.

In 1996, in line with developments in South Africa, the Central Bank raised its rates on surplus funds by between 1.35 and 2.75 percentage points. Thus, the call and the 31day deposit rates were raised to 13.75 percent and 14.20 percent respectively. Similarly, the commercial bank interest rates were also adjusted upwards. In the last quarter of 1999, the money market interest rates continued on the declining trend. This was made possible by favourable macroeconomic developments in Lesotho and the rest of the region. Prime lending rates fell by 0.66 percentage point to 17.67 percent point compared to a 1.00 percentage point in South African rates. Central Bank's rates also showed a declining during this period, with the call rate falling from 9.38 percent to 8.88 percent (Central Bank of Lesotho, 1999).

4.4.2(d)   Exchange Rate Movements and Trade

There has been a progressive increase in Lesotho's non-Rand foreign exchange transactions, with a growing deficit since 1992 as a result of an increase in flows associated with the Lesotho Highlands Water Project (LHWP). Receipts peaked at M86.2 million in 1990 and dropped to M76.7 million in 1995. Export receipts recorded accounted for 31.3 percent in 1995, significantly higher than the shares of 14.1 percent and 7.5 percent in 1994

and 1993 respectively. Foreign exchange payments have been growing steadily since 1989.

Table 4.6: Summary of Non-Rand Transactions, 1991 – 1996 (Maloti Million)

	1991	1992	1993	1994	1995	1996
Receipts	74.1	82.7	77.7	81.8	76.7	152.0
Export	2.4	1.7	5.8	11.5	24.0	54.7
Other	71.7	81.0	71.9	70.3	52.7	97.3
Payments	99.2	97.3	141.6	157.7	170.2	225.9
Imports	16.4	28.6	85.6	89.2	81.7	132.8
Other	82.8	68.7	56.0	68.5	88.5	123.1
Surplus/Deficit	-25.1	-14.6	-63.9	-75.9	-93.5	-103.9

Source: WTO, 1998.

The loti has depreciated considerably against the US dollar since 1992; there was a deceleration in the depreciation rate over 1994/95, but there was again a sharp fall in 1996. The depreciation of the loti has probably been a factor in the growth of manufacturing. The sector, particular clothing, footwear and consumer electronics, has been the fastest growing of the economy. Its contribution to GDP rose from 7 percent in 1983 to 14 percent in 1994. These sub-sectors' contribution to total merchandise exports increased from 60 percent in 1993 to more than 86 percent in 1994 (Ministry of Economic Planning and Development, 1996).

Figure 4.9: Real Effective Exchange Rate Index = 100
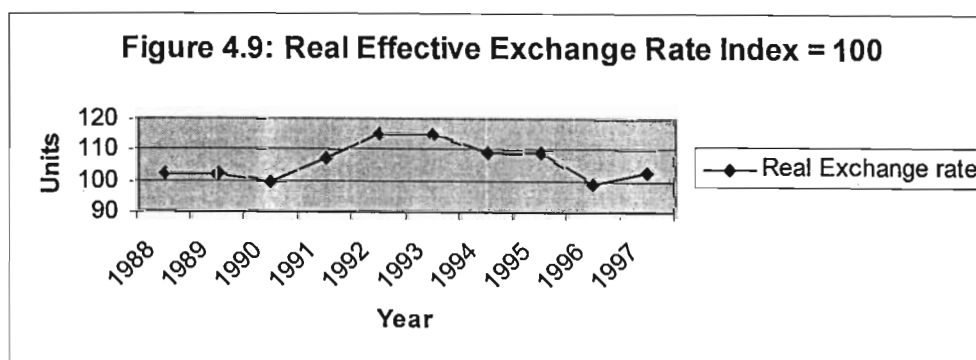
Source: World Bank, 1999.

4.5   Foreign Trade and Investment

Since the 1960s, the pattern of merchandise trade has been stable with imports considerably outweighing exports.   The economy is highly import-dependent, with respect to both consumer goods and production inputs. Total imports were 120 percent of GDP in 1995.   The merchandise exports have been dominated by food and live animals, crude materials and manufactured goods.   Diamond exports were relatively significant until the closure of the Letseng-la-Terai mine in 1982.   Exports of miscellaneous manufactured products, especially textiles, clothing and footwear, steadily expanded from M129.3 million in 1991 to M583 million in 1996 to dominate Lesotho's merchandise exports.

Figure 4.10: Exports in Lesotho
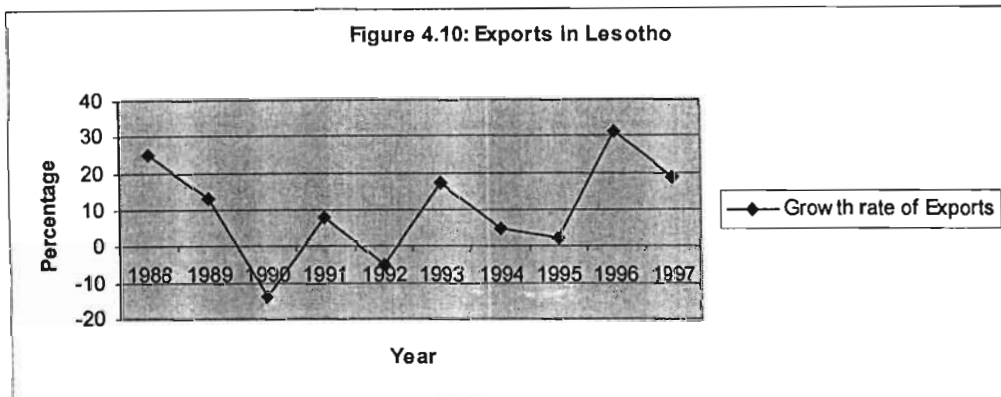
Source: World Bank, 1999.

The merchandise trade has remained unchanged over the past five years. In exports, the largest share goes to Africa, especially to the SACU market. In 1995, exports to Africa constituted 53 percent of total exports, with most going to SACU. Over the period 1991-1995 exports to Europe peaked in 1993 at M82.6 million but fell to M53.2 million in 1994. The increase in 1995 was M1.1 million. Foreign investment originates primarily from South Africa and East Asia. Most of the South African investment is aimed to serve the South African market, while the bulk of Asian investment goes to light manufacturing activities targeted at extra-SACU markets. Over the last decade, the stock of inward foreign direct investment (FDI) has grown faster in percentage terms in Lesotho than in other BLNS (Botswana, Lesotho, Namibia, and Swaziland) countries.

4.6   Structural Adjustment Programmes (SAPs)

As response to the economic crisis of the 1980s, the government of Lesotho with the support of the IMF, launched a structural adjustment programme (SAPs) in 1988 which sought to increase the efficiency of the public sector and improve opportunities through tax reform and streamlined investment incentives. Structural adjustment policies are designed to address the long-term growth issues through better supply responses to market liberalisation and efficient macroeconomic management. In their institutional form, the SAPs are aimed at achieving three major objectives. These are:

- Macroeconomic stability
- The need for prices to reflect relative scarcities and
- On reduction in the role of government in economic affairs (Demery, 1994)

To achieve the objectives of SAPs, the primary policy instruments employed are:

1. Exchange rate adjustment, primarily devaluation
2. Control of the money supply and credit ceilings
3. Interest rate policy, allowing interest rates to respond to market forces
4. Debt scheduling
5. Fiscal policy including measures to reduce public expenditure and mobilise resources
6. Deregulation of prices of goods, services and factor inputs
7. Liberalisation of trade and payment arrangements; and
8. The reform of institutions with an emphasis on building capacity for policy analysis for implementing public investment and privatisation of public assets

But Lesotho launched Comprehensive Adjustment Programmes, which include the following policies

- Deregulation of prices of goods, services and factor inputs

- Fiscal policy including measures to reduce public expenditure and mobilise resources
- The reform of institutions with an emphasis on building capacity for policy analysis, for implementing public investments and privatisation of public assets.

In 1992, the Southern African region experienced considerable drought which, combined with the world recession, resulted in a marginal or negative growth rate in some countries. In 1993, there was a marked improvement in performance with Lesotho achieving growth rates of more than 6 percent. Large fiscal deficits indicate the extent of government failures to achieve fiscal balance. There have been improvements in the economic situation compared to the pre-adjustment period. Between the mid-1980s and 1993, Lesotho showed major improvements in her fiscal performance. Lesotho's fiscal deficit declined from 30 percent of GDP in 1987 to almost a balanced budget by 1993.

The impact of SAPs on the fiscal deficit is determined through a set of conditions, including the reduction of government spending. It has also been increasingly recognised that unless the role of government is limited to those activities where market failures predominate, growth of the private sector could be crowded out and stifled. Apart from the reductions in government expenditures, maintaining a healthy fiscal balance also necessitates measures to increase revenues. Lesotho has experienced modest increases in revenues during the adjustment period. There have been serious attempts to reduce the rates of inflation. However, the degree of success has varied from one country to another. The inflation rate has been reduced in Lesotho during the adjustment period and has reached a single digit of 9 percent in 1995 and 1996.

Increasing investment in the productive capacity of any country is considered central to long-term economic transformation and sustainable growth. During the adjustment period, Lesotho had the highest share of gross domestic

investment in GDP in the world, which had risen from approximately 49 percent in 1988 to approximately 76 percent by 1993. This has been attributed to massive investment in the Lesotho High Water Project (Peterson, 1993). In Lesotho, the terms of trade started to deteriorate around the mid-eighties and continued through to the early nineties. Promoting growth and diversifying exports have been central to SAPs. Lesotho has also experienced rapid growth in the value of its exports.

In sum, the overall economic and financial performance of Lesotho under the SAPs has been satisfactory. Real GDP growth averaged 5.5 percent during the period 1988-95, while real GNP averaged only 2.1 percent as a result of a decline in remittances by Basotho migrant workers in South Africa. Gross domestic investment rose to about 38 percent of GNP in 1993/94 mainly as a result of investments related to the Lesotho Highland Water Project (LHWP) and those made in the manufacturing sector by private investors. The current account deficit declined to 2 percent of GNP in 1993/94, and foreign exchange reserves rose from one month of imports in 1988/89 to 45 months at the end of 1993/94 (WTO, 1998). External factors such as favourable climatic conditions or the impact of the Lesotho Highlands Water Project (LHWP) are obviously more important factors of this performance. Conversely, progress in the restructuring of the state owned industrial and banking sectors has been very slow.

The Kingdom has maintained the SAP during 1995/96-1997/98 with the aim of achieving a current deficit not exceeding 2 percent of GNP as well as maintaining the momentum already achieved in increasing official foreign exchange reserves. In addition, investment as a share of GNP is being maintained at the level of 5.5 percent of which 20.9 percent is related to LHWP activities. It was also projected that the national savings ratio will average 37.8 percent of GNP, thus narrowing the gap between investment and savings.

4.7 Constraints on Economic Transformation

The pattern of Lesotho's economic transformation is constrained by certain weaknesses, which have placed a strain on domestic human and institutional capacity. Lesotho is in need of entrepreneurs as well as of technical and managerial manpower. The general lack of an entrepreneurial class has meant that the manufacturing sector is almost entirely foreign owned and characterised by weak linkages with the rest of the economy (Central Bank of Lesotho, 1996a). The shortage of adequate managerial and technical personnel in the public sector has affected the quality of administration, absorptive capacity and ability of the sector to initiate, plan, implement and monitor projects (Government of Lesotho, 1995). On the other hand, the shortage of technical and scientific manpower has resulted in limited implementation of engineering projects and consequent absence of capacity to support the agricultural sector with the necessary inputs, and the industrial and service sectors with appropriate technical know-how.

CHAPTER FIVE

5   ECONOMIC PERFORMANCE IN SWAZILAND

5.1   Introduction

The objective of this chapter is to shed light on the performance of the economy in the Kingdom of Swaziland. Chapter five begins with a review of various sectoral performances and their contribution to the country's economic performance. Recent developments in macroeconomic policies are also discussed in this chapter. The chapter concludes with a discussion on the constraints facing the economy of Swaziland.

5.1.1 Background

Swaziland is a small landlocked country bordered by South Africa and Mozambique, with a population of just below 1 million and a per capita GNP of US$840. A feature of the economy at independence was the close linkages to South Africa. Whilst most exports went outside the region, nearly all imports came from South Africa (91 percent in 1968). Of great significance was the fact that Swaziland was a member of the Southern African Customs Union (SACU) and the Rand Monetary Area (RMA) which was formalised only in 1975, what later became the Common Monetary Area (CMA). Although there were undoubted advantages from this association, membership prevented Swaziland from developing its own monetary policy and trade policies so it was not possible to protect potential domestic industries or follow an independent exchange rate policy.

Prospects for economic growth at independence were for a significant slowdown after rapid rates of the early 1960s. No major new investments had been identified and the water resources were not sufficiently documented to enable the planning of new irrigation schemes to commence. Despite

Figure 5.2: Agriculture contribution to GDP
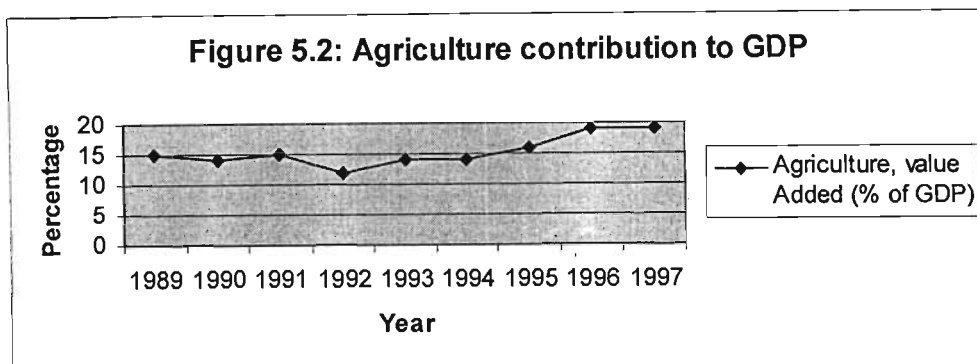
Source: World Bank, 1999.

5.2.1(a)   Sugar

Commercial farmers primarily produce the country's major export earner on TDL. The rapid growth of the value of exports in the late 1970s prompted the establishment of a third mill. After 1981, however, the persistence of high world stocks depressed prices throughout the mid-1980s. The industry benefited from the bumper crop of 1986, when production reached a record 506,349 tonnes. In subsequent seasons production has established a new average level of some 437,000. By 1991, sugar cane output was still below the record 506,349 metric tonnes reached in 1986. About a third of total output is exported, mainly under contractual terms, to the EC - under the Lome Convention - Canada and the USA (EIU, 1998/99).

Sugar production for 1997/98 remained at the previous year's level, recording 475727 metric tonnes. Despite the good rains, which improved water levels in dams, the industry failed at full capacity (500 000 metric tonnes). This was due to the February mass stayaway which affected sugar cane production. Local sales volumes for 1997/98 show an increase of 15.6 percent compared to the previous year. Industrial users attribute this increase to high demand for refined sugar. A new customer in the blending industry entered the market thereby increasing demand for sugar and Cadbury, a sweets manufacturer, expanded its operations. Concurrently demand by domestic users decreased by 9.7 percent. The decrease was due to the narrowing price differential between the South African and Swaziland sugar. The

narrow price differential reduced the incentive to buy sugar for resale in South Africa.

Table 5.1: Sugar Production and Sales 1992 - 1998

	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98
Production	495750	457268	485151	421997	470989	475727
Sales volume						
Exports Canada	55721	29400	14700	na	na	na
E.U.	122340	120690	135610	120000	120000	120000
Portugal	38350	na	26000	60000	60000	51000
U.S.A.	17525	14650	19270	16500	20000	27642
Other exports	134270	145220	96288	60000	21000	50349
Total exports	368206	309960	291868	256500	221000	248991
Local sales	80475	102311	173446	182272	183705	212296
Domestic use	na	na	38531	49289	52026	46947
Industrial use	na	na	134915	132983	131679	165349
Total	448681	412271	465314	438772	404705	461287

Source: Ministry of Economic Planning and Development, 1998.

na = not available

The volume of exports increased by 12.7 percent from the 1996/97 figure. This was mainly because of an increased demand by the USA and regional markets. Sales into the region increased due to the revival of the South African market. During the year, South Africa suffered production shortfalls, which resulted in some imports by Tongaat Hulet, a major South African sugar producer. Despite a strong campaign by the labour unions in the United States of America to impose sanctions on Swaziland's exports under the Generalised Systems of Preference (GSP), sales to the USA increased to record 27642 metric tonnes. This was mainly a result of failure by other countries to supply their sugar quota to the U.S.A. Sales to Canada continued to be suspended due to the high demand from the domestic market and better price offers from other markets (Ministry of Economic Planning and Development, 1998).

The European Union continues to be the main market taking the largest share of total international exports. Sales to the Special Preferential Sugar market, which includes Portugal and Finland, decreased by 25 percent as a result of a fall in demand by refineries in these countries. However, the depreciation of the rand increased sugar earnings thus offsetting the negative effects of lower export volumes. Major developments in the sugar industry in 1997 include the take-over of Lonrho at Ubombo Ranches by Illovo, South Africa's largest sugar producer. This change of ownership is expected to have a great impact on the regional sugar industry since Illovo's control stretches to include Malawi, Mozambique and Mauritius.

5.2.1(b)   Maize

The main crop on Swazi Nation Land (SNL) is maize, accounting for about 80 percent of cultivated area. Productivity has been generally low and production has been characterised by extreme fluctuations caused by weather shocks. The drought of the early 1980s, although not as severe as elsewhere in the sub-region, exacerbated an existing trend of falling food self-sufficiency. During 1981-1983 there were large increases in food imports as the maize crop, most which is produced by peasant farmers on Swazi Nation Land (SNL), fell. The importation of unpopular yellow maize prompted maize producers to plough early and increase the area under cultivation in 1983/84 and they were rewarded by good harvests as the drought ended. SNL production rose from 45000 to 110170 tonnes. The country continues, however, to import maize. This is partly attributable to poor storage and marketing facilities. In 1987/88 the crop was hit by poor rains and drought, production on Swazi Nation Lands (SNL) was 102481 tonnes and the national crop reached an estimated 135000 but late rains and hail reduced output in 1989/90 (EIU, 1992/93).

Since 1988, output grew steadily because of favourable rain patterns, reaching 153000 metric tonnes by 1991. However output fell by 50 percent in 1992 because of the drought. Cotton is cultivated on both Title Deed Land

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(TDL) and Swazi Nation Lands (SNL). Production reached a peak of 32538 metric tonnes in the 1988/89 season and fell thereafter mainly because of the erratic rainfall, although a modest increase was recorded in 1990/91. As consequence, production falls significantly during years of drought and increases remarkably during wet seasons. When the drought began in 1991/92, production of cotton fell drastically from 153000 metric tonnes in 1990/91 to 45000 metric tonnes. Thereafter production remained at low levels until 1995/96 when it reached an estimated 135000 metric tonnes due to favourable rains.

Maize production in 1996/97 is estimated at 85125 metric tonnes, which is significantly below the previous year's output. Inadequate rains, reduced area planted, pests and poor harvest conditions influenced the performance of the 1996/97 crop. Rains came late in November and the amounts received in the main maize producing areas were less than usual. As a result, the area planted in the traditionally maize growing areas was reduced. Towards the end of the planting season excessive rains were experienced which resulted in waterlogging and destroyed the crop. Other problems were poor germination which resulted in spare plant population, isolated but severe cases of hailstorms in the highveld and middleveld, and pests i.e. witchweed, stalkborer, and cutworm which were brought under control.

The price of maize for the marketing year 1997/98 has been maintained at the previous year's level of E43.74 per kg. The maintenance of the price at that level is in preparation for the wide ranging reforms in maize marketing which are primarily aimed at partial deregulation in the industry. The price has been always regulated by Government and did not reflect market conditions. As a result, the secondary market emerged quoting substantially high prices (MEPD, 1998).

The Swaziland government has undertaken a restructuring exercise of the National Maize Corporation with the aim of partially liberalising the maize industry. Part of the liberalisation process of the local maize market involves

separating the roles of procurement, storage and sale of the grain from that of milling and marketing of the grain products. The process is unlikely to improve food security or to promote commercial farming among smallholder farmers because NMC no longer will determine the floor price of maize. Swaziland has never been self-sufficient in maize production. The shortfall in consumption needs have always been satisfied by commercial imports. Higher producer prices result in higher mealie-meal prices especially in rural areas where the prices are even higher than the gazetted amount. Such high prices have an adverse effect on food security because the majority of rural households are deficit producers and have fewer sources of income.

5.2.1(c)   Citrus

Citrus fruit is the second largest crop on TDL. After the bumper crop of 1986, it has declined continuously partly due to lower harvested area. In a normal year, the industry produces approximately 4 million cartons of citrus fruit, i.e. grapefruits, oranges, soft citrus and lemone. About 60 percent of the fruit is exported. Production in 1997 is estimated at around 5.2 million cartons, showing a 6 percent increase from the 1996 production level. The increase is attributed to the good rains received during the year and the low incidence of hailstorms. Exports sales outside Southern Africa were 2.72 million cartons, representing a decline of 10 percent from the previous year's figure. This was mainly a result of stiff competition from major world producers. The incidence of hailstorms, which destroyed the fruit also contributed to the decline in export volumes. The competition came mainly from Israel and the United States of America, in particular Florida.

Fruit sold for local processing went up substantially (about 67 percent) in 1997. This was mainly a result of an increased volume of fruit that could not meet export standards and the stiff competition in international markets. The high volumes of local sales consequently led to many growers recording lower sales receipts because of the high price differential between the local and export market.

Table 5.2: Pineapple Purchase and Fruit Canning Production 1993 - 1997

	1993	1994	1995	1996	1997
Pineapple purchase (tonnes) from					
Swazican	21114	17583	10638	11202	8438
Outside growers	na	na	na	1030	1433
Settlement	2491	1913	502	624	408
Natal	974	854	1329	718	500
Total	24579	20350	12469	13574	10779
Pineapple cost/tonne	206	155	250	300	301
Production volume (metric tonnes)					
Pineapple fresh	4545	4033	2503	3438	2885
Pineapple juice	2131	2356	2776	2737	1885
Citrus segments	3185	3400	4221	5666	4717
Citrus juice	2073	4017	2770	3261	8747
Jam	na	1885	2105	1506	1527

Source: MEPD, 1998.

From Table 5.2, pineapple production by Swazican is estimated at around 8438 tonnes for the year 1997, which shows a decrease of 24.6 percent from the 1996 figure. The company has been reducing the area under cultivation and promoting private participation as part of its restructuring programme. Output from privatised farms showed an increase recording 1433 tonnes as the company opened up for more private participation whilst production by settlement farmers went down by 34.6 percent to 408 tonnes. Processing of citrus fruit showed a substantial improvement, since the company experienced a decline of 16.7 percent from the previous year's figure. The main markets for the segments are Europe and Asia. Citrus juice production increased significantly 168.2 percent in 1997. This was mainly a result of growers selling all the fruit they could not export, to Swazican.

Timber plantations cover 6 percent of the total land area including the Sutu forest, which, at 65000 ha, is among the largest manmade forests in the world. Exports of wood and wood products earned E144 million in 1987, and accounted for 18 percent of all exports. The larger part of exports by value is in the form of woodpulp produced by the Usutu Pulp Company. In 1988 exports of unbleached kraft were 175564 tonnes and earned E164 million.

Table 5.3: Agro-Industry (tonnes unless otherwise indicated)

	1992/93	1993/94	1994/95	1995/96	1996/97
Woodpulp					
Production	176477	170846	164734	170857	115045
Export volume	156870	178578	174909	160296	130635
Export fob (Em)	171.2	169.9	252.9	440.7	240.1
Canned fruit					
Production	15256	12674	13733	14897	16993
Exports	13144	9495	20817	15933	14668
Domestic sales	36	15	55	200	200
Export fob (Em)	45.9	34.7	47.5	49.6	53.7
Meat					
Production	1.0	3.1	3.7	3.7	3.3
Exports	4.1	1.0	1.0	0.9	1.0
Domestic sales	0.3	1.1	3.1	1.9	2.9
Export fob (Em)	4.0	14.1	13.6	13.9	15.4

Source: Central Bank of Swaziland, 1998.

5.2.1(d)   Cotton

The cotton industry experienced a further recovery in 1996/97 following reasonable rainfall at the beginning of the crop season and the area planted increased to 31000 hectares. Total production increased from 14000 metric tonnes in 1995/96 to 16197 metric tonnes in 1996/97. Even though the yield improved significantly because of the good rains at the start of the season, a number of problems affected the cotton crop. There were not enough tractors to do land preparation, and the wet conditions experienced during the growing season encouraged shedding of squares as well as the spread of pests and disease. Furthermore, as the rains continued, farmers faced serious problems of weed and experienced difficulties in putting it under control (Central Bank of Swaziland, 1998).

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Table 5.4: Seed Cotton Production

	Production Volume (metric tonnes)				
	Large-scale growers		Small-scale growers		
	Tonnes	Percentage	Tonnes	Percentage	Total Tonnes
1986	10757	54	9164	46	19921
1987	9294	62	5697	38	14991
1989	16269	50	16269	50	32538
1990	13029	50	13029	50	26058
1991	12643	48	13698	52	26341
1992	2822	48	3057	52	5879
1993	4000	40	6000	60	10000
1994	3000	40	4500	60	7500
1995	2480	40	3720	60	6200
1996	5600	40	8400	60	14000
1997	6480	40	9717	60	16197

Source: MEPD, 1998.

From Table 5.4, the impact of the serious drought of 1991/92 has reduced total production to 5879 metric tonnes from 26341 metric tonnes in 1990/91 crop season. In the 1990s the production of cotton was not high as in the 1980s; this is due to the factors that affected cotton production cited above. Following the crop financing package of E9 million was made available by the Cotton Board and the rest made available by the ginneries, the number of participating farmers increased during the1996/97 crop season. The money was used for land preparation and purchase of fertilisers. Government also made available a grant of E2.08 million, which was used to buy seeds and were made available for free to all the cotton farmers. The price for the 1997/98 marketing year increased by 0.9 percent from E2.20 to E2.40. Over the years the price were negotiated with the Republic of South Africa (MEPD, 1998).

5.2.1(e)   Livestock

Livestock production is a major activity in the rural sector. It consists of rearing cattle, chickens, pigs and small ruminants, i.e., sheep and goats. About 77 percent of the total cattle population is owned by SNL farmers. The cattle population numbers for 1996 indicate a decline of 6 percent; however, the numbers have been increasing steadily since 1994 reflecting the desire by farmers to rebuild their herds. The significance of livestock is mainly social whilst its contribution to the economy is negligible.   In 1996 livestock contributed approximately 1.2 percent to GDP. It has recently received a boost through the intensified efforts of expanding the piggery sub-sector. Farmers are provided with the breeding stock and Simunye provides the market when they are ready for slaughter. While on other hand livestock has seen the contraction of the ostrich sub-sector. The sub-sector had a market in Europe and South Africa, which saw an expansion in 1995 only to take a significant decline in 1997 following a congo fever scare, which hit RSA, and it has fortunately levelled off (EIU, 1998/99).

Table 5.5: National Livestock Population 1992 - 1996

Number					
	1992	1993	1994	1995	1996
Cattle	752775	607041	626356	641979	656484
Goats	409819	421679	459195	435080	403664
Sheep	27756	26708	26967	24282	20311
Poultry	992343	819249	680268	975170	1239587
Pigs	31035	29946	37945	29950	34935

Source: MEPD, 1998.

Although Swaziland has a quota to export 2363 metric tonnes of beef to the EU, she only managed to export 381.2 metric tonnes in 1996. The country is failing to meet the quota because one of the conditions is that the beef should be produced from Swazi cattle whereas the cattle are not available in the numbers and condition required. The farmers are reluctant to sell good

quality cattle unless forced by economic or climatic conditions; as a result, importation of cattle has continued to increase over the years. The improvement of rangelands was significant towards the end of 1997 because of the rains. The rains in 1997 caused an outbreak of redwater disease in some areas especially in the highveld and middleveld. The number of cattle deaths remained high in 1996 with a mortality rate of 5.5 percent compared to 5.3 percent in 1995. The highest number of deaths occurred on SNL and that was expected because of the cattle condition. Farmers have been gradually releasing their stock to the market as indicated by the slight increase of 3.2 percent in slaughters in 1996. About 40 percent were for commercial purpose while the rest were for household purposes.

5.2.2 Manufacturing Sector

The manufacturing sector has grown steadily since independence. During the 1970s and 1980s, this growth slowed down. In 1982/83, manufacturing contributed 23.4 percent to GDP compared with 7.9 percent in 1960. Until the mid-1980s agro-industries and wood processing accounted for about 80 percent of manufacturing, which itself accounted for 20 percent of GDP in 1986 (EIU, 1989/90). Commercial agro-processing involves mainly sugar, woodpulp, citrus, pineapples, cotton and meat. Manufacturing production consists mainly of export-oriented agro-forestry-based activities. The sector expanded impressively between 1986 and 1988, at 25 percent per annum. This was largely the result of the considerable influx of direct foreign investment, which entered the country in order to avoid economic sanctions against South Africa and take advantage of Swaziland's privileged access to European markets under the Lome Convention. New investments were established in drink processing, textiles, furniture and footwear (Ministry of Trade and Industry). Most notably, the regional supplier of Coca-Cola concentrates (CONCO) moved from South Africa to Swaziland and begun full operations in 1987. In addition, the country's largest textile company, NATEX, was established in 1988.

In 1989, overall output declined reflecting a sharp drop in woodpulp production caused by a boiler explosion at the Usutu Pulp Company. In 1990-1991, growth was basically led by the drink-processing sub-sector. The textile industry has been hit by the reduction of tariffs in the SACU area and difficulties in accessing outside markets. In addition, despite the expansion in the sugar refineries of Ubombo and Simunye, the sub-sector has remained basically stagnant since 1989. Furthermore, investment activity slowed down in 1990 resulting in a growth rate of only 3-4 percent for the non-agricultural sub-sector in 1991, well below the high level of about 10 percent of 1989 and 1990. This trend is linked to the political changes in South Africa, especially the imposition and the lifting of economic sanctions (EIU, 1993/94). At the beginning of 1985, the government therefore unveiled a new incentive package to attract foreign private investment, with a tax holiday for manufacturers and an extension of residence permits for foreign investors from two to five years among its main features. In 1986, Taiwanese investors opened four textile related manufacturing plants in Swaziland, creating almost 1000 new jobs..

Figure 5.3: Manufacturing contribution to GDP
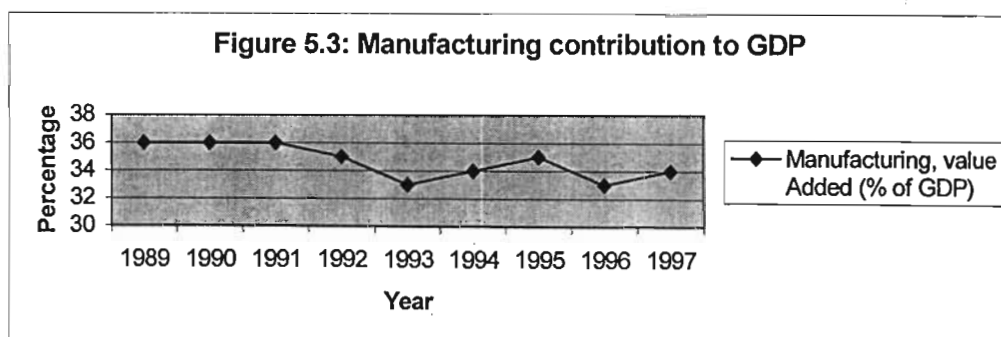
Source: World Bank, 1999.

In late 1987 another major step towards establishing a competitive and vertically fully integrated textiles industry was made when an agreement was signed with the World Bank's International Finance Corporation and the Commonwealth Development Corporation (CDC) for a US$35 million expansion of the National Textiles Corporation of Swaziland (EIU, 1997/98). The 1992 drought has affected some manufacturing activities such as the fruit canning industry. Despite the relative diversification of the industrial base, the

sector continued to be dominated by few sub-sectors sugar, wood pulp, drink processing and fruit canning

During 1995/96 SIDC continued its catalyst role for private sector industrial growth; five major projects were approved with an estimated value of E45 million. The projects include the establishment of poultry processing plant, construction of a factory, development and expansion of factory premises in the Matsapha Industrial Site. The sector expanded by a mere 0.3 percent in 1996/97 compared to 4 percent realised the previous year. The growth areas of the sector were in drink processing, sugar based production activities and refrigerators. The world economic upturn, in particular the positive economic growth registered by South Africa in 1996 were a large proportion of Swaziland's exports is destined increased export demand. In 1997/98 the manufacturing sector continued to be the main engine of growth for the economy and expanded by 5.5 percent (Central Bank of Swaziland, 1999).

Table 5.6: Manufactured Exports, 1991 - 1995

	1991	1992	1993	1994	1995
Other food products	411.5	522.5	696.1	842.0	962.7
Textiles	202.4	188.2	193.5	250.9	281.8
Refrigerators	35.6	72.9	183.0	172.2	192.5
Paper products	41.8	50.2	64.0	56.5	64.6
Other	99.8	148.0	205.2	344.7	141.4

Source: WTO, 1998.

The government industrial policy is promoted through the Swaziland Industrial Development Corporation (SIDC), which was set up in 1986 to take over from the ailing National Industrial Development Corporation of Swaziland (NIDCS), and the Small Enterprise Development Company (SEDCO), although it has for the most part been Tibiyo, which has been used to establish local holdings in large enterprises.

5.2.3 Mining Sector

Mining and quarrying have declined in both relative and absolute terms since the 1970s and 1980s. Their share in GDP fell from 10 percent in the 1960s to 2.7 percent in 1982/83. Anglo-American closed its iron ore mine at Ngwenya in 1978, with the last shipment of the remaining stockpile being made in 1980. However, asbestos production, a small diamond mining operation and the recovery in coal production in 1984 have supported mineral earnings. The major mineral that has been under production currently is the asbestos. The Havelock Asbestos mine is run by Turner and Newall through a local subsidiary, which is 40 percent owned by Tibiyo[14]. The 26286 tons produced in 1983 supported exports valued at E17.3 million or 5 percent of total exports.

Since then the downward trend in production, which has persisted throughout the 1981-1986 period, has been ameliorated in export terms by the falling Lilangeni/Rand exchange rate. Exports in 1986 were valued at E24 million, 4 percent of total exports. Extensive exploration was undertaken at the Havelock mine in 1986 with a view to increasing its life, though it remains to be seen what Turner and Newall's plans are in the light of this, given their earlier announcement to the government that they would not apply for the renewal of their lease when it expired in 1986 (MEPD, 1992).

The diamonds are minerals of industrial quality in Swaziland. The detail exploration was completed in 1984. Sales commenced in 1984, bringing in E575000 and rose to E3.92 million in 1985 when production was 21128 carats. In 1986, output rose to 39144 carats. The value of output also rose E20 million in 1989, but declined by 25 percent to E15.2 million in 1990.

Coal production at the Emaswati mine increased in the 1980s but unfavourable prices forced its closure in 1992. A new mine at Maloma

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[14] A Swazi nation organization is an investment agency with interests in a number of sectors of the economy namely, mining, manufacturing, agriculture, property, finance tourism and transport.

commenced production in 1994. There was a decline in mineral receipts during 1995 to E86 million, 12.8 percent lower than previous year's figure of E98 million. Asbestos emerged as the leading mineral export earner, even though its earnings fell by 18.4 percent compared to the year before and accounted for 57 percent of total revenue followed by diamonds at 33 percent and coal at 10 percent. During 1997, the mining industry revenue declined by a marginal 3.9 percent largely due to the closure of the Dvokolwako Diamond Mine. The industry registered E90.9 million sales vis-à-vis E94.6 million recorded in 1996 (EIU, 1997/98).

5.2.3 (a)   Asbestos

Asbestos production rose by a marginal 3 percent during 1995 to record 27914 tonnes from 26 988 tonnes recorded in 1994. In 1997 there was an insignificant 0.5 percent decline in production to amount to 25888 tonnes against 26014 tonnes in 1996. Asbestos continued to lead all other minerals as the major revenue earner in the industry. Amounting to E48 million, asbestos total sales were E11 million lower than the previous year's income. Despite a slight fall in production during 1997, asbestos receipts showed a substantial growth of 10.7 percent to record E64.1 million compared to E57.9 million in 1996. Exports of asbestos were E48 million down 18.4 percent primarily due to a decline in the international prices of the fibre compared to 1994. The amount of fibre sold to local brake and clutch manufacturing plant also dropped by 14.6 percent to 234 tonnes from 274 tonnes during 1994.

5.2.3(b)   Coal

Maloma Coal Mine produces high quality anthracite for export to Europe and other overseas markets. During 1995, 171666 tonnes were produced compared to 222770 tonnes of coal produced in 1994/95. Export earnings of coal for 1995/96 amounted to E8.4 million. In 1997 there was a significant increase in the production of coal. Production grew by a substantial 57.5 percent to 203115 tonnes compared to 128973 tonnes in 1996. Export

receipts also rose by 34.6 percent to E10.6 million against E7.9 million recorded in 1996, largely affected by the increase in volumes exported and also supported by the favourable exchange rate (Central Bank of Swaziland, 1998).

5.2.3(c)   Quarried Stone

During 1995 there was a significant 60 percent drop in the volume of quarried stone produced to record 113962 cubic metres. Consequently, total sales of the stone declined 42.3 percent from E6.3 million sold in 1994 to E3.6 million in 1995. The reduced sales were due to a low demand in the construction sector especially to major road works as construction was either delayed or not yet started (Central Bank Swaziland, 1996). Furthermore, the heavy rains in the latter part of 1995 might have contributed to this decline. During 1997 three was a significant upsurge in volumes of crushed stone produced to show 455753 cubic metres compared to 221237 cubic metres in 1996. Consequently, total sales of stone grew more than double to E16.1 million from E5.1 million in 1996. The increase in sales was due to a high demand in the construction sector as major construction of roads was undertaken.

5.3   Investment and Savings

An interesting feature in Swaziland's development is the decline in the investment to GDP ratio observed in the second half of the 1980s, which may have negative implications for growth prospects. This resulted mainly from a nominal decrease in public investment both by central government and parastatals. The fact that Swaziland was able to grow rapidly in the second half of the 1980s, despite the observed decline in the average investment ratio, suggests increased capacity utilisation based on previous years investments, and possibly some efficiency gains associated with increased economies of scale (IMF, 1997).

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Table 5.7: Composition of GDP by Expenditure (Percentage Share)

	1971-1979	1980-1984	1985-1990
Private Consumption	56.5	70.7	58.5
Government Consumption	16.6	20.9	18.1
Total Consumption	77.3	91.6	76.6
Private Investment	15.2	14.4	12.4
Public Investment	15.0	15.2	7.8
Total Investment	30.2	29.6	20.2
Exports of Goods & Services	66.8	64.6	75.5
Imports of Goods & Services	70.1	87.8	73.3
Gross Domestic Savings	30.4	8.1	20.9
Gross National Savings	27.9	11.8	22.8

Source: World Bank (1993).

It is common to find the relative importance of public investment declining at a certain stage of economic development, e.g. once basic infrastructure has been put in place. In Swaziland, part of decline in public investment could be attributed to a structural shift of this nature, particularly given the high levels attained in the late 1970s and early 1980s. However, there is evidence that investment in certain key public services was inadequate and capacity was overstretched to meet increased demand generated by the expansion in economic activity. In particular, investment in electricity, water and telecommunications suffered significantly as a result of financial difficulties faced by the public utilities while investment by central government was poorly targeted. Since 1989, the government has embarked on ambitious investment plan which, however, does not adequately address priorities and could prove unsustainable in the long term (World Bank, 1993).

Figure 5.4: Investment and Savings
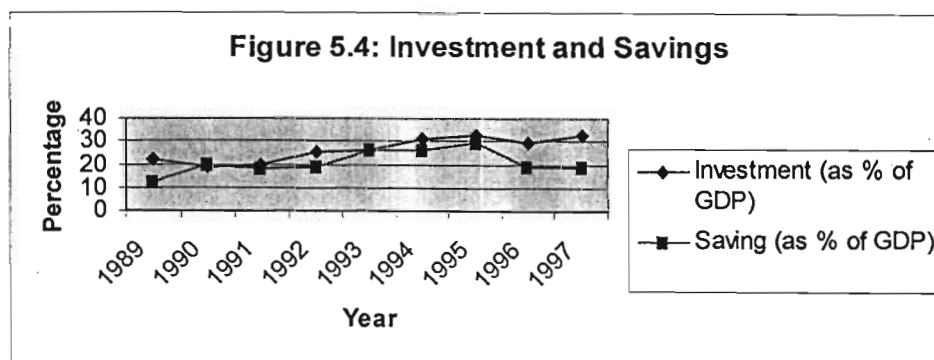
Source: World Bank, 1999.

The private investment to GDP ratio showed a slight fall compared to the previous decades. Throughout the 1970s and 1980s, private investment fluctuated markedly in real terms, mostly driven by foreign investment. The exception was the 1982-1984 period, when private investment kept up in real terms despite the decrease in foreign investment caused by the South African recession. Re-invested earnings by CONCO, Usuptu Pulp and Lonrho Sugar Corporation account for 50 percent of foreign investment in the 1980s. After peaking in 1989, nominal foreign investment contracted by 50 percent in 1990 and stagnated thereafter, reflecting the onset of another recession in South Africa and levelling-off of economic activity (EIU, 1992/93).

Since the 1990s, there has been a slow-down in foreign direct investment (FDI) which, together with low levels of investment by domestic entrepreneurs, has been the major contributor to the stagnation of the manufacturing sector. Growth in equity capital has also shown a gradual decline over the years from 1991, apart from an increase in growth from 11.8 percent in 1994 to 33.1 percent in 1995 reflecting a major restructuring exercise in the textile industry. Similarly long-term capital inflows have also seen a declining trend in growth from 58.8 percent in 1991 to -8.6 percent in 1996. Taking into account inflation, the real value added of FDI has recorded negative growth in the late 1990s.

Figure 5.5: Foreign Direct Investmnet
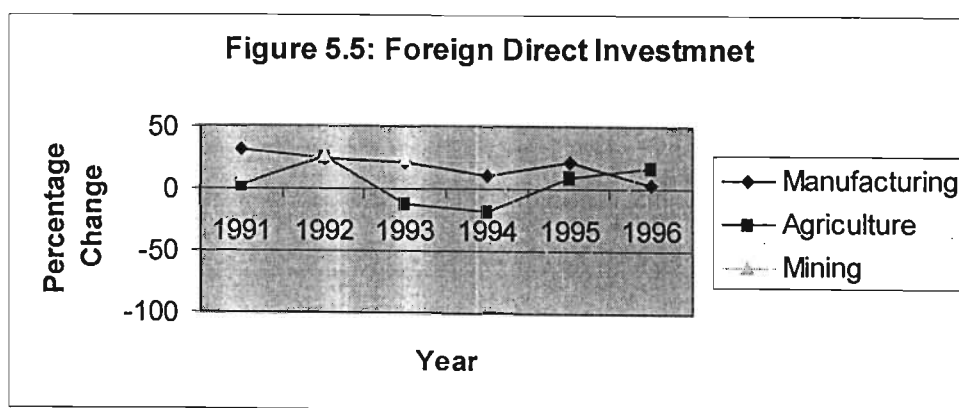
Source: WTO, 1998.

Exports of goods and services relative to GDP increased remarkably over the second half of the 1980s to an average of 75 percent from about 65 percent

the previous decade. This is attributable to the start-up of new manufacturing exports and sustained growth in traditional exports, particularly of sugar. By contrast, imports of goods and services as a percentage of GDP fell to an average of 73 percent in line with lower levels of public investment during part of this period, thus allowing a narrowing of the resource balance deficit. Gross domestic savings as share of GDP increased over the second half of the 1980s, peaking at 29.6 percent in 1988, as a result of a large government savings. Gross national savings as a percentage of GDP were high during most of the period, peaking at 35-40 percent in 1987-88, but declining thereafter because of substantial profit remittances.

5.4   Employment and Wages

Wage Councils determine wages in the private sector, which include representatives of employers, employees and the government. Sector-specific minimum wages negotiated by the wage councils exist in virtually all sectors. Wage increases are determined each year by the wage council on the basis of the cost of living index. Wage employment, representing about 25 percent of the total labour force, grew by an average annual rate of only 2.2 percent in the 1980s. This is below the growth rate for the 1970s, which averaged 5.9 percent and the growth in the labour force, estimated at 2.7 percent. Civil service employment expanded above the average, by an annual rate of 4.5 percent, driven by teacher recruitment. Employment by the parastatal sector remained stagnant (IMF, 1997).

Because of its proximity to South Africa and relative degree of labour mobility, private sector wages in Swaziland are high in relation to the country per capita income, which is one-third of that in South Africa. Since public sector wages, at least for skilled labour, tend to follow those in the private sector, this has had the effect of increasing the government overall wage bill. Wage councils and annual collective bargaining set wages in the private sector, and the minimum wage is set as a by-product of this process. Minimum wages rose in real terms over the second half of 1980 from a very low base. Civil

service pay policy has been subject to much controversy within Swaziland and has led to significant industrial relations difficulties over recent years. Not less than three salary commissions have been charged with the responsibility of revising the wage structure since 1986. Important pay scale adjustments were effected in 1988 and 1990. In addition, in response to union pressure, cost of living adjustments are being done on an annual basis since 1987 (World Bank, 1993).

Current employment figures indicate a marginal increase from 94766 in 1966 to 95681 in 1997. The private sector remained the major employer with 64122 persons employed in 1997 compared to 63497 persons in 1996. There was only slight growth in the jobs created by the agricultural sector due to improved weather conditions realised in 1997, despite the El Nino threat. The public sector showed a marginal increase of 0.9 percent to register 31269 jobs in 1997 from 31559 jobs in 1996. The increasing size of the public sector still remains a major concern for Swaziland. Services realised an increase of only 1.8 percent but remained a major employer in the formal sector, employing 26 percent of total employment. Manufacturing employed 18.2 percent and distribution followed with 11.2 percent; this was however, a drop from 13.2 percent recorded the previous year. There was an upsurge of 21.3 percent in the construction sector emanating from the increased construction activity mainly in the upgrading of the major roads, other government offices and houses, and the Maguga Dam project.

There is an escalating brain drain from Swaziland with more young graduates finding employment in neighbouring countries, especially South Africa. Swaziland is not able to absorb completing graduates and school leavers at the rate at which they are released into the labour market. The problem is perpetuated by the lack of investment, which may create suitable posts for the qualified graduates. The closure of companies during 1997 only aggravated the problem. As employment prospects depend on the rate at which investment is drawn into the country, there is an urgent need to create an investment friendly environment.

5.5 Social Services Sectors

5.5.1 Education

The 1986 Population Census found that 63 percent of the population aged more than five years was literate which represents a substantial improvement. Gender differences had virtually disappeared with 64 percent of males and 63 percent of females being classified as literate. The literacy rate is currently thought to be around 74 percent for both males and females which represents a enormous turnaround from the 30 percent recorded in 1966 (Central Statistics Office, 1988).

Table 5.8: Number of Pupils in Primary and Secondary Schools, 1974 - 1993

	Primary	Secondary	Pupil/Teacher Primary	Pupil/Teacher Secondary
1974	86110	14301	38.8	23.4
1975	89528	16227	37.9	22.0
1976	92721	17396	36.9	19.7
1977	96835	19359	36.2	19.8
1978	100700	20584	35.3	19.2
1979	105607	22091	35.0	19.1
1980	112019	23198	34.2	18.0
1981	119913	24826	33.4	17.3
1982	125303	26469	33.3	17.6
1983	129767	27828	33.1	18.2
1984	134528	28833	33.3	18.4
1985	139345	29914	33.9	19.2
1986	142206	30489	33.1	18.2
1987	147743	32942	33.1	18.7
1988	152895	35278	32.8	18.5
1989	157345	41881	32.2	20.1
1990	166545	41128	32.8	18.6
1991	172908	44085	32.3	18.1
1992	180285	51514	32.8	19.1
1993	186271	50304	32.7	18.0

Source: Central Statistics Office, 1996.

The improvement in the literacy rate reflects the quantum leap in enrolments in all classes of the education system. There has been rapid expansion of all

levels, and gross enrolment ratios have risen for primary education from 65 percent in 1968 to 100 percent in 1992. However, the net figure is lower, estimated at 82 percent due to high drop out and repeater rates. The secondary and tertiary gross enrolment ratios are 50 percent and 4 percent respectively (Ministry of Economic Planning and Development, 1996). In total, primary school enrolments have grown by 3000 percent in the 25 years since 1968 but the number of teachers has increased even more rapidly with the result that pupil/teacher ratios have declined from 38 in 1968 to 33 in 1993.

The extreme low base of secondary education at independence is illustrated by the fact that there were only 6246 pupils in 1968 out of a 1966 population aged 15-19 years of 36000. There has been subsequently a rapid growth with enrolments going up by 805 percent. Even so the number of teachers increased faster, and the average pupil/teacher ratio has fallen 21 in 1986 to 18 in 1993 ((Ministry of Economic Planning and Development, 1996).

Figure 5.6: Government Capital Expenditure by Sector
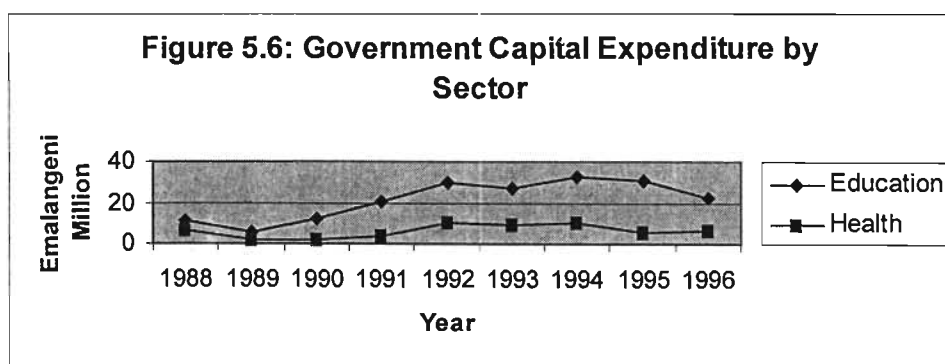
Source: Ministry of Economic Planning and Development, 1996, 1998.

5.5.2 Health

The 1966 Population Census data indicated that the average life expectancy at birth was 44 years. On the basis of the 1986 census, data show that average life expectancy at birth had increased by 29 percent, to 57 years. The infant mortality rate has declined by an impressive 41 percent from 168 per 1000 live births in 1966 to 113 per 1000 in 1983 and further to an estimated average of 99 by 1986. Other aggregate health indicators, such as

calorie supply, are encouraging. The Swaziland figure is 105 percent of required calorie supply, which compares with an average of 89 percent of sub-Saharan Africa. The data on health manpower shows a ratio of doctor to population of 7500 and 1 nurse per 1000 ((Ministry of Economic Planning and Development, 1996). Health spending accounted for 8.5 percent of recurrent expenditure in the 1997/98 budget, its proportion having fallen from 10.5 percent in 1990/91. As in other African countries, pressure is being exerted on Swaziland's health budget by the spread of HIV-Aids epidemic. Aids has made rapid inroads, and 22 percent of the sexually active population is estimated to be HIV-positive (EIU, 1997/98).

5.6   Macroeconomic Policies

5.6.1 Fiscal Policy

Given the kingdom's membership in the CMA which allows for free capital movement between member countries and the fixed peg of Swaziland's currency to the South African rand, fiscal policy is the main macroeconomic policy instrument. The fiscal situation in Swaziland is highly dependent on SACU receipts which account for more than half of total government revenue. After experiencing positive fiscal balances during 1987/88-1990/91 due to strong economic growth fuelled by increased foreign direct investment, the fiscal situation worsened during 1992/93-94/95. Therefore, the fiscal balance shifted from a surplus of 5 percent of GDP in 1991/92 to a deficit of 6 percent of GDP in 1994/95. In addition to the slowdown in economic growth, the deterioration of the fiscal situation was due to an increase in government expenditure, particularly current outlays (WTO, 1998).

The central government revenue declined by about 3 percentage points of GDP to 31 percent of GDP in 1994/95 from its level of in 1991/92. Despite some fluctuations, SACU receipts increased as a percentage of both GDP and total revenue. They declined by about 2 percentage points of GDP between 1991/92 and 1992/93, to 13 percent as result of sluggish import

growth. The share of SACU receipts in total revenue rose from 44 percent in 1991/92 to 48 percent in 1994/95. Revenue from taxes on net income and profits, the second largest revenue source after SACU receipts, declined by about 1 percentage point of GDP during the early 1990s (IMF, 1997). This decline was due solely to lower corporate income tax receipts which were adversely affected by a fall in foreign direct investment flows, the drought, and the recession in South Africa.

During the period 1992/93-1994/95, expenditure on goods and services remained flat as a percentage of GDP, while government subsidies and transfers, mainly as a result of transfers to the Disaster Relief Fund (DRF) in response to a regional drought, and the government's contribution to the pension scheme of the Swaziland Posts and Telecommunications Corporation (IMF, 1997). In 1994/95, they rose again by more than 2 percent of GDP, owing to (i) the allocation of E71 million for the restructuring of the Swaziland Posts and Telecommunications Corporation, (ii) a rise in subsidies to subvented institutions, including the University of Swaziland and the Swazi National Treasury, and (iii) transfers to meet wage adjustments for the employees of some public enterprises.

With regard to current outlays by sector, expenditure on general services rose from 5.6 percent of GDP in 1991/92 to 11 percent in 1994/95, reflecting an increase in the wage bill and expenditure on goods and services. However, the share of expenditure on social services in total current outlays declined from 47 percent in 1991/92 to 40 percent in 194/95. Expenditure on economic services increased strongly in 1992/93, but declined during 1993/94-1994/95. Despite some fluctuations, capital expenditure grew by 1 percent of GDP on average during the 1991/92-1994/95 period. It grew strongly in 1992/93 due to funds allocated for new projects in the areas of transportation and communication. In 1993/94 however, capital expenditure fell by 1 percent of GDP owing to a low implementation rate, but rose by 1 percent of GDP in 1994/95, because of the acquisition of a new aeroplane.

Government net lending remained insignificant as a percentage of total expenditure during the early 1990s.

Figure 5.7: Government Budget
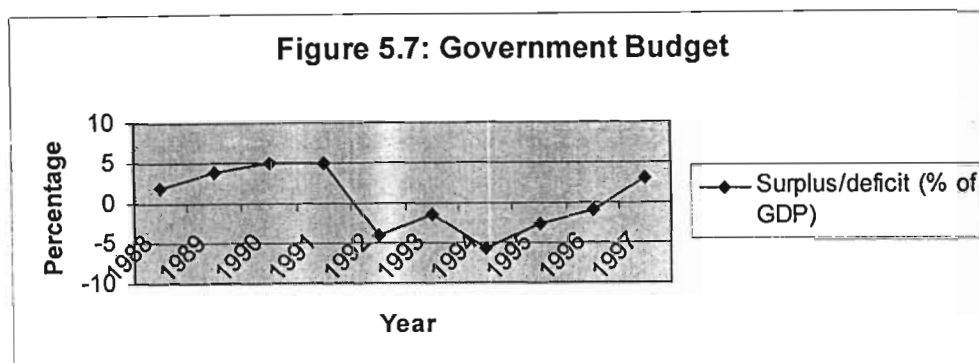
Source: Quarterly Bulletin, Central Bank of Swaziland, various issues.

The budget moved from a small deficit in 1968/69 to a surplus in 1969/70, mainly because of the massive increases in SACU revenue, while expenditure remained at the low level determined in the pre-independence period. During the 1970s, the budget recorded a deficit in six years and a surplus in four years. There were two exceptional years. In 1975/76 the enormous revenue from the Sugar Levy gave rise to a surplus of E23.7 million (11 percent of GDP). In 1978/79 a deficit of 12.3 percent of GDP occurred as a result of an increase of 94 percent in capital expenditure and net lending (Ministry of Economic Planning and Development, 1993). The government of Swaziland took steps to address the weaknesses in budgetary control, particularly the growth in expenditures for enterprises outside the regular budget. Nonetheless, after a surplus of 5 percent of GDP in 1980/81 (which resulted from an unsustained increase in revenue) there were a deficit of 9.6 percent of GDP in 1981/82 and there were deficits in six years during the 1980s with an average ratio of 4.4 percent.

The fiscal balances shifted from a surplus of 5 percent of GDP in 1991/92 to a deficit of 4 percent of GDP in 1992/93, and in the following two fiscal years, the deficit stood at 5 percent and 6 percent of GDP, respectively. The government financed these deficits, primarily through a draw down of its deposits held at the Central Bank and the sale of assets (Central Bank of Swaziland, 1995). In 1995/96 the deficit declined to less than 1 percent of

GDP. This improvement came mainly from a large increase in SACU and sales tax receipts and a decline in nominal expenditure on capital and goods and services. Overall government revenue (including grants) rose by about 3 percent of GDP to 35 percent. Personal income tax receipts grew by 1 percent of GDP because of strengthened tax collection stemming from the introduction of the final deduction system (IMF, 1997).

5.6.2 Monetary Policy

Monetary policy in Swaziland is constrained by membership of the Common Monetary Area, whose members are Lesotho, Namibia, South Africa and Swaziland. South Africa determines effectively monetary policy for the area as the dominant economy. Over the years South Africa followed prudent monetary policy, to the advantage of the other member countries. In particular, Swaziland has been constrained from the inappropriate financing of rising fiscal deficits through the printing of money. The Government has maintained a net creditor position with the domestic financial sector, largely financing deficits through external sources; its focus, therefore, has been largely on fiscal policy.

Although the rand is not legal in Swaziland it circulates freely, at par with the Lilangeni, and is believed to make up more than 25 percent of the money in circulation. This renders use of money supply aggregates [M1 and M2] for monetary policy meaningless, and so the Central Bank and the Government are limited in defining or measuring the money supply. Historically, interest rates have been held below the rates prevailing in South Africa. There has been a deliberate move in recent years to narrow the gap between domestic and South Africa interest rates to ensure that rates move towards positive real levels and to reduce the incentive for any unnecessary capital outflows from Swaziland. Deposit rates, in general, have been negative in real terms, whereas lending rates have tended to be equal to or above the inflation rate (Central Bank of Swaziland, 1994).

5.6.2(a)   Consumer Prices

Most prices are free in Swaziland with the exception of those for petroleum, cotton, milk, maize, tobacco and public sector utilities.   These prices are adjusted periodically to reflect change in costs and market conditions, but price adjustments for some utilities have been insufficient to cover operating costs.   Given the importance of South African imports in the consumption basket of Swaziland, the consumer price index follows closely the movement in South Africa inflation.   Domestic inflation, as measured by the consumer price index, averaged 13 percent per annum between 1986 and 1990, following a 20.6 percent hike in 1985 caused by the depreciation of the Lilangeni.

Figure 5.8: Trends in Inflation
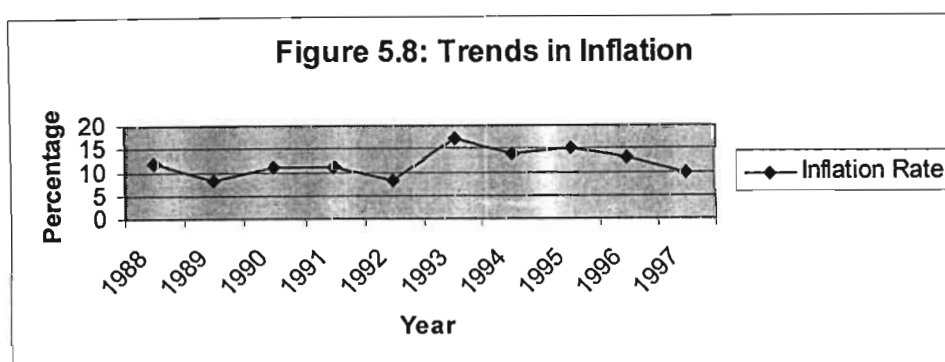
Source: World Bank, 1999.

In 1992, inflation measured as changes in the consumer price index (CPI) declined in line with developments observed in South Africa.   In 1993, inflation rose sharply in Swaziland, while it decelerated in South Africa.   This upward movement in Swazi prices, which continued throughout 1994, arose from drought-related increases in food prices and the larger weight being given to food in Swaziland's consumption basket compared with that of South Africa (IMF, 1997).   Strong currency depreciations were experienced during the year as South Africa lost capital around the election in April 1994.   The weakened currency probably exerted inflationary pressure in the domestic market through imports.   Owing to favourable climatic conditions, however,

food prices declined in 1996, thereby contributing to a slow-down in inflation to about 13 percent in 1996 and 10 percent in 1997.

5.6.2(b)   Money Supply

Money supply narrowly defined to include only Emalangeni in circulation and demand deposits has increased ten times since 1974. There has been rapid expansion in 1993 and 1994. The large increase of 36 percent in demand deposits was the result of an upturn in private sector credit of 36 percent and caused M1 to grow by 31 percent in 1994.

Table 5.9: Money Supply and Quasi Money, 1974 – 1994 (E'000)

	(E) in Circulation	Demand Deposits	Money Supply M1	Savings Deposits	Time Deposits	Quasi Money
1974	16.53	13.59	30.12	8.32	15.42	23.74
1975	21.02	18.23	39.25	9.89	28.27	38.16
1976	6.52	22.18	28.70	12.09	36.31	48.40
1977	7.31	20.69	28.00	13.43	48.06	61.49
1978	8.90	27.73	36.63	15.66	62.29	77.95
1979	9.59	30.60	40.19	17.67	59.75	77.42
1980	11.90	37.96	49.86	21.44	62.41	83.85
1981	14.41	36.93	51.34	25.73	64.51	90.24
1982	15.03	43.06	58.09	30.24	73.06	103.30
1983	15.23	45.62	60.85	31.90	105.40	137.30
1984	16.77	51.04	67.81	35.47	135.39	170.86
1985	17.45	59.47	76.92	39.88	176.45	216.33
1986	25.20	89.93	115.13	50.01	160.76	210.77
1987	27.19	98.23	125.42	57.95	188.38	246.33
1988	32.20	110.73	142.93	72.88	290.42	363.30
1989	37.20	131.82	169.02	87.64	384.26	471.90
1990	48.19	144.29	192.48	108.95	388.24	497.19
1991	52.99	158.55	211.54	123.05	450.64	573.69
1992	56.09	198.21	254.30	140.83	552.09	692.92
1993	75.19	215.30	290.49	197.75	577.62	775.37
1994	69.59	241.99	311.58	229.78	640.40	870.18

Source: Ministry of Economic Planning and Development, 1996.

The strong depreciation of the Lilangeni would normally result in an increase in the value of net foreign assets when expressed in local currency, but a

decline of 4 percent was recorded in September 1994 from E988 million to E947 million (Ministry of Economic Planning and Development, 1996).

Figure 5.9: Money Supply
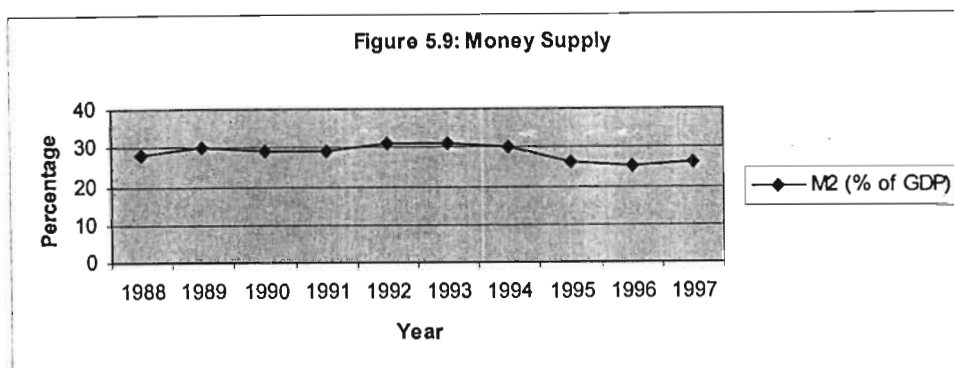
Source: World Bank, 1999.

Quasi-money, which comprises savings and time deposits, has shown a much rapid growth of 36 times over the period which indicates the progressive financial deepening of the monetary system ((Ministry of Economic Planning and Development, (1996). However, it only increased by 12 percent in 1994 and there was also a change in composition of quasi-money with call deposits including short notice and savings deposits growing faster than longer-term time deposits. This may reflect the combined effect of a decline in the yield curve, the generally low level of interest rates, widening of the interest rate differential between South Africa and Swaziland for long-term deposits and expectations of increasing inflation. Total money stock, which is the sum of M1 and quasi-money, is dominated by quasi-money (75 percent of the total) whereas in 1974 M1 represented half the total. This change is generally beneficial as it facilitates the transformation of savings into investment.

5.6.2(c)   Domestic Credit

Table 5.10 indicates that the government is a substantial net creditor to the banking sector from 1987 because of its large budget surpluses until 1991/92. This has ensured that its deposits with the banking sector are higher than its borrowing from banks as indicated by the negative sign for credit to government.

Table 5.10: Net Domestic Credit, 1974 – 1994 (E million)

	To Government	To Private Sector	Total
1974	-6.29	29.59	23.30
1975	-34.37	45.01	10.64
1976	-32.55	46.62	14.07
1977	-38.55	49.53	10.98
1978	-44.36	74.64	30.28
1979	-51.18	85.39	34.21
1980	-65.70	98.30	32.60
1981	-52.11	131.89	79.79
1982	-30.96	140.78	109.82
1983	-16.42	146.49	130.07
1984	-23.92	156.01	132.09
1985	-21.61	159.15	137.54
1986	12.75	165.33	178.08
1987	-34.33	206.82	172.49
1988	-80.78	265.53	184.75
1989	-217.85	341.31	123.46
1990	-298.16	457.41	159.25
1991	-419.01	654.86	235.85
1992	-589.28	612.91	23.63
1993	-497.71	744.82	247.11
1994	-398.76	875.30	476.55

Source: Ministry of Economic Planning and Development, 1996.

During this period credit extended by banks to the private sector was growing rapidly and exceeded the level of net credit to government. Net domestic credit remained therefore high until 1991 when net credit started to decline. In 1993 total net credit became positive, the government increased its cash borrowings from commercial banks, mainly because of its growing budgetary deficits, while total demand for credit by the private sector returned to positive growth rates. This trend was reinforced in mid 1994 when private sector credit accelerated in line with the strengthening economic recovery and government's net credit position declined further because of the worsening budgetary situation and the consequential reduction in reserves deposit in the local banking system (Ministry of Economic Planning and Development, 1996).

5.6.2(d)   Interest Rate Policy

Since 1988, the Central Bank of Swaziland has deliberately kept interest rates below those in South Africa with the objective of encouraging borrowing for productive investment and reducing commercial banks high level of liquidity. While this policy succeeded in increasing private sector lending, most of it has been directed to short-term financing of trade and working capital as well as personal loans rather than to investment. This is not surprising given that the structure of bank deposits resulting from this policy has contributed to discourage long-term lending as time deposits account for a very small proportion of total private deposits 9 percent in 1991.

Figure 5.10: Interest Rates in Swaziland
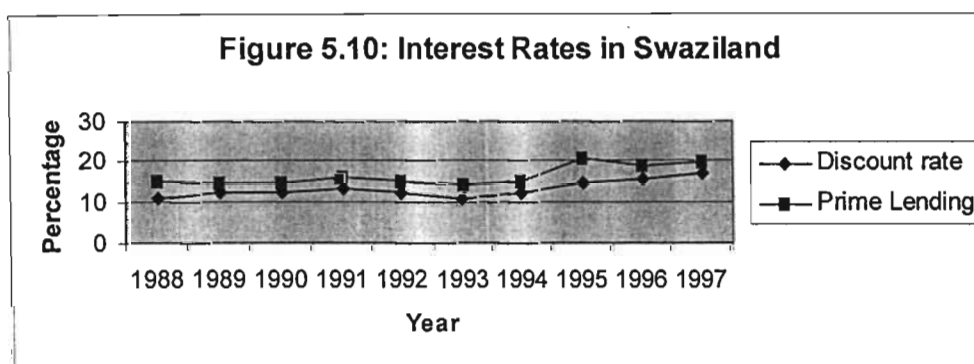
Source: Central Bank of Swaziland, 1999 and MEPD, 1996.

Furthermore, negative real interest rates for time deposits have not only prevented an increase of domestic savings but have also encouraged capital flight as suggested by the increase in short-term capital outflows during 1986-1990. This policy should be reversed not only because of the need to change the deposit structure in favour of long-term deposits but also because an increased level of financial savings will be required in the future to make up for the reduction in bank excess liquidity. The liquidity ratio has substantially declined from 53 percent in 1987 to below 25 percent in 1991, compared with the reserve requirement of 16 percent. During 1991–1993, Swaziland's interest rates declined, however, in line with developments in South Africa, and the interest rate differentials between the two countries narrowed. In real terms, over 1991–1992, Swaziland's deposit and lending rates were positive

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(IMF, 1997). Between October 1997 and March 1998, there were major changes in interest rates in South Africa, but the Central Bank of Swaziland followed the same procedure. The discount rate was reduced by one percentage point during the same period to 14.75 percent. Deposit rates at banks ranged between 6.75 and 11 percent compared to 10 percent and 13.75 percent prevailing in March 1997 (Central Bank of Swaziland, 1998/99).

5.7   Balance of Payments

Swaziland's balance of payments weakened in 1996, posting an overall surplus of only E66.1 million compared with E108.2 million in 1995. Contributing to the diminishing 1996 surplus position was the worsening services account and the financial account which continued to experience outflows albeit at lower levels than in prior years. The account recorded an increased deficit of E330.6 million from a revised E113.5 in 1995, as a result of relatively stagnant exports and imports increasing by 15.5 percent (Central Bank of Swaziland, 1998).

5.8   Economic Constraints

5.8.1 Realisation of the Objectives

Several important factors could threaten Swaziland's economic objective, e.g. increased competition for foreign direct investment (FDI) from other countries in the sub-region resulting in reduced FDI in Swaziland and therefore, economic slow-down, relocation of companies to South Africa due to better incentives or proximity to market, resulting in further job losses, and decline in exports, rising unemployment with consequent unrest due to job losses, and net job creation currently standing at less than 1 percent compared to population growth rate of 3.4 percent.

There are also revenue losses resulting from developments in international trade, including the renegotiations of the SACU agreement. Short-term

revenues are also expected to fall due to the need to offer competitive tax rates and other incentives to attract FDI. The current political issues, further industrial unrest, and the loss of production due to strikes and stay-away, rising fiscal deficits, and high inflation and interest rates are expected to affect the economy negatively.

5.8.2 Internal Factors affecting Development

The internal factors that have adversely affected economic development include the legal framework, licensing constraints and the issue of work permits to expatriates, drought, shortages of skills, and infrastructural deficiencies, particularly the communication network and unreliable electricity supplies.

5.8.3 External Factors affecting Trade

The external factors that have adversely affected the economy include preferential trade arrangements with the European Union and other developed economies, world commodity prices, particularly for sugar and wood pulp, the South African economic and political performance and development, and membership of the SACU and CMA.

CHAPTER SIX

6 AN OVERVIEW OF THE SOUTH AFRICAN ECONOMY

6.1 Introduction

The aim of this chapter is to provide some historical perspective for the subsequent analysis and recommendations. The chapter starts with a description of the structure and growth of the South African economy. Then it examines how this structure has emerged within policies instituted by government, and looks at one of the most obvious consequences of previous policies. Chapter six concludes with recent developments in macroeconomic policies in South Africa.

6.1.1 Background

Rapid economic growth in South Africa began with the discovery of diamonds in the Kimberley region in the 1870s providing the economic background to the formation of Union in 1910 (Jones and Müller, 1992). In the past the growth of the South African economy has been associated with mining developments in one form or another. It has only been in recent times that other sectors in the economy have driven growth. While it was the discovery of diamonds and gold in the latter half of the nineteenth century which gave South Africa economic hope, it was the location and inaccessibility of these resources which heralded the beginning of economic development (Abedian and Standish, 1992). The diamond and gold fields were situated in the then undeveloped interior of the country. In addition, gold deposits were rarely of the alluvial type, so heavy equipment, power supplies and large force of organised labour were required to extract and process the ore. These factors were responsible for the establishment of a rail system, the opening up of the coal fields for the generation of electricity, and the establishment of urban concentrations, commercial farming and manufacturing interests in the interior.

In 1910 agriculture was the major occupation, but its quality varied enormously from one region to another. The most progressive farming areas were those parts of the country settled by English speakers in the Eastern Cape and Northern Natal. In the Western Cape, market forces had already led to experiments in modern fruit growing for export and there were signs of renewed life in the vineyards. In contrast to agriculture, which was highly efficient, gold mining dominated the South African economy in 1910. It had expanded considerably since the end of the Boer War in 1902, aided by the importation of Chinese labour. This had solved the immediate problem of labour shortage, but at the expense of political controversy, and in 1906 the Chinese workers began to be repatriated. They were replaced by black labour (Nattrass, 1990).

Activities in the primary sector formed the backbone of the economy. In the secondary sector, manufacturing had barely begun. Around Johannesburg, there were mechanical engineering concerns that met some of the needs of the mining industry and there was the dynamite factory. Elsewhere, the making of wagon wheels and ox-carts, leather-making, and the processing of agricultural products were the principal industrial activities. South Africa had a very open economy that made importing easy and enjoyed no comparative advantage in manufacturing. It was cheaper to import most goods, and this was possible because the gold output solved the balance of payments problems that would otherwise have risen. Skilled craftsmen were in short supply and this raised labour costs in a country in which there was little or no tradition of skilled craftsmanship and technological know-how. In such a situation, free trade made any sustained moves towards industrialisation virtually impossible. The tertiary sector, by comparison, was far more highly developed, particularly the commercial and business services.

While gold still remains the single most important product in the South African economy, there have been some major changes in the structure of the economy since 1910. As cited earlier, in 1910 the economy was based

mainly on farming and mining, but both these sectors suffered serious setbacks in the build-up to the Great Depression of 1929. While farmers faced various international and domestic crises, gold mining suffered under a falling real gold price and a militant growing white trade union movement. Since, that time agriculture has been of decreasing importance, and contributed only 6.21 percent to the GDP in 1990. This decline in the importance of agriculture is a common feature of change and has been seen in most developing countries (Abedian and Standish, 1992).

In monetary terms, the growth of the economy was very rapid in the years between 1933-1961, as the national income advanced from £236.9 million in 1933 to £2,805.5 million in 1961, an increase of 1080 percent. During this period, agriculture occupied a declining role in the economy until 1948, when the National Party's victory in the general election of that year installed a farmer-sympathetic government. Mining too experienced a long relative decline from 1939 to the late 1950s when the Free State goldfields came into production. It was in the middle of the war that the share of manufacturing finally overtook that of mining. By 1948 the contribution of manufacturing to GDP was double that of mining. This promotion has taken many forms. The two most important have been import substitution policies and direct state involvement in the economy. Import substitution policies include tariffs, import quotas and currency rationing. Government in the manufacturing sector has taken many forms, but three of these are of more importance. First, government has established and owns many industrial enterprises. These include Iscor and Armscor. Second, development agencies established by the government own, control, or have interests in a wide variety of manufacturing industries. Finally, government has had an all-persuasive influence on manufacturing through a multiplicity of legislation and regulation.

The tertiary sector, which here includes building and construction, utilities as well as the commercial and governmental services, increased its relative importance during the war and then marginally declined during the 1950s. In

real terms the average annual growth rate of 17.3 percent by manufacturing in the late 1930s has never since been equalled. Per capita income had also increased very considerably, rising from the low level of £26.1 in 1933 to £146.3 in 1961 (Jones and Müller, 1992). The sustained economic growth that transcended political developments and eventually undermined them is revealed in the dramatic increase in the Gross Domestic Product and in the per capita product. All sectors of the economy experienced sustained growth. Agriculture benefited from prices maintained above world levels and massive government assistance that coincided with the drive to mechanisation and increased specialisation accompanied by a wider use of fertilisers. Mining's period of rapid development had to await the 1973 rise in the price of gold, but then its contribution to the economy expanded considerably. The tertiary sector has also been transformed (Jones and Müller, 1992), by the revolution in transport accompanying the building of motorways, the introduction of jet transport and containerisation, by the revolution in retailing that has seen the self-service chain store replace the family concern, and by the phenomenal growth of the financial sector.

During the turbulent years of the 1970s, in real terms the domestic economy grew by only 3.2 percent per annum. Relative economic performance was beginning to deteriorate, but a strong gold price shielded policymakers from this reality. By the second half of the 1970s, the growth had slumped to 1.5 percent per annum, inflation has soared to an average annual rate of 15.7 percent, and the exchange rate was beginning to deteriorate. During this period the Rand depreciated 34.9 percent against a trade-weighted basket of currencies. South Africa's economic performance in the 1980s and early 1990s was severely hampered by the poor political environment and a deterioration in the terms of trade.

The second principal factor to hasten economic decline in the 1980s was the political environment. Four decades of apartheid racial policies had heightened conflict between the white government and the disenfranchised majority, as well as between business and labour, as avenues for political

expression were sought. Fixed investment spending declined from an average of 24 percent of GDP in the 1960s to recent levels of under 15 percent. From 1985 to 1993, the economy continued to stagnate, growing by only 0.9 percent per annum, with real income per capita shrinking by 1.3 percent on average each year

However, towards the end of 1992 and the beginning of 1993 certain positive developments became apparent in the economy, including: (i) agricultural production, which had declined substantially throughout 1992 because of adverse weather conditions, recovered sharply, (ii) the physical volume of mining production, which had already increased slightly in 1992, rose further mainly because of higher gold production, (iii) the physical volume of manufacturing began to rise, and the financial environment remained relatively stable. In the 1990s decade, the economy contracted between 1990 and 1992, and growth since then has not been dramatic. Real GDP growth reached 2.9 percent in 1995, 3.9 percent in 1996 and slumped to 1.7 percent in 1997 (SARB, 1999).

Figure 6.1: Economic Performance in South Africa
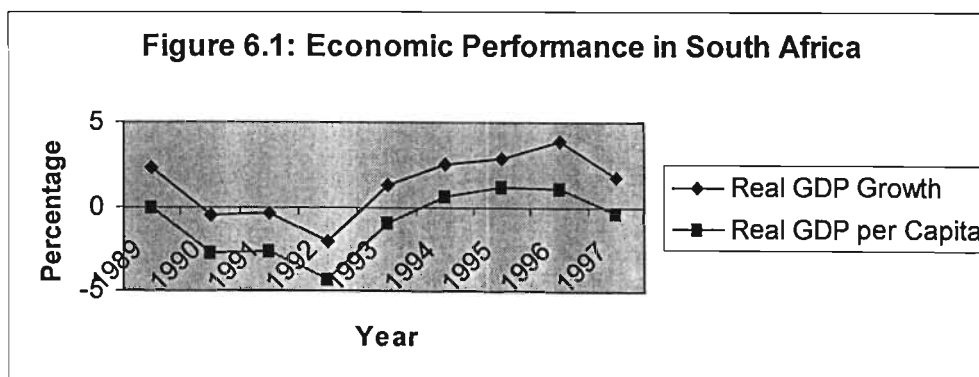
Source: EIU, various issues.

6.1.2 The Development of Economic Policy

The development of any economic policy is usually in the interests of the ruling government. Prior to 1924, the ruling economic philosophy was that of liberalism in trade, and, as the rand rebellion of 1922 demonstrated, repression of labour (Abedian and Standish, 1992). As a result of apartheid

policy and other discriminative policies, South Africa entered 1970s with one of the most skewed distributions of income in the world. The decade of the 1970s can be seen as a watershed in South African economic development. Despite dramatic increase in the gold price, the economy registered an average annual growth rate of only 3.2 percent over the decade. Three of the major causes of this poor economic performance were: (i) The internal and external pressure for change in South Africa led to declining confidence on the part of both foreign and domestic investor, and investment time horizons were shortened. (ii) The policy of import substitution had reached its limits, but export promotion had not been pursued seriously. Industrialisation slowed and manufacturing became dependent on the whims of the gold market. (iii) The poor conduct of monetary and exchange rate policies led to substantial inflation and inflationary expectations, which further reduced investment (Abedian and Standish, 1992).

Currently South Africa's international competitiveness puts it amongst the top 25 percent of countries. After approximately R50 billion of foreign capital had left the country between 1985 and 1993, this pattern was reversed after the constitutional change and in the wake of the gradual abolition of exchange control. From 1994 to 1996 foreign capital to the tune of R27.4 billion flowed into the country. After 19 years of double-digit inflation annual price increases have been below 10 percent since 1993 (Calitz, 1997). For the first time large numbers of South Africans are gaining access to education, primary health care and running water. Against this background of conflicting evidence the South African government released its macroeconomic strategy for growth, employment and redistribution (GEAR) in 1996.

The primary focus of the GEAR document is growth, achieved through greater export-competitiveness, growing foreign investment, and productivity improvements. GEAR stresses the need to adopt economic policies which will encourage investment in the economy and allow South Africa to compete

in the global marketplace[15]. Some of the primary components of GEAR strategy are as follows:

- Deficit reduction – fiscal discipline combined with reducing the budget deficit to 3 percent of GDP and producing a 6.1 percent growth rate by the year 2000.

- Tight monetary policy – to control inflation and encourage domestic savings and investment with high interest rates.

- Trade liberalization – gradual elimination of any restrictions on foreign trade. This means that tariffs, which are taxes on goods coming into South Africa, should be eliminated. GEAR argues the removing tariffs will keep prices low.

- Remove exchange control – exchange control must be gradually eliminated in order to attract foreign investment into the country.

- Regulated flexibility of labour markets – labour should have some degree of regulation. Collective bargaining should be maintained as a method of negotiating labor market outcomes.

- Productivity improvements – the amount produced by each worker must increase. In order to ensure that productivity improvements mean lower costs of production, GEAR also argues that wages should not increase faster than productivity.

- Education and Training – substantial improvements in the education and training of the workforce.

6.2 Agriculture Sector

In any economy the agricultural sector plays a vital role in the process of economic development. In the early days of development, the agricultural sector usually dominates the economic scene being both the major producer and employer in the economy. However, this situation has changed, and over time the sector becomes relatively less significant as industrialisation takes place. Nattrass (1990) argued that the change in the relative importance of

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[15] Government of South Africa, 1996, Macroeconomic Strategy for Growth, Employment and Redistribution.

agriculture and manufacturing implies that, as the development process continues, productive resources must be transferred from agriculture to industry. However, the growth of the industrialised economies has been marked by a flow of both labour and capital from agriculture. The transfer of resources was largely accomplished because it was possible to increase the productivity of the factors of production remaining in agriculture and so produce the increased output necessitated by the growing demand for food and inputs in the developing industrial sector with smaller inputs of capital and labour per unit of agricultural output produced.

Furthermore, the role of agriculture in an economy is determined by the size and quality of land and by the extent of the economy's development. A totally undeveloped economy will be totally dependent upon agriculture. In an advanced economy, the role of agriculture is minimal. In South Africa, agriculture comprises two very distinct components; the sub-sector dominated by whites and that under the control of blacks. The role that these two sub-sectors have played in the development of the South African economy has been very different (Nattrass 1990).

6.2.1 Commercial Agriculture: White Agriculture

Nattrass (1992) stated that labour productivity in white agriculture rose, in addition the resident population on the white farms grew more rapidly than farm employment. The growth rate of output in physical terms was relatively steady throughout the period, although it has picked up slightly in the most recent period. The output of food appears to have proceeded at a rate considerably above the rate of growth of population, which allowed for the increased use of agricultural products as inputs into manufacturing, an increase in agricultural exports and the increased local demand for foodstuffs following from both the rising population and the increase in average living standards.

All three of the major input categories, namely, land, capital and labour, have contributed towards the increase in white agricultural output over the period since 1911, although to a different extent. Between 1930 and 1976 the total area controlled by farmers outside the black rural areas rose by only 3.5 percent. The total area cultivated, however, more than doubled over the same period. Capital in the commercial agricultural sector rose by an average of 3 percent per year between 1946 and 1980, measured in constant 1975 prices, and had nearly trebled in terms of its total real value over that 30 year period. The labour input has also grown, but somewhat more slowly than capital, averaging 2 percent per year. Over the years from 1946 to 1977, farm output in the sector rose at a yearly average rate of 4 percent. Employment in white agriculture grew in absolute terms throughout the period to 1970 and from then on appears to have started to decline slowly.

The significant changes in the structure of white agriculture undoubtedly occurred in the days of the early exploitation of minerals when farmers, who had previously largely been producing for their own use, saw the possibilities for profit that were opened by the growing mining towns. As a note of interest although there was net emigration by whites from agriculture from 1921 onwards, the number of farms owned by whites increased up to 1951. This seeming contradiction could be the result of any one of a number of things: for instance, the rate of out-migration may have been lower than the natural rate of population growth, or alternatively it may be due to the fact that in many cases more than one farm is owned by a farmer. (Nattrass, 1990). In 1975, 5 percent of the farms accounted for 40 percent of the total farmland, whilst at the other end of the scale 24 percent of the farms had land holdings of less than 50 hectares and together accounted for less than 7 percent of the total white farmland.

6.2.2 The Traditional Sector: Black Agriculture

The main activities of black agriculture take place in the former areas of the black states. From a purely climatic point of view, black agriculture areas are

very favourably situated. In general, black farming was organized on tribal lines with no security of individual tenure. The agricultural land is traditionally allocated on a strip basis with the number of strips being largely determined by the availability of land. Grazing land is communal and even cultivated land may not be fenced, as once the crop has been harvested, it too reverts to the community for grazing purposes until the time comes to sow the next crop.

Generally, productivity levels in black agriculture are low and the sector's major contribution to South African economic development has been as a labour supplier rather than as a food producer. The major foodstuffs produced in the black agricultural sector are maize, sorghum (millet), vegetables and wheat. Between 1921 and the 1970s there was virtually no change in the total volume of cereal crop production throughout the period although there was a change in the crop mix as maize was apparently increasingly substituted for sorghum.

From various researches, many factors have been cited for the low productivity in this sector. People leave the rural areas of the black states to work as migrants in the modern economic centre because they and their families are unable to survive on what they can produce in their rural homes. Secondly, innovation in agriculture requires investment. Studies on the behaviour patterns of migrants suggest that they typically remit only between 2-25 percent of their earnings to their rural homes. (Bureau of Market Research: 1972, a,b,c. Clarke and Ngobese, 1975). This low level of remittance to the rural areas, coupled with the low levels of productivity there, means that rural family incomes are too small to permit any substantial savings, making it virtually impossible for these families to finance investment. It is also argued that the persistence of the tribal system is the root of the sector's low productivity. Hobart Houghton stated this viewpoint quite explicitly when he said:

"The explanation would appear to be that the African peasants have failed to adapt their farming practices to modern requirements. General

conservatism, the system of land tenure and certain social customs, like 'ukulobola', combine to perpetuate obsolete methods of farming."[16]

6.2.3 The Economic Contribution of Agriculture

The contribution of agriculture to GDP fell rapidly after 1919. By 1939 it amounted to less than half the 1913 figure. From 1933 onwards government policies have been able to push up the prices of agricultural commodities, but they have not been able to halt the decline in the relative weighting of agriculture in the economy. Between 1940 and 1945 the contribution grew from £50.7 million to £81.9 million. By 1960 this had trebled to £248 million, a substantial increase in the purchasing power of farmers, but nevertheless of declining relative importance within the economy (Jones and Mueller, 1992). From 12.9 percent of GDP in 1961, agriculture's contribution to GDP had fallen to 5.6 percent by 1988. The relative contribution of agriculture to the gross domestic product during the period 1990-1995 was just under 5 percent. The importance of agriculture, therefore, does not lie in its contribution to the country's GDP, but in the country's ability to feed itself and in the influence exerted upon the government by the relatively small farming community.
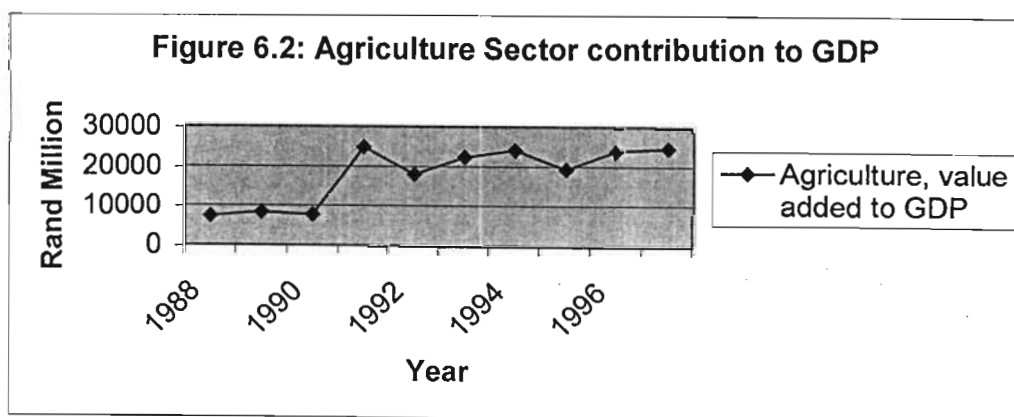
Source: World Bank, 1999.

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[16] Quoted from Nattrass, J. (1990).

Agricultural exports declined relatively as South Africa's industry base broadened. In the immediate postwar years they averaged about 35 percent of production. The sugar exports had been a development of the 1930s when South Africa had privileged access to the British and Canadian markets. On the other hand fresh fruit exports had been expanding since the beginning of the twentieth century, and had been accompanied by tinned fruit and preserves and wine. Indeed in 1933, wool alone accounted for 39 percent of non-gold exports, a proportion that had fallen to 12 percent by 1958.

In 1954, for the first time, the export of food, beverages and tobacco combined exceeded that of wool. This increase in exports considerably exceeded the increase in prices. Between 1930 and 1960 wholesale prices roughly trebled, agricultural exports rose almost ninefold. Between 1945 and 1957 when wholesale prices did not double, exports rose almost sixfold. When the agricultural contribution to GDP fell below 10 percent in the 1970s, its contribution to exports remained 20 percent. Such exports included manufactured goods such as preserves, tinned fruit and alcoholic beverages. In 1982, exports of preserved fruit and jam, together with deciduous and citrus fruit and grapes, amounted to R361 million and exceeded the value of wool exports. In the following two years fruit exports, at R342 million and R511 million exceeded maize exports and were the country's leading agricultural exports.

The agricultural contribution to GDP has not grown significantly in real terms since 1991. This was attributed to the poor weather conditions between 1991 and 1994. The agricultural policy reforms since 1994 were aimed to remove institutional and policy-induced distortions, increase competitiveness, and provide disadvantaged farmers with access to agricultural resources. Price deregulation started in 1996 with the abolition of the marketing boards and a reduction of import tariffs. The simple average tariff level on agriculture is now 5.6 percent.

According to the 1996 edition of Abstract of Agricultural Statistics agricultural imports in the period 1992 to 1994 annually averaged R4.4 billion, versus an export figure of R6.4 billion for both processed and unprocessed agricultural produce. In 1994 alone, which was an average agricultural year the value of imports came to R4.9 billion and exports to R8.3 billion. In 1997, export subsidies were eliminated, except on sugar.

Figure 6.3: Agricultural Sector as Generator of Export Earnings
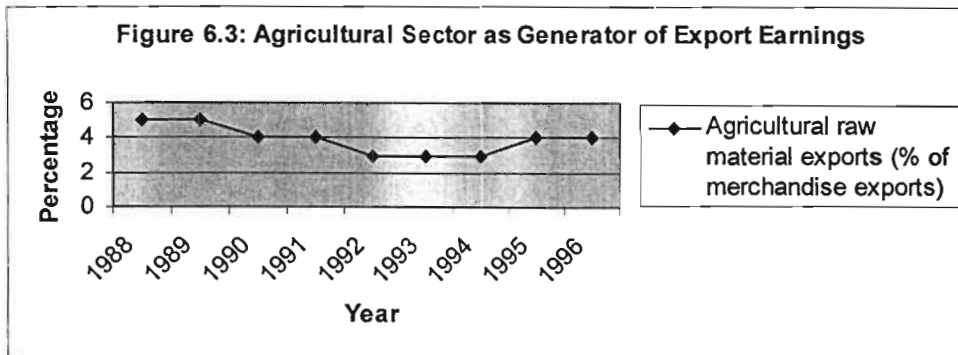
Source: World Bank, 1999.

6.2.4 Linkage Effects of the Agricultural Sector with Other Sectors

Table 6.1: Linkage Effects of Agricultural Sector: Purchases as Percentage of Gross Income

Agricultural purchases	Percentage	Agricultural sales	Percentage
Fodder production	18.8	Food industry	51.8
Textiles sector	1.0	Liquor industry	1.8
Wood products	0.5	Tobacco industry	1.4
Paper products	1.0	Textile industry	0.6
Fertilisers	10.7	Wood processing	2.3
Other chemicals	1.4	Pulp and paper	2.1
Diesel, ect	7.9	Total Manufacturing	61.4
Metal products	1.0	Total Intermediate	70.6
Transport spares	1.3	Final consumption	24.4
Total Industry	47.9	Exports	5.7
Electricity, gas and water	1.6		
Building construction	0.6		
Trade, incl. Motor trade	9.1		
Transport	3.9		
Labour	20.2		

Source: ABSA Bank, 1996.

From Table 6.1, it is clear that industries absorb the major part of agricultural spending. Directly measured, it amounts to some 48 percent of agricultural spending. In addition more than 20 percent of gross income is paid as wages. As a provider of raw materials for further processing, agriculture also makes an important contribution to the economy. A large number of industrial sectors responsible for some 25 percent of total industrial production obtain their basic raw material inputs from the agricultural sector. More than 60 percent of total gross agricultural production is delivered to the manufacturing sector for further processing or consumption, and some 24 percent of gross production is destined for final consumption, and about 6 percent of gross production is exported.

As a job provider agriculture remains important, and estimates suggest that currently some 850000 workers are permanently employed in agriculture. Mechanisation in order to achieve optimal production and the rising cost of labour are the main reasons for job opportunities declining in both absolute and relative terms, but agriculture remains important because of the large number of benefiting dependants per farm worker (ABSA Bank, 1996). Naturally, there are also large numbers of temporary workers, seasonal labour in particular, who augment their income from time to time in this way.

Table 6.2: Agricultural Production

	1991/92	1992/93	1993/94	1994/95	1995/96
Volume (000 tonnes)					
Maize	3277	9997	13275	4866	9958
Wheat	2142	1324	1984	1840	1977
Hay	6980	6661	6197	4958	5424
Sugarcane	20078	12955	11244	15683	16714
Viticulture products (hl)	9997	9183	9124	9663	10126
Citrus fruit	948	982	1008	1149	1062
Deciduous fruit	2383	2327	2036	2338	2422
Subtropical fruit	539	402	377	353	419
Vegetables	1906	1906	1890	1886	2014
Wool	88	76	80	70	64
Cattle & calves slaughtered	2328	2305	2017	1550	1597
Sheep & goats slaughtered	7498	6981	5331	3430	3915
Value (R m)					
Maize	1490	4137	4868	2825	5995
Wheat	1321	923	1493	1390	1569
Hay	1044	1620	1078	1090	1481
Sugarcane	1140	1226	1123	1626	1751
Viticulture products (hl)	708	692	866	966	1214
Citrus fruit	658	709	744	1227	1322
Deciduous fruit	1505	1255	1727	1838	1962
Subtropical fruit	355	343	303	341	411
Vegetables	1057	1103	1249	1531	1587
Wool	428	323	371	573	498
Cattle & calves slaughtered	2871	2809	2922	3325	2939
Sheep &goats slaughtered	884	911	946	867	896

Source: EIU, 998/99.

6.2.5 Developments in Agriculture

In addition to the economic contribution agriculture makes to the South African economy, it is necessary to examine some of the underlying trends in agriculture itself.   The first trend concerns price and cost increases in agriculture. The price of the food basket, made up as in the consumer price index (CPI), rose annually by 13.8 percent on average in the period 1970-1995.   This compares in the total CPI, food included of 12.4 percent per annum. During this period, prices fetched by agriculture increased annually by an average of 11.4 percent, which is lower than the rate of increase for the total CPI or food prices paid by the consumer. Processed food product prices increased by 12.3 percent on average per annum, which is marginally lower

than the increase in the total CPI. The main reason for the cost of a food basket rising faster than producer prices is the introduction of the general sales during the period under review. The rate was only 4 percent. This general sales tax was later replaced by the value added tax (VAT) (ABSA Bank, 1996).

Another important development in agriculture, is the event that affected the financial position of agriculture during this period. Between 1975-1995, the gross income of agriculture grew from R2752 million to R29563 million. This represents an annual average increase of 12.6 percent. Net farming income, i.e. after compensating for production factors (mainly labour and interest payments) increased from R1338 million in 1975 to R13135 million in 1995. This is an annual average increase of 12.1 percent, which is lower than the increase in gross takings. In this period the wage account grew by 12.9 percent per annum on average. The number of farm labourers declined by some 16 percent in this period, suggesting an increase in remuneration per worker of approximately 14 percent on average per annum[17].

However, agriculture still has some serious problems. Unstable weather conditions remain a problem. These increasingly force agriculture to apply sound management principles. In addition, there are aspects such as safety on farms, land reform, establishment of the smaller farmer, land tax, water tax, labour legislation, marketing, and assistance with agricultural development in Southern Africa. These features create major uncertainty in agriculture the need for demand adjustments and pose challenges in this new millennium.

6.3   Mining Sector

The mining sector in South Africa has historically been the mainspring of modern economic development. The foundations of the present-day economy were laid with the exploitation of the discoveries of first, diamonds in

[17] For more discussion on this, see ABSA Bank, 1996, A Perspective on Agriculture in South

Kimberley, and then gold on the Witwatersrand. The discovery and exploitation of diamonds and gold led to an economic metamorphosis and the entrenchment of the white settlers throughout the region. The economist Frankel, commenting in 1938, on the overall importance of the diamond discoveries to the establishment of modern South Africa said:

"The miracle which Europeans in South Africa needed had occurred. The most effective means for obtaining surplus wealth had been found when the size of the industry is taken into account. The wealth accruing from the production of diamonds in South Africa has probably been greater than that which has ever been obtained from any other commodity anywhere in the world" (Frankel: 1938, p.52).

Frankel argued that the most significant characteristic of the diamond industry was its ability to generate surplus. The diamond industry developed largely through the process of reinvesting the profits that were earned in the industry. In the initial stages, particularly in the case of the alluvial deposits, very little capital was applied to diamond mining. However, as the dry diggings began to go deeper and to cave in and fill with water, it became apparent that the answer lay in abandoning the initial mining techniques, which consisted of mining a 47 foot road servitude, and in the adoption of subterranean mining. With the change in the approach to diamond mining, came a significant increase in the size of the capital input needed for the mining operations. At the same time as mining costs started to increase with the switch to underground mining techniques, competition between the mining companies led to an oversupply of diamonds to the market. World prices declined dramatically. It became apparent to the leading capitalist of the time that it was essential to control the supply of diamonds to the market if the profitability of the industry was to be maintained.

In the 1970s, gold mining was the second-largest sub-sector in the South African mining industry. Its impact was felt on employment creation, contribution to state revenue and contribution to the GDP. The development of the gold mining industry had also a significant political and economic

Africa.

impact on the relative position of South African blacks. It has intensified the tendencies towards racial economic inequality instituted by the discovery of diamonds. The sector accounted for some 8 percent of GDP and 60 percent of export earnings (Nattras, 1990).

Figure 6.4: Mineral Sector Contribution to GDP
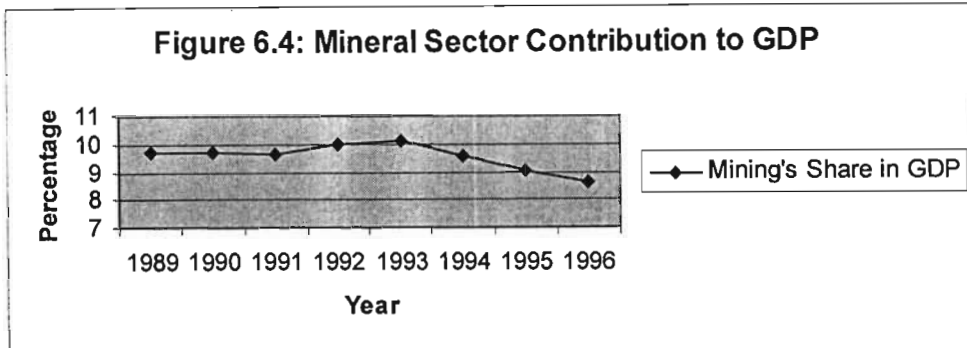
Source: South African Statistics Bulletin, 1999.

The development of gold mining had an immediate impact on capital accumulation. This took place through the generation of output allied to the needs of the industry itself such as pit props, explosives, miners boots, food and liquor as well as the provision of services such as those provided by the transport riders and the Amawasha (the Zulu, washerman's guild) (Van Onselen, 1982). There was also a direct link between the growing mining sector and infant manufacturing activity. The gold mining industry has also made a very significant contribution to South African capital accumulation through its capacity to earn foreign exchange. Since the 1970s there has been a decline in the volume of gold production, partially due to ore bodies being worked out (EIU, 1988/89). However, the major reason was that government policy requires mines to follow an average grade mining policy. This ensures that the life of mines is prolonged when the gold price, in rand terms, rises.

Output increased slightly in 1982 and 1983 in response to lower prices and the momentum of increasing production was continued in 1984. In 1985, and 1986 production again fell in response to strongly rising prices and strikes. In 1987, the further fall in output, from 638 tonnes to 605 tonnes, was aggravated by a major strike by black workers for about half of the month of

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August 1987. In 1995, the annual output of gold slumped to 520 tonnes, 100 tonnes lower than in 1993. Gold output slid to a trough of 492.5 tonnes in 1997, and in 1998 the first half of the year saw cumulative production of 234.9 tonnes, slightly lower than the 241.6 tonnes produced in the first half of 1997. Gold earnings have been buffeted by the fall in prices to below US$300/oz in late 1997 from levels of up to US$400/oz in earlier years. The mining sector's share of export earnings actually understates the contribution that it makes to net foreign exchange earnings because, unlike manufacturing, the sector makes relatively little use of imported inputs. The mining sector has also been a significant source of funds for the state.

Table 6.3: Mining Production

	1993	1994	1995	1996	1997
Volume (000 tons)					
Gold (000 kg)	619.2	579.3	519.8	494.6	492.5
Iron ore	29385	32321	32144	30951	33333
Chrome	2827	3559	5130	4982	5794
Copper	166	165	161	151	151
Manganese ore	2507	2851	3165	3254	3095
Diamonds (000 carats)	10324	10857	9569	10166	10009
Coal	182031	195805	203427	208362	21861
Lime & limestone	18215	19719	18776	18495	7
					18600
Gross value (R m)					
Gold (000 kg)	23169	24953	23335	26482	25077
Iron ore	1279	1400	1658	1692	2088
Copper	1035	1255	1679	1497	1636
Manganese ore	549	645	687	784	892
Lime & limestone	536	605	688	693	691
Total including others[a]	46632	50712	54180	63104	66314

Source: EIU, 1998/99.

[a] Others include silver, chrome, coal, diamonds, asbestos and uranium.

Mining and quarrying growth was stagnant from 1990–1998, with a 0.1 percent annual average growth over the period. The share of mining in GDP declined from around 9.2 percent in 1990 to 6.5 percent in 1998. This has been attributed to the decline in gold mining, which shrunk from 51.9 percent of export earnings and 63 percent of employment in 1990 to 40.7 percent and

55.6 percent in 1998 respectively (Department of Finance, 2000). Gold production decreased at an average rate of 2.9 percent since 1990, with a worsening trend over the past five years, owing to lower production levels, rising production costs and a downward trend in the dollar price of gold. The volume of platinum, coal, chrome and iron-based metal has been increasing over the last five years.

6.4   Manufacturing Sector

The success of the industrialisation process in South Africa owes a great deal to the rise of Afrikaner nationalism, and in particular to the rather strange political alliance that took place in 1924 between white labour and white Afrikaner- dominated rural capital. South African manufacturing has always been closely tied to the fortunes of the mining industry and even today the links between the two sectors remain strong. In the initial phases of industrialisation, the products produced were closely allied to the needs of the mines and the subsequent development of manufacturing relied heavily on the economic resources that had been accumulated by the mining sector. The foreign exchange earned from the sale of minerals financed the extensive importation both of capital goods and essential intermediate inputs that were needed by the growing industrial sector.

Over the period from 1919 to 1976, industrial output grew at a yearly average rate of 5.9 percent in real terms. There have been two periods of rapid industrial expansion, namely, the period between 1936-1951, which included the second World War, and the period 1964-1975. As industrialisation gained momentum, substantial changes took place in the manufacturing sector, encompassing changes in the range of commodities produced, in the size of the firms producing the products, and in the techniques used in the production process itself. In 1960, the physical volume of manufacturing output was six times as large as in 1930. The volume of manufacturing was about 12 percent lower in 1995 than at its peak in 1981. About half of the

drop occurred in 1985. Some sectors, such as motor manufacturing, were affected to a much greater degree (Jones and Müller 1992).

There was 1 a percent gain in real manufacturing output in 1986. But the sector recovered between 1986-1987 and recorded a growth rate of more than 4.7 percent. In the 1990s, the growth rate of the sector has fluctuated. The sector grew by 1.2 percent between 1990 and 1994. In 1995, the manufacturing sector recovered with growth of 7.6 percent, but this rate fell back in 1996 to 0.4 percent, and recovered only fitfully to 3.3 percent in 1997 (EIU, 1998/99).

Table 6.4: Manufacturing Production

	1991	1992	1993	1994	1995	1996	1997
Sales (1995=100)	96.5	92.6	91.3	93.1	100.0	102.0	102.5
Volume of production (1995=100)	96.4	93.5	91.7	93.6	100.0	100.6	103.9
Capacity utilisation (%)	81.0	78.5	77.9	80.0	83.3	81.5	81.2
Change in inventories (R m)	-658	-83	-477	851	2261	n/a	n/a
Labour productivity (1990=100)	n/a	n/a	102.1	104	110.5	109.1	117.7

Source: EIU, various issues.

On average, the amount of capital needed per man employed increased in real terms and output per man (labour productivity) rose correspondingly. This suggests that more merchanised methods of production were introduced over the period. On the whole, however, both the increases in the degree of capital intensity in production methods and in labour productivity were relatively low. Between 1924 and 1976, the real profit rate in the manufacturing was maintained by the following: (i) the real value of output per

rand unit of plant and machinery invested in the sector remained virtually constant and (ii) the proportion of every rand earned from the output produced in the sector that was paid out as wages, was also extremely stable, notwithstanding the fact that the average real wage rates both of black and white workers rose over the time period.

6.4.1 Structural Change in the Manufacturing Sector

During the period under review, there have been major changes in the manufacturing sector. In the early stages of South African manufacturing the output of the sector was substantially geared towards the production of goods for the domestic consumer market and the mining industry. In the early 1950 and 1960s, the three sub-sector of food, clothing and textiles, and wood and paper products together accounted for 57 percent of the total manufacturing production. Factories making more sophisticated machinery were almost non-existent and contributed only 1 percent to the sector's total output. By 1976, there had been a significant change. The output from the machinery-making sector had grown at an average annual rate of 14 percent throughout the period to provide 13 percent of the sector's total output. Chemicals and metal products had also become increasingly significant, as had the production of electronic equipment.

Figure 6.5: Manufacturing Exports
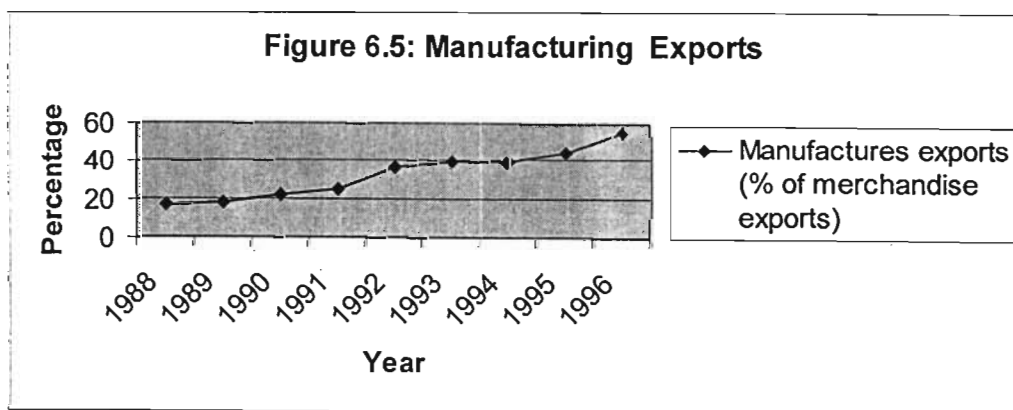
Source: World Bank, 1999.

While manufactured exports have been erratic, they have shown an increasing trend over the last decade. However manufactured exports

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actually declined between 1980 and 1989, and reached an average level of 16 percent of merchandise exports. The sector recovered in 1993. A number of factors have contributed to increases in manufactured exports. These include export incentives, the declining value of the rand, and especially important, a prolonged recession and the low levels of demand in the domestic market. While there are exceptions, micro-level studies have found that firms were not investing significantly in plant and equipment in order to produce for export market (Joffe et al, 1997)

Figure 6.6: Manufacturing Sector contribution to GDP
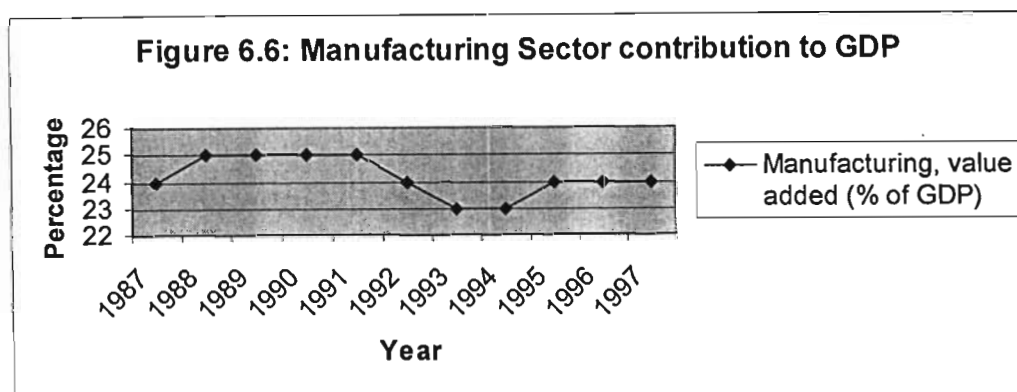
Source: World Bank, 1999.

As in the case of output, the period 1936-1951 was the one which saw the most rapid rate of increase in employment in the manufacturing industry as a whole, with an average yearly rate of increase of over 6 percent. The share of employment in manufacturing that was accounted for by the clothing and textile sub-groups was nearly twice as large as their contribution to the sector's output. The most rapidly growing sub-sectors, over the period, in employment terms, were machinery, metal products and clothing and textiles. Manufacturing employment also rose steadily in the 1970s, increasing by a little over 35 percent between 1972 and 1982. However, since then, manufacturing employment, despite some fluctuations, has shown a tendency to decline. In 1993, there were 89000 fewer jobs in manufacturing than there had been in 1982 (EIU, 1996/97).

The structural transformation that has taken place in South African manufacturing as the economy has modernised, shows very clearly in the

way that capital has accumulated in the subsectors. The rate of investment has been the highest in the machinery sub-sector, metal products and base metals and the lowest in the sectors that were relatively well established at the beginning of the 1960s and 1970s.

As cited above, the manufacturing sector is the largest contributor to GDP. The sector's share in GDP has been very stable over the last three decades. This stability can be seen in figure 6.6. Manufacturing grew by an annual average of 0.1 percent in real terms between 1991 and 1999. Productivity grew as trade reform exposed the sector to competition and new export opportunities. From 1994 to 1997, the sector was buoyed by strong consumption spending (Department of Finance, 2000).

6.5   External Trade and the Balance of Payments

As in other economies in sub-Saharan Africa, South African foreign trade has two main features, namely, the dominance of primary products (commodities) in exports and the importance of foreign trade when measured as a proportion of the national income. The Union had a very open economy and, as part of the British Empire, had few impediments to the exchange of goods and services with Britain (Jones and Müller, 1992). The imposition of tariffs specifically designed to foster industrialisation, discouraged growth of certain imports, but the volume of gold pouring out of the South African mines removed potential balance of payments constraints and encouraged the growth of imports. Gold followed by agricultural products dominated exports. In 1986, gold and agriculture accounted for 26 percent of the national income.

Exports and imports were also influenced by the pattern of industrialisation. While official import substitution policies in the 1950s and 1960s discouraged the import of consumer goods, this did not prevent them from rising in industries such as clothing and footwear, where the foreign manufacturer was able to cover his costs sufficiently to offset the tariff. The growth of manufacturing output in the 1960s promoted the growth of manufactured

exports, which explains why the manufactured proportion of total exports rose from 26 percent to 41 percent between 1964 and 1970. These exports, however, were not an engine of growth, they were a consequence of growth, and the South African economy did not enjoy the benefits of export-led growth.

From 1973-1979, however, South Africa did experience export-led growth. In those years non-gold exports experienced an average growth rate of 40.3 percent compared with an average of 23.6 percent for Gross Domestic Product. Base minerals led the way with an average growth in exports of 58 percent, followed by manufactured goods with 41.3 percent. The collapse of the rand in 1985 provided a further boost to exports. With the achievement of political stability in the mid-1990s, and the reduction in the level of domestic inflation, South Africa is expected to experience further export-led growth. The current stable depreciated exchange rate will also make the South African export products more competitive in the international export market.

6.5.1 The Pattern of Exports

Gold dominated exports in 1961 and, in the next decade, despite the fixed gold price, it retained its relative importance. In 1961 gold exports exceeded manufactured exports by 40 percent and agricultural exports by 156 percent. A decade later, in 1972 manufactured exports exceeded gold exports, while unprocessed agricultural exports, which had not kept pace with economic growth, now amounted to not much more than a third of gold exports. Between 1961 and 1972 the value of gold exports had more than doubled, with the result that they remained very important for the balance of payments. In 1961 the value of gold exports amounted to 37.7 percent of total exports and in 1972 to 36.5 percent. The increase in the price of gold then led to a regression in the structure of the economy, as gold increased its relative importance. It is important to recognise that, while the value of gold output expressed as a proportion of GDP was declining, this was not the case when expressed as a proportion of exports (Jones and Müller 1992).

The broadening of the base of the South African economy that had been such a feature of the 1950s continued in the 1960s and the 1970s; but in the 1970s it was overshadowed by the rise in the price of gold and metals, both as a proportion of GDP and a proportion of exports. The effect upon exports was obvious in 1973, when gold once again overtook manufactured goods, despite their impressive growth in the later 1960s. Neither the South African economy as a whole, nor its exports were able to escape from the dependence upon gold, even though manufactured goods exported had increased their proportion from 26 percent in 1964 to 41.1 percent in 1970. In the late1970s and 1980s the combination of a higher gold price and a declining rand strengthened these regressive features in the economy.

Between 1973 and 1986 gold exports rose by over nine-fold. Gold, however, had experienced a slight relative decline as a result of the boom in other mineral exports. It was the growth of these exports that saved the balance of payments in these years, though at the price of making the economy yet more dependent upon volatile primary products. Coal, platinum, chrome, copper, iron ore, manganese and diamonds led the way, with coal the star performer, overtaking diamonds in 1981. In the 1980s platinum began to figure more prominently among the minerals exported. This boom in mineral exports has compensated for the disappointing performance of manufactured exports.

The principal exports, other than gold and diamonds, were metal products and agricultural products. In the 1970s, exports of metal and metal products rose from R100 million in 1970 to R1 553,8 million in 1980. Chemical exports also rose, though from a lower base. They rose more than sevenfold from R63.2 million in 1970 to R443.7 million in 1980. While fruit quadrupled its exports, other food and livestock increased theirs by more than sixfold. Coal exports only became important in the later 1970s, but by 1981 they had overtaken diamonds. In 1980, the principal exports were pearls, precious and semi-precious stones, and gold coins at R2 845.9 million, mineral products at R1 547.0 million, base metals at R1 594.3 million, unprocessed agricultural

products at R820.7 million, and processed foodstuffs, wines, spirits and tobacco at R729.7 million.

In the decade after 1976, the rise of markets in the Far East and the continued growth of the American market counterbalanced the decline of Britain as an export market for South African goods. The collapse of the rand in 1985 and the intensification of the political campaign against South Africa that followed led the Pretoria authorities to stop publishing details of the destinations and sources of South African exports and imports. In 1977 the principal export markets were Britain, America, Japan, Germany, France, Switzerland, Belgium and Italy. A decade later the order had changed very considerably as both United States and Japan had overtaken Britain by 1983, Germany and Italy by 1987, reflecting the boom in mineral exports from South Africa.

6.5.2 The Pattern of Imports

In the early 1980s primary goods and intermediate goods still accounted for well over four-fifths of exports, reflecting the difficulty experienced by exporters of manufactured goods. The pace of industrialisation in South Africa and the progress of import substitution on the other hand had influenced imports. Though the variety of South African imports widened, the trend already established before 1961 of importing increasing quantities of producer goods continued. In 1945 the textile industry in South Africa was very small and textiles figured prominently in the list of imported goods. By the late 1980s imports of consumer goods of this kind had fallen to negligible proportions. Machinery and transport equipment accounted for 36.2 percent of all imports in 1961.

By 1973 this had dipped to 32.1 percent and by 1986 to 29.9 percent. In 1968 machinery imports were valued at R519 million and accounted for 21.8 percent of imports. Chemical imports, however, had increased substantially reflecting the growth of the plastics industry, synthetic textiles, paper and

packaging, pharmaceuticals and a variety of petrochemical products. Chemical imports rose from 20 percent of GDP in 1961 to 23 percent of GDP in 1982. The rise in the gold price in 1973 reversed the long-term trend towards a more self-sufficient economy and had the effect of increasing the country's dependence upon international trade. In 1987 imports were still relatively more important than they had been 14 years earlier.

Table 6.5: South Africa's Current Account of Balance of Payments (R billion)

	1989	1992	1993	1994	1995	1996	1998
Merchandise exports	39.1	50.4	58.4	69.9	86.6	103.9	135.1
% of total exports	56	61.5	62.2	63.3	66.6	66.4	68.4
Net gold exports	19.1	19.4	22.4	23.7	22.5	26.3	25.9
% of total exports	27.4	23.6	23.9	21.5	17.3	16.8	13.1
Service receipts	8.5	9.6	10.7	13.3	16.8	21.6	29.1
% of total exports	12.2	11.7	11.4	12.1	12.9	13.8	14.8
Income receipts	3.1	2.6	2.3	3.5	4.1	4.7	7.3
% of total exports	4.4	3.2	2.4	3.1	3.2	3.0	3.7
Total exports	69.8	82.0	93.9	110.3	130	156.5	197.3
Merchandise imports	44.3	52	60.5	77.7	99.4	118.7	150.8
% of total imports	67.3	68.9	69.6	72.1	73.3	73.5	73.6
Payment for services % of total imports	9.2 14.0	12.4 16.5	15.4 17.7	18.1 16.8	21.7 16.0	24.7 15.3	30.2 14.7
Income payments	12.3	11.1	11	12.1	14.6	18	23.9
% of total imports	18.7	14.6	12.6	11.2	10.7	11.2	11.7
Total imports	65.8	75.5	86.9	107.8	135.6	161.4	204.9
Balance on trade account	13.9	17.9	20.4	15.9	9.7	11.5	10.2
Balance on service account	-0.7	-2.9	-4.7	-4.8	-4.9	-3.1	-1.1
Balance on income account	-9.2	-8.4	-8.7	-8.6	-10.4	-13.4	-16.7
Current transfer [a]	-0.5	-1	-2.1	-2.2	-2.3	-3.2	-4.1
Balance current account	3.5	5.6	4.9	0.3	-8	-0.1	-11.6

Source: ABSA Bank, 1999 and SARB, Quarterly Bulletins.

[a] Net receipts.

During the period of financial sanctions against South Africa (1985-1993), a surplus on the current account of the balance of payments had to be maintained in order to cope with the annual net outflow of foreign capital, thus protecting the country's foreign reserve position. However, during the post-sanctions period 1994-1998, the current account showed a cumulative deficit

of R37.8 billion, while a cumulative net outflow of foreign capital amounting to R57.9 billion was recorded during the same period. South Africa's non-gold export volumes increased by 9.1 percent per annum during 1994-1998. This resulted mainly from a 2.5 percent per annum depreciation in the real effective exchange rate, improving the country's international competitiveness, as well as an almost 4 percent per annum increase in real world economic growth during the same period, impacting positively on international demand for the country's exports (ABSA Bank, 1999). South Africa's import volumes increased by 9.9 percent annum during 1994-1998, mainly as a result of domestic real economic growth of 2.7 percent during this period.

From Table 6.5, the South Africa's current account, the share of gold exports has more than halved from 27.4 percent in 1989 to a record low of 13.1 percent in 1998. This declining trend could have been attributed to various factors which influence the value of gold exports. First, the dollar price of gold declined by 23 percent from US$382 per ounce in 1989 to US$294 per ounce in 1998. Secondly, taking into account a 52.6 percent depreciation of the US$/R exchange rate from R2.62 to R5.53 over the same period, the rand price of gold increased by 62.5 percent from R999 per ounce in 1989 to R1623 per ounce in 1998 (ABSA Bank, 1999). However, the third factor that probably had the most significant effect on gold exports, is the country's gold output which declined by 21.8 percent from 605.6 metric tonnes in 1989 to 473.8 metric tonnes in 1998. This fall in gold output as a result of increasing production costs over time, resulted from a decrease in the grade of gold bearing ore, higher real wages, production losses due to strikes, unrest and accidents, and mining operations being conducted at ever-increasing depths below the surface.

6.6   Social Service Sectors

6.6.1 Education

Education in South Africa has been in crisis for many decades. This crisis is a product of long history of inequality in educational provision as reflected in different racial policies. The allocations of government expenditure to various racial groups have been based on the apartheid policy. Black education has, therefore, been especially severely disadvantaged because of these policies. This pattern changed after the 1976 student revolts that reflected the failure of Bantu Education. Therefore, black education was forced to reassess its effectiveness . Not much changed in state schooling immediately after 1976, but in 1978 and 1979 the state increased expenditure on black education. More classrooms were built in the urban areas and more money was allocated for maintaining schools in these areas. In January 1980, a new statute, the Education and Training Act, replaced the Bantu Education Act. Amongst other things it declared that free and compulsory education would be the centre of policy (Samuel, 1990: p.23).

According to Pillay and Adams (1989) the enrolment ratio in education adequately measures the degree of quantitative expansion and educational development.   World wide and in South Africa there has a dramatic expansion of education at all levels. In South Africa school enrolment ratios of black pupils have especially increased, between 1960–1989.

The gap in the per capita expenditure on education between black and white pupils narrowed significantly from the late-1960s to the mid-1990s. In 1969, per capita spending on black pupils was only 6 percent of that spent on white pupils, while in 1994/95 it had increased to about 28 percent. In 1995/96, there was a 15 percent shift in expenditure on education away from white to black. In fiscal year 1983/84 education accounted for 17.1 percent of total government expenditure and 4.6 percent of GDP, while in 1997/98, it constituted 21.2 percent of total expenditure and 6.6 percent of GDP (ABSA

Bank, 1999).

Table 6.6: Education: Percentage of Age Group Enrolled

	Primary	Secondary
1960	89	15
1970	99	18
1986	115	58
1990	122	74
1996	131	54

Source: World Bank, 1999.

It can be seen from Table 6.6, that there has been an increase in the school enrolment ratio for both primary and secondary. By comparing the two ratios, the primary school enrolment ratio has been very high. It increased from 89 percent in 1960 to 115 percent in 1986 and then to 131 percent in 1996. This improvement might have brought by policy changes in the education system of South Africa, specially the abolition of Bantu Education in the 1980s which has reduced inequalities between different groups in the country. The secondary school enrolment has increased slightly compared to primary school enrolment ratio. From 15 percent in 1960, it increased to 58 percent in 1986. It continued to increase and has reached a high level of 74 percent in 1990 and later decreased to 54 percent in 1996.

6.6.2 Health Services

For many years, health expenditure focused on high-quality curative care accessible by a minority of the white population to the neglect of primary health care for the majority of the black population. Health indicators in South Africa are a reflection of general socio-economic conditions in the country. Apart from these indicators, infant and child mortality rates are generally high, while life expectancy at birth is relatively low in comparison to other countries.

Table 6.7:   Health Indicators

Health Expenditure 1990-1995 as % of GDP				
Public Sector	Private Sector	US$ per capita	Population per physician 1990-1994	Hospital bed per 10000 population 1990-1994
3.6	4.3	77	1527	39

Source: ABSA Bank, 1996.

Health conditions in South Africa are reflected inter alia, by the following:

- 10863 AIDS cases were reported from 1982 to July 1996
- The estimated number of tuberculosis (TB) was 159000 in 1996.
- In 1996, 29160 cases of malaria were reported, while 158 people died from the disease in that year.

Table 6.8: Registered Health Personnel in South Africa (per 10000 per Population)

	1950	1960	1970	1980	1990	1994
Nurses	9.1	16.9	22.1	38.3	40.2	37.8
Doctors	4.5	4.9	5.0	6.0	7.3	6.5
Pharmacists	1.7	1.8	1.8	1.9	2.7	2.2
Dentists	0.7	0.8	0.7	1.0	1.2	0.9
Paramedics	0.3	0.8	2.2	5.0	8.3	8.7

Source: ABSA Bank, 1996.

From Table 6.8, it is clear that there has been an improvement in health facilities and an increase in the number of health personnel, particularly between 1950 and 1990. The number of nurses per 10000 per population has increased from 9.1 in 1950 to 40.2 in 1990 and then decreased to 37.8. The increase in the number of doctors is not that impressive as compared to the nurses. Pharmacist and dentist numbers have also grown slowly as compared to paramedics. The new government is trying to redress the balance of health care, and has already made considerable progress in

expanding primary healthcare. Although 300 clinics have been built since 1994, there is a drive to improve the number of clinics in some former homeland areas where each rudimentary health clinic serves as many as 30000 people. Health expenditure takes just over 10 percent of total government expenditure, and a quarter of overall health spending in 1994/95 was diverted to primary health care, compared with only 5 percent in 1993/94 budget. Health expenditure has also been about 6 percent of GDP in recent years (ABSA Bank 1996).

Like other most African countries, South Africa is faced with a relatively high rate of population growth compared to developed countries. The country's average annual population growth fell from a high of 2.8 percent during the 1960s to 2.2 percent during 1990-1997. These population growth trends are not detrimental to efforts to improve the average standard of living of the population and put enormous pressure on government finance. Apart from a high population growth rate, illegal immigration into South Africa also poses a major problem in respect of many socio-economic issues in the country.

6.7   Macroeconomic Policies and Economic Growth

6.7.1 Fiscal Policy and Economy Growth

The effect of fiscal policy on economic performance is experienced in two ways. First, the effect of fiscal policy on macroeconomic variables such as aggregate demand, the total government borrowing requirements, and the growth rate of the economy is known as the macroeconomic approach. Secondly, the effect of the fiscal structure on the microeconomic foundations of production is fundamental to an understanding of the influence of fiscal expenditures.

In 1990 the South African fiscal had an actual expenditure of close to one third (31.8 percent) of the country's GDP. In 1960 this figure was 13.2 percent. During the period from 1960 to 1990 the macroeconomic

significance of the fiscal allocations grew steadily. Over the same period, the share of fiscal revenues also increased markedly, from 14.10 percent of the GDP to 28 percent in 1997. While such remarkable increases reflect the rising economic importance of fiscal allocations over the period, the financing side of the fiscal policy that is the tax-deficit mix of state revenue, namely, public debt, has raised a great deal of interest and confusion world-wide, and it needs to be carefully assessed. In economic terms, public debt is regarded as problematic only if its growth rate exceeds the rate of growth of the economy over time.

Longer- term trends in tax revenue and government expenditure as percentages of GDP are depicted in figure 6.7. Expenditure grew strongly in relation to GDP in the 1980s to reach a peak of 32 percent in 1992/93. After remaining at similarly high levels for most of the mid-nineties a reversal of the trend began to emerge after 1996/97. Revenue was relatively stable relative to GDP during the 1980s and the 1990s.

Figure 6.7: Government Exenditure
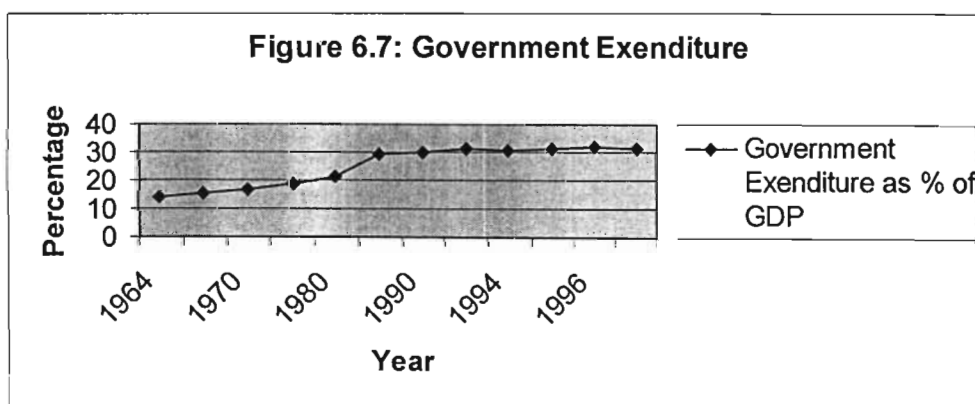
Source: Abedian et al 1997 and ABSA Bank, 1999.

The South African income tax schedule was subject to frequent changes during the 1966-1990 period. Although there is little evidence of the impact of the tax rates on the supply of labour, theoretically the disincentive effects of these tax rates would be expected to influence primarily the supply of white labour (Abedian and Standish, 1992). The stability of the debt/GDP ratio depends largely on the relative magnitude of the real rate of economic growth and the real interest rate. Thus monetary policy, by setting the nominal

interest rate on one hand and influencing the inflation rate on the other, exerts a substantial impact on this ratio.

Figure 6.8: Government Debt in South Africa
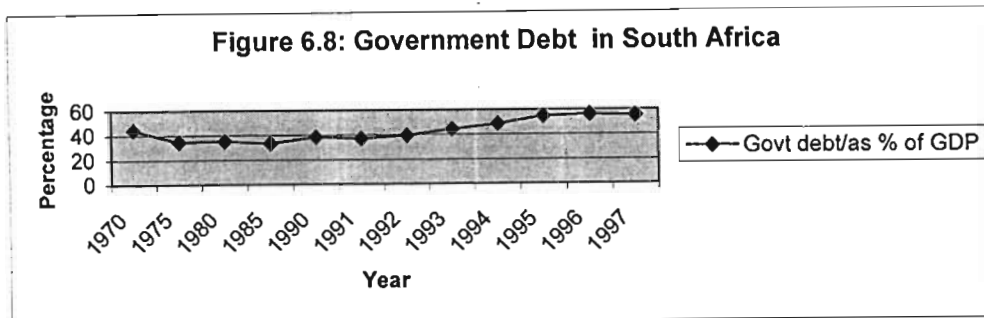
Source: Abedian et al, 1997.

Although the stock of public debt has been rising since the 1960s, as a proportion of GDP its share has been generally declining over the period. The trend of the South African debt as a ratio of the GDP has been rising in the 1980s and 1990s. This could herald fiscal difficulties if continued over time. By 1987, the interest on public debt constituted 15.6 percent of central government expenditure. The corresponding ratios in 1960 and 1970 were 4.9 percent and 8.6 percent respectively. In the 1990s, these ratios continued to rise and have reached a high level 20.4 percent in the 1996/97 financial year.

6.7.2 Investment and Savings

The overall level of savings and investment in the country seems to have been affected by tax rate changes. In the years between 1978-1982, national savings remained within a narrow band of 25 to 28 percent of GDP. National investment, on the other hand, has shown a great deal of variation. The impact of the Sharpville (1960-1962) and Soweto (1976-1979) events, and those of the 1980s, are clearly discernable. In the wake of all such political events the country's national savings exceeded national investment.

Figure 6.9: Investment and Savings
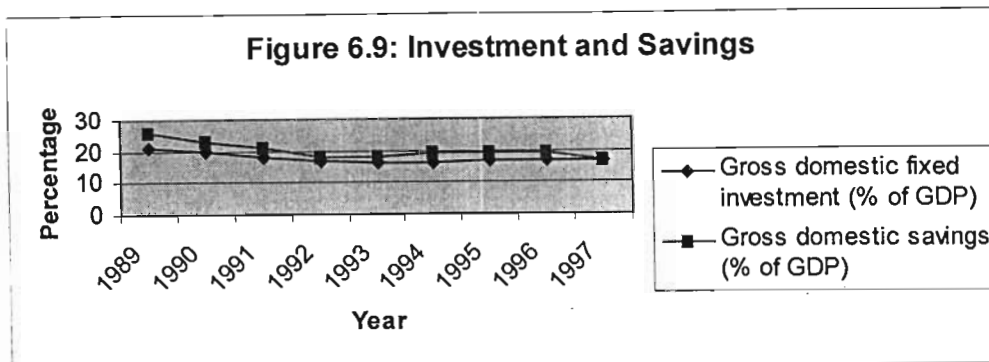
Source: World Bank, 1999.

Lombard and van den Heever (1990) argued that net savings available for domestic capital formation was seriously depressed over the past two decades by a rapidly accelerating need to provide for the replacement of capital depreciation from a sluggishly growing gross output. The basic problem was the wasting of capital resources and falling output productivity of capital formation, which in turn is explained by the huge subsidies on the user cost of capital in the 1970s. A main element in these subsidies was negative real interest rates in the period. A second drain on domestic savings available for investment was substantial outflow of capital as the financial sanctions were felt. Particularly since 1985 a large proportion of net domestic savings (41.5 percent) has been applied to the reduction of foreign liabilities or the accumulation of foreign assets.

An individual with annual earnings of R30,000 paid on average 21.5 percent tax in 1988, as opposed to 6.3 percent in 1970 or 10.8 percent in 1975. Such substantial cuts into disposable income have obviously diminished the individual's ability to save. This is further compounded by the impact of a rising general sales tax (GST). Over the period 1970-1990, income tax and GST increased their share from five to almost 20 percent of national personal incomes. The Value Added Tax (VAT) introduced in September 1991, was expected to enhance this trend to a large degree. While theoretically a superior tax when compared with GST, its introduction on top of the existing high income tax robs the average income earners of their chance to save. Instead, it ensures a much larger and more widely-based revenue for the state.

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6.7.3 Monetary Policy for Economic Growth

South Africa is the leading member of the Common Monetary Area (CMA). Other member currencies are linked or pegged to the South African rand. Since 1970, the South African economy has suffered from a rate of price inflation which has been higher than that of its trading partners. Among other ills, it has also experienced wide fluctuations in nominal and real interest rates and a decline in the value of the Rand in the period. Inflation control and exchange rate stability have been prime concerns of the monetary authorities, the problems have occurred despite the authorities' efforts to prevent them.

Since the advent of the new government in South Africa, developments in monetary policy have been dominated by certain factors. First, after almost 10 years of persistent capital outflow, which imposed a binding balance of payments constraint on the country, the economy was faced with a surge in capital inflows. Between 1985 and 1994, capital outflows averaged over R5 billion per annum. In 1993 alone, outflows totalled over R15 billion. After the elections between July and the end of December 1995, capital inflows amounted to over R30 billion. In February 1996, however, there was a sudden change in sentiment, which resulted in a reversal of these inflows and a significant depreciation of the rand, which at one stage fell to over R4.70/USD.

The second major development was the abolition of the financial rand in March of 1995, the result of which was that transactions by non-residents now have a direct impact on the capital account. In addition, the abolition of the financial rand meant that the partial insulation of South African interest rates from world rates through the financial rand mechanisation no longer existed. There are two other important developments that also need to be cited. First, after years of inflation inertia, the inflation rate has declined significantly. Whereas it averaged around 15 percent in the 1980s, the latest figure was below 10 percent. The other important factor affecting monetary policy is the

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high degree of Reserve Bank independence that prevailed during the late 1980s. This coincided particularly with the appointment of Dr. Stals as governor in 1989, and the Reserve Bank was afforded a greater degree of the independence under his leadership.

6.7.3(a)   Monetary Policy, Interest Rates and Prices

Until 1998 the bank rate was the major operational tool of monetary policy. Interest rates in South Africa displayed a great deal of variability during the 1980s. At the beginning of the 1980s, the bank rate was 4.7 percent and in real term this implied highly negative real interest rates. This was due to a large extent to the influence of the high gold price, which resulted in a decline of the money market shortages, and therefore excess liquidity. By 1983, this situation changed. The gold price slumped and the Reserve Bank, under the influence of the De Kock Commission of Inquiry into Monetary Policy, allowed interest rates to rise substantially. By 1984, the bank rate had risen to 20.75 percent, implying high positive real interest rates, and with prime rates higher than these rates, the economy had experienced an extremely wild gyration of real interest rates.

It was only in 1988 that the balance of payments constraint became dominated by balance of payments developments. Therefore, in 1988, for the first time since the onset of the debt crisis, private sector domestic fixed investment began to increase, albeit modestly and off a low base. This had a significant impact on the current account, and the authorities had to respond to the rapidly declining surplus by raising interest rates and imposing import surcharges. During the course of 1988/89 the bank rate rose from 9.5 percent to 18.0 percent. Since 1989, following the appointment of Dr. Stals as the Governor of the Bank, a more consistent monetary policy has resulted in relatively more stable but positive real interest rate. As balance of payments' pressures moderated in the early 1990s and the inflation rate showed signs of declining, the bank rate was reduced gradually from 18 percent in March 1991 to 12 percent in October 1993. In September 1994,

this trend was reversed with a rise to 13 percent following the adverse balance of payments pressures and a reversal of the downward trend in inflation. Further one percentage point increases were implemented in February and June 1995. Following the capital outflows and the decline in the rand since February 1996, the Reserve Bank raised the bank rate a further one percentage point in April 1996. It should be also noted that these interest rate increases have been undertaken at a time of declining inflation rates, implying that the real rate has been increasing substantially.

The other factor with respect to interest rates that must be kept in mind in any scenario is that South African interest rates are likely to become more affected by interest rate developments internationally, than was the case in the past. First, the current moves towards liberalisation of the capital account imply that South Africa's interest rates have to move more in line with those abroad and follow interest parity considerations. In the past, South Africa's interest rates were in part insulated from international developments through the financial rand mechanism. Essentially it meant that because foreign investors invested at the financial rand, but interest and dividends were repatriated at the commercial rand rate, the discount between the two rates enhanced the returns to non-residents. Thus if interest rates in South Africa were low, a depreciation in the financial rand would enhance the yield to the non-residents.

Therefore, the adjustment was made through the financial rand rate, rather than through changes in domestic interest rates. Secondly, domestic interest rates have been shielded from foreign interest rate developments through the Reserve Bank operations in the forward exchange market. Until recently, the Reserve Bank has set the forward rate directly and has done it in such a way as to encourage traders to finance their imports offshore. An important component of the forward exchange rate policy has been that the forward premium or discount has been set simply on the basis of trade finance interest rate differentials, rather than on the basis of expected exchange rate changes.

Table 6.9: Interest Rates and Inflation

	Bank Rate	Prime Overdraft Rate	Inflation Rate	Real Bank Rate	Real Overdraft Rate
1985	15.00	15.50	14.9	0.03	0.53
1986	11.00	14.50	17.1	-6.10	-2.60
1987	9.50	12.50	14.9	-5.45	-2.45
1988	12.25	15.20	12.0	0.17	3.12
1989	17.00	20.00	13.7	3.27	6.27
1990	18.00	21.00	13.3	4.61	7.61
1991	17.00	20.25	14.20	2.72	5.97
1992	15.00	18.25	13.0	1.95	5.20
1993	13.00	16.25	9.7	3.30	6.55
1994	13.00	16.25	9.0	4.00	7.25
1995	15.00	18.50	8.7	6.30	9.80
1996	17.00	20.25	7.2	5.63	8.91
1997	16.00	19.25	8.8	4.12	7.53

Source: SARB, Quarterly Bulletins, various issues.

During 1995, the Reserve Bank announced its intention to withdraw gradually from the forward market. The implication of this move was that the insulation provided by the previous activities of the Bank to interest rates and the exchange rate would be phased out, and forward premia and discounts would be more appropriately reflect expectations of future exchange rate developments. However, during the 1996 crisis, the Reserve Bank reverted to its policy of using the forward market as a means of intervention in the foreign exchange market. During the period between mid-February and end of April, the Reverse Bank's net oversold forward position had increased to over US$12 billion from US$8 billion (LSE, 1996).

6.7.3(b)   Inflation Rate

From Table 6.9, it can be seen that South Africa's inflation rate during the 1980s was characterised by a high degree of inertia, with consumer price inflation fluctuating narrowly around the 15 percent level. Despite much tighter monetary policy since 1988, the inflation inertia was only broken in 1992 when the inflation rate began to drop, averaging 9.7 percent in 1993 and 9 percent in 1994. Food price inflation dropped markedly in 1995, with

prices rising by 8.7 percent during the year and the overall inflation rate dropping to 7.4 percent (Kahn, 1996). An important element in the downward trend in the inflation rate was the fact that during 1995 the rand exchange rate was relatively stable. A stable exchange rate implies that imported prices will be rising at the same rate as foreign price inflation. It is also argued that the South African inflation rate is higher than those of its trading partners; this implies that the real exchange rate is appreciating and therefore putting adverse pressure on the manufacturing sector.

6.7.3(c)   Money Supply

The target of monetary policy according to the Reserve Bank is M3, and guidelines are set for the rate of growth of this variable. The Reserve Bank has had mixed success in maintaining the rate of growth of M3 within these guidelines. For instance, in 1994 the guidelines of the upper and lower limits were 9 percent and 6 percent respectively. The actual growth of M3 for the year was 14.6 percent. The guidelines are 10 percent and 16 percent. The money supply also began to increase, having been contained in 1992 and 1993, and in June 1994 increased by 15 percent. Bank credit extended to the private sector, after having contracted in 1992 and most of 1993, extended by 13.2 percent in June 1994 (Khan, 1996).

Figure 6.10: Money Supply
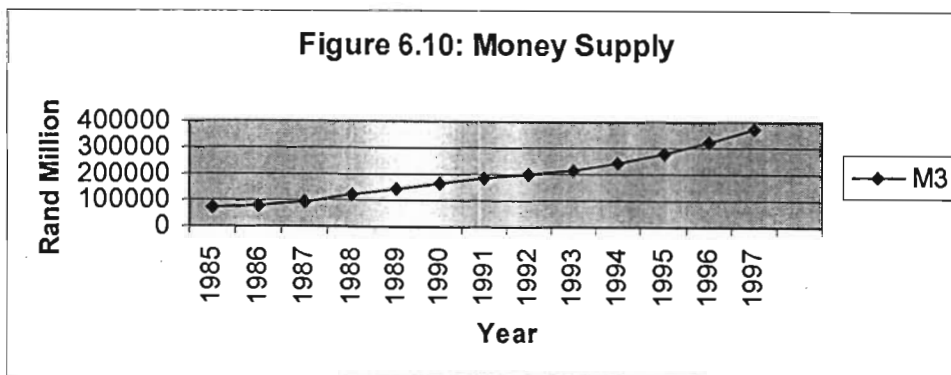
Source: SARB, Quarterly Bulletins.

6.7.3(d)   Monetary Policy and Capital Inflows

During the period of inflows in 1994/95, there was the fear that if foreign capital inflows continued unabated on the same scale, the Reserve Bank would face the problems of many other emerging markets, particularly in Latin America. The phenomenon of excessive capital inflows provides a direct link between monetary policy and exchange rate policy in South Africa as well as elsewhere. The problems facing South Africa with respect to capital I nflows were:

➢ It was difficult to know at the time what the nature of these capital inflows were. According to the Reserve Bank, a large proportion of these inflows were short-tem and therefore easily reversible.

➢ These inflows complicated monetary control, particularly with respect to the impact on the money market shortage.

➢ The Reserve Bank was concerned about the impact of an appreciating rand on the country's international competitiveness, even though an appreciation of the nominal rate would contribute to the decline in the inflation rate.

6.7.3(e)   Exchange Rate Policy

It is the rate of exchange, the conversion rate at which the authorities are prepared to convert South African rand into other currencies, that links the foreign trade sector to the rest of the domestic economy. As a result, there is a definite link between changes in the exchange rate and changes in the supply of money in the domestic economy. The interim report of the De Kock Commission, which concentrated its attention on this particular relationship, included the following statement:

"One of the first and most basic conclusions reached by the Commission in this regard is that there are few hard and fast a priori rules which can be laid down about the many different effects of

exchange rate changes in South Africa. In most cases the nature and significance of the relationship between exchange rates and other economic variables depend upon circumstances.[18].

Overall exchange rate policy has been determined by the factors that have influenced the rest of the international trading community, but within these overall limits domestic exchange rate policy has been reasonably conservative, with the authorities, in general, favouring the maintenance of a stable exchange rate. After leaving the gold standard in 1936, South Africa signed the Bretton Woods Agreement in 1945, which established a system of relatively fixed international exchange rates. During that period the Bretton Woods Agreement remained in force, and the South African currency was realigned only once in 1949 when it was devalued by 30 percent against the United States dollar. Despite the apparent stability of the South African currency between 1945 and 1971, there was a significant change in the authorities' attitude towards the foreign sector of the economy during this period that was not reflected in the exchange rate.

In 1960, there were significant social disturbances throughout South Africa and these triggered off a feeling of economic insecurity that was reflected in a massive outflow of capital. In 1961 the authorities closed the gates, by imposing a limit on the outflow of capital and tightening up on exchange control regulations. These restrictions remained in force until their abolition in February 1983 and had a significant influence on the domestic monetary situation. In 1968, the establishment of the two-line gold market heralded the start of the end of the era of relatively fixed international exchange rates. This failed to stabilise the international economy, and in 1971 the Bretton Woods system was finally abandoned. In the adjustment that followed, the South African authorities decided to tie the rand to the dollar and to allow them to float together, within limits, against the other international currencies. The decade of the 1970s was one of considerable instability on the international current markets and it is virtually impossible to detail all the movements that

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[18] Quotation from Nattrass 1990, pp.266

took place over this period.

The rand was however, devalued quite significantly against the dollar in 1975 and lost ground, with the dollar, to other major currencies such as the German mark, the Swiss franc and the Japanese yen. Throughout this period the controls on the outflow of capital were maintained, which in effect, resulted in an overvaluing of the rand on the international market (Kahn, 1992).

As a result of controls on capital outflows, the South African balance of payments has strengthened and built up liquidity. This situation has generated pressure for a relaxation of the exchange controls. The Interim Report of the Commission of Enquiry into monetary policy recommended that steps should be taken in this direction. The first step was freeing the rand, and a dual exchange rate was introduced via the creation of the financial rand at the end of 1978. This system was abolished later in February 1983, together with exchange control over non-residents. Initially, it appeared that this boldness was to be rewarded with inflows of capital, as foreign investors responded by injecting funds into the South African economy. Political instability and the precipitous decline of the rand against other currencies, notably the dollar, from the end of 1982 led to massive outflows of foreign capital. The refusal of foreign banks to roll over short-term debt in 1985 and the resulting debt crisis confirmed the severe financial problems of the economy. This necessitated the reintroduction of the financial rand in September 1985 as a measure to control drainage of resources overseas.

Figure 6.11: Real Effective Exchange Rate Index (1990 = 100)
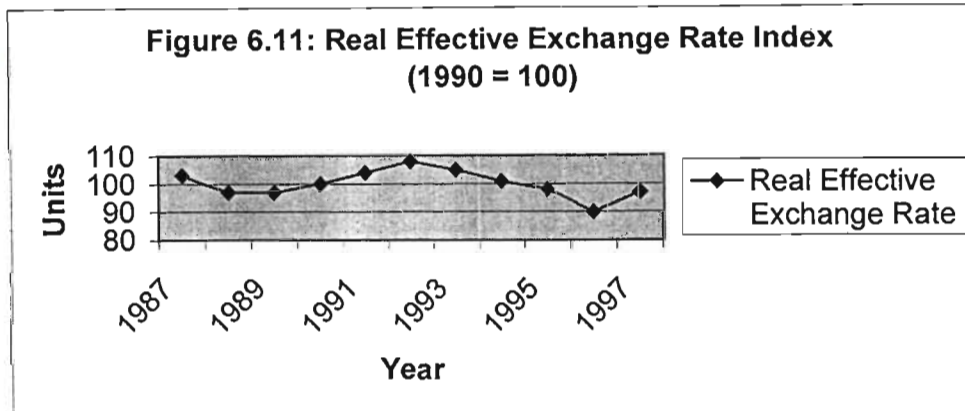
Source: World Bank, 1999.

The most significant recent development in exchange control liberalisation was the abolition of the financial rand mechanism in March 1995. This effectively removed most controls on inflows and outflows of non-residents' capital. However, the restrictions on local borrowing by non-resident companies remain, although these were relaxed in June 1996 (Kahn et al, 1998). Apart from the abolition of the financial rand, there have been some gradual moves towards lifting controls on residents. First, there was the announced intention that applications from South African companies wishing to undertake direct investments in Africa in particular would be given favourable treatment. Secondly, there was the asset swap mechanism announcement by the Reserve Bank, which allows institutional funds to purchase blocks of foreign assets in exchange for domestic assets. In June 1996, institutions were allowed to invest up to 3 percent of their annual income flows abroad.

7   A REVIEW OF ECONOMIC PERFORMANCE IN BOTSWANA

7.1   Introduction

This chapter attempts to understand the good economic performance that occurred in Botswana. The chapter also provides an overview of economic performance and highlights the policies that have led to the impressive economic performance in this small economy. Chapter seven also sheds light on the constraints to industrial development in Botswana.

7.1.1 Background

The country is a landlocked state in the Southern Africa, bordered by South Africa in the south and southeast, Zambia and Zimbabwe in the northeast, and Namibia in the north and west. The climate is sub-tropical, ranging from continental to semi-arid. The desert covers almost 70 percent of the country, with the Kalahari dominating southern and western Botswana. The country has population of around 1.5 million, with a large share concentrated in the eastern regions where the major towns are located. When Botswana gained independence on September 30, 1996 it was one of the poorest and least developed countries on earth. Per capita Gross National Product (GNP) was estimated at no more than US$69. British budgetary grants in aid and other grants to the tune of 57 percent financed the recurrent budget of the government. It was in the light of these facts that the Transitional Plan for Social and Economic Development published on the day of independence stated that, fundamental to the plans and policies of the Government, is the determination to make the country a financially viable entity in the shortest possible period (Mogae, 1985).

Botswana today is a paradox of political economy. This is a capitalist economy based on central planning, more capitalist than any of its neighbours (including South Africa) in lack of state ownership, control and management of industry or agriculture or even of infrastructure, but also more planned than even supposedly-socialist states in Southern Africa in terms of state machinery identifying, projecting and inducing the growth of economic sectors over five-year periods (Murray and Parsons, 1985). The transformation of Botswana has been dramatic. Substantial improvements in incomes, infrastructure and employment have been achieved since independence, which was supported primarily by income from the mining sector's income. Whereas only 4 percent of the total population lived in urban centres at independence, by 1991 this had increased to 46 percent.

The country's infrastructure, which was hardly developed when Bechuanaland was a British protectorate, has improved significantly, with a road system comprising more than 4600 km of tarred roads linking main urban centres, and the extension of dependable water, electricity and telecommunication services to many parts of the country. Botswana's significant achievements of economic development have to large extent resulted from sound and effective management by the government, which had pursued a policy of financial prudence. Compared to other sub-Saharan African countries, the country has demonstrated strong economic growth and social development (WTO, 1998).

7.1.2 Economic Performance since Independence

At independence in 1966, as mentioned above Botswana was of the 20 poorest countries in the world and the dominant economic activity was cattle raising. Botswana is now counted as a middle-income country, and has been the world's fastest growing economy since its independence in 1966. The country's economic performance may be of rather wider interest than its size would suggest. In, itself Botswana's growth is not all that remarkable. The discovery of large mineral deposits mainly diamonds but also copper-nickel,

demand for diamonds led to an improvement of the mining sector, while following improvements in the international prices of metals in 1993/94, production of copper and nickel increased significantly, contributing to a growth rate of 5 percent in the mining sector.

Table 7.1: Sectoral Break Down of Botswana's GDP at Constant Prices

Economic Activity	1993/94	1994/95	1995/96	1996/97	1997/98
(P million)					
Agriculture	198.9	189.8	189.0	188.6	186.4
Mining	1585.4	1561.6	1716.3	1815.8	1987.9
Manufacturing	283.1	295.3	314.5	330.8	346.4
Water & electricity	121.6	129.1	127.9	134.2	147.3
Construction	261.0	265.2	272.4	287.7	300.1
Trade[a]	736.7	794.2	852.1	942.5	1022.0
Transport	212.6	226.2	239.6	270.6	295.8
Others[b]	1389.2	1458.5	1529	1648.4	1799.8
GDP	4667.5	4792.9	5108.3	5474.0	5928.9
GDP per capita (Pula)	3082.1	3231.3	3392.0	3658.3	3941.0

Source: MFDP, 1999.

[a] And hotels and restaurants

[b] Include general government, banks, insurance and business services, and social and personal services

The main contributory factor behind the impressive improvement in economic activity in 1995/96 was the continued high performance of the two major sectors: mining and general government. These sectors grew by 9.9 percent and 6.8 percent in real terms respectively during the year, compared to –1.5 percent and 6.1 percent in 1994/95. The increase in government spending was largely on infrastructure development. Recent reform measures aimed at resuscitating the economy and providing a firm basis for economic diversification are likely to have strengthened economic recovery. These measures include the Orapa diamond mine expansion, the north-south pipeline, the liberalisation of exchange controls, the reduction of corporate tax rates, wage restraint and the restructuring of parastatals. Notable growth was also recorded in manufacturing, which grew by 6.5 percent in 1995/96 compared to 4.3 percent in 1994/95, mostly due to rapidly rising exports of non-traditional commodities to South Africa.

In terms of GDP by expenditure, economic growth in 1997/98 was largely explained by a significant increase in domestic demand. During the year, gross domestic expenditure, which comprises gross fixed capital formation and consumption, rose by 15.4 percent, increasing its share in GDP from 80.9 percent to 86.2 percent. Gross fixed capital formation increased by 12.1 percent while total government and household consumption increased by 16.2 percent. The share of government consumption increased from 29.3 percent to 30.0 percent, while that of the households increased from 25.2 percent to 28.5 over the period. At the same time, the share of gross fixed capital formation rose from 23.6 percent to 24.4 percent during the one-year period (Bank of Botswana, 1999). The contribution of external demand to GDP growth was depressed during the year as a result of the slow growth of exports, coupled with a significant increase in imports. Exports of goods and services grew only by 5.5 percent, while imports of goods and services rose by 19.0 percent. As shares in total GDP, exports decreased from 58.8 percent in 1996/97 to 57.3 percent in 1997/98, while imports increased from 39.5 percent to 43.4 percent over the same period.

7.2   Sectoral Performance

7.2.1 Agricultural Sector

The agricultural sector in Botswana is composed of two distinct production subsectors, traditional and commercial. Each sector comprises both crop and livestock farming activities. The difference between commercial and traditional farming is based on land tenure, technology and market integration. Commercial farms, mainly freehold or leased, comprise 8 percent of the total land area. These farms hold about 14 percent of all cattle and account for about 37 percent of total production of cereals and pulses. Commercial farms tend to specialise in cattle production. Traditional farming, with individual managed arable holdings and communal grazing livestock hold about 86 percent of all cattle, 98 percent of goats and 83 percent of sheep. Commercial farming tends to adopt a business approach in the management

of farm enterprises. The commercial sector uses modern technology and applies purchased inputs. The Traditional sector uses family labour.

Because Botswana is partly semi-desert and partly savanah, with erratic rainfall and relatively poor soil, the country is more suited for grazing than to arable production. The agricultural sector contributed about 40 percent to GDP at independence in 1966. Its share has now declined to about 4 percent due to the rapid development of the mining sector, particularly diamond mining. Rapid urbanisation and the growth of manufacturing have also contributed to this decline. Despite this decline, agriculture remains an important source of food, income, employment and capital formulation for the majority of the population living in the rural areas. About 2 percent of formal employment comes from the sector.

Figure 7.2: Agriculture contribution to GDP
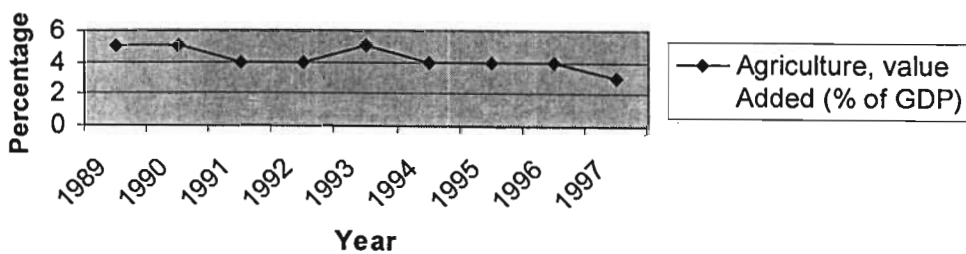
Source: World Bank, 1999.

Cattle production continued to receive the lion's share of agricultural development funds after independence, mainly in the form of funds for borehole drilling and the modernisation of the Lobatse abattoir to meet the demands of overseas markets. The Botswana Meat Commission (BMC) was established as a parastatal corporation to take over the abattoir and the marketing of beef in 1965 (Murray and Parsons, 1985). Favourable terms for beef exports were first obtained in the United Kingdom and then through the U.K. in 1975 with the European Economic Community. The Botswana Meat Commission thereby sold beef to Europe at four times the world market price. The value of Botswana Meat Commission sales increased from P8.6 million in 1970 to P53.4 million in 1976. It was not until 1978 that the value of diamond

exports surpassed that of beef. Such growth, however, was accomplished at the cost of overgrazing and the rapid deterioration of the range. In 1976, it was calculated that there was enough grazing land to support only 2 million cattle without inflicting permanent damage to the range, provided there was rain. In the 1970s the range had to support 3 million cattle (Murray and Parsons, 1985).

A second abattoir with daily throughout capacity of 115 head of cattle was opened in Maun, and a third at Francistown in 1990 with a daily throughout capacity of 400 cattle. However, the Maun abattoir was closed in 1996 as a result of the contagious lung disease in Ngamiland. Between 1991 and 1995, BMC produced 20867 tonnes of beef and exported 19500 tonnes. BMC contributed 5 percent annually to domestic consumption, while beef consumption countrywide averaged 50000 carcasses in municipal abattoirs and home slaughter. During the 1997/98 financial year, the Botswana Meat Corporation slaughtered 162000 cattle, 2000 sheep and 2000 goats, as compared with 127000 cattle, 2843 sheep and 2115 goats in 1996/97. Even though this is an improvement over the previous year, this resulted in only 62 percent capacity utilisation at the Francistown and Lobatse abattoirs. This led to the introduction of incentive schemes by the BMC to encourage traders and farmers to sell to the BMC (MFDP, 1999).

These activities include a guarantee scheme in which commercial banks give advances to cattle traders to buy and sell cattle to the BMC, as well as the footlot scheme aimed at increasing throughout and slaughter weights. In general, the beef markets continue to be depressed because of the BSE (Mad Cow Disease) scare in Europe. Prices of beef in Europe, which accounts for 75-80 percent of the market, remained low during the year. Despite the depressed market, the BMC made a surplus, which enabled the abattoir to declare a 13 percent bonus at the end of the year. Producer prices were also increased by 5 percent during 1997/98.

Table 7.2: BMC Sales by Product and Market Share, 1993[1]

Product	United Kingdom	Germany	Other Europe	Reunion	South Africa
Beef					
Chilled	27.3	18.0	3.2	34.8	0.4
Frozen	11.9	14.0	12.9[a]	1.0	18.3
Corned beef	3.5	0.0	0.2	0.0	0.1
Wet blue hides	0.0	0.0	12.8[b]	0.0	2.8
Carcass meat	0.0	0.0	0.0	0.0	0.1
Wet blue hides	0.0	0.0	12.8[b]	0.0	2.8
Edible offal	3.1	0.0	0.1	0.0	1.5
Total[c]	45.8	32.0	29.2	35.8	23.2
Market Share	27.6	19.3	17.6	21.6	14.0

Source: WTO, 1998.

[1]. Pula million unless otherwise indicated

[a] Netherlands

[b] Italy

[b] Including other lesser-value products and smaller markets (Hong Kong, Mauritius).

Crop production in Botswana since independence has been even more problematic. In drought years the country has had to import almost all its maize and much of its sorghum, the two main food staples and subsistence crops. Even in years when rains were good, crop production has failed to keep with the population growth rate. National self-sufficiency has dropped from an average of 90 percent in 1966 to no more than 50 percent in the early 1980s. Sorghum is the predominant and staple crop in Botswana. Maize and wheat have also recently gained popularity, especially in the urban areas. Food crop production constitutes less than one-third of consumption even in drought-free years. Botswana is therefore a net importer of cereals, with South Africa as the main source of imports. One of the contributing factors to the ever-increasing cereal imports is Botswana's rapid population growth.

The 1997/98 rainfall season was generally drier compared to the 1996/97 season. Rainfall was low, poorly distributed and erratic, with prolonged dry spells. This resulted in low ploughing and planting rates. In terms of

production, crop yields were generally low during the 1997/98 crop season, with average yields of 115 kg/ha for sorghum, 61 kg/ha for maize and 113 kg/ha for pulses compared to 220208 and 191 kg/ha, respectively in 1996/97 (MFDP, 1999). It is estimated that crop production for 1998/99 in the communal subsector will be around 9740 tonnes, which would be about 29 percent of the previous year's production of 33339 tonnes. This production comprises of 6340 tonnes of sorghum, 1120 tonnes of maize and 2280 tonnes of pulses.

The total crop production forecast for both communal and commercial farms is estimated at 13009 tonnes in 1997/98, which is substantially lower than 33470 tonnes in 1996/97. This production falls far short of the country's total cereal requirements of 302154 tonnes for the 1998/99, and it is expected that the short-fall will be met from imports. Prices of maize, sorghum meal and rice increased slightly in 1998. The monthly average retail price of maize was P1.64/kg, compared to the previous year's figure of P1.48/kg in 1997. Similarly, the monthly average retail prices of sorghum meal and rice were P1.69/kg and P4.97/kg in 1998, compared to P1.48/kg and P4.90/kg in 1997 respectively (EIU, 1998/99).

7.2.2 Mining Sector

Good fortune has shone on Botswana since independence. In 1967 diamonds were discovered at Orapa and the existence of major copper-nickel deposits were established at Selebi-Phikwe. Both these deposits were in the Bamangwato where the Morafe not the central state held the mineral rights, but the Bamangwato were persuaded to relinquish their rights to the state in the national interest in 1967. The two mines enjoyed contrasting fortunes. The Orapa mine began producing diamonds in July 1971 at a rate of 2.4 million carats per annum. Mining was opencast and processing costs were negligible. Output increased steadily during the 1970s and new mines were opened at Letlhakane in 1977 and Jwaneng in 1982. In 1984, nearly 13

million carats were produced with an estimated value of almost 900 million Pula (Mogae, 1985).

The dream of copper fuelling economic development was transformed into a nightmare by plummeting world metal prices and by technical problems in mining and smelting processes. Production got under way until 1974 and the mine only began to run efficiently in the early 1980s. Although a number of company restructurings resulted in the Anglo-American Corporation of South Africa replacing Amax as the major shareholder in Bamangwato Concessions Limited (BCL), by 1984 their accumulated deficit was P70 million. The justification for keeping the mine operational has been its efficient low-cost productivity, despite its massive accumulated debt. The Morupule coalmine at Palapye was established to supply coal for electricity generation at Selebi-Phikwe. It has since increased its output to fire a new 90 MW power station commissioned in 1987 to provide power for a national grid independent of South Africa but interdependent with Zimbabwe. The Morupule mine produces less than half a million tonnes a year from coalfields conservatively estimated to contain 17 billion tonnes.

Since the first decade after independence the mineral industry has been the main agent of growth in Botswana. Exploitation of mineral resources was emphasised in the planning process and actively pursued by government officials. Mining development involved complicated negotiations and financing arrangements. It also involved sizeable expenditures, financed by government loans, to improve infrastructure. The government provided the new mines with the bulk of water, power, and transport facilities necessary for opening. As a result mineral exploitation and the associated infrastructure construction grew at a rate of 20 percent a year in real terms between 1968 and 1975, and the share of mining in construction in GDP increased from 1 percent to 12 percent.

The enormous influence of mining and mining interests in Botswana is illustrated by the fact that in 1973/74 GDP was little more than the aggregate

cost of commissioning the mine and the surface treatment plant at Selebi-Pickwe (R180 million). As mineral development and the associated construction activity progressed, Botswana's exports increased from less than R11 million in 1966 to R105 million in 1975. Mineral products accounted for R54 million. Imports, the main source of government revenue, increased from R19 million to nearly R160 million. The effect on employment, however, was not proportionate. Formal sector employment increased from 48000 in 1972 to over 60000 in 1976. In that year, mining accounted for more than 12 percent of GDP, but employed only 7 percent of the cash labour force in Botswana. Mining has provided the basis for Botswana's economic development, and the country is now the third largest African mining producer after South Africa and the Democratic Republic of the Congo (DRC).

7.2.2(a)   Contribution of Mineral Sector to Gross Domestic Product

As cited earlier, mineral development has made a major contribution to the growth of the economy of Botswana. Indeed, the mining industry was largely responsible for the graduation of Botswana from recurrent budget aid from British Government and entitlement to International Development Association resources in the early 1970s, and from the world's least developed countries in the late-1980s. At independence, in 1966, the mineral sector contributed almost nothing. By 1972, diamond production at Orapa had started and the sector's contribution to GDP had jumped to 11 percent of the total, which was then only P103.6 million. In 1983, with production at Orapa doubled from 1978, Letlhakane and Jwaneng mines commissioned, and the BCL copper-nickel project on stream, the industry was contributing 32 percent of GDP, which itself had grown more than ten times to over P1153 million (Gaolathe, 1997).

Table 7.3: Mineral Sector Contribution to Gross Domestic Product

	1972	1980	1985	1989	1993	1995
GDP[a]	103.6	875.5	1828.6	5836.8	9126.0	12530.3
Mining GDP[b]	11.2	201.6	753.1	2969.3	3042.3	4086.3
Mineral share of total GDP (%)	11	23	41	51	33	33

Source: Bank of Botswana, 1997.

[a] Gross domestic product (Pula million)

[b] (Pula million)

The mining sector's share reached its peak in 1989 when it accounted for more than 50 percent of the GDP, which was then P5837 million or 182 times what it was in nominal prices at independence. The industry's share has since decreased to 33 percent in 1995. In the 1990s, the mineral-led Botswana economy had recorded an average annual rate of growth of 13 percent in real terms since independence. In 1998, the sector experienced unfavourable market conditions due to the economic turmoil in the East Asian economies.

7.2.2(b)   Diamonds

Diamonds remain the leading export commodity, contributing 68.6 percent to total exports during the first half of 1996 compared to 71 percent during the same period in 1995. Botswana' s output is marketed exclusively by De Beers Central Selling Organisation (CSO), and Debswana renewed its five-year exclusive marketing arrangement with the CSO in 1996. In 1982-1985 Botswana had to stockpile an estimated 20 percent of annual output under the CSO deferred-purchase clauses. With increases in capacity at Jwaneng and the depreciation of the pula against the dollar, exports have continued to grow in pula value terms despite the quota imposed by the CSO. In 1995, export earnings set a new record of US$4 billion. The current diamond mines had reached planned production limits by the early 1990s, making Botswana the second largest volume producer after Australia, and second only to

Russia in value of output. In 1991, production was reduced to 16.5 million carats, in line with the long-term mining plan, and to 15.9 million and 14.7 million carats in the following two years. With the commissioning of the fourth stream at Jwaneng late in 1994, production the rose to 15.5 million carats and to 16.8 million in 1995 (EIU, 1996/97).

The vulnerability of the industry to adverse trends in the world market was heightened in 1992 when increased supply, mainly in the form of smuggled Angolan diamonds, caused a 13 percent drop in Botswana's sales of rough diamonds. The CSO was forced to introduce quotas in September 1992, reducing all producers' delivery entitlements by 25 percent. This was eased to 15 percent in July 1993. Total sales of rough diamonds through the CSO in 1994 were US$4.25 billion, rising to a record US$4.3 billion in 1995. The CSO rough diamond sales declined from US$4.64 billion in 1997 to US$3.34 billion in 1998, as a result of global economic uncertainties. This resulted in Debswana stockpiling 20 percent of production as from February 1998. Diamond exports fell by 12 percent from P6.8 billion in 1997 to P6.0 billion in 1998 (MFDP, 1999).

7.2.2(c)   Copper/Nickel

Production of copper-nickel matte at Selebi-Phikwe began in 1974, and output rose steadily, reaching 50000 tonnes per year by late 1980s. However, the value of sales of matte declined consistently during the 1980s owing to depressed international prices of copper and nickel. In 1995, the high-grade matte production from BCL amounted to 48500 tonnes containing 18000 tonnes of nickel, 20500 tonnes of copper and 271 tonnes of cobalt. Copper-nickel matte output is refined in Norway and Zimbabwe under long-term contracts. In the late-1990s, the nickel and copper prices in the world markets were also adversely affected by the economic turmoil in Asia. Prices of nickel and copper fell sharply, and in October 1998 both reached their lowest points in ten years. Average prices per pound for the year were US$2.10 for nickel and US$0.75 for copper. The continued depression in the

prices of base metals resulted in BCL being unable to meet its operating costs during 1998, and emergency funding had to advanced, primarily by government.

7.2.2(d)   Soda Ash and Salt

Soda ash production started in 1991, with production of 62000 and 26000 tonnes of soda ash and salt respectively. After five years of operations in difficult market conditions, Soda Ash Botswana encountered insurmountable financial problems early 1995 and was placed under liquidation in June. Operations continued under the control of the liquidators until a newly formed company known as Botswana Ash acquired the assets. In January 1996, severe flooding halted production, which resumed on a smaller scale in April and by the end of 1996 full productionb was restored. In 1998, soda ash production was 196000 tonnes, compared to 200000 tonnes in 1997. At the same time, soda ash sales increased marginally, from 195 000 tonnes in 1997 to 196000 tonnes in 1998. Although the selling prices of soda ash improved somewhat in 1998, they continued to be constrained by strong competition in the South African market from other soda ash producers. Salt production remained well below the design capacity of the plant at 215000 tonnes in 1998. The amount of salt sold during the year was 135000 tonnes or 14 percent higher than in 1997 (Government of Botswana, 1999).

7.2.2(e)   The Mineral Industry as a Generator of Export Earnings

The industry has been an overwhelming foreign exchange earner for the country. In 1980, the mining industry contributed 81 percentage of export earnings, of which 60 percent and 21 percent were attributable to diamonds and copper-nickel respectively.

Table 7.4: Mineral Exports

	Total Exports Pula million)	of which Diamond (Pula million)	of which Copper/Nick el (Pula million)	Diamonds Share %	Copper-Nickel Share %
1972	30.3	----	----	----	----
1976	153.2	----	----	----	----
1980	390.4	235.7	80.8	60	21
1981	332.3	136.5	79.7	41	24
1983	696.7	459.2	65.8	66	9
1985	1384.3	1048.1	119.9	78	9
1987	2664.7	2251.4	118.2	84	4
1989	3742.6	2860.9	471.9	76	13
1991	3738.0	2941.5	296.4	79	8
1993	4312.1	3340.2	219.8	77	2
1995	5760.7	4090.0	287.2	71	5

Source: Bank of Botswana, 1997.

The value of total exports in current prices increased fifteenfold from P390.4 million in 1980 to P5760.7 million by 1995. Throughout this period, except around 1981 when the diamond market was depressed, the contribution of diamonds and copper-nickel to total exports varied between 75 percent and nearly 90 percent with the former accounting between 60 percent and 84 percent of the total and the latter less than 10 percent in most years. Soda ash and common salt exports have been varying between P53 million and P114 per annum since 1992.

7.2.2(f)   The Mineral Sector as a Generator of Government Revenue

The mineral revenues to Government increased a hundred fold from P1 million in 1972, the first full year of Orapa Mine production, to nearly P100 million by 1981, reflecting the doubling of Orapa Mine production, the commissioning of Letlhakane Mine and the renegotiated fiscal regime during the late-1970s. After a moderate lull occasioned by the depressed diamond market, revenues rapidly grew from P376 million in 1985 to P2005 million by

1991, reflecting the major contribution of the Jwaneng diamond mine, which was commissioned in 1982, and the improved market conditions.

Table 7.5: Mineral Sector Contribution to Government Revenue

	Government (Mineral Revenues, PM[a])	Total Government Revenues, PM	Mineral share of Total Revenue (%)
1972	1.0	19.3	5
1976	23.3	87.8	27
1980	76.6	249.1	31
1981	101.1	306.6	33
1983	99.5	393.7	25
1985	376.5	802.9	47
1987	845.0	1547.5	55
1989	1508.1	2556.0	59
1991	2005.3	3740.7	54
1993	1866.1	4652.2	40
1995	2278.7	4492.5	51

Source: Bank of Botswana, 1997.

[a] Pula Million

The revenues from minerals have since then continued to grow to reach over P2278 million by 1995, partly as a result of the commissioning of the recrush plant and the fourth stream expansion project at Jwaneng, which increased caratage production of that mine by over 40 percent. In percentage terms the mineral share of total government revenues grew from 5 percent in 1972 to 33 percent in 1981, and reached a peak of nearly 60 percent in 1989. It has since been oscillating around 50 percent of the total. In 1995, the sector's contribution to government revenue stood at 51 percent.

7.2.3 Manufacturing Sector

Before independence, in 1966, the manufacturing industry had been of negligible importance to the economy of Botswana. Lack of capital and labour, high utility and transport costs, the relatively small domestic market, and the openness of that market to South African goods through the Customs Union, have been almost insuperable barriers to industrial development in Botswana. In 1966, manufacturing accounted for 8 percent of the total GDP. The only factory of any size was the meat cannery owned by Botswana Meat

Commission in Lobatse. Fifteen years later, in 1981-1982, manufacturing's share of GDP had hardly changed at 9 percent, though the value of production had risen from P2.9 million to P71 million. By 1984, there were only 32 licensed manufacturing companies employing more than 10 people, and the total labour force in the formal manufacturing sector was just over 10000 – 11.6 percent of the formal sector total. Although employment in manufacturing advanced at the rate of 14.2 percent during 1979-1985, this was no solution to the problem of 20000 school leavers coming onto the market each year (Siwawa-Ndai, 1997).

Figure 7.3: Manufacturing contribution to GDP
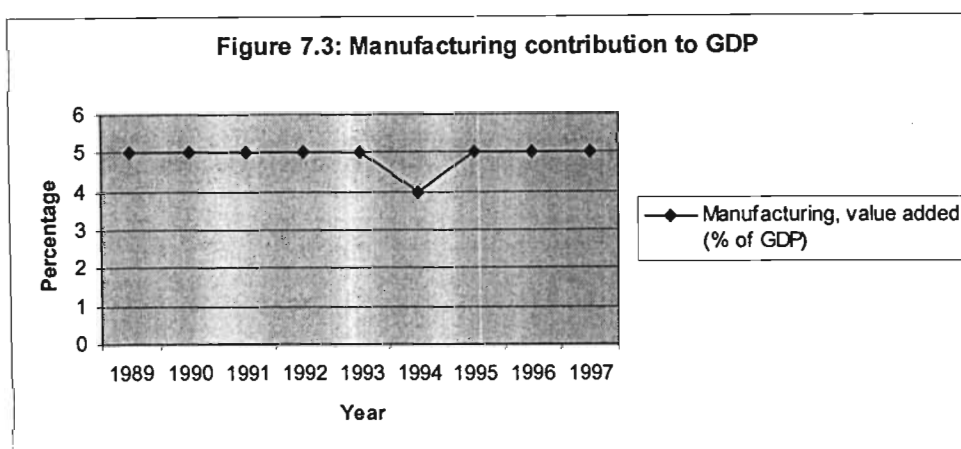
Source: World Bank, 1999.

Although the manufacturing sector accounted for only 6 percent of GDP in 1994-1995, manufacturing output expanded rapidly in the 1980s and into the early 1990s, with export-oriented textiles and vehicle assembly showing strong growth. Manufacturing GDP increased by an annual average of 8.9 percent over the period 1980-92. However, the sector's output contracted in 1992/93 and 1993/94, as the textiles subsector was adversely affected by trends in export markets and in particular the weak Zimbabwean dollar. In 1994-1995, the sector started to recover strongly with diversification of markets for textile products, as well as exports of new products such as assembled motor vehicles. Formal employment in manufacturing increased from 21700 in March 1994 to 23444 March 1995. This expansion represented a considerable diversification of Botswana's manufacturing base,

with textiles, beverages, chemicals, paper, metals, plastics, and electrical products experiencing the highest growth rates (MFDP, 199).

During 1996/97, the manufacturing sector was the only non-mining sector which showed slower growth than in 1995/96. The sector's output was down from 6.5 percent to 5.2 percent. This is attributable to output decline in two subsectors, metal products and meat and meat products. The fall in output of the latter sector was partly the result of a large drop (19 percent) in livestock slaughtered by the Botswana Meat Commission and municipal abattoirs, and a 27 percent fall in the quantity of beef produced. This is attributable to the mass cattle slaughter and then the restocking in Ngamiland following the outbreak of cattle lung disease (Bank of Botswana, 1997). The manufacturing sector grew by 4.7 percent in 1997/98 compared to 5.2 percent in 1996/97.

7.2.4 Constraints to Industrial Development[20]

7.2.4(a)   Smallness of Domestic Market

Botswana has a small population, estimated at 1.5 million in 1996, and this acts as a disadvantage to manufacturers because it limits the size of their most immediate market. The majority of the population still lives outside formally established urban areas. The rural income base and the dispersed population reduces the purchasing power of people and hence limits the opportunities to enjoy economies of scale.

7.2.4(b)   Geographical Area

Being a land-locked country has partially slowed down the development of industry because the cost of accessing distant markets is high. There is no direct access to sea ports, which results in high transportation costs, and a dependency on transit routes through South Africa for the transportation of

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[20] Mpabanga (1997) unless stated otherwise.

bulk exports and imports. Road and rail transport is expensive, making some domestic products more expensive in some locations in Botswana than imports from South Africa, where local manufacturers source some of their raw materials and equipment.

7.2.4(c)   Lack of Serviced Land

An acute shortage of serviced industrial plots and factory space has been cited as one of the major problems in slowing down and inhibiting the establishment of manufacturing industries. The recent breakdown of computer systems set up to maintain a land register and maintain a land bank has left would-be manufacturers stranded without land.

7.2.4(d)   Lack of Entrepreneurial and Technical Skills

Industrial activities have not been established in Botswana for long enough to enable the emergence of adequate numbers of experienced citizen entrepreneurs who can run profitable businesses. Entrepreneurship is still developing in Botswana. Although the Government has, in the past, been in the provision of education to Batswana, the education system has not been geared to satisfy the requirements of industry. There is currently a shortage of people equipped with the technical skills required in industry.

7.2.4(e)   Technology

The majority of manufacturing companies in Botswana use simple technology in their production processes. The choice of technology is normally determined by the relative cost of capital and labour. The relatively high cost of capital in Botswana has encouraging labour-intensive investment. Limited access to finance impedes the acquisition of improved technology for increased production and improved productivity. Unavailability of funds leads to firms purchasing simple technology, which might not necessarily be efficient. Companies also have to import people with technical skills to meet

their requirements. The maintenance of technology for equipment bought from overseas is also a problem for most producers. The delays in obtaining spare parts from South Africa and overseas results in production losses, leading to manufacturers not being able to deliver orders according to schedule. There is a lack of a scientific environment and culture, and a lack of assistance and guidance in technology selection and acquisition.

7.2.4(f)   Institutional

Investors have complained about the poor performance and effectiveness of some institutions created to facilitate investment. MCI has been criticised for exercising too much regulatory control on the establishment and operation of industries and trade through the Government's industrial development policy. Investors have also complained of burdensome regulatory procedures on trade and industry, such as the lengthy licensing process, which discourages productive investment and impedes expansion in exports.

7.2.4(g)   High Utility Costs

Investors have complained of the high cost of utilities, such as power, water and telecommunications, in Botswana. The high cost renders some of Botswana-produced goods expensive in the domestic, regional and international markets. Lack of a developed infrastructure in rural areas has also been blamed for very few industries being established there. The utility companies have also been criticised for poor and slow service in connecting telephones, water and electricity to industry.

7.2.5 Specific Problems facing Small to Medium-Scale Enterprises

7.2.5(a)   Lack of Access to Capital

As in other developing countries, limited access to long-term finance is one of the major constraints that hamper development of the manufacturing sector in

Botswana. The problem is particularly acute for small-scale enterprises which have not established banking relationships or do not have a business record with commercial banks. Banks normally require borrowers to have collateral when applying for loans. Many local businesses lack collateral, and this inhibits their access to finance to implement their projects and expansion plans. Some of the major contributory factors to poor cash flows experienced by companies are high utility costs and high costs of imported raw materials and machinery.

7.2.5(b)   Poor Quality Products

The majority of the firms are small to medium-scale, and are not able to undertake thorough market research and invest in technology improvement. Therefore, they end-up in producing product of poor quality, and access to international market is obviously limited.

7.2.5(c)   High Cost of Transport and Lack of Foreign Exchange in some Countries in the Region

Access to international and overseas market is, however, limited by the high cost of transportation, insurance and poor communication systems existing in some countries in the region. The unavailability of foreign exchange in most of the countries in the region has also hindered local producers in selling in those markets.

7.2.5(d)   Shortage of Raw Materials and Other Inputs

Due to the unavailability of raw materials locally, the majority of firms are forced to import these, as well as machinery, equipment and other inputs, either from South Africa or the international market.

7.2.5(e)   Fierce Competition from Imports

The local market is further limited by imports from South Africa, which are usually cheaper and of better quality. Botswana companies in the past attempted to sell to local chain stores such as Jet, Pep, Cash Bazaar, Metro, Cash Build and others, but they have not been successful in penetrating the market, the reason being that the chain stores in Botswana are supplied from head offices in South Africa.

7.2.5(f)   Specific Problems facing Large-Scale Firms

The most prominent problems cited by large-scale export manufacturers were high interest rates, problems with the immigration department delaying the processing of applications for expatriate staff work permits, and duties charged on materials imported from outside SACU (Mpabanga, 1997).

7.2.5(g)   Other Conflicting Policy Objectives

A number of policy objectives tend to conflict with Industrial Development Policy and other measures established to foster rapid industrialisation. These include, the Citizens Reservation Policy, the Incomes Policy and The Revised National Education Policy on Education.

7.2.5(h)   Citizen Reservation Policy

It was introduced in 1988 in order to promote active participation of the citizens in industrial development. This implies that a number of industries that require relatively simple technological skills and low levels of capital were reserved for citizens. This policy prohibits foreign investors from participating in the activities reserved for citizens. The policy restricts partnership with foreign companies, and thus conflicts with the aim of promoting entrepreneuship and acquisition of technical and management skills from foreign companies. The restriction also limits citizens from having the

opportunity to go into business with foreigners who have the necessary capital and know-how to ensure long-term investment and sustainability of business ventures.

6.2.5(i)   The Revised National Policy on Education

This policy concentrated on the education of the population up to the primary and secondary schools levels, primarily to supply the general needs of Government, both Central and Local. The needs of the private sector and industry in particular were not a priority during that period. Botswana thus lacks human resources adequately trained with technical, science and business skills, and knowledge of modern industrial technology. The private sector has to import people with such qualifications, which often proves to be too costly for them.

7.2.5(j)   Wages and Salaries

Wages in Botswana are said to be high compared to productivity (World Bank, 1993). This discourages firms from investing in Botswana and they opt for other countries in the region where productivity is higher and wages are lower.

7.2.6 Government Policies to overcome Constraints

The Government of Botswana has tried to solve problems by trying to implement policies that might not be harmful to the industry and to the economy of the country as a whole. These include; Industrial Development Policy and Act; Financial Assistance Policy; local preference scheme; Selebi-Phikwe regional development project; participation in trade fairs; promotion of non-traditional exports; reduction of income tax for manufacturing.

7.2.6(a)   Industrial Development Policy and Act

The Industrial Development Act was introduced in 1968, amended in 1988 and revised in 1995. Changes to the Act in 1995 involved automatic granting of licenses. Licensing authorities are no longer allowed to make commercial judgements on applications. The changes also led to the elimination of objections by competitors. The primary objectives of the Act included:

- the creation of productive jobs for citizens,
- the training of citizens for jobs with higher productivity,
- the diversification of the productive sectors of the economy and consequent reduction in vulnerability to economic factors beyond Botswana's control,
- the growth of value added, or GDP, accruing in Botswana's control
- the dispersion of industrial activities to rural areas.

7.2.6(b)   Financial Assistance Policy

It was introduced in 1982 to assist and support new and expanding projects that create productive employment. Several studies have been undertaken to evaluate the performance of the projects implemented under this policy. In 1995, an evaluation study concluded that the incentives have stimulated investment and employment generation for unskilled citizen employees in a fairly effective manner. There has also been considerable diversification of economic activity. Locals have gained some business and technical experience during the process, and exports of non-traditional products have also increased.

7.2.6(c)   Local Preference Scheme (LPS)

It was introduced in 1976 and modified in 1986, in order to direct a substantial share of the purchases of Government, local authorities and parastatals to

local manufacturers. The firms which qualify for LPS are at a price advantage over foreign produced goods when tendering for Government contracts. The LPS has been replaced by a new policy, the Local Procurement Policy (LPP), effective from 1 April 1997.

7.2.6(d)   Selebi-Phikwe Regional Development Project (SPRDP)

This project was introduced in 1976 in order to encourage investment in non-mining economic activity in the Selebi-Phikwe area, and was modified in 1986. Financial assistance is extended to industrial projects locating in Selebi-Phikwe and meeting certain other conditions. However, with the reduction of company tax on manufacturing to 15 percent, the financial incentives provided under the SPRDP have been effectively extended to the whole country. The 1992 evaluation report indicated that there were several disadvantages, which provide a disincentive for investment. SRPDP has been terminated and absorbed into TIPA as financing from the World Bank loan has been used up.

7.2.6(e)   Participation in Trade Fairs

The government has also assisted local manufacturers in looking beyond the domestic market by participating in the local and international trade fairs. Some firms have succeeded in securing local and international orders through fairs, while others have failed.

7.2.6(f)   Promotion of Non-Traditional Exports

The partial fulfilment of the industrial development efforts by the Government can be seen in the improvements in the exports of non-traditional products. Non-traditional exports include principally textiles and clothing, soda ash, foodstuffs and motor vehicles. They have increased from P290 million in 1992 to P700 million in 1994, increasing their share of total exports from less than 10 percent in 1995. The vehicle industry has contributed greatly to the

increase in the export of non-traditional products, vehicles exports increasing from P91 million in 1994 to P300 million in 1995.

Table 7.6: Performance of Non-Traditional Exports (Pula Million)

	Vegetable	Chemical	F&B[a]	Vehicle	Wood	Textiles
1987	2.9	16.9	27.0	39.3	2.3	71.8
1988	3.7	16.7	9.5	51.7	2.2	74.9
1989	2.5	19.8	25.4	74.3	3.2	104.5
1990	12.1	18.5	34.6	60.0	2.5	155.5
1991	14.0	45.8	46.7	57.1	4.6	168.5
1992	13.4	72.9	47.8	70.9	5.4	102.0
1993	13.1	79.6	51.3	128.7	1.8	128.7
1994	14.4	63.0	62.2	406.7	1.5	234.3

Source: Bank of Botswana, 1997.
[a] Food and beverages

7.2.6(g)   Reduction of Income Tax for Manufacturing

The government has reduced the company tax rate from 40 percent to 35 percent and then to 25 percent with a lower rate of 15 percent for manufacturing in order to ameliorate the financial burden of taxes and boost the cash-flow position and profitability of firms.

7.3   Social Services Sectors

7.3.1 Education

Education and health are the key components of human development in any country and obviously also have economic impacts as they influence the productivity of people in the workplace. The provision of these services has a financial impact as they have to be funded by the public and private sectors.

In the education sector, policy changed in the early 1970s to greater emphasis on primary. Some of the results of the emphasis in education policy can be seen in Table 7.7.

Table 7.7: Education: Percentage of Age Group Enrolled

	Primary	Secondary
1965	65	3
1988	116	33
1993	233	99

Source: World Development Report, 1991 and 1997.

The primary school enrolment increased by 1.0 percent from 1994 to 1995, whereas in 1998, it grew slightly by 0.1 percent. Enrolment in secondary has increased from 86684 in 1994 to 103159 in 1995, a growth of 19.0 percent (Government of Botswana, 1999). During the period 1996/97, the enrolment in secondary school increased from 116076 to 141259.

Figure 7.4: Education Expenditure as a % of Total Government Expenditure
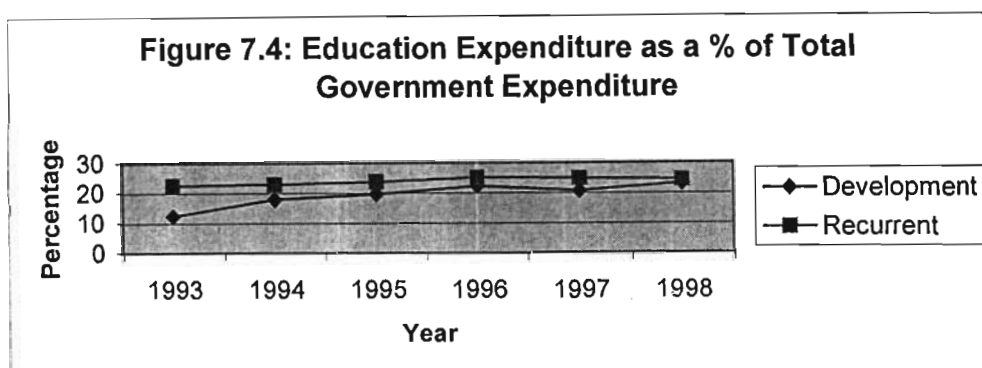
Source: MFDP, 1999 and Author's calculation.

The government has also acted to remove the strong bias against rural primary schools in the supply of trained and untrained teachers. Whereas 50 percent of teachers in village primary schools were untrained in 1975 compared with only 2 percent in towns, the figures were 31 percent and 27 percent respectively by 1985. One result of improved levels of education can be shown through a decrease in the proportion of expatriates in the labour force (Harvey, 1992). Teachers training college enrolment decreased by 14.3 percent during 1996/97 whilst the total number of teachers showed a 26.5 percent increase. At the University of Botswana, enrolment increased by 8.7 percent from 5062 in 1994 to 5501 in 1995. In 1996/97, university enrolment had grown by 8.6 percent from 5975 to 6488 (EIU, 1998/99).

7.3.2 Health

As in the case of the education sector, the government has put more emphasis on health since it took office in 1966. The results of the improved levels can be seen in Table 7.8. There has been a greater growth in the number of nurses and in doctors, and the large reductions in infant and child mortality during the 1970s
and 1980s.

Table 7.8: Fertility and Infant Mortality (1962 – 1997)

	Infant Mortality (per 1000 live births)	Fertility (births per woman)
1962	113	7
1970	95	7
1977	76	6
1987	67	5
1990	55	5
1997	58	4

Source: World Bank, 1999.

The improvement in health was assisted by growth in the supply of water to villages. The government fell behind its own programme targets, partly because resources were diverted to urban water supply, and partly because the growth in demand from villages delayed the extension of supplies to small villages at the planned rate. Nevertheless, over 55 percent of the population has access to piped water, in a dry and sparsely settled country (Harvey, 1992). There was also a fall in the infant mortality rate from 113 in 1962 to 76 in 1977 and then to 55 in 1990, but it increased to 58 in 1997. This increase in infant mortality might be due to the rapid spread of HIV-AIDS in Southern Africa

The fertility rate has declined during this period. It fell from 7 percent in 1962 to 5 percent in 1990 and to 4 percent in 1997. The falling rate in Botswana was helped not only by the emphasis on primary health care but also by

greatly improved education and employment opportunities for women. As many girls as boys attend school – if anything there is a slight majority of girls, because some boys are taken to herd cattle. There has been also a greater growth in doctors and nurses in the hospitals, as it can be seen from figure 7.5.

Figure 7.5: Health Personnel
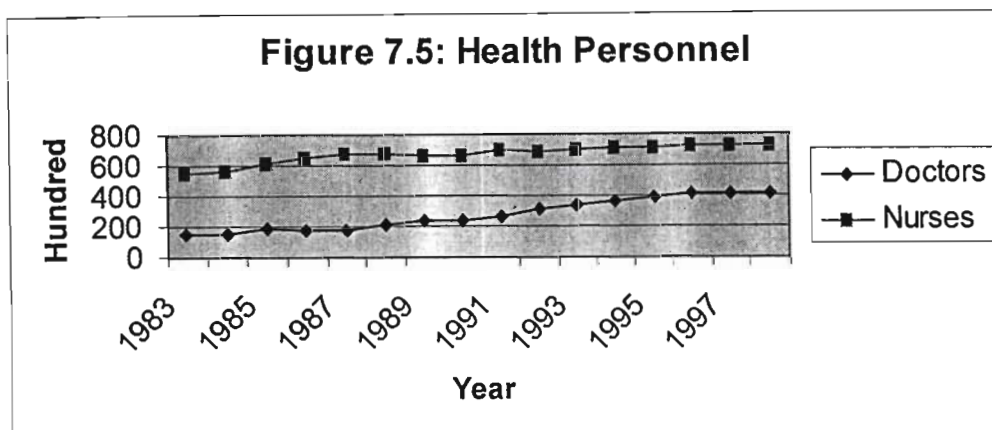
Source: Statistical Bulletin, 1999.

The three most common causes of referral to hospital are diarrhoea, tuberculosis and pneumonia. Malaria is endemic in northern Botswana, moving east and south during the rainy season, and bilharzia occurs in areas with perennial water but cases are few (EIU, 1998/99). A 1998 UN report put the incidence of HIV in Botswana at one in four adults, one of the highest rates in sub-Saharan Africa. A National Aids Prevention and Control Programme (NAPCP) is in place and a National Aids Committee promotes preventive measures among the population.

7.4   Macroeconomic Policies

7.4.1 Fiscal Policy

After attaining political independence in 1966, the goal of financial independence for Botswana was a priority objective for the then impoverished nation. The specific purpose was to eliminate, in the shortest possible time, the reliance on grant-in aid funds from the UK Government to cover recurrent budget expenditure (Mogae, 1985). This important, but clearly limited, goal was attained in the financial year 1972/73. In a recent biography of Sir Seretse Khama, this achievement is described as one of the 'proudest moments' of the late President's life (Parsons et al, 1995, p.294). Since the day the government took the office in 1966, it has preached and practised the virtues of careful planning and fiscal restraint. Through successive Development Plans, Government has stuck to this credo, both recognising the importance of other constraints such as the availability of skilled manpower for instance and setting spending ceilings despite the growing abundance of financial resources.

7.4.1(a)   Trends in Government Revenue and Expenditure

The rapid increase in government revenue since the 1970s has been caused by changes in the structure of revenues. First, the terms of the Customs Union revenue were re-negotiated effective fiscal years 1969-1970. Following the re-negotiation Botswana's revenue varied almost directly with Botswana's imports. Secondly, when the rate of economic growth began to accelerate in the late 1960s and early 1970s with the Orapa diamond mine, and, especially with the construction of the Shashe copper-nickel project, revenue from customs duties began to grow very rapidly. The revenue from mining, principally diamonds, began to grow with the increase of value added and exports in the mining sector. Income taxes other than those levied on mining companies also increased rapidly in the 1970s. The driving force behind the increase in revenue was the exceptional rate of growth of GDP from

independence until the early 1980s, which averaged over 13 percent in real terms.

Figure 7.6: Government Revenue
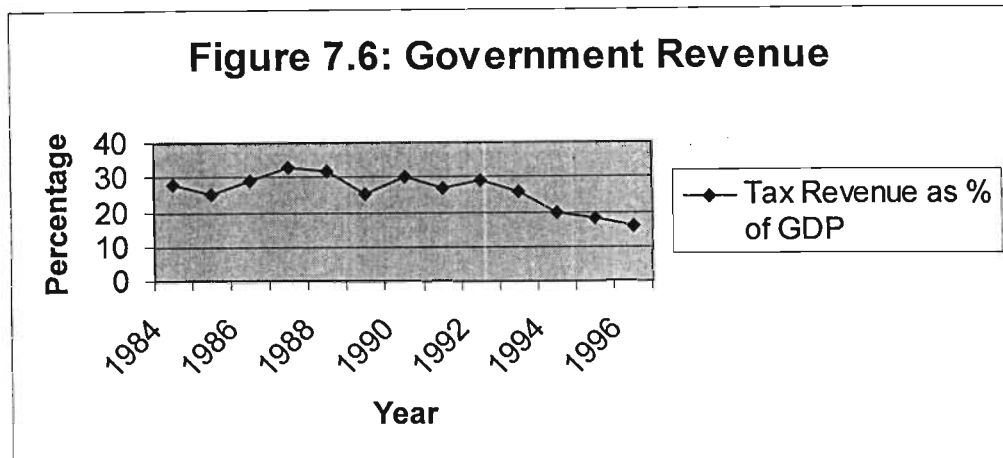
Source: World Bank, 1999.

The recurrent budget first moved out of deficit in 1973, and overall budget surpluses began in 1983. However, there remain important structural limits on government spending, the most important being the scarcity of skilled labour which constrained the growth of output. The fundamental objectives of Botswana's expenditure policy have been to spend only where spending was productive and for projects whose recurrent costs could be sustained indefinitely in the future. This spending policy has contributed to the building up of financial surpluses.

The government has no domestic debt, and has accumulated large balances at the Bank of Botswana that stand at P7.5 billion in November 1996, just twice the previous year's recurrent government spending and 1.4 times the previous year's total government spending (WTO, 1998). From 1983/84 to 1995/96, the government ran a continuous series of budget surpluses, covering both recurrent and development spending. As a result the nation as a whole has been a net saver, and large levels of financial reserves in both domestic and foreign currencies have built up. At the end of 1995, accumulated foreign exchange reserves were P13.2 billion, equivalent to US$4.7 billion, which were among the largest in the world on a per capita basis; and at the end of financial year 1995/96 government cash balances

stood at P7.7 billion, or 149 percent of total government expenditure during the year (Wright, 1997).

In 1996/97, the financial result was a surplus of P1302 million. This compares with the original budget, which forecast a deficit of P636 million. This huge turn-around from expected deficit to actual surplus was due both to very rapid growth in government revenues and lower than expected spending. Underspending has been a common feature of the government budget in recent years, especially in the development budget. However, the pattern was somewhat different in 1996/97, the main source of underspending being in the recurrent budget which stood at P3972 million. Development spending was P2240 million. Total expenditure and net lending amounted to P9054 million during 1998/99 financial year. This was because both the recurrent and development expenditures fell short of the revised estimates. While the actual expenditure on personal emoluments turned out to be P2156 million which was higher than the revised budget figure by 12.2 percent, total recurrent expenditure was 2.6 percent lower. At the same time, development expenditure was lower than the revised budget estimate by 12.0 percent at P2934 million, due to the slow implementation of some development projects (Ministry of Finance and Development Planning, 1999).

During the same financial year, the total revenues and grants for the year amounted to P7677 million representing about 93 percent of the revised budget estimate. The revenue sources responsible for this drop were mineral revenue, non-tax revenue and grants. Mineral revenue, which accounted for the bulk of this decline, amounted to P3187 million. The non-tax revenue declined from P713 million to P682 million, representing a 4.4 percent drop. Revenue from customs and excise recorded a slight decline from P1265 million to P1261 over the same period owing to the slight appreciation of the pula against the South African rand. Increases in revenue were recorded in non-mineral income tax and other taxes.

Table 7.9: Central Government Budget, Selected Years[a]

	1980/81	1985/86	1991/92	1993/9	1995/96
Total Revenue	306.6	1133.4	4069.4	5359.5	`5464.4
Mineral revenue	101.1	581.2	1888.0	2278.7	2591.4
Customs & excise	102.0	149.2	761.6	822.3	829.4
Non-mineral tax	38.5	93.6	357.3	420.5	356.9
Revenue from BoB	0.0	35.0	761.9	1106.8	1050.5
Other revenue	27.3	274.4	300.6	731.1	636.1
Grants	37.8	41.1	69.8	186.6	37.1
Total expenditure[d]	308.4	719.2	3372.2	4481.2	5194.5
Recurrent[b]	166.8	427.0	1789.8	2702.4	3437.6
Development[b]	121.4	247.5	1098.0	1558.3	1672.0
Net lending	20.1	44.6	484.5	220.5	84.9
Budget surplus					
Overall budget[c]	-1.7	**414.2**	**697.2**	878.3	**269.9**
Recurrent budget	-12.0	330.6	858.0	1272.4	257.1
Percentage distributions					
Total Revenue & Grants					
Mineral revenue	33.0	51.3	46.4	42.5	47.4
Customs & excise	33.3	13.2	18.7	15.3	15.2
Non-mineral tax	12.5	8.3	8.8	7.8	6.5
Revenue from BOB	0.0	3.1	18.7	20.7	19.2
Other revenue	8.9	24.2	7.4	13.6	11.6
Grants	12.3	3.6	1.7	3.5	0.7
Total expenditure & net lending					
Recurrent[b]	54.1	59.4	53.1	60.3	66.2
Development[b]	39.4	34.4	32.6	34.8	32.2
Net lending	6.5	6.2	14.4	4.9	1.6

Source: WTO, 1998.

[a] Pula million at current prices

[b] Expenditures

[c] Balance

[d] & net lending

7.4.1(b)   Foreign Debt

Since 1980, Botswana has enjoyed a very low level of foreign debt and public external debt service. The foreign debt and public external debt service amounted to US$48.4 million, which was about only 5.4 percent of exports of goods and services. However, the level of debt service has gradually raised the amount of 1985 was more than double that of 1983. The bulk of Botswana's existing debt is to official multilateral creditors, which accounted for US$348 million of the total disbursed long-term debt of US$509 million at the end of 1989 (EIU, 1991/92).

Figure 7.7: External Debt
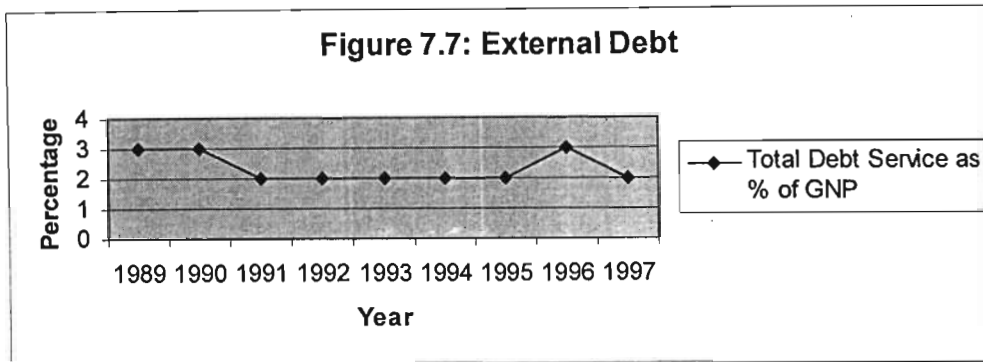
Source: World Bank, 1999.

7.4.2 Monetary Policy

Before August 1976, Botswana was a member of the Rand Monetary Area (RMA). The main Central Bank of the RMA was the South African Reserve Bank (SARB) which also issues the rand currency in use in the RMA. A Botswana government white paper, published in 1974, gave the reasons why it would be to Botswana's advantage to leave the RMA and establish its own central bank, the Bank of Botswana (BoB). These advantages included the following[21]

- The ability to manage Botswana's foreign exchange reserves, instead of having SARB do it for us,
- The ability to choose our own domestic interest rate pattern, instead of having rates largely determined by the Johannesburg money market
- The ability to issue our own currency, the Pula, and to choose our own exchange rate regime, instead of having SARB do so for us,
- The ability to retain domestic savings for investment in Botswana, instead of routinely lending them to South Africa as a contribution to the financing of South Africa's development,
- The ability to choose our own set of exchange control regulations, instead of having SARB do so for us,
- The ability of the Government to place its funds at its own bank (BoB), instead of continuing to bank at one of the two commercial banks in

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[21] Quoted from Hudson and Lewis (1985).

Botswana.

The disadvantage included the need to introduce exchange control between Botswana and the remainder of the RMA.

7.4.2(a)   Stability of the Exchange Rate

The objective of maintaining a stable exchange rate of the pula vis-à-vis foreign currencies is influenced almost entirely by trade considerations. Exchange controls take care of capital movements between Botswana and the rest of the world. In an effort to achieve a measure of exchange rate stability, some countries have sought refuge in trade-weighted currency baskets. In Botswana, stability was sought through a straightforward alignment of the pula to the US dollar between August and May 1980. In this exchange rate regime the direction of trade criterion was overly weighted in favour of the US dollar, in which about 70 percent of Botswana's exports are dominated. Therefore, when the dollar entered a prolonged period of depreciation on the foreign exchange markets between 1978 and 1980, the pula's stability in terms of the rand began to suffer (Ablo and Hudson, 1985).

In order to account for the import side of the direction of trade criterion, a multiple currency basket comprising the Special Drawing Rights (SDR) and the rand was instituted in June 1980. In trade-weighted terms, the present basket exhibits an over-correction in respect of the rand.

7.4.2(b)   Instruments of Monetary Policy

The popular wisdom is that the conventional instruments of monetary policy do not work in developing countries.[22]. In Botswana, where an independent monetary system has been in operation for over two decades, the ability to use monetary policy to affect the behaviour of the economy is subject to institutional development and a learning curve (Ablo and Hudson, 1985).

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[22] This view was forcefully challenged by Edward S. Shaw in Financial Deepening in Economic

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7.4.2(c)   Interest Rates

The Bank of Botswana commenced operations in 1976 when domestic interest rates were set for the first time by an independent monetary authority. In practice, independence cf the RMA in setting interest rates was somewhat circumscribed by a perceived need not to move far out of line with interest rates prevailing in South Africa. This perception derives strength from the permanent role of South African investment in total foreign investment in Botswana, and is reinforced by import dependence on South Africa. Over time, the concern over the interest rate differentials between South Africa and Botswana appears to have diminished, as evidenced by the historically high differentials which emerged between the two countries in 1981 (Abo and Hudson, 1985). Domestic considerations prompted a gradual lowering of interest rates between 1977 and 1979. The main impetus to these interest rate changes came from persistent surplus liquidity at the commercial banks. These banks responded to the steady build-up of surplus liquidity by turning away some large deposits. The Bank of Botswana stepped into the breach to provide deposit facilities for a growing number of large depositors.

Interest rates remained unchanged in Botswana from 1970 until 1980 when a combination of pressures in early 1981 rendered the existing level and structure of interest rates untenable. First, pressure emanated from a sustained acceleration of price inflation, which caused real interest rates to turn progressively negative. Second, the demand for domestic bank credit, particularly parastatals, was forecast to increase substantially (Abo and Hudson, 1985). Stepped-up mobilisation of domestic saving was thus called for. Third, there was the obvious fact that, in general, international interest rates had risen to historically high levels.

In Botswana, the authorities set minimum rates for both deposits and advances. Upward rigidity of deposit rates is very noticeable in Botswana.

Development, Oxford University Press, London, 1973.

This is not surprising in a situation where the banks are highly liquid and competition for deposits is therefore non-existent. The monetary authorities in Botswana have so far eschewed the practice of setting maximum lending rates. Admittedly, there is only a handful of prime names in Botswana who can command the finest rate of their borrowing from the banks. The average borrower probably pays a margin of about three percentage points above prime. In 1997, there was reduction in the bank rate, which was consequently followed by a decrease in the commercial banks' prime lending rate from 14.5 to 14.0 percent.

Figure 7.8: Interest Rates
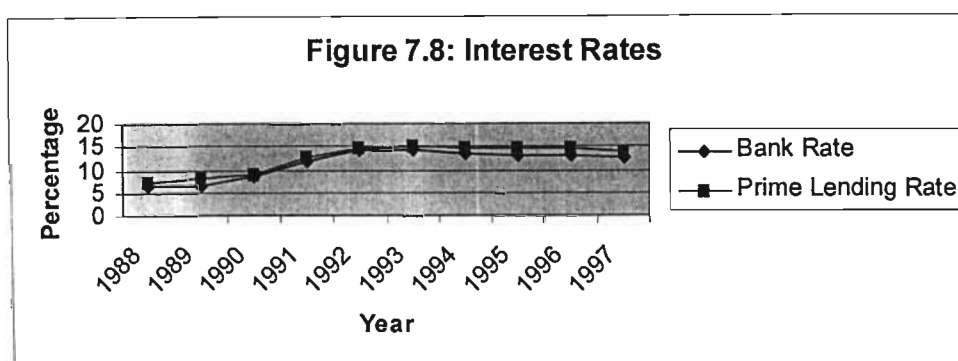
Source: Bank of Botswana, 1997.

The Bank of Botswana introduced a few changes during 1998. One of these changes was the introduction of a 6 percent penalty over and above the bank rate for overnight borrowing by commercial banks holding Bank of Botswana certificates in October 1996. This change was mainly targeted at enhancing the development of a secondary market by encouraging banks to sell their Bank of Botswana certificates in times of shortages of liquidity. During that same month, the statutory liquid assets requirement was also reduced for commercial banks from 20 percent to 10 percent and for hire purchase and leasing companies from 6 percent to 3 percent. During 1997, the Bank of Botswana instituted some reforms aimed at enhancing the efficiency of open-market operations.

The reforms already implemented included mini-auctions which are meant to capture fluctuations in liquidity between the main auctions. Consideration will be given to the introduction of Repurchase Agreements which are an

arrangement whereby the seller of a financial security enters into an agreement with another party to sell at an agreed price with a promise to buy the security back shortly after, also at an agreed price (MFDP, 1998). During 1998, positive real lending interest rates ranging from 5.5 – 7.6 percent recorded, while real deposit rates, as measured by the 88-day deposit rate, ranged from 0.8 to 2.5 percent (MFDP, 1999).

7.4.2(d) Money Supply and International Reserves

The ten-year period between 1980 and 1989 saw a remarkable growth in the monetary and financial field, especially when considered against the fact that the Bank of Botswana started operations only in August 1976 (Bank of Botswana, 1989). The money supply (M3) recorded an average growth rate of 28 percent per annum between 1980 and 1989, with the highest growth rate of 68 percent recorded in 1987 and the lowest (8 percent) in 1991. The growth in money supply was fuelled mostly by the external sector through diamond revenues.

Figure 7.9: Growth in Money Supply
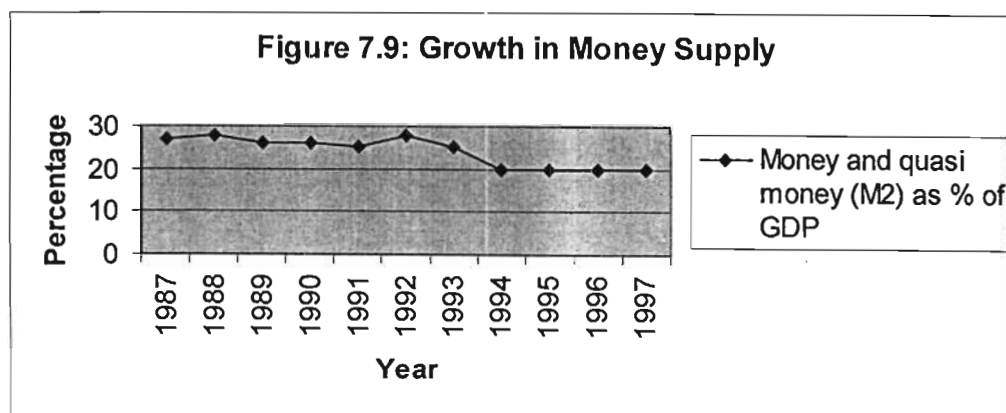
Source: World Bank, 1999.

In 1996, the narrow measure of the money supply, M1 maintained the same pattern as was recorded in 1995, showing month-to-month volatility but no overall trend throughout the year (Bank of Botswana, 1996). The average level of M1 in 1996 was P566 million, virtually unchanged in nominal terms from the 1995 average of P560 million. M2 continued on an upward trend, and grew by 18 percent in the year to December 1996. M2 growth was due

mainly to a continued increase in interest-bearing deposits. The monetary aggregate showing the most rapid growth was M3 which grew by 27 percent in the year to December, mainly as a result of the growth in the Bank of Botswana Certificates held by the non-bank private sector. The main factor driving monetary growth during 1996 was the continued accumulation of foreign exchange reserves by the banking system. The net foreign reserve assets of the banking system rose by P5277 million or 40 percent. Much of this increase was due to revaluation gains in local currency as the pula depreciated against the international currencies in which the reserves are held. In 1998, M1 rose sharply by 25 percent to P1319 million from P1056 million in 1997.

The country's international reserves, estimated at P6.2 billion at the end of 1990, represented an increase of 18.8 percent over the previous year. About a third of this increase, however, was attributable to valuation adjustments. The reserves, in terms of months of merchandise imports, also fell from 25 months in 1989 to 24 months in 1990, yet remained amongst the highest in the world (Bank of Botswana, 1990).

Figure 7.10: Foreign Reserves in Botswana
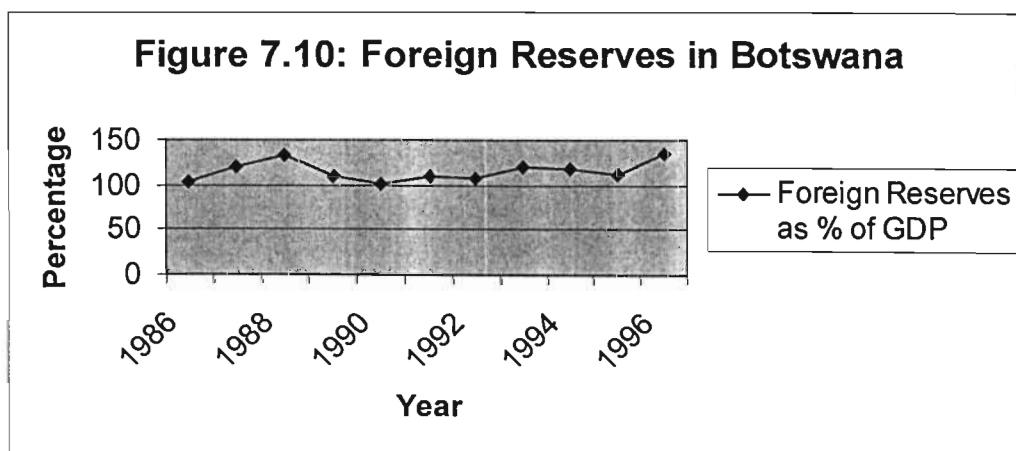
Source: Bank of Botswana, 1997.

There was an increase in foreign exchange reserves in 1997, emanating from the balance of payments surplus and which continued to be the major factor exerting an expansionary impact on the broadly defined money supply, whilst the accumulation of government balances at the Bank of Botswana served to

sterilise much of the monetary growth (Bank of Botswana, 1997).

7.4.2(e)   Exchange Rate and Exchange Control Regime

In Botswana, since current account transactions are virtually free of exchange restrictions, the main purpose of exchange control is to protect the capital account of the balance of payments. The exchange rate represents an important price instrument that can be used to influence imports and exports. An increase in the local currency price of foreign exchange is expected to lead to a decrease in the demand for imports and to an increase in the supply of exports. This theoretical formulation of the relationship between exchange rate changes and the demand for imports and supply of exports has received strong empirical support in the economic literature. In Botswana, the exchange rate has been used as a policy instrument.

The pula was revalued upward three times in an attempt to hold down the cost of imported goods and services. To the extent that the revaluation gains were passed on to consumers or producers the objective of controlling imported inflation was attained. The magnitude of the revaluation (typically 5 percent) has been constrained largely by considerations relating to the export sector. The main revenue earner (diamonds) has a remarkable history of market resilience but even this industry is not likely to be indifferent to the magnitude of pula revaluations. The second most important export sector (beef) is far from resilient, as witness the vagaries of its performance in response, principally, to developments in animal health. Curiously, and as a result of the heavy burden of external debt, the copper-nickel industry is considered, at worst, to be almost indifferent to the magnitude of pula revaluations.

When the pula was introduced in August 1976 in place of the Rand, the question arose as to how the pula should be valued in terms of foreign currencies. The first decision was to peg the pula to the US dollar. At the time the rand was pegged to the US dollar so a de facto parity with the rand

could be achieved without actually being pegged to it. In August 1976, we had

$$pula\ 1 = US\$1.15 \qquad (1)$$
$$pand\ 1 = US\$1.15 \qquad (2)$$

Hence, pula 1 = rand 1 by comparison of the two equations. This simplified transactions between Botswana and South Africa, since the traders knew that the middle rate for the rand-pula was to be one-for-one, and the only new expense for the traders would be the bankers' margins for handling foreign exchange transactions. However, in January 1979, the rand was taken off its US dollar peg and floated, while the pula remained pegged to the dollar. This began a period of rand/pula exchange rate volatility that proved disruptive to many productive activities. In 1980, the decision was then made to peg the pula to a trade-weighted basket of currencies including both the rand and the dollar. The developments in the exchange rate between South Africa and Botswana have not changed significantly over the last 25 years. As quoted by the Bank of Botswana in June 1998, the exchange was P 1= R1.3171.

Figure 7.11: Pula Exchange Rate against US$ and Bristish Pound
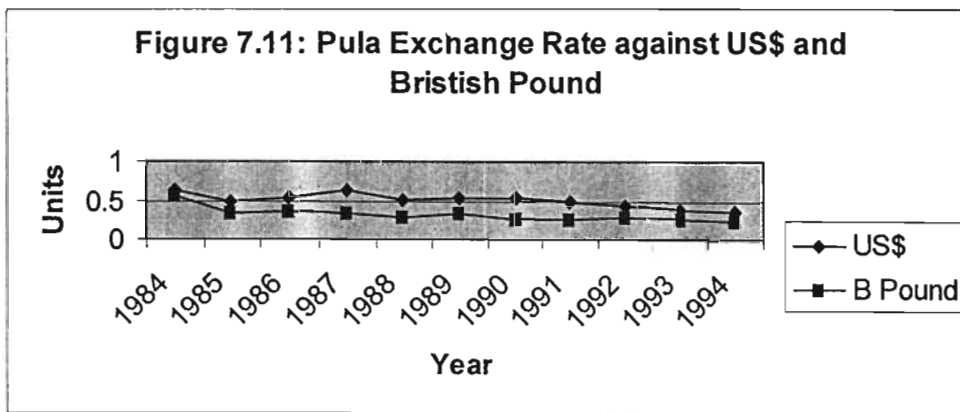
Source: Bank of Botswana, 1997.

Exchange control is a non-price policy instrument that is extensively used in developing countries. A strong balance of payments has permitted a significant relaxation of exchange controls in Botswana. In effect, exchange control liberalisation increases the reliance on price instruments in the management of the economy. Until the 1990s, Botswana was in the fortunate position of not having used exchange control on the current account to defend the exchange rate. On the contrary, relaxation of exchange control in

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this area proceeded quite far.

A major liberalisation of Botswana's exchange controls took place on January 1, 1995, and the process has continued since then. Some of the key changes are:

- the ending of all exchange control restrictions on current account transactions,
- acceptance of Article VIII membership status at the IMF,
- permitting permanent residents to make offshore (external) capital investments, both direct and indirect (portfolio), within limits, without reference to the Bank of Botswana,
- permitting pension funds and related institutions to invest up to 70 percent (up from 50 percent) of their assets outside Botswana
- permitting the shares of companies listed on approved foreign stock exchanges to be dual-listed on the Botswana Stock Exchange on an open register basis, and treating the purchase of such shares by residents as a domestic currency transactions,
- permitting Botswana banks to open Foreign Currency Accounts (FCAs) for both residents and non-residents

The 1995 liberalisation significantly eased the constraints on the export of capital, especially for offshore indirect investment by residents. However, the balance of payments data suggest that this did not have any significant effect on outflows. When compared to 1994, private short-term capital flows in 1995 showed a rise in inflows and a reduction in outflows, with a consequent reduction in the deficit on this account. In fact, the reserves have in general continued to grow during 1995 and 1996. The reserves rose from SDR 3.03 billion in December 1994 to SDR 3.47 billion in November 1996, an increase of 15 percent (Bank of Botswana, 1996). During 1995, the overall increase in the reserves was P1289 million. The current account surplus of P948 million and revaluation adjustments of P98 million dominated this.

Figure 7.12: External Balance
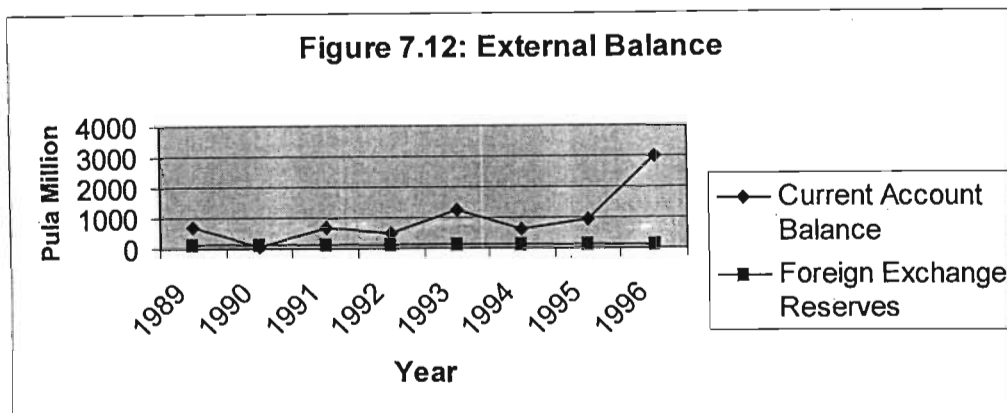
Source: Bank of Botswana, 1997.

7.4.2(f)   Trends in Inflation

The annual average rate of inflation is measured by the Botswana Consumer Price Index. From 1976 to 1995, the rate of inflation averaged about 11.5 percent and has been relatively stable with a standard deviation of 2.3 percent (Kahuti and Wright, 1997). If a period of high inflation is defined as being at least three successive years where inflation was above the mean for the whole period, then for Botswana only the periods 1979-1981 and 1991-1993 meet this criterion. In only two years (1981 and 1992) has the average inflation rate exceeded 15 percent. The movements in prices of tradable goods dominate the structure of inflation in Botswana. These constitute 75.3 percent of the CPI basket, nearly two-thirds of which are imported tradables, sourced mainly in South Africa. In this situation, it comes as little surprise that it is well established that inflation imported from South Africa is a major component of the inflationary process in Botswana (Atta et al, 1996).

Figure 7.13: Trends in Inflation
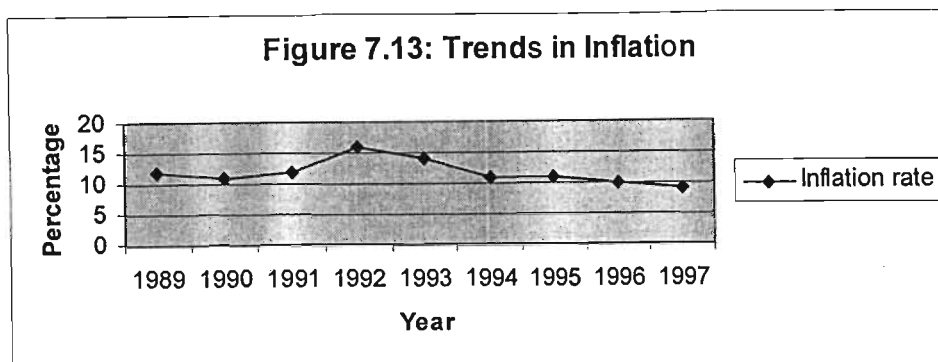
Source: World Bank, 1999.

7.4.3 Investment and Savings

The task of devising policies to boost savings is dependent upon a good understanding of the factors which influence savings. This understanding of the factors results from two processes: first, a view of what economic theory says about the factors determining savings, and secondly, research to evaluate which of those factors are important in practice, the results of which, may well vary between different countries and time periods. An economy can potentially derive its savings from four different economic sectors: government, business, households and foreigners[23]. Recent economic literature on savings and investment continues to place capital accumulation at the centre of growth process. Therefore, investment continues to be regarded as an intermediate goal of economic policy as it makes it possible to increase the nation's physical and human assets, to take advantage of technological change, and to increase the productivity of the labour force and real wages. In so doing, investment can lead to a permanent increase in the standard of living. Though savings and capital accumulation generally improve the economy's growth performance, it must be noted that a high investment rate does not necessarily quarantee sustained growth[24].

Over the period 1974/75 to 1995/96, Botswana experienced rapid increases in the levels of and rates of real gross domestic savings and investment. In real terms, over the period, domestic investment increased more than

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[23] A discussion on these economic sectors is beyond the scope of this chapter.
[24] A detailed discussion on investment and growth can be found in chapter eight.

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fourfold, while savings rose over twentyfold. While there were substantial fluctuations in the rate of investment, Botswana has invested, on average, nearly 30 percent of its GDP per annum over the same period, a figure that compares very favourably with that of the Asian Tigers and other successful developing countries (Bank of Botswana, 1997).

In Botswana's case, however, Government, with an average rate of savings of 16 percent of GDP, has been the major source of investible funds, at least up to 1992/93. Savings by business only amounted to 8 percent of GDP per annum, while that of the household and parastatal sector was just 2 percent and 3 percent of GDP per annum, respectively. However, the last few years have seen private savings rising rapidly to reach 37 percent of GDP in 1996/97. Although Government has been the largest source of savings, its relatively stable investment rate, averaging 10 percent of GDP per annum, has been low compared to the more volatile rate of the private sector (17 percent), reflecting in large part the lumpiness of investment in major mineral projects.

The primary determinants of investment in Botswana are the availability of investment opportunities, the availability of credit to the private sector, the level of the interest rate, the level of aggregate savings and the efficiency of intermediation by the financial system. Commercial banks have provided very little of the total investment finance. Government in contrast has been the largest financier through its development budget, while lending through the Public Debt Service Fund (PDSF) and grants from the Financial Assistance Policy (FAP) have been the third and fourth largest sources of investment finance. Retained earnings were the second largest source of investment finance, providing 9 percent and 51 percent in 1991/92 and 1995/96 respectively, while relatively minor contributions came from non-bank financial institutions and the Botswana Stock Exchange.

8.   LITERATURE REVIEW

8.1   Introduction

In this chapter we review the literature with a view to identifying the causal relationship between macroeconomic policies and growth in GDP.   In other words, we will be examining how economic policies may affect long-term growth.   The first section of this chapter will concentrate on a theoretical literature review by surveying various growth theories and models.   The second section discusses the findings or results of empirical work on growth determinants and macroeconomic policies.   Few areas of economics can claim to be more controversial than the subject of economic growth (Choi 1983).   The search for a satisfactory explanation of growth has engaged the minds and energies of those who made significant contributions in economics.   This was, in fact, the main focus of the work of Adam Smith and the classicists endeavouring to explain industrialization in eighteen and nineteen-century England, of Karl Max and Joseph Schumpeter in the long neoclassical eclipse of interest, and most recently, of the post-World War II revival by those concerned with growth, both in developed and in the developing societies.

As a result of a great deal of work, various theories and models have been produced.   They have encompassed descriptive studies as well as studies concerned mainly with uncovering the causal chain of events, empirical research as well as the construction of abstract theoretical models, quantitative as well as qualitative analysis and policy formulation has been stressed.   Each theory and model has its own adherents, and they often appear unable or unwilling to attribute any merit to any alternative approach. Simon Kuznets (1952) observes that there is enormous variety in the different growth processes in the world, for which reason, whether formulating or evaluating theoretical assumptions as to economic growth, any attempt to go

beyond mere lists of factors would have to be made, bearing in mind the characteristics of countries and of the periods relating to the growth process it is intended to explain.

Akerman holds that a general theory of economic growth is not even conceivable since there must be growth analysis strictly linked to the institutional and structural environment of the countries under consideration, in order to pinpoint the individual factors that promote structural changes, within the limits set in each country by the existing institutional system (see Vaciago 1970). We do not have a theory of economic growth general enough to serve as a basis for a policy at all stages of economic advance and with all types of economic systems. Most theories of economic growth vary mainly because they place different emphasis on the relative importance among the various factors and the interrelationships among the identified factors (Choi, 1983).

8.2   Theoretical Literature Review

The theory of economic growth has a very long history in the literature. It goes back to the great classical economists such as Smith, Ricardo and others. The classical economists approach the study of economics with bold and expansive outlook. They wish primarily to discover the causes of long-term growth in national income and wealth and the process by which this growth occurs. The classical thinkers, unlike most of their present-day counterparts, construct theories of economic growth that incorporate both purely economic and metaeconomic variables comprising nature and society.

There is a considerable variation among the members of the classical school. The differences arise whether from the different assumption made regarding the "set of natural, psychological, and institutional constraints" (Lowe 1954, p. 140) or from the different circular mechanisms that link the changes in the variables involved with the course of economic advancement. It is not our intention to present a systematic survey of all the variants of the classical

theory of economic growth. The classical analysis of growth may be best understood by studying the thoughts of two giants, Adam Smith and David Ricardo.

8.2.1 Adam Smith's theory of Economic Growth

Adam Smith's theory of economic growth is at first sight startlingly different from that of Quesnay (1756, 1757) and the Physiocrats (1757)[25]. In their argument industry produces no investable surplus and, therefore, makes no positive contribution to growth, which depends entirely on the reinvestment of the agricultural surplus. By 1776 when Smith published The Wealth of Nations, the Industrial Revolution was transforming the North of England, and he perceived more of its implications for output and living standards than many of his successors. In the theory he developed, both industry and agriculture play a vital role, but the agricultural surplus has a particularly important effect on growth and it will emerge that he took over crucial elements of Quesnay's argument which he greatly simplified. According to Smith (1776) increasing returns in industry, and "learning by doing" as growth theorists now call it can be expected to increase the manufactured goods that workers can afford to buy continuously in an economical and well-governed society.

Smith went on to develop a line of argument about the positive association between capital accumulation and productivity growth which modern theory has only recently begun to rediscover. Astonishingly, in much of twentieth-century growth theory, the rate of investment is predicted to have no effect at all on an economy's long-term rate of output and living standards. In Smith's theory, in contrast, capital accumulation leads to increased population and employment, and provided that the market for manufactured goods is widened by this, an increased division of labour will follow, which will have favourable effects on labour productivity.

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[25] Eltis, W. (1984).

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Adam Smith's Assumptions

Smith's basic assumptions about four of the factors which influence the development of economies will be mentioned, namely, his assumptions about returns to scale in the different sectors of the economy; about the relationship between the ratio of productive to unproductive employment and the rate of capital accumulation, and the principal considerations which motivate this; about how requirements for fixed and circulating capital vary with growth; and about how growth and income distribution interact. He sees growth as the outcome of increased productivity, of which a major source is the division of labour that arises out of the propensity to exchange. Division of labour, in turn, is dependent on a widening of the market and the accumulation of capital and thus dependent on saving. Smith (1937, pp. 261-62) writes:

> "In that rude state of society in which there is no division of labour, in which exchanges are seldom made, and in which every man provides everything for himself, it is not necessary that any stock should be accumulated or stored up beforehand, in order to carry on the business of the society... As the accumulation of stock must, in the nature of things, be previous to the division of labour, so that labour can be more and more subdivided in proportion only as stock is previously more and more accumulated[26]".

Accumulation of capital is the keystone to Smith's theory of growth. His emphasis on the importance of capital accumulation in the growth process is a fundamental element in later growth theories. Capital accumulation would take place only if there were profits, for workers had no capacity to save. Only through capital accumulation could the level of technique improve, and in turn this increased profits. To Smith (1937, pp. 263-69), capital is divided into three parts: that portion reserved for immediate consumption (food, clothes, furniture), circulating capital (money, stocks of provisions, raw material, stocks of finished goods), and fixed capital (machines, profitable buildings, land improvements, acquired and useful abilities). Smith (1937, pp.

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[26] Quoted from Eltis 1984.

341-56) also discusses four different ways of employing the accumulated capital: producing rude produce (agriculture), manufacturing, transportation, and distribution.

Although Smith does not deny the important role of agriculture in feeding the urban population with an agricultural surplus and in forming the basis for a demand for manufactured goods, he emphasized the crucial importance of the nonagricultural sector in economic growth because he believes that division of labour and the accumulation of capital by savings out of profits, his two major sources of growth, are considerably better suited to trading and manufacturing activities than to agricultural activities.

The following succinct summary provided by Phyllis Deane (1978, p. 37) recapitulates our discussion so far. The distinctive features of Adam Smith's theory of economic growth were:
1. his emphasis on the role of labour specialization and its relation to the size of the market,
2. the importance he attached to the role of the manufacturing sector in accelerating the pace of productivity growth for three reasons –
   a. because there was more scope for division of labour in manufacturing,
   b. because the commercial and manufacturing sectors tended to save a relatively high proportion of income, and
   c. because the demand for their products was less readily satiated than the demand for, e.g., foodstuffs; and
3. the way he made the growth of population, output and productivity all hinge on the rate of growth of capital accumulation.

To Smith, the growth process generated as discussed above is likely to continue so long as produce per head grew faster than consumption per head, for this would ensure a continuing surplus, a rising demand for

labour, and hence a growing population. Smith's optimistic view on the prospects for growth was not shared by many of his immediate followers.

It must be emphasized that putting Smith's theory in this purely economic format does not capture the whole spirit or the entire novelty of his approach to an explanation of growth. A greatly simplified, but still in purely economic format, interpretation of the Smithian theory of growth is provided by Sir John Hicks (1965, pp. 36-42), based on the third chapter of the second book of the Wealth of Nations titled "Of the Accumulation of capital or of Productive and Unproductive Labour," in the following simple equation

$$Y_t = (p/w)Y_{t-1} = (p/w)K_t = k(p/w)Y_{t-1} \qquad (8.1)$$

where y_t and y_{t-1} are output (in terms of corn) of this year and last year respectively, p is the productivity of the average labourer, w is wage, k_t is capital available for the production, and k is the fraction of output available as capital after all "nonproductive leaks" are accounted for, i.e., $k = K_t/Y_{t-1}$. Under this formulation the growth rate of the economy is (p/w) − 1 or k(p/w) − 1, depending on whether the economy devoted capital only to the productive sector or diverts to the unproductive sector. We obtain a positive growth rate when productivity rises faster than the wage rate and the level of unproductive consumption.

8.2.2 Ricardo's Growth Theory

Ricardo (1817), the most theoretical of the classical economists, demonstrated that the ultimate outcome of the growth process rested upon three basic propositions:
1. the Malthusian law of population which held that population, unless checked by disease, famine, or war, tends to expand at an exponential rate;

2. the fundamental economic principle of diminishing returns, especially as applied to the scare resource of agricultural land; and

    3. a theory of capital accumulation in which profit is a key variable (Eltis, 1984).

The process that Ricardo and other classical economists envisaged begins at an early stage of development when population is small as compared to available arable land and, consequently, profits and the opportunity for capital accumulation are high. The high level of profits stimulates investment-capital accumulation, which in turn increases the demand for labour, thereby driving market wage rates above the subsistence level. This sets in motion the forces that induce an expansion in population. Two developments take place. First, as market wage rates rise above the subsistence level, profits will be squeezed and thus the rate of capital accumulation slows down. Second, more land must be brought into use to accommodate the food requirements of growing population. The employment of more and more labour on a fixed quantity of land brings diminishing returns into play. Market wages will tend to fall back toward the subsistence level. When this happens, capital accumulation will cease, population will stabilize, and the economy will enter into the stationary state.

To summarise, the contribution by the classical economists to growth theory can be put in three points. First, the classical economists provide a list of crucial factors that are supposed to determine the pace of the output growth in the economy. The identified elements include factors of production – natural resources, capital, and labour – technology, and the institutional setting of economic activity. Second, they develop certain propositional relationships among the identified elements. One well-known proposition in this regard is the effects of diminishing returns resulting from the combination of capital and labour with limited natural resources. Third, they suggest "some ranking in the growth-promoting properties of the different elements, some crucial factors on which to focus" (Deane 1978, p. 41). Capital

accumulation was identified as the single most important dynamic factor on the list.

8.2.3 Harrod and Domar Models of Growth

The modern growth theory differs from the earlier attempts in that it is both less ambitious and more precise. Postwar growth theorists have been content to relegate theories of population growth and of changes in the organizational or institutional framework, sometimes even of technological changes, to other disciplines or to accept changes in these rather crucial dimensions as given, rather than to be explained within the framework of the growth theory itself. The development of macroeconomics as a result of the Keynesian revolution created a demand for theoretical concepts that were selected and defined in empirically measurable forms. The beginning of modern growth theory, which is essentially an attempt to extract the long-run dynamic implications of Keynes's primarily static and short-run analysis for a mature, closed economy, is the work by Roy E. Harrod (1939) and Evsey D. Domar (1946). Basically, their analysis deals with the relationship between the growth of saving and investment and income under circumstances in which full employment would be maintained. They did not develop a full model of economic growth. Their aim was a limited one: to express a certain relationship that must be achieved if an economy is to grow smoothly with full employment.

As classical economists did, Harrod (1939) and Domar (1946) assign a crucial part in the process of growth to capital accumulation resulting from increased investment. But they emphasise that investment has a double role: on the one hand, investment generates income through the multiplier process; on the other, it increases the productive capacity of the economy by enlarging its capital stock. Classical economists gave attention to the productive capacity side of capital accumulation but took for granted adequate demand; in the earlier Keynesian literature, attention was given to the problem of adequate demand, but the problem of capital increase was ignored. Net investment is,

by definition, the rate of change of the capital stock per unit of time. The effects of net investment on the expansion of capital stock can be ignored in the short run, but the assumption of a constant stock of capital must be dropped in the long-run analysis. When the capital is expanded, it is essential that the increment in capital be utilized. Output must expand to absorb the enlarged capital stock into production; otherwise, idle capacity will emerge and act as a deterrent to future investment (Choi, 1983).

The simplest versions of the Harrod and Domar models are outlined in equation in table 8.1

Table 8.1: Harrod and Domar Growth Models

Harrod model		Domar model	
$I = \Delta K = C(\Delta Y)$ $(K = CY)$	(H.1)	$\sigma = \Delta P/I$ or $\Delta P = \sigma I$	(D.1)
$S = sY$	(H.2)	$Y = (1/\sigma)I$ or $\Delta Y = (1/\sigma\Delta I$	(D.2)
$I = S$	(H.3)	$\Delta Y = \Delta P$	(D.3)
$G_w = \Delta Y/Y = s/C$ or $C(\Delta Y) = sY$	(H.4)	$(\Delta I) /I = \alpha\sigma$ or $\sigma I = (I/\alpha) \Delta I$	(D.4)

Source: Choi, 1983.

Beginning with the concept of output, Harrod (1939) focuses on the nature of the conditions of equilibrium between planned saving through a consumption function and to net investment through the acceleration principle. Saving S is assumed to be a simple proportional function of the level of income, $S = sY$, in (H.2), whereas investment I is assumed to be a constant proportion of the absolute growth of income via the acceleration principle, $I - C(\Delta Y)$, in (H.1); s is a constant average and marginal propensity to consume, and C is a technical or required capital that planned investment must be equal to planned saving, $S = I$, in (H.3); we have the equilibrium condition, $C(\Delta Y) = sY$ or $G_w = \Delta Y/Y = s/C$, in (H.4); the latter Harrod calls the "fundamental equation." Therefore, the condition for a continuous equilibrium between planned saving and investment requires that the output grow at a constant rate of s/C. The equilibrium growth rate varies directly with s and inversely with C.

Harrod (1939) calls the rate of growth G_w the "warranted" rate and defines it as that overall rate of advance. He distinguishes two other growth rates: G_n, the natural rate of growth, is the maximum rate allowed by the growth of the labour force and the growth of labour productivity; and G_a, the actual rate of growth. If $G_w > G_n$, the economy will move toward secular stagnation, the reason for this trend being that the inability of the actual growth rate to equal the warranted one in the face of the growth ceiling implies an insufficiency of acceleration, so planned saving will persistently exceed planned investment. The excess of saving over investment will make for stagnation. If $G_a > G_w$, incomes will grow faster than is warranted by the capital investment, the economy is stimulated to further expansion, and G_a will move farther from G_w. The situation where $G_a = G_w = G_n$ is described as "The Golden Age" by Joan Robinson (1970).

Domar (1946) chooses to focus on the dull nature of the rate of investment in a capitalist economy. From the Keynesian theory of the multiplier, the level of income is determined by the level of investment or an increase in investment brings about an increase in national income, $Y = (1/\alpha)I$ or $\Delta Y = (1/\alpha)(\Delta I)$, in (D.2), where $1/\alpha$ is the multiplier. Domar (1946) emphasizes the significance of the capacity-creating aspect of net investment and puts the relation involved in terms of $\sigma = (\Delta P)/I$ or $\Delta P = \sigma I$ in (D.1) in the table above, where α refers to the rate of change of the potential capacity for the production of output associated with a given level of output. (The coefficient σ is a productivity ratio, the reciprocal of the technical capital-output ratio.) Equation (D.1), $\Delta P = \sigma I$, represents a comprehensive description of the supply side of the economy. If initially, before the capacity-creating increment in investment occurred, aggregate demand Y and potential aggregate output P were equal, the full-capacity equilibrium after the change in the economy's capital output ΔP is matched by the resulting change in aggregate demand ΔY, so that we have equilibrium condition, $\Delta Y = \Delta P$, in (D.3).

By imposing full-employment equilibrium initially and successively, we get $(\Delta I)/I - \alpha\sigma$ or $\sigma I = (1/\alpha)\Delta I$ in (D.4). According to the final result in (D.4), given

the productivity of new investment and the multiplier, investment must grow at a constant rate of $\alpha\sigma$ to assure the full capacity utilization of a growing capital stock. Two things stimulate growth: an increase in the productivity of capital and a higher multiplier through an increase in the propensity to consume. The attempt to do both at the same time leads to a conflict.

The similarities and differences in the assumptions made and the major results obtained between the models of Harrod (1939) and Domar (1946) can be summarised as follows. First, both models are fundamentally Keynesian in framework but extend the analysis to the long-run or dynamic relationships . In particular, the capacity-creating effect of investment is clearly recognized. Second, both the economy, which grows at a constant rate, and suggest long-run difficulties in maintaining the equilibrium growth at full employment. However, the reason for the long-run difficulty is different in the two models. For Domar, the problem arises because of underinvestment. In the Harrod model, the similar problem arises because there is no mechanism that will ensure that the labour growth rate and the warranted growth rate become equal. Third, both models depict instability of the equilibrium path. Fourth, while Harrod incorporates a theory of investment behaviour in his model via a simple accelerator hypothesis, Domar has no investment theory. Domar's main concern is with finding the rate at which investment would have to grow for expanding productive capacity to be fully absorbed. He is concerned primarily with the essentially technical question of the effect of present investment on future capacity.

8.2.4 NEOCLASSICAL THEORY OF ECONOMIC GROWTH

The weakness associated with the Harrod (1939) and Domar (1946) models of economic growth in terms of the rigidities and instability problems led economists to explore more complex theories by relaxing the rigid assumptions of the Harrod and Domar models and making refinements to their simple models. The neoclassical approach to the analysis of a growing

economy has attracted substantial attention since R.M. Solow (1956), T.W. Swan (1956) and J.E. Meade (1961) worked out its implications.

Solow's purpose was to examine and demonstrate the special nature of the fundamental opposition of warranted and natural rates. His paper was devoted to a model of long-run growth which accepts all the Harrod-Domar assumptions except that of fixed proportions. The assumptions are as follows:

- assume a model economy in which only one good is produced: There is only one commodity, output as a whole, whose rate of production is designated as $Y(t)$.

- a simple proportional savings function is assumed: $S = sY$ (8.2) where $0 < s < 1$

- the capital stock does not depreciate. Investment is simply the rate of increase of the capital stock of the composite commodity:

$$K = I \quad (8.3)$$

and given that investment is equal to saving, we can rewrite equation 8.3 as $K = S$ or $K = sY$

- the labour force grows at an exogenous constant proportional rate, n.
$L/L = n$ (8.4)

- the technical possibilities of the economy are represented by a continuous, constant returns to scale, aggregate production function:
$Y = F(K, L)$ (8.5)

The assumption of constant returns to scale implies that equation 8.5 can be written in the intensive form as: $y = f(k)$,   (8.6)

where $y = Y/L$ and $k = K/L$., Therefore, equation 8.6 states that output per labourer is a function of capital per labourer. Solow argued that constant returns to scale seems the natural assumption to make in a theory of growth. It is clear that the assumption of a continuous aggregate production function is totally different from that used by Harrod and Domar (Jones, 1975).

The neoclassical economists postulate a "well-behaved" aggregate production function with flexible inputs that are smoothly substitute over the whole range

determined by current technology, and assume that all inputs will be fully employed all the time through complete flexibility in factor input prices. These postulates and assumptions enable neoclassicists to define a stable equilibrium growth rate in which the warranted growth rate is tied to the natural growth rate by factor price changes that induce appropriate variations in the input mix. In the neoclassical system, the economy, if left alone, seeks out a steady-state equilibrium growth path. Since full employment is assumed to be normally present, savings are continuously absorbed by employment. Unlike in the Keynesian world where investment generates saving, in the neoclassical model of growth the rate of saving governs the rate of investment. There is a similarity here to the monetarist approach to the economy's behaviour, for, like monetarists, the neoclassical theories are challenging the Keynesian notion that the economy is inherently unstable. The automatic equality between saving and investment in the neoclassical economy led Robinson (1971, p. 111) to protest that "the neoclassical seized upon Harrod's model and thrust it into a pre-Keynesian mould."

The substitutability between capital and labour plays a central role in the neoclassical formulation. With variable factor proportions and flexible factor prices, the growth path is not inherently unstable. If the labour force outgrew the supply of capital, the price of labour would fall relative to the rate of interest, or vice versa. Price flexibility and factor substitution mitigate the terror of the rigidity and instability in the models of Harrods and Domar.

Furthermore, the neoclassical production function satisfies the following conditions[27]:

- the marginal product of capital, denoted $f'(k)$ is positive for all levels of the capital-labour ratio. $f(k) > 0$ for all k.

- the marginal product of capital diminishes as capital per labourer increases; mathematically this implies that $f''(k) < 0$ for all k.

- as the ratio of capital to labour, k, tends towards infinity, the marginal product of capital tends towards zero. At very high levels of the capital-

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[27] Jones, W.G. (1975), The Modern Theories of Economic Growth.

labour ratio, the marginal product of capital becomes very small. In the mathematical terms this condition is written as:

$$\lim_{k \to \infty} f'(k) = 0$$

- as the ratio of capital to labour, k, tends towards zero, the marginal product of capital tends towards infinity. It is expressed mathematically as follows:

$$\lim_{k \to 0} f'(k) = \infty$$

- no output can be produced without any capital, i.e. $f(0) = 0$
- an indefinitely high level of output per labourer is associated with an indefinitely large ratio of capital to labour, i.e. $f(\infty) = \infty$

An aggregate production function satisfying the above conditions (usually well-known as Inada-condition) is referred to as well-behaved.

Neoclassical models certainly have dominated the areas of growth theory and exerted pervasive influence on the way economists think about economic growth. The attractions of the neoclassical growth model are "its great simplicity, its use of Keynesian macroeconomic aggregates on the one hand and microeconomic technique on the other... and the fact that it seems to lend itself readily to empirical tests and predictions" (Deane 1978, p. 201).

The objections raised to the neoclassical growth model revolve around its choice of assumptions. The modern Cambridge school of economists are particularly critical of the measurement of capital and malleability of capital on which continuous substitutability between factors is postulated. The neoclassical vision of full employment and a smooth, long-run equilibrating process is inconsistent with the Keynesian short-run vision of the possibility of discrepancy between ex ante saving and ex ante investment does not exist in the neoclassical world. What is specific to the neoclassical approach to the theory of economic growth is the conception of growth as a form of adjustment to savings decisions and to factor supplies. Furthermore, it is

presumed that there always exists a unique state of steady growth with full employment to which a neoclassical economy will adjust, given enough time.

8.2.5 NEO-KEYNESIAN THEORY OF ECONOMIC GROWTH

While neoclassical growth theory has dominated the journals and discussions during the postwar period, a small group of theorists, especially at the University of Cambridge, have attempted to develop, on the basis of the models of Michael Kalecki and John Maynard Keynes, an alternative paradigm or view to the neoclassical traditions. Main contributions are by Nicholas Kaldor (1956, 1957, 1959), Joan Robinson (1953-54, 1962, 1970, 1971), J.A. Kregel (1972) and many others.

The neo-Keynesian paradigm is described by a vastly different set of metaphysical beliefs and assumptions, values, and choice of techniques and problems. Although the development of neo-Keynesian growth theory has been an uneven one and there is no rigid orthodoxy, certain common elements have emerged that allow one at least to outline this neo-Keynesian conception of economic growth. Before we move to the discussion of works by two prominent contributors, Robinson and Kaldor, certain common features shared by different versions of neo-Keynesian growth are summarized and the distinctive features different from those of the neoclassical paradigm are pointed out.[28]

First, neo-Keynesian growth theorists believe that the aggregate saving depends essentially on the distribution of income. For instance, a higher proportion of profits than wage income is saved. This is in sharp contrast to the neoclassical idea that the aggregate saving is independent of the distribution of income. Neo-Keynesian theory treats the distribution of income as a variable directly linked to the rate of economic growth, while in the

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[28] Choi, K. (1983) unless stated otherwise.

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neoclassical theory the distribution of income is ignored or assumed to be derived from the technical condition of the production relation.

Second, neo-Keynesian growth theory avoids the use of a total stock of capital and objectives to the neoclassical production function. The debate involved is the well-known "capital controversy." Neo-Keynesian theory rejects the neoclassical assumptions necessary to treat capital and labour as continuously and smoothly substitutable, i.e., the assumption that real capital is like putty – homogeneous and malleable – as easily transformed from one use to another as putty.

Third, in place of the relative price variable, which is the focal point of a neoclassical analysis, neo-Keynesian theory makes investment the key determinant in economic growth. These follow from an underlying belief that in a dynamic, expanding economy, the income effects produced by investment and other sources of growth far outweigh the substitution effects resulting from price movements. In neo-Keynesian theory, investment depends on decisions made by entrepreneurs based on their expectations, and it is independent of the propensity to save.

A fourth major characteristic to note is the direction of causality between the important variables involved. Neo-Keynesian postulates that investment determines saving through the multiplier and adjustment in the distribution of income and that the rate of profit determines the marginal product of capital. If there had been some saving out of wages, in the neo-Keynesian model, the distribution and marginal product would have had to be determined by the rate of profit.

The fifth distinguishing feature of neo-Keynesian theory is that it regains the fundamental approach to a monetised production economy outlined by Keynes. It is recognized that real commodity and labour flows are expressed in the system as monetary flows, the real aspects being reflected on the product side of the national accounts and thus monetary flows on the income

side. Neo-Keynesian theory describes an economic system with advanced credit and other monetary institutions, all of which play a fundamental role in the dynamic processes being analyzed. The role of financial institutions, the money wage rate independent of the real wage rate, distinction between discretionary and nondiscretionary expenditures, etc., all have been paid adequate attention in the neo-Keynesian models.

A sixth important feature of the writings of neo-Keynesians is their rejection of theories that imply that the rationality of an individual is unbounded. The neo-Keynesian paradigm also shifts emphasis toward the recognition of monopolistic and oligopolistic elements and other forms of market imperfections. J.E. Stiglitz and H. Uzawa (1969, p. 310) summarize the difference in fundamental philosophy between the neo-Keynesians and the neoclassicists as follows: "The neoclassicists are committed to an economic theory derived from some kind of rational behavior, while the Cambridge economists believe that individuals are not calculating – in particular in a world of imperfect competition and uncertainty – and that rules of thumb are used." In place of maximizing behaviour in neoclassical theories, neo-Keynesians build behaviouristic models in which economic agents act according to some rules. The competitive conditions assumed in neo-Keynesian theory are less restrictive than those in the neoclassical analysis. The individual firm may be a price maker with some ability to affect the prevailing price. The neo-Keynesian formulation of a pricing model is based on a certain markup or margin above costs. This discarding of some of the basic assumptions of neoclassical analysis is an effort by Keynesians of seeking to infuse the analysis with a "sense of history."

Last, neo-Keynesians, particularly Robinson, concentrate on the comparison of alternative steady-growth golden age equilibria rather than on movements from one to another. For example, there is a range of profit rates consistent with a given technology, and corresponding to this and to the given saving rates, we have a range of possible warranted growth rates.

To construct a causal model Robinson (1962, p.34) starts "not from equilibrium relations but from the rules and motives governing human behaviour. We therefore have to specify what kind of economy the model applies to, for various kinds of economies have different sets of rules." Robinson presents an analysis of long-run accumulated growth beginning with a simple model and progressing to models of increasing complexity by varying or relaxing the simplifying assumptions. Since unlike her neoclassical counterpart, Robinson has carried through her argument in verbal, analytical terms, it is not easy to put her system in mathematical formulation and much harder to detect errors in logic that might have crept in at some state of the discussion. Listing the basic assumptions in her simple model may facilitate our discussion of her theory of capital accumulation.

1. There are two classes of income: profits and wages. While wage earners spend all of their wage income on consumption, profit takers save and invest all their profit income.
2. Capital and labour are combined in fixed proportions to produce a given output.
3. Labour is homogeneous and there are no scarce natural resources.
4. From one period to another the expected prices and rate of profits are always realized and confirmed by experience, i.e., tranquility.
5. The economy is a closed economy, with no government.
6. Labour costs are the only variable costs, and prices are determined by marking up unit prime costs.

Robinson (1962, p. 35) isolates determinants of equilibrium and groups them under seven headings:

- technical conditions,
- investment policy,
- thriftiness condition,
- competitiveness condition,
- wage bargain,

- financial conditions, and

- initial stock of capital goods and state of expectations formed by past experience.

At the core of Robinson's approach to the theory of economic growth is the importance of investment in the growth process and the "double-sided relationship between the rate of profit and the rate of accumulation." Investment is important in Robinson's model of growth because economic growth depends on investment to which savings adapt. Saving adapts to investment through its dependence on the share of profits, which rises with the level of investment in relation to income. The basic idea here is that there is within certain definite limits a distribution of income between profits and wages to ensure that saving matches investment and demand absorbs output produced with growing productive capacity. This idea is entirely that of Keynes because "firms are free, within limits, to accumulate as they please, and that the rate of saving of the economy as a whole accommodates itself to the rate of investment that they decree" (Robinson 1962, p. 83).

The significance of the growth-investment or growth-profit relation is pointed out clearly by Donald J. Harris (1978, p. 183) when he writes:

> The growth-profit relationship viewed simply as an equilibrium condition is consistent with any theory of growth and distribution. What gives causal significance to this relation in the case of neo-Keynesian theory is the proposition that the rate of accumulation is an independent variable and there is a relation of dependence of the rate of profit on the rate of accumulation. This is one proposition about which all varieties of neo-Keynesian theory are in full agreement and one distinguishing that framework of analysis from others.

The direction of causation from investment to saving (profits), not the other way around, can be discussed using the distribution equation pivotal to Robinson's growth theory. Net income per annum is exhaustively divided into wages and profits:

$$PY + W + P = wL + \pi pK \qquad (8.7)$$

Where Y is real national income, p is the price of output as well as of capital equipment, W is total wages, P is total profits, w is the money wage rate, L is the amount of labour employed, π is the gross profit rate, and K is the amount of capital employed. Dividing both sides of (8.7) by the average price index p, we have the distribution equation in real terms

$$Y = (w/p)L + \pi K \qquad (8.8)$$

Equation (8.8) can be rearranged to yield the profit rate in the form

$$\pi = \frac{Y}{K} - \frac{w}{p}\frac{L}{K} = \frac{Y - (w/p)L}{K} = \frac{Y/L - w/p}{K/L} \qquad (8.9)$$

Equation (8.9) shows that the profit rate depends on the technological condition, capital-labour ratio K/L, labour productivity Y/L, and the real wage rate w/p.

On the assumption that all wages are consumed and that all profits are invested, it can be shown that the rate of capital accumulation is equal to the rate of profit.

$$S = I = \pi K = \Delta K \text{ or } \pi = \Delta K/K \qquad (8.10)$$

To summarise our discussion of the Robinson model of economic growth, her chief contribution lies in her integration of classical value and distribution theory and modern Keynesian investment-saving theory in one coherent system. Robinson's theory brings to the forefront of analysis the expansionary drive of firms and their "technical dynamism" as basic forces governing the operation of the capitalist economy. Interrelationships among identified forces are clearly pointed out. Her theory emphasises:

1. the causal role of investment decisions of entrepreneurs,

2. the interconnection between profits and accumulation, and

3. the dependence of income shares on the rate of accumulation and saving propensities among classes or income categories.

While her model is capable of yielding a stable equilibrium solution, there is no automatic equilibrating mechanism to bring about continuous expansion at full employment. Given the growth determinants mentioned above and their interactions, steady growth with full employment is unlikely and mythical.

8.2.6 ENDOGENOUS GROWTH MODELS

Given the empirical and policy difficulties associated with the Solow model a number of new models of economic growth have been proposed which attempt to endogenise the growth process. These new models were developed by a group of growth theorists led by Paul Romer (1986), which became increasingly dissatisfied with exogenously driven explanations of long-run productivity growth. The two major approaches are to remove the fixed factor constraint of the Solow model by allowing constant returns to reproducible factors or to endogenise technological change by explicitly modelling the introduction of new technologies.

The simplest model, which demonstrates the first approach, is one in which capital is linearly related to output as found in Rebelo et al (1987). In this model the production function takes the very simple form Y=AK where K may be considered a composite of physical and human capital and A is a positive constant that reflects the level of technology. It is easy to demonstrate that sustained per capita output growth is possible without resorting to exogenous technical change[29]. Assuming maximization of a utility function exhibiting constant relative risk aversion by an infinitely lived consumer yields a perpetual growth rate of $g = (A-\rho)/\sigma$, where ρ is the discount rate and $1/\sigma$ is the inter-temporal elasticity of substitution. It is apparent that economies where

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[29] The view of Scott (1989) is similar since he argues all growth occurs through investment and changes in quality adjusted labour.

consumers are more patient (low ρ) and more willing to substitute over time (low σ) will grow faster.

However, it does not seem appealing to rely on differences in tastes to explain differences in growth. A more appealing explanation is that factors which affect the marginal product of capital will have sustained growth effects (Renelt, (1991). This approach may be extended to multiple sectors. Rebelo shows that sustained growth is possible as long as a core of capital goods are able to be produced without fixed factors. Jones and Manuelli (1990) demonstrate that technology need not be linear in capital for sustained growth, but that relaxing the Inada condition at infinity may be sufficient. A production function which may satisfy this condition is $Y=aK^{\alpha}L^{1-\alpha}+bK$ so their approach is a similar one to assuming linear production. A problem with the linear production approach is justifying the constant returns to reproducible factors when fixed factors are observed[30].

Romer (1986) resolved this difficulty by adopting Arrow's (1962) learning-by-doing framework. The argument is that knowledge generation may be positively related to the scale of economic activity, which is assumed to be proportional to capital accumulation. In order to have sustained growth there must be at least constant returns to reproducible factors. This implies increasing returns overall which would violate a condition for competitive behaviour. Romer posits that there may be spillovers so that an individual firm faces constant returns (diminishing returns to capital) but there are increasing returns overall. The production function takes the form $y=Ak^{\alpha}1^{1-\alpha}K^{\epsilon}$ ($\alpha+\epsilon\geq1$) where y, k and 1 represent firm level quantities and K is aggregate capital. Romer shows that stable growth paths are feasible in this model without relying on technological change. One implication of Romer's framework is that there will be too little capital accumulation in a private economy due to the external effect (Renelt, 1991).

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[30] See Mankiw, Romer and Weil (1990) on human-capital-augmented Solow model. Easterly (1990) presents models in which the fixed factor constant is endogenous.

A similar set-up is employed by Lucas (1988) who utilizes Uzawa's (1965) model of human capital accumulation. Lucas proposes an aggregate production function of the form $Y=AK^{\alpha}(unh)^{1-\alpha}h^7$ where h is average human capital, u is the proportion of human use in final goods production, and n is population. This form allows for an externality to human capital, which helps to explain observed international flows of capital and workers. In order to have sustained growth there must still be linear production in the human capital-producing sector. The problem facing both the Romer and Lucas approaches is to find externalities which are empirically large enough to justify the functional forms employed.

A problem with the externality approach is that there appears to be little incentive to produce knowledge in this framework as technology is not compensated, but one observes firms actively undertaking research and development. Some of these problems are avoided by explicitly modelling the accumulation of knowledge. Romer (1990) deals with this problem by recognising the need to introduce non-competitive behaviour in order to model the fixed costs nature of producing knowledge. He posits an aggregate production function of the form $Y=L^{1-\alpha}\int^{\infty} x_i^{\alpha}di$ where the x's are intermediate capital goods. At any one time a given range of the intermediate goods are produced. Each intermediate good requires a fixed outlay to invent so that an equilibrium with monopolistic competition exists. In this model, it is possible to have sustainable growth through the continued introduction of new intermediate products. Thus, policies which affect capital accumulation have growth effects.

Another model which introduces endogenous technical change is Schumpeterian model of growth through creative destruction by Aghion and Howitt (1989). They allow for learning-by-doing and the fact that new innovations may make old ones obsolete. Whereas in the Romer (1990) model the private equilibrium will generally have too little research, there may be too much research, in the Aghion and Howitt (1989) model. This approach can also be extended to account for copying of existing technologies by firms

in developing countries. These approaches seem preferable to relying on external effects which are difficult to observe and probably not of the magnitude necessary to generate sustained growth. A problem is that the empirical implications of these models are less clear as technological progress and the factors influencing it are difficult to measure (Levine and Renelt, 1991).

8.3 POLICY APPLICATIONS OF GROWTH THEORY

The above models provide the basic framework for considering endogenous growth in a general equilibrium framework. However, given the broad nature of the results there is still little information for policymakers. A number of models have been developed along the above lines to deal with more specific policy and empirical issues. Many of these issues have also been of concern to developing countries, especially in sub-Saharan Africa and Latin America.

8.3.1 Physical and Human Capital

Both the neoclassical and new growth models have emphasised the role of capital accumulation in the growth process. Since growth in the neoclassical models is a function only of the capital stock, labour and the exogenously determined technology, an increase in the capital stock is expected to promote growth. The new growth models, on the other hand, postulate that changes in capital stock (through changes in investment) have growth effects because policies affect growth through the level and efficiency of the use of capital. Scott (1989) argues that the act of investment itself creates itself new investment opportunities. Therefore, increasing investment can have dynamic effects that raise an economy's growth rate.

Endogenous growth models, such as Lucas (1988), allow for significance effects of human capital accumulation on economic growth. Azariadis and Drazen (1990) posit a threshold externally for human capital. In their model human capital becomes more productive once a certain level of human

capital accumulation is reached. They argue that growth rates will be positively correlated with the level of human capital relative to the income level. This allows for the existence of multiple growth equilibria and an explanation for non-convergence. A model by Becker, Murphy, and Tamura (1988) allows for interactions between human capital accumulation and population growth. They show it is possible for countries to become trapped in equilibrium with low human capital per worker and high rates of fertility, as there exist lower returns to investing in human capital relative to more children. Stokey (1990) presents a model with heterogeneous labour and goods with growth driven by human capital accumulation. She claims the model helps explain the East Asian experience of growth in education, growth in trade, and changing composition of output. Arrau (1989) discusses human capital and growth in a life-cycle model. He argues that if human capital is the engine of growth than tax policies, which more heavily tax human than physical capital, will adversely affect growth.

Chamley (1990), argues that a low level of physical capital at initial stages of development may lead to a higher level of output on the balanced growth path as the returns to human capital will be higher, encouraging greater accumulation. Jones and Manuelli (1990) discuss an overlapping generation's model of endogenous growth and find that policies such as public education which redistribute income to the young may increase growth. These models suggest that government policies to promote education and human capital formation can have large impacts on long-run economic growth, and should be considered by policy makers in developing countries. Applying Leamer's Extreme Bounds Analysis (EBA) to their growth equations, Levine and Renelt (1991) arrived at the broad finding that the relationship between growth and almost every particular macroeconomic indicator other than the investment ratio is fragile. Other studies (see for examples Savvides 1995, De Gregorio 1991 and De Long and Summers 1990) have also reported high correlations between human capital and growth.

On the empirical front many researchers have tried to investigate the

relationship between human capital and growth. Many proxies have been used to measure human capital. These include the secondary school enrolment ratio, primary school enrolment ratio, government expenditure on education, literacy rate, and the share of health sector in total government expenditure. The relationship between human capital and growth had mixed results. Using a sample of 98 countries (developed and developing) for the period 1960-1985, Barro (1991) finds that for a given starting value of per capita GDP, a country's subsequent growth rate is positively related to the initial level of human capital as measured by secondary school enrolment ratios. As well as holding constant a set of variables including human capital, initial per capita GDP is negatively related to per capital income growth. Romer (1990) finds no significant effect. Savvides (1995), however, reports that human capital accumulation (proxied by the secondary enrolment ratio) is not significant in a growth equation for 28 African countries of the period 1960-1987.

De Gregorio (1992) uses both primary and secondary school ratios and the literacy rate as proxies for human capital. School enrolment indices did not have a significant effect on growth, while the literacy rate had the expected sign and was significant. In their study of African countries, Ojo and Oshikoya (1995) found that school enrolment indices did not appear to have significant effects on growth and in a few equations they appeared to be negatively correlated with growth. Romer (1989) also finds no significant effect for literacy rates. This is certainly an area in which measurement problems are very important and where investment in human capital impinges on growth but with very long lags. Otani and Villanueva (1990) used an endogenous growth model to explain the main determinants of long-term growth in developing countries. Their results support the positive relationship between economic growth and the share of educational expenditure in total revenue. Fischer (1992) finds a positive relationship between economic growth and the primary school enrolment ratio. Cashin (1995) uses the secondary school enrolment ratio as a proxy for human capital, and the results show a positive but insignificant correlation between growth.

Studies that have used the share of education in government expenditure also had mixed results. The main emphasis of these studies was to look at the relationship between public expenditure on education and growth. The studies that found a positive and significant relationship include Landau (1983), Romer (1987), Diamond (1989) and Kaakunga (1997), while researchers such as Deverajan et al (1993), Aschauer (1987), Kormendi and Meguire (1983), and Grier and Tullock (1989) classified public expenditure on education unproductive.

8.3.2 Fiscal policy

The role of government expenditure and taxation in economic growth has been regarded as an important issue in economics. Fiscal policy is a key to successful macroeconomic policy both because of its direct macroeconomic effects on the current allocation of resources and because all methods of financing a budget deficit have potential adverse macroeconomic consequences when used to excess. However, while it was clear that distortionary taxation and government spending could affect the level of gross domestic product in a given country, the theoretical link was not clearly established in the standard neoclassical model[31]. That is, because the source of long-run growth in the early neoclassical models of Solow (1956) and Swan (1956) was exogenous technical change, fiscal stance had little effect on the rate of capital accumulation or the long-run rate of growth[32].

However, contributions to the recent endogenous growth and government literature have emphasized the role of the fiscal stance in influencing the rate of economic growth with government spending directly affecting the private

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[31] More accurately, the standard neoclassical growth model assumes that the marginal product of each factor goes to zero as use of that factor increases, holding all other factors constant (the Inada conditions are assumed to hold).

[32] In the traditional optimal growth models of Ramsey (1928), Cass (1965), and Koopmans (1965), time-varying savings rates were derived from the optimization of an inter-temporal social welfare function. In this normative or (planning) use, these models were designed to calculate the required saving rate to achieve a given target rate of growth, rather than to provide guidance for the appropriate role for government in promoting growth.

production function (see Easterly, (1989) and (1990); Barro (1991) and Sala-I-Martin (1992) and (1995). The common element linking all endogenous growth models is that the marginal returns to the factor can be accumulated to zero (Cashin, 1995). Unlike the early neoclassical growth models, it is not determined exogenously by technological innovations or population growth, but is rather determined by the parameters of the model, in particular the saving rate.

Most studies have emphasized the importance of distinguishing between productive and non-productive spending. The basic argument is that an increase in government consumption may affect growth negatively by inducing a crowding out of private sector investment. This same argument is the main reason to expect a negative relationship between large budget deficits and growth. Barro (1990) includes productive government spending in a model of endogenous growth in which growth is increasing for low levels of government expenditure (and taxation) and then decreasing when size of the government sector increases beyond acceptable levels. The model also suggests that different types of government expenditure may have different impacts on growth.

A number of fiscal variables have been used in empirical studies. Four commonly used variables are the share of government consumption in GDP, the share of public infrastructural investment in GDP, the share of public spending on health and education in GDP, and fiscal deficits. As a result of methodological, conceptual and statistical problems, the empirical relationship between growth and aggregate indicators of fiscal variables has yielded mixed results. The general finding, however, is that there is a negative correlation between growth and government consumption (Martin and Fardmanesh 1990, Barro 1991, Grier and Tullock 1989).

Barro (1991) finds a negative relationship between government consumption (excluding defence and education) and per capita GDP. Diamond (1989) also finds overall government expenditure to be negatively related to growth with

some significant positive growth effects of directly productive current and capital expenditures for education, but no strong effects for general infrastructural spending. Kormendi and Meguire (1985), however, report that the average growth rate of the ratio of government consumption to GDP is not closely associated with growth. De Gregorio (1992) and Ojo and Oshikoya (1995) have found that government consumption is negatively related to growth. Barro (1989a) finds a positive correlation between government capital expenditure and growth but the effect is weaker than for total investment. Easterly and Rebelo (1993), in a cross-country study for the period 1970-88, conclude that public investment in transport and communication is significantly correlated with growth. Mosley and Weeks (1993) conclude that capital expenditure by the state and the growth of GDP show strong correlation. Other studies that have shown this strong relationship include Aschauer (1987), Grier and Tullock (1989), and Kaakunga (1997), while Devarajan et al (1993) found a negative relationship between public investment in transport and communications and growth.

Attempts to capture the effects of taxes on growth have also produced mixed results. Trying to get an aggregate measure of the potentially negative implications of government activity, many researchers use government consumption spending as a proxy for the distortionary taxes that must be raised to support that spending[33]. Given the difficulty in data, some efforts have been also made to test for the impact taxes on growth. For instance, Koester and Kormendi (1989) try to examine the differential effects of marginal and average taxes. They use the tax:GDP ratio as a measure of average taxes and interpret the regression coefficient of GDP on taxes as a marginal tax rate. They find that taxes do not have growth effects. Skinner (1987) and Manas-Anton (1987) analyse the differential effects of direct vs. indirect taxation. The null hypothesis is that indirect taxes tend to fall more heavily on conservation and therefore have smaller growth effects. Skinner (1987) finds evidence that individual and corporate taxes have greater

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[33] Total government expenditure is a concept that varies across countries depending on whether it includes all levels of government, just the central government, various categories of state enterprises, etc.

negative growth effects than trade or sales taxes in Africa, but Mannas-Anton (1987) finds little support for a greater negative impact of direct vs. indirect taxes. Cashin (1995) supports the negative relationship between taxes and growth. The detrimental partial effect of distortionary taxes on growth has been observed and discussed by Marsden (1983), Barro (1989), Martin and Fardmanesh (1990), Rebelo (1991), Dowrick (1992), and Engen and Skinner (1992), among others.

8.3.3 Monetary Policy

An excessive increase in the rate of monetary expansion reduces growth in several ways. The theory suggests that high money-growth can elicit the behaviour that reduces growth. For instance, the unfavourable impact of inflation on the taxation of capital implies a negative association between the level of income and inflation, and through the new growth theory channels, between inflation and growth. An endogenous growth model to illustrate the relation between inflation and growth is presented in De Gregorio (1991b). In that model, inflation is considered to be a result of an inefficient tax system. The model discusses the role of money in firms' operations and its effect on the investment rate. When money is required to buy capital goods, inflation is similar to a tax on investment. The model also shows how inflation can affect the productivity of capital. Inflation induces economic agents to divert resources from productive activities to other activities that allow them to reduce the burden of the inflation tax. The resulting reductions in employment in goods-producing sectors that are subject to scale economies may reduce the rate of investment and its productivity. Consequently, rapid money growth could be detrimental to growth.

Monetary policy variability can impede the efficient allocation of resources. It has been argued that variable inflation or monetary policy uncertainty can interfere with the ability of agents to extract information from relative prices (Gelb 1989, Grier and Tullock 1989, Easterly and Wetzel 1989). Thus, wide swings in money supply could retard growth. In a study by Khan (1991) the

relationship between inflation and growth performance was examined in a sample of 69 developing countries during the period 1973-88. Cross-sectional regression equations yielded significant negative effects of inflation on the growth rate of GDP. Kormendi and Meguire (1985) conclude that the average growth rate of inflation is negatively related with GDP growth, but that M1 growth has little relation to growth. Grier and Tullock (1989), however, find that the sign and significance of the inflation-growth correlation depend importantly on the sample chosen. Levine and Renelt (1991) demonstrate that the relationship between growth and inflation and domestic credit depends on the inclusion of other policy variables. In some studies, however, the inflation variable carried the unpredicted sign and has been found insignificant in some specifications.

De Gregorio (1992) finds that a negative and significant impact of inflation and its variance on growth was maintained. After eliminated all observations with inflation rates higher than a specified cutoff point. Inflation rates of 50, 40, 30, 20 and 10 were used as cutoff points. Again, the results were found to be robust. Fischer (1993) in his study on developing countries, finds a negative relationship between the inflation rate and economic growth. Similar results were found by Ojo and Oshikoya (1995).

8.3.4 Financial Policy

The McKinnon-Shaw hypothesis suggests that the degree of financial development should be closely related to the prevailing level of the interest rate, the reason being that the level of the interest rates, when held below their normal competitive levels, indicates the extent of financial repression. According to this view, a positive real interest rate stimulates financial savings and financial inter-mediation, thereby increasing the supply of credit to the private sector (Fry 1988). This, in turn, stimulates investment and growth. Since the seminal work of McKinnon and Shaw (1973), recent theoretical work has incorporated the role of financial factors in models of endogenous growth in an attempt to analyse formally the interactions between financial

markets and long-run economic growth. By focusing on cases where the marginal product of capital always remain positive, this literature provides a natural framework in which financial markets affect long run, and not just transitional, growth.

Greenwood and Javanovic (1990) present a model in which the role of financial investible funds to investment activities yield the highest return. Since the activities performed by financial intermediaries involves costs, Greenwood and Javanovic show that there is a positive two-way causal relationship between economic growth and financial development. On the one hand, the process of growth stimulates higher participation in financial institutions. On the other hand, financial institutions, by collecting and analysing information from many potential investors, allow investment projects to be undertaken more efficiently, thereby stimulating investment and growth. Bencivenga and Smith (1991) present a model in which individuals face uncertainty about their future liquidity needs. In this framework, the presence of financial inter-mediation increases economic growth by channelling savings into activities with high productivity, while allowing individuals to reduce the risk associated with their liquid needs. Although individuals face uncertain liquidity needs, banks, by the law of large numbers, face a predictable demand for liquidity and can, therefore, allocate investment funds more efficiently. In the absence of financial intermediaries, individuals may be forced to liquidate their investment when liquidity needs arise. Thus, the presence of banks also provides the benefits of eliminating unnecessary liquidities.

Along similar lines, Levine (1992) analyses the effects of alternative financial structures on economic growth. In his model, financial institutions raise the fraction of total savings devoted to investment and avoid premature liquidations of capital. Bank and stock markets enhance growth by promoting efficient allocation of investment through various channels. From a different perspective, De Gregorio (1993) analyses the effects of financial intermediaries on the savings rate. Attention is focused on the effect of the

borrowing constraint on economic growth. The model has the implication that the full or partial inability of individuals to borrow against future income induces them to increase savings. This study suggests that, in general, financial deepening on the side of consumer credit is unlikely to increase savings. This result may be consistent with causal observation in some developing countries where episodes of financial liberalisation have not increased savings rates (Gregorio and Guidoti, 1995).

Since the pioneering contribution of Goldsmith (1969), McKinnon and Shaw (1973), a number of researchers have tested the impact of both the size of the financial sector and financial repression policies on the rate of economic growth. Empirically, Gelb (1989) finds a positive relationship between measures of domestic financial market activities and growth for a sample of 31 countries. In a sample of 77 countries with data averaged over 1960-89, King and Levine (1993) found that their financial indicators were closely correlated with each other as well as with measures of GDP growth, capital accumulation and total factor productivity. By extending Barro's (1991) cross-country growth regressions (to include their proxy for financial development) De Gregorio and Guidotti (1995) find a positive effect of their measure of financial development (i.e. credit: GDP ratio) on long-run growth of real per capita GDP for the period 1960-87. When panel data were employed to explore the relation between financial development and economic growth for 12 Latin American countries during the period 1950-85, they, however, found a robust and significant negative correlation between them. They argue that the latter finding is the result of financial liberalisation in a poor regulatory environment.

A number of studies have examined the relationship between stock markets and economic growth. These include Demirguc-Kunt and Levine 1996, Bencivenga et al 1996, Levine and Zarvos 1996 and Levine 1991. Although stock market development is a common feature of financial and economic development, many analysts view stock markets in developing countries as casinos that have little positive- and potentially a large negative- impact on

economic growth (Demirguc-Kunt and Levine 1996). Other analysts argue that because not much corporate investment is financed through issuance of equity (Mayer 1988), stock markets are unimportant for economic growth.

Levine (1991) and Bencivenga et al (1996) have shown that stock markets may affect economic activity through the creation of liquidity. Many profitable investments require a long-term commitment of capital, but investors are often reluctant to relinquish control of their savings for long periods. Liquid equity markets make investment lees risky and more attractive because they allow savers to acquire on asset-equity and to sell it quickly and cheaply if they need access to their savings or want to alter their portfolios. Increased liquidity can deter growth by, first, increasing returns to investment: Greater stock market liquidity may reduce saving rates through income and substitution effects; secondly, by reducing the uncertainty associated with investment, grater stock market liquidity may reduce saving rates because of the ambiguous effects of uncertainty on savings; thirdly, stock market liquidity may adversely affect corporate governance (Demirguc-Kunt and Levine 1996).

Stock markets may also affect incentives for investors to acquire information about firms. Larger, more liquid markets make it easier for an investor who has obtained information about a firm to trade at posted prices. Thus, information becomes widely available and prices change (Kyle, 1984). By contrast, Stiglitz, (1985, 1994) argues that developed stock markets quickly reveal information through price changes. This quick public revelation creates a free-rider problems, it reduces incentives for investors to expend lots of resources in obtaining information about firms because investors can get this information by observing prices.

Levine and Zarvos (1996) construct aggregate indexes of overall stock market development that combine information on stock market size, liquidity and international integration. They use instrumental variables procedures and control for many other variables associated with economic growth and stock

market development. After controlling for the initial level of GDP per capita, initial investment in human capital, political stability, the level of banking development, and measures of monetary, fiscal and exchange rate policy, the predetermined component of stock market remains positively and significantly correlated with long-run economic growth. The results are consistent with theories and historical analyses that imply a positive relationship between stock market development and economic performance. Haber (1991) documents the positive impact of capital market development and capital market reform on competition and industrialisation using evidence from Brazil, Mexico and the United States during the nineteenth and early twentieth centuries.

8.3.5 Trade Policy

Theory suggests that high levels of openness or increases in openness promote better economic performance. Static allocative efficiency gains suggest that greater openness yields unambiguously in terms of a higher level of output. Liberalisation in highly distorted economies improves existing resource allocation across sectors, across firms in a sector and within firms in a sector. In a dynamic sense, liberalisation is also intended to activities that are profitable under the new incentive system. Given that the static gains of removing even relatively large distortions have been shown to be modest, economists have turned to endogenous dynamic effects of outward-oriented trade policies on productivity growth and externalities (Romer 1986, Lucas 1988, Edwards 1991). In these models, openness to trade provides access to imported inputs, which embody new technology, increases the effective size of the market facing domestic producers, which raises the returns to innovation, and affects a country's specialization in research-intensive production (Edwards 1992, Helpman and Grossman 1991).

Quah and Rauch (1990) have developed a model with intermediate goods where freer trade results in an acceleration of the equilibrium rate of growth. In their model a closed economy has to produce a large array of intermediate

goods and thus is likely to run into bottlenecks. Freer trade, then, allows the country to relax these bottlenecks and thus to grow faster than under autarky. Taking a different perspective, which perhaps is more relevant to LDCs, Edwards (1991) emphasized the role of freer trade in generating technological progress. In this model, a higher degree of openness allows small countries to absorb technology developed in the advanced nations at a faster rate and thus to grow, in equilibrium, more rapidly than with a lower degree of openness. Focusing on the negative effects of trade distortions, Krueger (1974) and Grossman and Helpman (1989) show that quotas may divert resources out of productive activities into rent seeking endeavour. These distortions can slow the rate of technological improvement and retard growth.

Empirical research has generally found a positive relationship between greater openness, trade liberalisation and economic performance (Krueger 1978, Bhagwati 1978, Balassa et al 1982, World Bank 1987 and Edwards 1993). Several indicators of openness were included as explanatory variables in the growth regressions: the share of exports in GDP, the share of trade in GDP and an index based on the classification made by the World Bank in the World Development Report (1987). In the study by De Gregorio (1992) none of these variables was found to have significant effects on output growth. The reasons for this findings were (i) that the sample was inadequate to address the question of openness and growth, (ii) growth in Latin America countries during the sample period had taken place under the auspices of strong import substitution and (iii) lack of variability in trade policies across the sample countries.

In a cross-country study covering the period 1967-87 on some 37 sub-Saharan African (SSA) countries, Martin (1992) tests whether the finding that increased openness improves economic performance holds true for SSA. Econometric analysis using the augmented production function that includes labour, capital and a measure of openness, shows that trade reform exerts significant impact on the economic performance of the countries of SSA.

Martin (1992) finds the evidence of a positive link between openness and performance surprisingly robust to different measures of openness, to different periods, and to the inclusion of other policy variables.

Dollar (1992) obtains results which show that trade liberalisation and appropriate exchange rate management improve growth performance. In a study on 12 Latin American countries for the period 1950-85, De Gregorio (1991) finds no support for the hypothesis that openness affects growth positively. Though empirical studies that attempt to relate continuous, objective and internationally comparable measures of trade policy with growth have thus far met with only mixed success (see Pritechett 1991 and Rodrick 1988, Levine and Renelt 1991), recent studies using more appropriate price and policy-based measures of openness confirm the countries (Edwards 1992, Dollar 1992 and Harrison 1990).

Sachs (1987) compares the economic performance of newly industrializing countries in East Asia and the economies of Latin American countries when faced with similar shocks. He argues that the superior performance of the former was due to the greater export orientation. More recently Edwards (1993), in his study of Latin American countries, investigated the interaction between trade policy and productivity growth. It was found that countries that were more open to the rest of the world experienced faster growth in total factor productivity than countries with high trade barriers.

Ojo and Oshikoya (1995) included the export growth rate, share of exports in GDP, the terms of trade, and index of volume of exports as measures of openness. The growth rate of exports was found to be significantly positive. The estimated regression coefficient indicates that a 10 percent increase in exports will raise per capita output by 1 percent per year. The share of exports in GDP was not very significant as an explanatory variable in the growth equation. The terms of trade were found to be negative and statistically insignificant with growth. In an export study, Feder (1983) examined the proposition that reallocation of resources into export activities

will accelerate growth if marginal productivities are higher in export goods sectors compared with other sectors of the economy. Fosu (1990), in his study on exports of African countries, finds a positive and significant relationship between exports and economic growth. A 10 percent increase in the growth of exports independently augments economic growth by slightly over 1 percent on average. A comparative study by Lussier (1994) has found a positive and significant relationship between growth and exports.

Changes in the terms of trade have also been found to be important for long-term growth. Easterly et al (1993) found that over the 1980s, for example, a negative terms-of trade shock averaging 1 percentage point of GDP a year, lowered growth by 0.8 percentage points a year in Africa.

8.3.6 External Debt

Several attempts have also been made by studies to look at the effects of external debt and interest payments on debt, on economic growth. Ojo and Oshikoya (1995) used share of external debt in GNP in the analysis. Their results show that external debt is inversely related to growth. The coefficient was statistically significant. The findings by Otani and Villanueva (1990) show that the real interest rate on external debt affects growth negatively. The coefficient was statistically insignificant.

8.3.7 Political Instability and Growth

Political volatility and poorly enforced property rights create uncertainty as the ability of individuals to reap the benefits of investments in physical and human capital is discouraged. Thus, increased uncertainty associated with these phenomena will tend to lower investment and growth. Bromely (1991) has observed that 'getting the rules right' is as logically important as 'getting prices right'. Barro (1991) finds that social indicators of war, revolution and civil liberties are negatively related to growth. But, there is no significant relationship between these measures of political instability and measures of

monetary or exchange rate variability, thereby highlighting the difficulties in drawing causal links. Fosu (1992) shows his index of political instability to be a significant determinant of GDP growth across Africa.

Kormandi and Meguire (1985) introduced an index of civil liberties into their cross-country growth equation. They find a positive but insignificant impact of civil liberties on economic growth. Ojo and Oshikoya (1995) attempted to capture the influence of political instability on growth. The results were less successful. It was only the index of civil liberty that had the expected sign and was also significantly different from zero.

8.3.8 Exchange Rate Policy and Economic Growth

In recent years, exchange rate policy in developing countries has received considerable attention. A study conducted by Demeke (1992) on a sample of 30 sub-Saharan African (SSA) countries for the period 1950-88 concluded that the effects of currency depreciation on output and exports was at best significant. However, using data for the period 1965-89, Balassa (1989) analysed SSA economic performance in general agricultural exports in particular. He found that a 1 percent change in the real exchange rate is associated with a 0.8 to 1 percent change in the exports-GDP ratio. Estimating a reduced-form real output equation using data for 12 countries, Edwards (1986) found that, with all things being equal, devaluation has a negative short-run effect on output. After one year, however, this negative effect on output was completely reversed and, in the long-run, devaluations were found to be neutral.

8.3.9 Population Growth

Several studies have also attempted to investigate relationship between the population growth rate and economic growth. These studies include Ojo and Oshikoya (1995), Otani and Villanueva (1990), and Becket et al (1990). In the pooled estimation by Ojo and Oshikoya (1995), the coefficient on

population growth rate is found to be negative and significant. The coefficient also tends to suggest that an increase in population growth more than offsets the growth rate of per capita output for an average country in the sample. In endogenous growth models, such as those of Becker at al (1990), an increase in net fertility, and by extension an increase in population growth, tend to reduce the desired saving rate with an adverse impact on per capita growth.

In the study by Otani and Villanueva (1990), the effect of the population growth rate on per capita income growth was highly significant and negative. The size of the coefficient was less than unity in absolute value, suggesting that an increase in population growth would reduce per capita income growth only partially for an average developing country. This implies that production in such an average economy takes place at a point where a decline in the capital-labor ratio leads to a small reduction in output per worker, i.e. marginal product of capital is relatively low (Otani and Villanueva, 1990).

8.4   Investment-Led Growth Hypothesis

The precise relationship between capital accumulation and economic growth has received a great attention in theoretical and empirical work in economics. There are both empirical and theoretical arguments for and against the thesis that capital formation is the key to economic growth and therefore that differences in growth rates among countries, developed and developing, lie in differences in their savings or investment ratios. In general, neoclassical growth theories, which incorporate the idea of savings providing a limit to investment, deny that the rate of growth is directly dependent on the investment (savings) ratio. Since Solow's celebrated 1957 paper, technical progress has been accepted as the most significant source of economic growth. Many argued that a large portion of growth rates assigned to technical change must be ascribed to capital formation because it is through investment that new technologies are, in the main, introduced into the production process. When investment is married to technology, which is what Phelps (1962) calls the "new view" of investment, the role of investment is to

modernize as well as deepen and widen the capital stock. Many researchers attempted to switch back to the importance of capital accumulation by relating technical change to investment in the endogenous investment hypothesis.

In his effort to elucidate the effects of capital accumulation, Hill (1964) examines the relation between the ratios of investment to GNP and the rate of growth of GNP on the one hand and GNP per person employed on the other. His regression, has shown that the rates of growth of GNP achieved by the United States and the four largest European countries – France, Italy, the United Kingdom, and West Germany – have been quite strongly associated with the shares of national product devoted to investment. When the correlation is obtained for the relation between investment ratios and growth rates of GNP per person employed, Hill finds much weaker or almost no relationship between growth and investment.

In addition to showing that high growth rates might be associated with high investment ratios, Hill demonstrates the need to distinguish between different types of capital and output if much progress is to be made in understanding the relation between economic growth and investment at the level of the economy as a whole. There are reasons for expecting different types of investments to have different impacts on the growth of measured output. As between two projects with the same initial outlay on capital, but involving assets with very different lengths of life, the project with the longer lived assets will tend to yield a smaller flow of output over time.

Pesmazoglu (1972) investigated the pattern of relationships between investment and economic growth by different groups of countries and by periods covered in the analysis. In an effort to take into account the effect of technical progress on economic growth, Pesmazoglu (1972) introduces rates of growth of real gross fixed capital formation into his equation, while most investigators before him used only average gross fixed capital investment ratios in their analyses. The general finding by Pesmazoglu (1972) is that investment is particularly important in the long run and that this is especially

true in economics at an intermediate stage of development. The regression results indicate that varying growth rates of GNP over the period 1957-1968 appear to be more closely associated with the growth rate of investment or saving in GNP over the period, confirming the influence of investment as a carrier of technical progress on output growth.

In his effort to examine the relationship between saving and inflation, Thirlwall (1974) takes up the relationship between economic growth and saving or investment. Using the sample of 20 developed countries, he finds a positive association between the growth rate of income and the saving rate. The association is slightly stronger when the growth rate of output is related to the investment ratio. The correlation of growth rates of total income with the savings or investment ratios is stronger than that of growth rates of per capita income with either of them. One possible explanation for the stronger association of saving or investment with the growth of total income than with the growth of per capita income, as found not only by Thirlwall but also by Hill OECD, is that the use of capital depends on the availability of labour.

Romer (1989) uses the share of both the private and government investment in GDP to investigate the correlation between the rate of growth and technological change. His findings support the positive and significant relationship between investment and the rate of growth in the long-run. Romer (1989) argued that the finding that the investment share is strongly related to the level of income, or more broadly to the general level of development, is not predicted by the theory. In particular, there is no reason to expect that a higher level of development is correlated with a higher rate of technological change. On the contrary, one would expect just the opposite since less developed countries can catch up with the level of technology in developed countries. Presumably, this relation reflects something about institutions or preferences that varies systematically with level of development and leads to a level of investment that is higher for reasons that have nothing to do with the rate of technological change (Romer, 1989).

In his study, Fischer (1993) incorporated the share of investment in GDP in the growth model. The results show a robust relationship between growth and investment. Ojo and Oshikoya (1995) also found similar results. In their study, the size of the coefficient of investment ratio suggests that a 10 percentage point increase in the investment rate increases the long-term growth of per capita output by 2 percentage points for an average economy. De Gregorio (1992), in his study on Latin American countries, uses foreign investment in his equation. The results show that on average foreign investment is three to six times more efficient than total investment. He argued that the results should not be too surprising since total investment data includes several kinds of investment with large quality differentials. He further argued that the results not only reflect that the productivity of foreign investment is higher than that of domestic investment, but may also show the positive effect of capital inflows on growth. Barro (1991) finds also a positive correlation between growth and investment.

The empirical tests reviewed above provide mixed results for the investment-led growth hypothesis which maintains that differences in growth rates can be accounted for primarily by differences in the volume and structure of capital accumulation. Because of the limited availability of data, some who have wrangled in a sophisticated manner over the theoretical issues have used far standards when it comes to empirical tests of their theories. We can question comparability and consistency in data among sample countries even though each study used the best data available at the time of the empirical investigation. Given these and other limitations in the existing empirical tests, evidence based on small homogeneous samples confirms the investment-led growth hypothesis. However, when the sample is extended to include a large number of countries or to cover a longer period of time, the relationship between economic growth and capital formation becomes less close. The magnitude of the size of the regression serves as coefficient of the investment ratios, approximation of the marginal output-capital ratio or the marginal productivity of capital varies so much from study to study as to work against the hypothesis.

The investment-led growth hypothesis states that the rate of growth in national product depends on how fast real capital increases. This consideration has led policymakers aiming at economic growth to concentrate on actions designed to increase investment. The results of such policies have always not been up to expectations (Choi, 1983).

8.5   Summary

This review follows a thin and selective thread from the major classical economists to the neoclassical growth model to the neo-Keynesian growth model to the endogenous growth models of the last two decades of the twentieth century. We also note the contributions of development economists to the study of growth. Indeed many development economists moved away from the neoclassical growth model for the same reasons that the new growth economists modified it: the neoclassical growth model failed to explain important aspects of economic development (Easterly et al, 1991).

The neoclassical growth model provided a framework for the growth accounting literature's attempt to quantify the contribution to growth of each physical input and productiveness. Analyses by Norswothy (1984), Chenery et al (1986) and Maddison (1987) suggest that physical factor inputs account for only 50-70 percent of the growth rate of output. As there are arguments as to the precise percentage [see Jorgenson, Gollop and Fraumeni (1987) and Baily and Schultze (1990)]. A limitation of the neoclassical growth model is that the steady state per capita growth rate is zero if the exogenously given rate of technological change is zero. The investment share does not affect steady state growth in the neoclassical growth model. Therefore, economic policy does not influence steady-state growth, economic policy affects the level of economic output or the transition to the steady.

Recent models seek to extend the neoclassical growth model such that growth is responsive to policy. Building on work by Arrow (1962) and Phelps

(1966), Romer (1986) makes technological change endogenous by assuming that technology is a public good but that private investment in capital increases the level of technology available to all entrepreneurs. The externality associated with investment overturns the assumptions of diminishing marginal returns to investment and yields a production function with increasing returns to scale, such that there is steady-state growth when there is sufficient investment. In Romer's (1986) study, a higher investment rate will accelerate economic growth. Therefore, economic policies that alter the investment rate will affect economic growth[34].

Similarly, Lucas (1988) builds a model based on Uzawa (1962) with increasing returns that arise from external effects associated with human capital. Lucas (1988) emphasizes that workers interact with colleagues such that every individual's productiveness depends on the human capital of others. Thus, private investment in human capital by an individual increases his own productiveness but also increases the human capital and productiveness of others. Consequently, alterations in the incentives to invest in human capital have long-run growth implications. In an attempt to understand the economic forces and public policies that influence technological advancement, recent work has also followed Schumpeter (1911, 1942) who argued that invention – the advancement of knowledge – and innovation – the implementation of such knowledge – depend on the lure of profits. In terms of invention, the energizing role of monopolistic profits and market scale is the central component of Romer's (1987, 1990) recent characterization of economic growth. The invention of new technologies increases the productive capabilities of the economy, while the technology producer receives monopolistic profits. In terms of innovation, Schmitz (1989) formalizes the economic incentives behind the adoption of technology for productive endeavours and the adaption of the technology for particular environments. Since developing countries do not enjoy a comparative advantage in inventing new technologies, carefully studying the economic

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[34] In a different model, Scot (1988) argues that the act of investment itself creates new investment opportunities. Therefore, increasing investment can have dynamic effects that raise the economy's growth rate.

incentives and public policies underlying the exploitation and adoption of existing technologies for domestic commercial purposes seems to be particularly relevant (Easterly et al, 1991).

These new growth models provide a rich environment in which to study the role of government. Not surprisingly, these models yield policy conclusions that are similar to many classical and development economists. Within the context of simple endogenous growth models, Rebelo (1991) exemplifies the effect of taxation on growth. However, modelling and measuring the full complexities of fiscal policy are difficult even within the sample model of the new growth literature. Barro (1990) and Easterly (1990) have captured some of these complexities. In the area of trade policy, Adam Smith (1776) argued that international trade may enhance productivity by allowing economic players to specialise in activities that would be unprofitable in smaller markets and by allowing countries to exploit economies of scale in their areas of comparative advantage. These ideas where further developed by Mill (1848) and Schumpeter (1911, 1942), and the relationship between trade, economies of scale, and growth has been studied extensively.[35]

Direct foreign investment has received less attention than trade in the growth literature. Findlay (1978) studies the effects of policies restricting direct foreign investment and international capital flows in a standard growth model. Helleiner (1990) provides in the books by Wallace (1990), Cable and Persaud (1987) and Moran (1986) and in the survey more general discussions of policies toward direct foreign investment. The theoretical links between financial markets and growth are also strong. Schumpeter (1911) argued that well-functioning capital markets were necessary if entrepreneurs were going to raise capital for new technology-improving projects, and this theme was echoed and extended by Mackinon (1973) and Shaw (1973) and many others. Levine (1990, 1991) examines the effects on growth of taxing financial market activities.

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[35] See Kuznets (1960), Balassa (1978), Denison (1967), Corden (1972), Holden (1997) and

In conclusion, the brief survey of the growth literature raises most important issues. First, the broad forces behind economic growth – accumulation of produced factors, specialization; Secondly by building on the insights of growth and development economists, the new theoretical literature on growth is also contributing models and show specific channels through which national policies may affect long-run growth rates. Finally, the empirical work on linking national policies to growth will be relevant for policymakers in the Southern African Customs Union (SACU) Countries.

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many others.

CHAPTER NINE

9 METHODOLOGY AND ESTIMATION OF RESULTS

9.1 Introduction

In this chapter we specify and estimate the model linking macroeconomic policies to the growth of real GDP. This is very important because it will determine the extent to which the theoretical relationships involved in the endogenous growth framework surveyed in the previous chapter stand up against growth performance in the SACU countries. The most popular growth model that existed before neoclassical growth theory is the Harrod-Domar (1939, 1946). The model explained long-run economic growth by using the key features of Keynesian economics the multiplier of the stock of capital. The absence of a labour input in the production function implies that labour is always combined with capital in a fixed production. This then gave rise to the "razor's-edge" growth path.

The neoclassical model such as Solow (1956) and Swan (1956) seeks to analyse the case where capital and labour can be combined in varying proportions, and demonstrated a way out of the "razor's-edge" growth path of the Harrod-Domar growth model. In these original neoclassical growth models, production is assumed to exhibit constant returns to scale in capital and labour but decreasing returns to capital alone. In this framework the only possible steady state growth is zero. The explanation of long-run growth is based on the assumption that the economy becomes (exogenously) more productive over time due to technological progress. The main shortcoming of the neoclassical growth theory is its implication that macroeconomic policies that affect the savings rate can affect only the equilibrium level of output but not the rate of growth in GDP.

9.2   The model

The endogenous growth theories hold the potential for explaining aspects of growth that the standard neoclassical growth models are not equipped to deal with. For instance, in most developing nations where stabilisation measures have been implemented, considerable levels of under-utilisation of capacity exist (e.g. in Ghana, the rate of capacity utilisation at the beginning of the Economic Recovery Programme (ERP) was 30 percent). In such circumstances the appropriate macroeconomic policy mix could lead to growth (Jebuni et al 1991). Endogenous growth theory has therefore demonstrated that macroeconomic policies that affect savings and investment rates increase both the short-run and the steady state growth rates. Attempts to develop theoretical foundations for models in which policy affects the long-run steady state have led to a large and growing body of theoretical literature (Grossman and Helpman 1989, Lucas 1988; Barro 1991; Rebelo 1991 and Romer 1986).

The empirical growth model will always start with the neo-classical production function[36]:

$$Y_t = A_t F(K_t, L_t) \tag{9.1}$$

where Y = total output, L, K = capital and labour inputs respectively, and A = autonomous technical change

In growth terms, equation (9.1) becomes

where $\beta_z = (\delta Y/\delta Z)(Z/Y)$ and G_z is the percentage growth in variable Z. If we assume constant returns to scale and perfect competition, β is the factor share in output.

$$G_y = G_A + b_K G_K + b_l G_l \tag{9.2}$$

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[36] This section has benefited from the work of Ojo and Oshikoya (1995).

Elegant as this model is, particularly in permitting factor substitutability in growth models for the first time, this model and its variants have several shortcomings. In this model per capita income growth converges to zero in the steady state, and can grow in the long-run only at the rate determined by labour-augmenting technical progress. The most important shortcoming, at least from the point of view of developing countries, is that there is no scope for policies to influence the rate of growth of output in the steady state (Ojo and Oshikoya, 1995).

Some authors such as Romer 1986; Lucas 1988 and Rebelo 1991, have endogenised the neo-classical growth models in such way that the shortcomings of the neo-classical models can be eliminated. One way was to remove the fixed factor constraint by allowing for constant returns to scale to the reproducible factor. Another approach is to endogenise technological change by explicitly modelling the introduction of new technologies. The works of Otani and Villanueva (1990, 1991) and Khan and Villanueva (1991) are illustrative of this approach. This approach formulates a general equilibrium model of an open economy. By making assumptions concerning the dependence of the rate of labour-augmenting technical change on expenditures on human capital, the model is then solved for its reduced form.

These models are in the framework of general equilibrium theory, and have been less than useful to policymakers. But they have provided useful points of entry into growth models dealing with policy and empirical issues which are of direct interest to policymakers. The reduced-form model of Otani and Villanueva (1990) and its extensions are even capable of being estimated such that they can be rendered useful to policymakers.

Consider a simple production function with capital (K) and labour (L) as factors of production. In the absence of data on capital stock, the growth equation can be rewritten as

$$g_y = a_0 + a_1(I/Y) + a_2 g_1 \qquad (9.3)$$

where g_y = growth rate of output, I/Y = investment-output ratio, g_1 = growth

rate of labour force, a_i = coefficients.

Empirical studies of economic growth usually start with this basic equation and then add on other explanatory variables. But according to Renelt (1991), in equilibrium framework there can be no justification for this type of formulation. Another way of adding other structural variables to equation (9.3) is to assume that SACU countries are not on the world production frontier (T). Then equation (9.1) can be modified such that the production function for SACU countries can be rewritten as

$$Y = (T-q_t)\, A_t\, F(K_t, L_t) \qquad\qquad (9.4)$$

where q_t represents a measure of SACU countries' productive technology relative to world technology. Downward or upward trends in growth in any country are caused by differences in economic policies, educational attainment, trade distortions, or political instability and other factors.

9.3   Specification of the Model

Equation (9.3) is our starting point. As we allow disequilibrium effects as proposed by Chenery (1986), then other variables will be added in succession to this equation in order to arrive at the equation that explains the growth process.

$$g_y = \alpha_0 + \alpha_1(I/Y) + \alpha_2 g_1 + u \qquad\qquad (9.5)$$

where g_y = growth rate of output, I/Y = investment-output ratio, g_1 = growth rate of labour force, α_i = coefficients, u = error term

The other explanatory variables include the following:

TGDP = is the sum of exports and imports of goods and services as a share of gross domestic product

INF = inflation rate

POP = population growth rate

GCGDP = government consumption share in GDP

EXPRGR = export growth rate

EXPRGDP = export share in GDP

PER = primary school enrolment ratio

SER = secondary school enrolment ratio

MGDP = M2 as a share of GDP

EXPR = export of goods and services

SGDP = savings as a percentage of GDP

DU = dummy variable for South Africa and BLNS countries

IGRGDP = initial growth rate of real GDP

IGDP = investment as proportion of GDP

9.4   Estimation of the Model

This section analyses the determinants of long-term growth by regressing the growth rate of real GDP on a set of relevant variables in the SACU countries for the period 1974–1997. It should be also noted that, for the determinants of the investment regression equations, we used the sample period from 1980 to 1997. This is because the full sample period's results were not as robust compared to the results for the sub-period 1980–1997. A number of pertinent econometric issues are outlined prior to the estimation of the model and the presentation of the results. First, growth equations are estimated using panel data covering all (5) SACU countries. The countries are also sub-divided into two groups: leader and followers. Since, South Africa is a leading member in the customs union and determined all trade policies for the customs union, it has been regarded as a leader and BLNS countries are followers. When the dummy variable was introduced, South Africa was given 1 and BLNS countries were given 0. The inclusion of variables in various

equations was based on the performance of each variable and the analysis of a particular issue or environment. Political instability was included in various regression equations but due to its poor performance it has been deleted.

Secondly, several econometric techniques have been used to estimate growth equations for which time series and cross-section data are available. The econometric software Eviews 3 was used to estimate the growth equations. The first technique is to combine all cross-section and time series data and perform Pooled Least squares (PLS) regression (see for example, Hsiao 1986; Pindyck and Rubinfeld 1992). The second estimation technique is the General Least Square (GLS) – (Cross-Section Weights). The last estimation method used is Seemingly Unrelated Regression (SUR) for correcting both cross-section heteroskedasticity and contemporaneous correlation. The discussion of the estimation results and the significance of the each variable are organised along the following lines: (a) growth convergence; (b) physical investment; (c) population growth; (d) human capital investment; (e) macroeconomic environment; and (f) external environment.

9.5   Growth Convergence

According to neoclassical growth theory, the convergence hypothesis posits that because of diminishing returns to capital, GDP growth is likely to be inversely related to the initial level of per capita income, with the implication that there is a tendency for poor countries to grow faster than rich countries (Ojo and Oshikoya, 1995). Ultimately, growth rates in both poor and rich countries would tend to converge. Several empirical studies have examined this hypothesis. Barro (1991: 1-2) found in a cross-section study that per capita growth rates have little correlation with the starting level of per capita income. Baumol (1986) also found that while there is no tendency toward overall convergence; less developed countries, OECD countries and middle-income countries show a tendency towards convergence within groups.

Mankiw et al (1990) argue that the Solow model does not predict convergence, it predicts only that income per capita in a given country converges to that country's steady-state value. In other words, the determinants of the steady state, is a phenomenon that might be called conditional convergence. The new endogenous growth models, typically characterised by non-diminishing returns to factors of production, generally do not predict convergence.

Empirically, an unconditional convergence will yield a negative coefficient on initial per capita GDP where this is the only explanatory variable in the regression of per capita GDP growth rate. Conditional convergence will also involve a negative coefficient on initial per capita GDP after controlling for the effects of other explanatory variables. Endogenous growth models will predict a coefficient of zero on initial per capita income in a regression involving other explanatory variables. The per capita GDP growth rate is independent of the initial level of per capita income in these models (Ojo and Oshikoya, 1995).

The convergence hypothesis is tested in regressions of the growth rate of real GDP on the initial growth rate of real GDP. Table 9.1 indicates no evidence of unconditional convergence, that is, SACU countries show no tendency to grow together as a group. Therefore, the poorer countries in SACU do not tend to grow faster than the richer ones. In equation 1, the coefficient on the initial level of the growth rate of real GDP is positive, but its magnitude is (0.410) and its t-value are significant. This equation was estimated by using pooled least squares. In equation 2, the coefficient of the initial level of the growth rate of real GDP is also positive, but very highly significant. General Least Squares were used to estimate equation 2.

Table 9.1: Test for Unconditional Convergence

	1	2	3
Dependent variable	GRGDP	GRGDP	GRGDP
C	2.796 (2.681)	1.717 (3.324)	1.546 (3.390)
GRGDP	0.410 (2.908)	0.512 (4.899)	0.651 (8.930)
AR(1)	-.0765 (-0.473)	-0.233 (-1.890)	-0.307 (-3.307)
R-square	0.112	0.008	0.077
Adjusted-R^2	0.097	-0.009	0.055
D-W stat.	2.107	2.118	2.213

Source: Regression Results.

We have also attempted to estimate both equations by allowing fixed effects between SACU countries. The results were similar to Table 9.1. Equation 3 was estimated with Seemingly Unrelated Regression technique, the results also indicating no tendency to unconditional convergence in the SACU countries. The coefficient is also positive and highly significant at the 1 percent level.

Table 9.2 reports the empirical test of conditional convergence. The test is achieved by including other explanatory variables in the equation along with the initial growth rate of real GDP. It has been argued, however, that after controlling for variables that explain cross-country differences in the rate of technological progress, rates of output growth should converge (e.g. Barro and Sala-i-Martin, 1990). Regression 4 suggests that growth rates of real GDP tend towards convergence after controlling for variables that explain the main growth determinants. The coefficient of the initial real GDP growth rate is negative (-0.051) with t-value of -0.445. The results suggest evidence of conditional convergence, although the result is not statistically significant. The estimation method for equation 4 was Pooled Least Squares (PLS).

Table 9.2: Test for Conditional Convergence

Dependent variable	4 GRGDP	5 GRGDP	6 GRGDP
C	20.318 (4.543)	25.350 (3.684)	22.269 (3.725)
INF	-0.282 (-2.282)	-0.163 -1.175)	-0.146 (-1.311)
POP	-0.1456 (-0.187)	-0.156 (-0.949)	-0.936 (-0.139)
GCGDP	-0.357 (-2.773)	-0.215 (-1.733)	-0.364 (-2.627)
EXPRGR	0.0915 (4.344)	---------- ----------	---------- ----------
EXPR	0.001 (1.594)	---------- ----------	---------- ----------
IGDP	0.038 (1.327)	---------- ----------	---------- ----------
DU	-0.649 (-0.306)	1.246 (-0.677)	---------- ----------
IGRGDP	-0.051 (-0.445)	-0.150 (-0.804)	-0.174 (-1.270)
MGDP	-0.136 (-3.162)	-0.236 (-4.253)	-0.194 (-3.254)
SER	-0.024 (-0.815)	-0.059 (-1.668)	-0.075 (-1.600)
PER	---------- ----------	0.128 (0.300)	0.052 (1.235)
AR (1)	0.013 (0.11)	0.247 (1.257)	0.353 (2.373)
R-square	0.352	0.218	0.299
Adjusted-R^2	0.286	0.161	0.235
Durban-Watson stat.	2.275	2.028	2.186

Source: Regression Results.

Equations 5 and 6 were estimated by General Least Squares (GLS) – Cross Section Weights and Seemingly Unrelated Regression (SUR) respectively. The results also suggest evidence of conditional convergence in the SACU countries. In his study on Latin American countries, De Gregorio (1992) found that there is no evidence of unconditional convergence. But after

controlling for variables that explain cross-country differences in the rate of technological progress and rates of GDP growth, the results confirm the hypothesis of conditional convergence in the Latin American countries. Ojo and Oshikoya (1995) find similar results.

These results are consistent with the proposition that there are increasing returns to technology at low initial conditions. It also supports the findings of those who advocate that convergence is not a mechanistic inevitability as the physical and social infrastructure necessary to absorb new technology may not exist in all countries (Abramowitz, 1986). This is the case with the SACU countries, where we have South Africa as the leading member at a higher industrial development while the BLNS countries are very far from industrialisation. Although neither estimated coefficients are statistically significant, they seem to indicate that there is a rapid tendency towards non-convergence as the growth rate of real GDP diminishes in the SACU countries. These results are supported by the growth performance in the SACU countries during the period under consideration. Botswana has been regarded as an economic giant because of the good economic performance that resulted from discoveries of mineral resources and sound economic management. Lesotho's economic performance was very weak and resulted in the implementation of the economic reform programme under IMF and World Bank Structural Adjustment Programmes (SAPs) in 1988. Economic performance in Swaziland and Namibia was very low and at certain times these economies experienced negative growth. This has resulted in high budget deficits and increases in their debt external service ratio. South Africa's economy was characterised by high inflation and substantial capital outflows concomitant with weak economic performance.

9.6   Investment

The regression results in Tables 9.2, 9.4, 9.6 suggest that growth is positively related to the share of investment in GDP. From the equations estimated by panel data techniques the coefficient of the share of investment in GDP is

statistically insignificant in more than one regression equation but only significant in growth determinants equation 19. In Table 9.3, we look at the determinants of investment with the investment ratio in GDP as the dependent variable. The regression analysis of the determinants of investment was very highly sensitive to the estimation procedure and specification. The variables were insignificant or have wrong sign. The results in Table 9.3, which seem to be robust were obtained by analysing the data from 1980 to 1997.

Table 9.3: Determinants of Investment

	7	8	9	10
Dependent variable	IGDP	IGDP	IGDP	IGDP
C	-62.439 (0.254)	-10.157 (-0.116)	-34.534 (-0.228)	6.342 (0.188)
INF	-0.043 (-0.446)	---------- ----------	--------- ---------	-0.053) (-0.525
DU	---------- ----------	-89.525 (-0.355)	-5.224 (-0.064)	-32.866 (-0.465)
MGDP	0.213 (3.428)	0.194 (3.884)	0.204 4.419)	---------- ----------
SER	0.213 (1.716)	0.278 (2.503)	0.043 (0.549)	--------- ----------
TGDP	0.056 (1.486)	0.063 (1.851)	0.084 (2.876)	---------- ----------
GCGDP	---------- ----------	--------- ----------	-------- ---------	(0.117) (0.673)
SGDP	0.043 (1.045)	---------- ----------	0.041 (1.463)	0.052 (1.074)
AR (1)	0.993 (37.368)	0.990 (34.698)	0.993 (33.779)	0.985 (30.478)
R-square	0.955	0.968	0.934	0.941
Adjusted-R^2	0.951	0.992	0.928	0.937
Durban-Watson stat	1.463	1.796	1.753	1.383

Source: Regression Results.

The coefficient of the share of exports and imports in GDP (TGDP) and the secondary school enrolment ratio are positive and significant in more than one regression equation in Table 9.3. The direct effect of the share of exports and imports in GDP on investment is very high. The secondary

school enrolment ratio significantly affects overall investment in a positive direction. The inflation rate and the South African dummy affect investment negatively and statistically insignificant in the SACU countries. Gross domestic savings as a ratio of GDP have shown a positive but insignificant relationship with investment. This variable was very highly sensitive to the estimation techniques and model specifications. This may be due to the very low savings rate in the SACU countries, especially Namibia, Swaziland and Lesotho, and the influence of multicollinearity. The share of broad money supply (M2) in GDP is positively and significantly related to the share of investment in GDP. M2 shows the role financial deepening in an economy. The results show how the financial sector has played an important role in promoting investment in the SACU countries for the period under consideration. The financial sector is vital in the economy through the mobilisation of savings for potential investors.

9.7 Population Growth

In our pooled estimation context, the coefficient on population growth rate is found to be negative and insignificant (see equations 4, 5, 6 in Table 9.2). Population growth rates averaged 2.2 percent in South Africa and Lesotho, 3 percent in Namibia and Swaziland, and 3.3 percent in Botswana. The coefficient of population growth tends to suggest that an increase in population growth more than offsets the growth rate of real GDP for an average country in SACU. The combined impact of a high population growth rate and low investment tends to suggest low average capital-labour ratio. As mentioned in the previous chapter, in endogenous growth model, such as those of Becker et al (1990), an increase in net fertility, and by extension, an increase in population growth, tends to reduce the desired saving rate with an adverse effect on GDP growth. Similar results were found by Ojo and Oshikoya (1995) and Otani and Villanueva (1990), but their results were highly significant.

9.8 Human Capital

The role of human capital in the development process has long been recognised in literature. The consensus in t literature is that investment in human capital accumulation increases the efficiency of labour and thereby promotes growth. The literature is also full of references to the development experience of East Asian countries where the governments invested heavily in education. In an overlapping generation's model, Jones and Manuelli (1990) found that policies, which redistribute income to the young, such as public education, might have increased growth. The general conclusion is that human capital formation can have a large impact on long-run economic growth.

In our empirical study, human capital is accommodated by the inclusion of secondary and primary school enrolment ratios. These variables show mixed results. In most regression equations, the secondary school enrolment ratio affects growth negatively and insignificantly. In the investment equations the impact is positive and significant in two equations. The primary school enrolment ratio seems to affect growth positively and significantly in regression equations 19, 20, 21 and 22 in Table 9.6. In the investment determinants analysis, the primary school enrolment ratio seemed to have no impact on investment, and the results were not desirable, so the variable is excluded from the analysis of investment determinants. In the word of Renelt (1991), these variables do not show a strong positive effect on growth. This study experienced similar difficulties to a lesser extent.

The poor performance of the indices for human capital can be traced to three factors (Ojo and Oshikoya, 1995). The first is the measurement problem. It is not clear if any of the proxies (school enrolment ratios, literacy rates, etc.) accurately accord with the theoretical concept of human capital. Second, the lack of a positive and significant relationship between these variables and economic growth could arise because of very long lags associated with

investment in education and economic growth. Finally, the definitions and measurements of these variables are likely to vary across countries and over time. In a cross-sectional study, therefore, these variations may significantly affect the results.

In the Southern African Customs Union countries, education has been in crisis for many years, especially in Namibia and South Africa. As pointed out in Chapters 3 and 6, this was attributed to the apartheid policy that has discriminated between black and white education. More resources in the education sector have been allocated to white education to the neglect of the majority of the black population. In Botswana, the government has emphasised primary education for many years and more resources were allocated to this sub-sector. It should be noted that only recently has the government adopted the policy of free education to the Batswana. In Lesotho and Swaziland the literacy rate was slightly higher than in other SACU countries. Especially in Lesotho, primary education enrolment is almost universal, the rate for girls being one of the highest in sub-Saharan Africa, at 75 percent (EIU, 1998/99). But there have been no recent improvements in the availability of facilities, and pupil performance measured by examination has been declining.

9.9   Domestic Environment

Pindyck (1991) and Roderick (1991) have emphasised the importance of the unstable and uncertain macroeconomic policy environment in affecting aggregate investment and growth. High and unpredictable inflation, a proxy for macroeconomic instability, distorts the information content of market prices and the incentive structure. This could impact negatively on the level and productivity of investment and, hence, growth. The impact of inflation on growth is reported in most of the tables. Inflation is found to affect growth negatively, and is statistically significant in equations 11, 13, 14, 20 and 22. We have also introduced inflation in the investment determinants' equation.

The results show that inflation is negatively and insignificant related to investment. De Gregorio (1992), Ojo and Oshikoya (1995), and Easterly et al (1997) find similar results. The anti-growth effect of inflation appears to be very important in most model specifications. The highly negative coefficient for the inflation variable in Table 9.6 confirms the negative role played by macroeconomic instability on growth. As discussed in Chapter 6, South Africa experienced high inflation that has been exported to the BLNS countries because 80 percent of their imports are sourced from South Africa. The marked decline in real GDP growth in the 1980s and early 1990s can indeed be attributed in part to the particularly high inflation rate pertaining at those times.

The share of broad money supply (M2) in GDP affects growth negatively and is highly significant in most of the equations. The results are not in line with the McKinnon-Shaw hypothesis that indicates the role of financial deepening in economic development. Except for Botswana, SACU countries are in the same Common Monetary Area (CMA). The national currencies of LNS countries are pegged to the South African rand on a one-to-one basis. The South African Reserve Bank is the sole authority that affects the exchange rate in the CMA. Therefore, monetary variables in the regression analysis might have some econometric problems such as multicollinearity and autocorrelation. In addition, Namibia was run as a fifth neglected province of South Africa before 1990, and the financial sector before 1990 was incorporated into the South African financial system. As reported earlier, investment affects growth positively but it is statistically insignificant. Kormendi and Meguire (1985), Ojo and Oshikoya (1995), De Gregorio (1992), and Easterly et al (1997) found similar results, but their results were highly significant. As a result of poor performance of investment in the growth equations, we have introduced the share of gross domestic savings in GDP in equation 13. The results show that savings affect growth positively and significantly at the 5 percent level. Similar results are found in Otani and Villanueva (1990). Equation 11 and equations 12 to 14 were estimated by

pooled least squares and seemingly unrelated regressions respectively.

It has been observed that government consumption is an indirect measure of distortion in the economy. The negative relationship between government consumption and the growth rate of real GDP may arise because, according to Easterly and Wetzel (1989), higher spending requires either levels of distortion of resource use or more crowding out of private activities. Government consumption may also be associated with high implicit taxes on firms through regulation, so increased spending may signal distortions other than those implied by the taxes needed to fund the spending (Romer 1989).

Government consumption is added in the domestic environment growth regressions 11 to 14. The share in GDP of government consumption affects the growth rate of real GDP negatively, and the coefficient is significant in all the equations. The coefficient suggests that an increase in government consumption from 30 percent to 50 percent causes a reduction in the growth rate of about 3 percentage points for an average economy. The issue of whether government consumption crowds out investment is analysed with regressions 12 to 14, where investment is excluded from the growth equation. The coefficient remains statistically negative at the 1 percent level. The results suggest that crowding out is negligible. When government consumption is introduced in the investment equation, it has a positive but insignificant effect on investment. Thus, it appears that the adverse impact of government consumption on growth is not through a crowding out of investment. This result should, however, be interpreted cautiously as government consumption may crowd out private investment while being complementary to public investment. Ojo and Oshikoya (1995) find the similar results.

Table 9.4: Impact of Domestic Environment

Dependent variable	11 GRGDP	12 GRGDP	13 GRGDP	14 GRGDP
C	18.174 (3.293)	-0.132 (3.641)	17.110 (3.758)	17.508 (3.834)
INF	-0.287 (-1.692)	-0.132 (1.191)	-0.1748 (-1.648)	-0.230 (-2.206)
DU	-6.628 (-2.854)	---------- ----------	-7.838 (-6.146)	-6.747 (-5.800)
MGDP	---------- ----------	-0.226 (-5.135)	---------- ----------	----- -----
SER	0.001 (0.011)	-0.097 (-2.377)	---------- ----------	------ ------
PER	0.023 (0.451)	0.054 (1.230)	0.035939 (1.118)	0.013 (0.411)
POP	---------- ----------	-0.8187 (-0.818)	-------- ----------	-0.573 (-0.554)
GCGDP	-0.514 (-2.952)	-0.308 (-2.628)	-0.477 (-3.783)	-0.394 (-3.200)
IGDP	0.009 (0.231)	--------- ---------	---------- ----------	--------- ---------
IGRGDP	---------- ----------	-0.204 (-1.620)	--------- ---------	--------- ---------
SGDP	---------- ----------	-------- --------	0.042 (2.212)	--------- ---------
AR (1)	0.175 (1.956)	0.389 (2.859)	0.215 (2.451)	0.228 (2.627)
R-square Adjusted-R^2 D-W stat.	0.229 0.181 2.060	0.296 0.234 2.193	0.226 0.178 2.1081	0.216 0.174 2.133

Source: Regression Results

9.10 External Environment

The external environment and the degree of openness are factors that affect economic performance in the sub-region. Several indicators reflect measures of openness, including the export growth rate, share of exports in GDP, and the sum of exports and imports of goods and services measured as a share

of gross domestic product. The proposition that openness positively affects growth could not be supported by the data when the sum of exports and imports of goods measured as a share of GDP was used as an indicator of openness. One possible reason for this result may be that our measure of openness is a poor indicator of the trade regime. We tried to use terms of trade for openness. The data were obtained from various sources and was only from 1980. We have also tried to lag the terms of trade but the regression results were not robust. Hence, the variable is excluded from the analysis. The results are in appendix 7. We have also tried to collect the data on real effective exchange rate but the data obtained was not enough for regression analysis. The poor performance of the external environment might be due to the different effects of exports and imports. Because the BLNS countries have had an advantage of having access to other markets through Lome Convention while South Africa has had sanctions.

Table 9.5: Impact of External Environment

Dependent Variable	15 GRGDP	16 GRGDP	17 GRGDP	18 GRGDP
C	1.628	8.176	0.942	-0.782
	(0.54)	(2.167)	(0.451)	(-0.708)
IGDP	0.063	----------	----------	----------
	(1.547)	----------	----------	----------
EXPRGR	0.081	0.081	0.095	0.079
	(3.739)	(3.517)	(3.704)	(3.885)
EXPR	0.001	-0.002	-0.0001	----------
	(0.919)	(-1.430)	(-0.166)	----------
EXPRGDP	----------	0.024	-0.004	0.014
	----------	(0.674)	(-0.118)	(0.484)
DU	----------	-5.593	----------	----------
	----------	(-2.005)	----------	----------
TGDP	----------	-0.029	0.022	0.032
	----------	(-1.003)	(1.446)	(2.344)
AR(1)	0.153	0.113	0.132	0.193
	(1.782)	(1.263)	(148)	(2.316)
R-square	0.210	0.131	0.089	0.170
Adjusted-R^2	0.176	0.084	0.049	0.141
D-W stat.	2.180	2.121	2.153	2.185

Source: Regression Results.

The growth rate of exports is found to be significantly positive at the 1 percent level in all the equations. The share of exports in GDP itself is not very significant as an explanatory variable in the growth equations. Feder (1983) examined the proposition that a reallocation of resources into export activities will accelerate growth if marginal productivities are higher in export goods sector compared with other sectors of the economy. A possible interpretation of these results is that faster export growth contributes to the growth rate of GDP, particularly by increasing the supply of foreign exchange needed to support raw material and intermediate goods imports which are essential for rapid growth, while economic openness affects economic growth indirectly through its effect on total investment. The share of export and import trade in GDP shows mixed results in our analysis. It was very sensitive to the specification of the model. The level of exports does not affect output growth in the SACU countries. The coefficient is almost zero in the equations where exports have been added in regression, and is statistically insignificant.

9.11   An Assessment of Growth Determinants

The discussion in the previous section has concentrated on the evaluation of the statistical significance and the expected sign of the estimated coefficients of each variable. In this section, we shed some light on the statistical significance of some key variables, and devote the remaining part to the relative importance and the robustness of each variable in determining growth. The most important explanatory variables considered in most of our regressions include the inflation rate, broad money supply, government consumption, the sum of exports and imports of goods and services as a share of gross domestic product, the export growth rate, gross domestic savings, the primary school enrolment ratio, gross domestic fixed investment, and a dummy variable for SACU countries. These variables appear to be statistically significant in at least one regression equation and carried the same sign regardless of the estimation method or technique. The other variables considered include initial growth rate of GDP, secondary school enrolment ratio, population growth rate, exports, and the share of exports in

GDP. But these variables were sensitive to the estimation procedure and specification.

On the other hand some variables have the expected sign but are statistically insignificant, especially the population growth rate. However, when we run regression without the human capital variables, the population growth rate turned out to be highly significant (see appendix 3). Regression equation 19 was estimated by Pooled Least Squares (PLS) and equation 23 was also estimated by PLS, but we applied White's test for heteroskedasticity-consistent standard errors and covariance. Regression equation 21 was estimated by Generalised Least Squares (GLS) – Cross-section Weights, and regression equation 22 was also estimated by GLS but we applied White's test for heteroskedasticity-consistent standard errors and covariance. Equation 20 was estimated by Seemingly Unrelated Regression (SUR) for correcting both cross-section heteroskedasticity and contemporaneous correlation.

From Table 9.6, it can be seen that the primary school enrolment ratio and the growth rate of exports affect growth positively and significantly in most equations. The share of gross domestic savings in gross domestic product also affects growth positively. The t-values are at least significant at the 5 percent level. The share of gross domestic fixed investment in gross domestic product relates positively to economic growth. The significance of these variables was sensitive to the estimation procedure and specification, although it is statistically significant at 5 percent level in regression equation 19. The government consumption share in GDP affects growth negatively, and the results show this effect is significant in all the regression equations. As mentioned earlier the share of broad money supply affects growth negatively[37].

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[37] The detail of these results is discussed in section 9.9.

Table: 9.6 Determinants of Growth

Dependent Variable	GRGDP 19	GRGDP 20	GRGDP 21	GRGDP 22	GRGDP 23
C	27.272 (4.570)	19.206 (3.552)	20.703 (2.903)	22.620 (2.825)	28.486 (3.496)
INF	-0.220 (-1.575)	-0.231 (-2.470)	-0.109 (-0.894)	-0.171 (-1.715)	-0.132 (-1.426)
TGDP	-0.078) (-3.351)	-0.417 (-0.471)	0.027 (0.800)	0.008 (0.240)	-0.054 (-1.928)
GCGDP	-0.582 (-3.508)	-0.417 (-3.326)	-0.450 (-2.865)	-0.638 (-3.352)	-0.405 (-2.581)
EXPRGR	0.094 (4.519)	0.061 (3.801)	0.080 (3.513)	0.089 (2.447)	0.091 (2.302)
MGDP	-0.582 (-3.508)	-0.102 (-2.343)	-0.166 (-3.382)	-0.133 (-2.316)	-0.120 (-2.244)
EXPRGGDP	0.038 (1.339)	-0.109 (-2.343)	-0.151 (2.521)	-0.133 (-2.097)	0.011 (0.219)
DU	-9.543 (-2.864)	-6.146 (-2.401)	-6.032 (-1.936)	-8.396 (-2.799)	-7.446 (-2.594)
POP	-0.543 (-0.597)	-0.954 (1.395)	-1.087 (-1.156)	-0.367 (-0.362)	-1.476 (-1.518)
IGDP	0.069 (2.139)	---------	--------	---------	0.018 (0.276)
IGRGDP	-0.157 (-1.303)	0.176 (1.554)	-0.110 (-0.686)	-0.207 (-0.970)	-0.039 (-0.211)
SGDP	---------	0.075 (2.493)	0.104 (2.795)	0.093 (2.311)	---------
SER	-0.025 (-0.692)	-0.023 (-0.983)	-0.044 (-1.443)	-0.047 (-1.426)	-0.019 (-0.791)
PER	0.057 (1.683)	0.072 (2.282)	0.095 (2.332)	0.117 (2.655)	0.021 0.805
AR (1)	0.059 (0.480)	-0.249 (-1.957)	0.024 (0.137)	0.095 (0.467)	-0.021 (-0.107)
R-square	0.380	0.384	0.333	0.388	0.309
Adjusted-R^2	0.304	0.308	0.251	0.313	0.225
D-W stat.	2.262	2.136	2.185	2.273	2.156

Source: Regression Results.

Table 9.7: Relative Importance to Determinants of Growth

	Equation 1	Equation 2	Equation 3
Inflation	-0.0002	-0.0037	-0.0005
Export Growth	0.0003	0.0002	0.0003
Government Consumption	-0.0126	-0.0088	-0.0163
Broad Money Supply	-0.0015	-0.0006	-0.0043
Population	-0.1814	-0.1100	-0.0843
Initial GDP	-0.0032	0.0003	-0.0032
Savings	0.0007	0.0004	---------
Investment	---------	---------	0.0004
DU	-3.3351	-2.6561	-5.3677
Primary School	0.0007	0.0004	0.0003

Source: Author's calculation based on Table 9.6.

Table 9.7 provides further insight into the relative importance of the variables in determining growth. The results are beta coefficients or standardised coefficients, which adjust the estimated slope parameters by the ratio of the standard deviation of the explanatory variables to the standard deviation of dependent. This coefficient measures the relative strength of regressors in affecting the dependent variable (Kennedy, 1992). Equation 1 is based on regression equation 21 which was estimated by GLS, equation 2 on regression equation 20 estimated by SUR, and equation 3 on 19 estimated by PLS. The results in Table 9.7 turned out to be surprising. The variables that were very highly significant and had the expected sign tend to show less importance in explaining economic growth in the SACU countries for the period under consideration. These include the growth rate of exports, primary school enrolment ratio, inflation rate, gross domestic savings and government consumption. While the growth rate of population was not significant, it

tended to have greater importance to economic growth in the SACU countries for the period under discussion.

For instance, equation 1 in Table 9.7 suggests that a one standard deviation of inflation will lead to a −0.0002 change in the growth rate of real GDP. One standard deviation in government consumption will lead to 0.0126 standard deviations in output growth. A one standard deviation change in population growth rate will lead to a -0.181 standard deviations change in the growth rate of output. On average population growth, government consumption and the South African dummy appear to have more importance in influencing growth. Broad money supply, initial GDP, inflation, savings, investment, primary school enrolment ratio and the growth rate of exports followed these variables.

CHAPTER TEN

10 CONCLUSIONS AND POLICY RECOMMENDATIONS

10.1 Conclusions

The purpose of this study was to investigate empirically the determinants of long-term growth in the Southern African Customs Union (SACU) countries. Using a simple, analytical endogenous growth model, we have identified some of the factors that have been affecting economic performance in these countries. The empirical investigation of the model, however, yielded some surprising results. In the first section of our conclusion chapter we concentrate on the results from the empirical study, while the second section sheds light on the constraints facing the economies of these countries surveyed in the background chapters. Section three suggests some policy guidelines.

The main findings of the econometric estimation of the determinants of the growth rate of real GDP in the SACU countries can be summarised as follows. There is evidence of conditional convergence in the growth rates of real GDP, as convergence occurs only after controlling for variables that explain cross-country differences in the growth determinants. The results also provide support for those who advocate that convergence is not a mechanistic inevitability, as the physical and social infrastructure necessary to absorb new technology may not exist in all countries. Based on statistical significance and expected signs, gross domestic savings, primary school enrolment ratio, growth rate of exports, and government expenditure are major growth determinants in this study. Gross domestic savings as a share of GDP is positively related to growth. But the statistical significance of this variable was sensitive to the estimation procedure and specification as could be seen in Table 9.6.

There is evidence that human capital, as proxied by secondary school and primary school enrolment ratios affect growth. The results indicate that the primary school enrolment ratio affects growth positively, while secondary school enrolment is found to be negatively and statistically insignificantly related to growth. In this study the coefficient on human capital is not convincingly robust. This is probably due to measurement problems as indicated in Chapter nine, a problem inherent in the measurement of human capital. Macroeconomic instability proxied by the rate of inflation appeared to have had an adverse impact on the growth rate of the real GDP. The results show a statistical significance of inflation at 10 percent level in more than one regression equation.

Because the population growth rate affects economic performance negatively and it was found to be statistically insignificant, this simply indicates the need for a population policy as a means of keeping the rate of growth rate of population within the limits imposed by resources and by gross domestic product growth. A negative and significant relationship between government consumption and economic growth was found in this study. The results show robustness, implying that the coefficient was statistically significant in the all growth equations.

In this study, the impact of the external environment and openness was captured by exports, the growth rate of exports, the share of exports in GDP and the sum of exports and imports measured as a share of gross domestic product. The share of exports in GDP and the sum of exports and imports measured as a share of gross domestic product did not perform well in the regression and were sensitive to the estimation technique. The results of these variables were less robust. The variables were either not significant and / or had unexpected signs.

In order to capture the role of financial intermediaries in the SACU countries, we have introduced the ratio of broad money supply (M2) as a share of gross domestic product in our regression equations. These results were surprising

in showing that the broad money supply affects growth negatively. The coefficient was highly significant in most of the regression equations. As cited in Chapter nine the countries were divided into two groups, namely the leader (South Africa = 1), and followers (BLNS countries = 0). The results show that the South African dummy related negatively and significantly to economic growth in the region. The results to some extent explain the impact of the events in the South African economy on SACU economies during the period under consideration.

In the previous section we have discussed the main findings of our empirical study, while in this section we will highlight our survey from the background chapters of these countries. The SACU countries have faced many problems from the 1970s to mid-1990s. The major economic problems resulted from the political environment that prevailed in the leading member (South Africa). This was due to the apartheid policy that prevailed in South Africa for most of the period. Economic sanctions were imposed on South Africa, and affected the BLNS countries because their economies are directly linked to the South African economy. As mentioned earlier, except for Botswana, the LNS countries are in the Common Monetary Area (CMA) with South Africa. In terms of the agreement their national currencies are pegged to the South African rand. Economic crisis in South Africa started in the late 1970s, when the inflation rate reached double digits. In the early 1980s the economy declined further by reaching negative growth rates in 1985. This was attributed to low rates of increase in real private consumption expenditure, small increases in gross domestic fixed investment, a decline in gross domestic saving, and the sanctions imposed on South Africa.

The economy deteriorated further from 1985 to 1993. Between 1985 and 1993 a huge amount of foreign capital had left the country. The pattern was reversed after the constitutional change and in the wake of the gradual abolition of exchange control[38]. From 1994 to 1996 foreign capital to the tune of R27.4 billion flowed into the country. After 19 years of double digit of

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[38] A detailed discussion on exchange control liberalisation can be found in chapter 6.

inflation, annual price increases went down to single digits in the early 1990s. Against this background of conflicting evidence the South African government released its macroeconomic strategy for growth, employment and redistribution (GEAR) in June 1996.

Botswana's economy has experienced continuously strong growth since independence. Much of its growth can be attributed to the growth of the mining sector. Economic growth faltered in 1988/89 and the early 1990s, with a fall in output in 1992. This slowdown could be attributed both to domestic and international factors. On the international side, the world recession in the early 1990s adversely affected the demand for diamonds and value-added in mining fell in 1992/93. Domestically, drought and the contraction of the construction industry in 1992 had a negative impact on GDP growth.

The economy has since recovered in 1993/94, 1994/95 and 1995/96. This recovery can be attributed to the recovery in the world economy and an improvement in commodity prices during 1993/94. The increased international demand for diamonds led to an improvement in the mining sector, and improvements in the international prices of metals in 1993/94 encouraged the production of copper and nickel. On the fiscal front Botswana has gained an international reputation for the astute management of its financial surpluses in the government budget. The fundamental objective of Botswana's expenditure policy was to spend only where spending was productive and for projects whose recurrent costs could be substantial indefinitely in the future. The government has no domestic debt and has accumulated large balances at the Bank of Botswana. The financial environment was made more conducive to foreign investors with a major liberalisation of Botswana's exchange controls that took place on January 1, 1995[39].

The economic performance in Swaziland was impressive compared to Namibia and Lesotho. Although the inflation rate remained high in Swaziland,

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[39] Chapter 7 discusses the exchange controls liberalisation in detail.

the country enjoyed high growth rates during this period benefiting from the increasing political pressure on and isolation of South Africa that resulted in a number of companies relocating from South Africa or establishing branches in Swaziland to escape the sanctions net. This trend reversed in the 1990s when real GDP growth dropped sharply. It slowed even further in 1992/93 to 1.3 percent due to the onset of a drought which adversely affected agricultural output. Continued low demand for Swaziland's exports in South Africa also dampened growth.

As in Namibia and Lesotho, the fiscal situation in Swaziland is highly dependent on SACU receipts which account for more than half of total government revenue. After experiencing positive fiscal balances during 1987/88–1990/91 due to the strong economic growth fuelled by increased foreign direct investment, the fiscal situation worsened in 1991/92–1994/95. Thus, the fiscal balance shifted from a surplus in 1991/92 to a deficit in 1994/95. Monetary policy in Swaziland is constrained by membership of the Common Monetary Area. Therefore, government has maintained a net creditor position with the domestic financial sector, largely financing deficits through external sources, and its focus, therefore, has been largely on fiscal policy. Given the importance of South African imports in the consumption basket of Swaziland, the consumer price index closely follows movements in South Africa's inflation.

The economic constraints hampering the Swaziland economy include both internal and external factors. The main internal factors include the legal framework, including licensing constraints and the issue of work permits for expatriates, shortages of skills and infrastructural deficiencies, particularly the communication network and unreliable electricity supplies. The external factors include preferential trade arrangements with the European Union, world commodity prices (particularly for sugar and wood pulp) the South African political performance, and development and membership of the SACU and CMA.

Since independence the economic performance of Lesotho has been severely hampered by three factors: (i) domestic and regional political instability (the latter associated with South Africa's apartheid destabilisation), (ii) structural constraints such as poor agricultural performance compounded by soil erosion, and (iii) poor economic and financial management. Like other SACU members, Lesotho relies on SACU revenue as a source of budgetary revenue. During the 1990s SACU receipts have accounted for more than 50 percent of Lesotho's total budgetary revenue, and more than 70 percent of recurrent expenditure. These SACU revenues to Lesotho have been significantly influenced by LHWP-related imports. In terms of tax revenue, the share of SACU receipts in Lesotho is the highest among all the SACU members. This situation is obviously unsustainable. SACU revenues are likely to decline as SACU lowers its customs duties under its committed programme of trade reforms, and any change in the revenue formula, and in compensation to the BLNS countries is a central issue in the ongoing SACU renegotiations.

Lesotho launched several Comprehensive Adjustment Programmes, which included the following policies

- Deregulation of prices of goods, services and factor inputs
- Fiscal policy including measures to reduce public expenditure and mobilise resources
- The reform of institutions with an emphasis on building capacity for policy analysis, for implementing public investments and privatisation of public assets.

In sum, the overall economic and financial performance of Lesotho under the SAPs has been satisfactory. The pattern of Lesotho's economic transformation is constrained by certain weaknesses which have placed a strain on domestic human and institutional capacity. Lesotho is in need of entrepreneurs as well as of technical and managerial manpower. The general lack of an entrepreneurial class has meant that the manufacturing

sector is almost entirely foreign owned and characterised by weak linkages with the rest of the economy (Central Bank of Lesotho, 1996). The shortage of adequate managerial and technical personnel in the public sector has affected the quality of administration, absorptive capacity and ability of the sector to initiate, plan, implement and monitor projects (Government of Lesotho, 1995). On the other hand, the shortage of technical and scientific manpower has resulted in limited implementation of engineering projects and consequent absence of capacity to support the agricultural sector with the necessary inputs and the industrial and service sectors with appropriate technical know-how.

At independence the Namibian Government inherited an oversized public administration as well as a budget that was too short on investment, excessively focused on a minority of the population and of questionable efficiency. The government has been facing four important economic challenges since independence: (a) reactivating growth, (b) redirecting and restraining the growth of public expenditure (c) reducing poverty and (d) generating employment.

In Namibia, the central bank closely follows the bank rate set by its South African counterparts. This approach is consistent with Namibia's membership of the Common Monetary Area which allows for the free flow of capital between its members. In 1996, however, the nominal bank rate diverged from the South African rate by 0.25 percent points, when the Bank of Namibia took the decision not to follow the increase of 1 percentage point introduced by the South African Reserve Bank.

In the mid-1990s, the exchange control regime in Namibia was characterised by a continuous liberalisation process which included divesting greater authority to authorised dealers. This move was clearly in conformity with the Bank of Namibia's objective of transforming from a regulatory to a monitoring authority. To this end, the liberalisation process was initially designed to address the South African financial rand system which, however, was

abolished during 1995. The second phase of the liberalisation process allowed institutional investors to acquire foreign assets by way of asset swaps. In addition, direct investment abroad by Namibian corporations was also sanctioned. A further liberalisation took place on 20 September 1996[40].

In conclusion there has been a recent improvement in the economies of these countries. In particular relatively low inflation rates have been achieved, with low budget deficits and external debt compared to other countries in sub-Saharan Africa. Some of economies became more competitive by relaxing exchange controls, especially in Botswana, South Africa and Namibia. While on the other hand, there is a lack of technical skills, human resources and appropriate technology to promote industrialisation which will assist these economies to diversify from exporters of primary commodities to exporters of manufacturing goods. The BLNS countries are constrained particularly by their membership in SACU in promoting their manufacturing because South African products are more competitive than the local products. The cost of production is very high as the BLNS countries lack appropriate technology, economies of scale, market size and transport costs. The agricultural sector has declined tremendously. It is also very sad to note that the Southern African Customs Union countries are seriously affected by the HIV-Aids epidemic. In most countries 10 percent of the population is HIV positive or suffering from Aids.

10.2 Policy Recommendations

The policy implications arising from our study are straightforward. For LNS countries there are constraints imposed on them by virtue of their membership in SACU and CMA, that means fiscal policy is the main tool to promote growth. Therefore, expenditure rationalisation and streamlining of the public sector must be at the centre of public finance reform to ensure sustainability in LNS countries. In particular, the constitutionally mandated reorganisation of the public administration should contribute significantly to

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[40] Chapter 3 sheds more light on recent exchange control liberalisation.

restraining expenditure relative to GDP. Restraining public expenditures would require a reduction in the wage bill, a rationalisation of expenditure in the social sectors and a redirection to sectors of social and economic priority.

The positive relationship between education and economic growth, established in this study, suggests a possible positive relationship between the quality of labour and growth in real GDP. In this direction there is the need for careful evaluation and the intensification of investment in education and training. This will impact positively on growth by improving the marginal productivity of labour. It must, however, be recognised that, with the growing importance of science and technology, emphasis should be placed on those aspects of education as well as vocational training. The latter will go a long way to improving future employment for any growth in population.

As noted above that HIV-Aids epidemic has affected these countries, and there is also a shortage of technical skills and manpower. It would be advisable, therefore, that fiscal policy should be modified to take into account the need to allocate funds for current expenditure in priority sectors such as health and education. This is not to say that investment in physical assets should be neglected, but to exercise caution in its choice of investment projects and take into account (i) available financial resources and implementation capacity, (ii) the opportunity cost of capital and (iii) the recurrent costs inevitably generated by investment programmes. Accordingly investment programmes need to be maintained within limits that ensure recurrent costs do not become excessive and threaten the envisaged fiscal balance.

Given the resource constraints, the key to acceptable health strategies should remain a commitment to sustain preventive activities. Although great progress has been made with the extended programme of immunisation and the provision of potable water supplies, much remains to be done to improve coverage. At the same time, curative facilities will need to be expanded. Three related measures are needed to ensure that curative health does not

continue to absorb an excessive share of resources: the introduction of appropriate and relatively low-cost treatment protocols, cost-recovery charges for in-patient and other curative services, and improvements in management especially making more efficient of human resources.

The most serious epidemiological problem is the rapid spread of HIV among the sexually active population. It is necessary i) to change the behaviour of sexually active persons to minimise the spread of HIV and (ii) to develop an affordable treatment protocol for helping those who become infected. The SACU countries should also try to implement an active health programme in schools, heightening Aids awareness in out-school youths, improving the quality of blood screening, enhancing the health service's clinical and laboratory diagnostic capacity in Aids, and other measures that will help to reduce the burden of this epidemic on the population. The countries should also implement population growth rate policies that will take into account both the limited resources and the impact of HIV-Aids.

SACU membership has been identified as a constraint on the development of industry in BLNS. It would be also advisable to speed up the current renegotiations of the customs union. Particularly, a secretariat should be established where all member countries will be represented and can influence trade policies and the revenue-sharing formula.

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Appendix 2: Key Aspects of the Monetary Agreement

Article 2: Legal Tender

No currency other than currency referred to in sub-article 2 shall be legal tender in the common monetary area.
The contracting parties shall each have the rights to issue currency in the form of –
- National notes and coin, and
- Commemorative coin

Article 3: Transfer of Funds within the Common Monetary Area

A contracting party shall not apply any restrictions on the transfer of funds, whether for current or for capital transactions, to or from the area of any other contracting party, save that a contracting party may apply restrictions resulting from investment or liquidity requirements which may from time to time be prescribed by it for its financial institutions.

Article 4: Access to the South African Capital and Money Markets and Related Matters

The Governments of Lesotho, Namibia, and Swaziland, corporations and statutory bodies owned or controlled by these Governments and local authorities, public utilities, financial institutions and business enterprises in the areas of these governments shall, subject to the relevant financial laws and policies applicable to their counterparts in South Africa, have a right of access to the South African capital and money markets.

In order to promote the orderly management of the South African capital and money markets, the Government concerned shall, in respect of the issue or conversation, statutory body, local authority or public utility, reach agreement with the Government of South Africa on the conditions, timing, amounts and

other relevant terms of such issue or conversation and the Government of South Africa shall not withhold its agreement without reasonable cause.

Article 5: Gold and Foreign Exchange Transactions

Each contracting party shall be the sole authority responsible for authorising gold and foreign exchange transactions relating to its area and for appointing authorised dealers. The contracting parties shall exercise their authority in respect of gold and foreign exchange transactions in accordance with the policies from time to time adopted for the management of gold reserves and foreign exchange reserves of the Common Monetary Area.

Each Contracting Party shall require that the gold and foreign exchange accruing to its residents, shall subject to its exchange control provisions be sold to an authorised dealers appointed by it.

Article 6: Compensatory Payments

The Government of South Africa shall, subject to the remaining provisions of this Article, make compensatory payments to the other contracting parties, which payments shall represent a return on the Rand currency circulating as legal tender in their respective areas.

Article 7: Collection and Exchange of Monetary Statistics

The Contracting Parties shall cooperate with one another in the collection and prompt exchange of such statistical and other data shall be required for the efficient administration of this agreement and for the formulation and implementation of monetary and exchange control policies.

Article 8: Consultations and the Common Monetary Area Commission

In order to facilitate and ensure the continued compliance with this agreement, the Contracting Parties shall hold regular consultations with a view to reconciling their respective interests in the formulation, modification and implementation of the monetary and foreign exchange policies for the Common Monetary Area and in regard to any other matter arising under this agreement and shall for these purposes establish a Common Monetary Area Commission.

Article 9: Settlement of Disputes

Should any disputes arise between any of the Contracting Parties concerning the interpretation, application or conditions on termination of this agreement, they shall make every effort to settle the dispute amicably and in good faith and any dispute which can not be so settled shall be submitted to an arbitral tribunal as hereinafter provided.

The arbitral tribunal shall consist of three arbitrators; one to be appointed by each of the Parties to the dispute and the third, who shall be president of the tribunal, to be appointed by agreement of the Parties to the dispute.

Article 10: Entry into Force, Accession, Amendment, Termination and Withdrawal

This agreement shall enter into force upon the date of its signature by all the Contracting Parties, and may be amended by agreement of all the Contracting Parties.

Article 11: Notices and Requests

Any notice, advice or request required to be given or made under this agreement shall be in writing and such notice, advice or request shall be deemed to have been duly given or made to the Contracting Party to which it is required or permitted to be given or made at such Contracting Party's address set out below, notice to the Contracting Party giving such notice or advice, or making such request –

- If posted by express mail on the sixth day after the date of posting thereof,
- If communicated by telegram, facsimile or telex on the day following the date of dispatch thereof and
- If delivered by hand at the time and date of such delivery.