

*SHOULD THE PUBLIC SECTOR (CENTRAL GOVERNMENT)
BORROW DOMESTICALLY OR OFFSHORE.*

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TABLE OF CONTENTS

TITLE	PAGE
Preface	i
List of graphs	ii
List of tables	iii
Executive summary	iv
CHAPTER 1	1
PROBLEM STATEMENT	1
1.1 Introduction	1
1.2 Plan of study	2
1.3 Definitions	3
1.4 Rationale	4
1.5 Methodology	4
CHAPTER 2	5
ECONOMICS OF PUBLIC DEBT	5
2.1 Introduction	5
2.2 The Neoclassical paradigm	5
2.3 The Keynesian paradigm	8
2.4 The Barro-Ricardo equivalence	10



2.5	The South African perspective	11
2.5.1	The short run effect	14
2.5.2	The long run effect	16
2.6	Conclusion	16
CHAPTER 3		17
INDICATORS OF THE STATE OF PUBLIC FINANCE		17
3.1	Introduction	17
3.2	The Indicators	17
3.2.1	The deficit before borrowing	17
3.2.2	The ratio of government debt to GDP	19
3.2.3	The ratio of interest payments to government expenditure	19
3.2.4	The level of real interest rates relative to economic growth	19
3.2.5	Net asset value or net worth of the government	20
3.3	Conclusion	21
CHAPTER 4		22
DEFICIT FINANCING		22
4.1	Introduction	22
4.2	Foreign borrowing	22
4.2.1	Foreign borrowing and the balance of payment	23
4.2.2	Foreign borrowing, exchange rates and interest rates	25
4.3	Foreign debt management	25



4.4	Factors in favour of a foreign borrowing strategy for South Africa	27
4.5	Domestic borrowing	30
4.6	Economic consequences of domestic borrowing	33
4.7	Conclusion	33
 CHAPTER 5		 35
SOUTH AFRICAN SITUATION: ITS INDICATORS AND FINANCING METHODS (THE STATE OF PUBLIC FINANCE)		35
5.1	Introduction	35
5.2	Indicators of the state of public finance	35
5.2.1	The ratio of government debt to GDP	36
5.2.2	The ratio of interest payments to government expenditure	37
5.2.3	The ratio of the deficit before borrowing to GDP	39
5.2.4	Real interest rates and growth rates	40
5.2.5	The ratio of taxation to GDP	41
5.2.6	The net worth of the government	42
5.2.7	The level of government expenditure to GDP	43
5.3	Conclusion	45
 CHAPTER 6		 46
Conclusion		46
 ANNEXURE		 49



1.1	Prospects for the debt ratio	49
	Bibliography	51
	Journals	55



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WESTERN CAPE

PREFACE

There is an overwhelming need to bring government expenditure in line with generated revenue. Such a strategy, not only limit current expenditure to current revenue, but also bring in discipline on the fiscal operations of the government. Borrowing by the central government to finance current expenditure serve only to pull us more into the debt mire a process that easily leads us to a debt trap. A balanced borrowing strategy is needed to finance the budgetary shortfall of the government. In the process such a (borrowing) strategy should maintain appropriate levels of private sector investment and a balance in the capital markets.



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LIST OF GRAPHS

TITLE	PAGE
Fig 1	8
Fig 2	15
Fig 3	15
Fig 4.1 Balance of payments: current values	24
Fig 4.2 External debt: International comparison	27
Fig 5.1 Total government debt	36
Fig 5.2 Interest payment as a percentage of government expenditure	38
Fig 5.3 Deficit as a percentage of GDP	39
Fig 5.4 Real interest and growth rates	40
Fig 5.5 Total ordinary tax revenue as a percentage of GDP	41
Fig 5.6 Net worth of the central government	42
Fig 5.7 Level of government expenditure as % of GDP	44



UNIVERSITY *of the*
WESTERN CAPE

LIST OF TABLES

TABLE	PAGE
4.1	28
4.2	30
6.1	47
2.1	49
2.2	50



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WESTERN CAPE

EXECUTIVE SUMMARY

1. Taxes are an important source of government revenue (income). A failure by the government to collect sufficient taxes to cover for its ever increasing expenditures, engenders fiscal problems. Amongst others the government is compelled to borrow to finance its budget short fall. In this instance, should the government borrow domestically or offshore to finance its short fall.
2. Amongst the theories discussed in this paper, are the views of the Neoclassical Keynesian and the Ricardian schools of thought. Further more, South African theories on government debt are also discussed.
3. There is a considerably large number of indicators that can be used to determine an appropriate level of both domestic and foreign debt of a country. Certain well establish criteria such as the ratio of foreign interest payments to exports, the ratio of foreign debt to gross domestic product, the ratio of government debt to gross domestic product and the ratio of foreign debt to exports, are amongst the pool of indicators that can be used. However, the following indicators have been identified as the most commonly used in the analysis of budget deficits, and they are; ratio of deficit before borrowing and debt repayment to GDP, the ratio of government debt to GDP, the ratio of interest payments to government expenditure, the level of real interest rates relative to economic growth and the net asset value or net worth of the government.
4. Deficit financing refer to the ways in which the budgetary gap is financed. Overreliance on domestic borrowing may mean high real interest rates and falling investment, and overreliance on foreign borrowing can cause appreciating real exchange rates and unsustainable external indebtedness, amongst others.
5. Amongst the available remedies for debt ills in this country, is the suggestion to significantly cut government expenditure. However, realities currently confronting the authorities, like the increase in public servants as a result of the

abolishment of homelands and the constitutionally guaranteed employment of civil servants from the old order, automatically put pressure on public consumption.

6. On the international front, South Africa is underborrowed. In this regard favour should go more for offshore borrowing. Certainly South Africa has to generate the means of meeting debt obligations by running a surplus of exports over imports of goods and services. The bulk of the country's debt is of domestic origin which account for well over 90 % of total debt. The current anti inflationary monetary policy with its concomitant high interest rates, makes domestic borrowing more costly.



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CHAPTER 1

PROBLEM STATEMENT

1.1 INTRODUCTION

Taxes are an important source of government revenue (income). A failure by the government to collect sufficient taxes to cover for its ever increasing expenditures, engenders fiscal problems. Amongst others the government is compelled to borrow to finance its budget shortfall. Alternatively the government can raise taxes. The economic merit of such a strategy is suspect given the fact that our domestic taxes are already high by international standards. Similarly, there are problems associated with a viable borrowing strategy.

In practice, modern governments tend to generate budget deficits on a more or less permanent basis, and fiscal policy consists in varying the size of the deficit in accordance with macroeconomic policy objectives. The way in which these deficits are financed is thus of central importance and forms the basis of this study. In particular, **should the government borrow domestically or off-shore?** The advocates of off-shore borrowing advance as their reasons the low external debt and the need for capital inflow, inter alia. Similarly, those in favour of domestic borrowing argue that already the public sector has managed to keep the total debt "well below" the international ceiling of 60% of GDP - meaning that domestic borrowing has in a way succeeded in maintaining an acceptable debt level. Nevertheless, Any borrowing strategy should be well aware of the implications to other economic variables, especially the economic growth potential, interest rates and inflation.

Any shortfall in the public sector budget that necessitate borrowing, necessarily implies that the budget deficit is increasing (provided that government expenditure is increasingly more than revenue). Evidently, the government has been intervening to an increasing extent in the domestic economy by participating directly in the market mechanism or by expanding the already extensive regulatory structure. This rising claim of government on the resources of the nation has had important consequences for government finance. Inter

alia, a substantial rise in government expenditure, sharply increasing trend in government debt and a higher tax burden.

1.2 PLAN OF STUDY

This study consists of six chapters as explained below:

- i) In an attempt to identify the problem statement, this chapter, first, introduces the problem and provide working definitions of some of the key words used in this study. The rationale and the methodology constitute the last sections of this chapter.
- ii) The theoretical background to this study is provided in chapter 2. With the universal availability of the deficit financing theories, this chapter groups these theories into three distinct but closely related theories. It is this chapter that forms the backbone of this study.
- iii) Chapter 3 outlines and describe the indicators of the state of public finance. From the pool of available indicators, only five indicators (regarded as the most common ones) are used.
- iv) Chapter 4 discusses the pros and cons of deficit financing. It is in this chapter that the consequences of each borrowing strategy (Domestic or Foreign borrowing) are discussed in full.
- v) Prior to drawing a conclusion on the viable borrowing strategy, it becomes essential to asses the state of public finance. In particular, chapter 5 discusses the indicators mentioned in chapter 3 within the South African context. Equally, this chapter attempts to determine the severity of the state of public finance, ie. is the country sliding towards a debt trap or not? This chapter accomplishes this task through the use of South African statistics to generate graphs to that effect.

- vi) In conclusion, chapter 6 identifies the borrowing strategy that will be appropriate to the South African economy. It draws its conclusion from the arguments advanced for each borrowing strategy.

1.3 DEFINITIONS

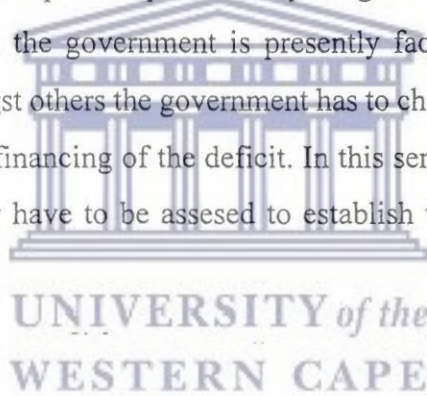
In determining which borrowing strategy will best suite South Africa, it becomes important to have working definitions of some of the important concepts used in this study.

- i) Public Sector: It is normally defined to include "all levels of government as well as all agencies offering public services and public responsibilities, with the exception of privately directed entities that perform welfare and charitable roles"[Meijer J. H. et al; 1991, p77].
- ii) Deficit before borrowing (Budget deficit of the public sector): Broadly defined, it is, "daardie bedrag waarmee die openbare sektor se totale uitgawes (skuldaflossings uitgesluit) hul totale ontvangtes (lenings uitgesluit) oorskry [Louw A; 1989, p6]". Alternatively, it is the difference between total government spending and current revenue where total spending exceed total revenue.
- iii) Public Debt (Government debt or National debt): All debt of the central government, local authorities, the non-financial public sector entities, and sundry enterprises and institutions which full-fill the roles of public sector financial intermediaries or which are principally the financial beneficiaries of the central government [Van der Merwe E.J, 1993, P2-3].
- iv) Debt Trap: It is defined as an unsustainable government financial position in which an "explosion" in the government debt ratio can no longer be prevented by an increase in the ratio of government taxation to gross domestic product or by a decrease in the discretionary government expenditure (total expenditure less interest payments) relative to the gross domestic product [ibid, p2].

1.4 RATIONALE

1985 was a water-shed year in the economic history of South Africa. Foreign debt had increased by about 50% in dollar terms and by about 500% in rand terms between 1980 and 1985, with short term debt increasing sevenfold, exerting a very severe strain on repayment. Aggravating the situation was the refusal by foreign creditors to extend financial assistance to the country. Concomitantly, strict exchange control measures and a dual exchange rate system were re-instated in an attempt to limit the inevitable flight of capital from the country. The economy of the country plunged thus compelling the government to run deficits that were financed through the use of domestic resources. 1990 and the subsequent years (to present), realised significant changes which bore direct effects to both the political and economic health of the economy.

With no abatement in consumption expenditure by the general government and the ever increasing domestic debt, the government is presently faced with hard choices and decisions to make. Amongst others the government has to choose between domestic and foreign resources for the financing of the deficit. In this sense the costs and the social benefits of either strategy have to be assessed to establish the most viable borrowing strategy.



1.5 METHODOLOGY

This study follows a simple but important methodology - taking the form of literature study. Primarily, a review of the theoretical foundation to the study plays a major role. This, consist of a brief but in-depth look at the contending budget deficit theories advancing their *pros* and *cons*. It is this background that forms the backbone of the study.

Albeit there is "no" exactly befitting theory, the arguments elicited from these theories are used to asses the state of South Africa's public finance. This is done in chapters 3 to 5. Finally the last chapter draws conclusions by combining theory and the hard realities of South Africa's state of public finance thereby suggesting a tentative but appropriate borrowing strategy.

Chapter 2

ECONOMICS OF PUBLIC DEBT

2.1 INTRODUCTION

Public debt, also referred to as national debt, can be defined as the total outstanding borrowings of the central government exchequer in any one year. The importance of studying public debt is founded on the grounds of its importance in the financial system of the private sector and the important role it plays in the interdepartmental account of the government.

The main aim of this chapter is to present a theoretical background on the impact of government deficits on the economy. The theoretical background includes the views of the Neoclassical, the Keynesian and the Ricardian schools of thought here after referred to as the Barro - Ricardo equivalence. Furthermore, South African theories on government debt as advanced by Roux and Standish, will be discussed.

2.2 THE NEOCLASSICAL PARADIGM

The Neoclassical view states that budget deficits crowd out private capital accumulation. This school of thought imagines far sighted individuals planning consumption over their own life cycles. At full capacity (full employment), the protagonist of this view attest that any fiscal stimulus (in this case budget deficits) increases consumption and thus decreasing the level of savings. The fall of the latter distort the balance on the capital market. Interest rates must therefore rise to restore the balance and any such rise impact negatively on the level of investment - hence crowding out.

Bernheim [1989: p57] developed a model to explain the foundation of this paradigm. The model hinges upon three basic features.

- i) The consumption of each individual is determined as the solution to an intertemporal optimisation problem.
- ii) Individuals have finite life spans.
- iii) Market clearing occurs in all periods.

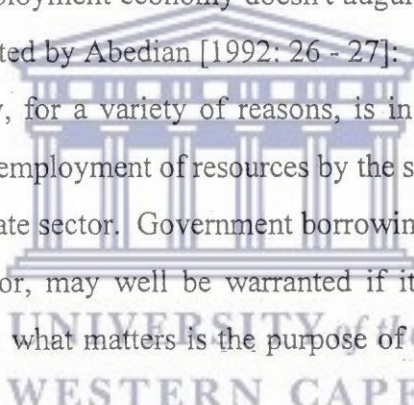
To formally study the effects of budget deficits in the context of such models, Diamond [Bernheim: 1989: 57] concluded that any permanent increase in the ratio of domestically held debt to national income depresses the steady state of the ratio between capital and labour. Because of the permanent increase in the ratio between capital and labour, consumers are unwilling to hold the original volume of physical capital and bonds (including new bonds) at the original rate of interest. Interest rates must rise which impact positively on savings and negatively on investment - hence crowding-out.

The proponents of the Neoclassical view discovered that a majority of individuals behave in a manner that is consistent with unconstrained intertemporal optimisation. Only a sizable amount of individuals (roughly 20 percent) failed to behave in a manner that is consistent with unconstrained intertemporal optimisation. This paradigm states that there won't be any change to the Neoclassical results even if there is an introduction of some liquidity constrained consumers. Bernheim further vindicates the above by stating that: "As in the Diamond's model, unconstrained individuals would not be willing to hold the original volume of capital and bonds, plus the new bonds, at the original rate of interest. As one increases the fraction of consumers who are liquidity constrained, the interest sensitivity of savings falls and larger increases in interest rates are required to equilibrate the capital markets. Accordingly, the introduction of liquidity constrained consumers might well strengthen the conclusion that permanent budget deficits depress capital accumulation". Diamond argued primarily on the permanent effects of budget deficits.

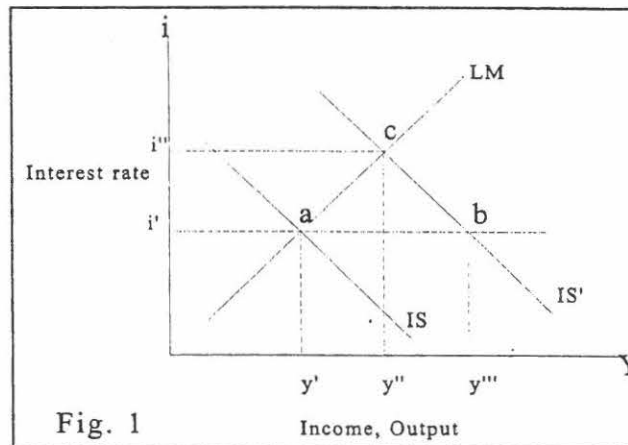
Auerbach and Kotlikoff [Ibid :58] argued on the immediate impact of temporary budget deficits. They concluded that budget deficits in the short run can have positive effects. Their mechanism resides with the premise that if one holds government spending constant, temporary deficits reflect tax reductions. The after tax increase in income will lead to an increase in savings. Albeit the economy is stimulated, Auerbach and Kotlikoff point out that wealth effects cumulate over time, so that even temporary deficits eventually crowd out private capital formation. Bernheim, as an adherent to the neoclassical doctrine, argues that the Neoclassical paradigm relates to the long run effects

of deficits as opposed to the Keynesians short run effects or rather temporary effects.

The Neoclassical paradigm didn't go unchallenged. Robert Eisner argues that if budget deficits inaugurate or increases consumption, such an increase comes from otherwise unutilized resources. More, and not less investment should then be expected and the economy will move to a higher growth path [Eisner ,1989: p74]. Concerning the debate surrounding the theory on the budget deficit; the Neoclassical view of the premise of a market clearing world where the economy gravitates to a full employment equilibrium, can hardly be ignored. A Walrasian, market-clearing world where the economy gravitates to a full employment equilibrium can hardly be imagined. Pure Walrasian and rational expectation market-clearing models may prove more useful for academic advancement than for the promotion of the economy. There is more than market clearing in the real world. Bernheim's full employment economy doesn't augur well for the real economy either. The latter is vindicated by Abedian [1992: 26 - 27]:

- 
- i) Often the economy, for a variety of reasons, is in the state of less than full employment. Thus employment of resources by the state is not necessarily at the expense of the private sector. Government borrowing, even if at the partial cost of the private sector, may well be warranted if it is to be used on equally productive outlays; what matters is the purpose of the borrowing, and not the borrowing *per se*.
 - ii) Equally pertinent, and related to the previous point, is the initial cause of the borrowing. Suppose massive tax cuts with substantial productive incentives were the cause of the deficit. It is possible that the favourable results of tax cuts might outweigh the crowding-out effect of borrowing. Likewise it is conceivable that beneficiaries of an expenditure scheme - one which leads to a fiscal deficit - could generate economic growth in excess of what is forfeited due to the crowding - out effect.

The Neoclassical case thus emphasises that an increased fiscal stimulus at full capacity will cause complete crowding out and a higher price level. Figure 1 below explains the Neoclassical case succinctly.



Suppose the economy is at a with interest rate i' . Any fiscal stimulus shifts the economy to b if the interest rate remains the same. The IS curve shifts from IS to IS' equilibrating the goods market. Income increases from y' to y''' . Logically this means that the quantity of money demanded increases as well thus distorting the assets market. At the original interest rate level i' , the demand for real balances now exceeds the given real money supply. Interest rates must therefore rise to restore equilibrium in the assets market. The rise from i' to i'' moves the economy to a new equilibrium at c reducing output. The increase from y' to y'' is less than an increase from y' to y''' suggesting that some crowding out has occurred.

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2.3 THE KEYNESIAN PARADIGM

The Keynesians envision a significant fraction of the population to be myopic and liquidity constrained to such a point where any fiscal stimulus necessarily increases, or in this case any deficit, impact positively on aggregate demand. The mechanism involved entails a rise in the deficit which does not crowd out investment, but instead, increases (crowds in) output. Output increases by the additional demand directly produced by the fiscal action, amplified by the multiplier. The extent and the composition of the increase depends on the source of change in the deficit. As opposed to the standard Neoclassical view, the Keynesians assume that the economic resources are initially underemployed. Any temporary tax reduction necessarily increases income and thereby generating

second round effects, the well known Keynesian multiplier. Modigliani agrees with the Keynesians to some extent, but clearly states that these effects are only temporary. For demand to be satisfied without pressure on prices, the slack in the economy should be efficient. There must be an accommodating monetary policy permitting the expansion of output, to avoid pressure on interest rates and credit market [Razin and Sadka: 1987:4-5]. In this case Modigliani concurs with the Neoclassists that the Keynesian paradigm represents a temporary situation. Modigliani attest that in the long run there may still be crowding-out effects. The latter will largely be brought about, inter alia, by a non - fully accommodating monetary policy in the sense of providing sufficient liquidity to keep interest rates and credit markets from tightening in the face of a rise in output. The rise in interest rates will crowd out investment reducing demand directly.

Eisner [1989:74], one of the protagonist of the Keynesian theory, dismisses the Neoclassical view's assertion that the Keynesian principle hinges upon the premise that a significant fraction of the population is thought of as either myopic or liquidity constrained. Eisner state that one hardly needs to be myopic to increase consumption in the face of increases in current disposable income, and to increase it all the more if the prospects of continuing deficits raise expected disposable income along with a public debt. The Keynesians thus regarded government bonds as net wealth. The latter led to the revitalisation of the Ricardian paradigm by Barro [1974:243] who argued that, should government bonds be perceived as net wealth, certain basic assumptions on the net wealth of government bonds, should be taken into account.

In a nut shell, the basic analysis of the Keynesian school of thought assumes that the economy is not at full employment so that the additional demand will be satisfied without upward pressure on prices. Thus a rise in the budget deficit does not crowd out investment but rather increases output, hence crowding in.

2.4 THE BARRO - RICARDO EQUIVALENCE

The Barro - Ricardo equivalence is regarded as an extreme view on the deficit theories. Developed initially by David Ricardo and popularised by Robert Barro, this paradigm states that there is no difference whether the government borrows or raises taxes. Essentially this view says that the mix between taxation and borrowing makes no difference. Interest rates, prices, current consumption, investment, employment, and output are the same despite a large government budget deficit. The protagonist of this view see borrowing as an equivalent activity of postponing taxes to the future generation. Thus the way in which acquisition of resources is financed - taxes or deficit - is of no consequence to any one. Taxes and deficits are equivalent [Modigliani: opcit: p16]. Any increases in the current stock of government debt would, for a given path of future government expenditure, require an increase in taxes in the future for the servicing and retirement of the additional debt incurred today. An increase in debt is merely a shift in the timing of tax collections from the current to future periods.

Barro developed models to ascertain whether government bonds are or constitute net wealth. For each model Barro advanced an applicable assumption:

- i) Finite lives and the existence of intergenerational links
- ii) imperfect private capital markets,
- iii) Government monopoly in the production of bond liquidity services and
- iv) Uncertainty about future tax obligations.

The assumption on finite lives was examined within the context of an overlapping generations model of the economy. Barro established that there would be no marginal net - wealth effects of government bonds as long as current generations are connected to future generations by a chain of operative intergenerational transfers.

On the assumption of imperfect private capital markets and the assumption on government monopoly, Barro said that their justification of net wealth is a function of the assumption that the government was more efficient, at the margin, than the private market, either in the loan process or in the production of liquidity services. Uncertainties

about future tax liabilities on their own raise the overall risk contained in household balance sheets.

Barro argues that the future taxes required to finance government interest payments, would imply an offset to the direct wealth effect. Sympathetic writers to this discourse further argued that a society is merely deceiving itself if it thinks government bonds are part of net wealth. Additional taxes necessary to carry the interest charges on government debt, reduce the value of other components of private wealth. Whether the government runs a deficit or raises taxes makes no difference, it is based on the future tax liabilities. Bailey made the following statement "... if future tax liabilities are accurately foreseen, the level at which total tax receipts are set is immaterial and the behaviour of the community will be exactly the same as if the budget were continuously balanced "[Bailey:1962:75-77].

Eisner objectively argues that increases in current consumption need not involve any borrowing from the future, or from any future generation of tax payers. The consumption is supplied from unutilized resources and as such, any increase in consumption will have a positive impact on the economy. Extra taxes in the future, if there are to be any, may then readily be paid out of higher future incomes [Eisner: op cit:74].

As indicated in the previous paragraphs, budget deficits do have an effect on the economy as opposed to this paradigm which state that deficits do not matter.

The Barro - Ricardian equivalence contends that any debt - financed tax cut merely replaces current taxes with future taxes of equal present value. Thus this school of thought argue that debt and tax finance are equivalent and tax cuts are inconsequential.

2.5 THE SOUTH AFRICAN PERSPECTIVE

For the period 1948 to 1982, South Africa maintained an impeccable debt service record. This, attests André Roux, was a consequence of negative real interest rates and an average growth rate in the economy of about 4%. Real interest rate on the public debt

remained well below the GDP growth rate for most of the period. However, this fortuitous circumstances changed in the eighties and worsened during the early nineties.

André Roux developed a simple debt model to explain South Africa's debt status over time. The debt D_t outstanding at the end of period t may then be written as

$$1) \quad D_t = D_{t-1} + i_t D_{t-1} - B_t \dots\dots\dots a$$

Divide (a) above by nominal income Y_t

$$2) \quad D_t/Y_t = D_{t-1}/Y_t + i_t D_{t-1}/Y_t - B_t/Y_t \dots\dots\dots b$$

Rearrange terms and substitute $Y_t = (1 + n_t)Y_{t-1}$

$$3) \quad D_t/Y_t = [(1 + i_t)/(1 + n_t)] (D_{t-1}/Y_{t-1}) - B_t/Y_t \dots\dots\dots c$$

The variables for interest and growth rates may be replaced by their real equivalents since: $(1+i_t) = (1+r_t)(1+p_t)$ and

$$(1+n_t) = (1+g_t)(1+p_t)$$

- where: n = the growth rate of nominal income
 i_t = the nominal effective interest rate
 B_t = the primary balance for period t
 p = the inflation rate
 r = the effective real interest rate, and
 g = the real growth rate

However there are complications which emerged with equation (c) above. These entail:

- i) Changes in the assets of government;
- ii) Adjustments in the exchange rate;
- iii) Discount at which government securities are sold; and
- iv) Off budget expenditures, eg transfers to the IDT (Independent Development Trust), Government Pension Fund etc.

To accommodate these complications, a residual item R is added to the right hand side of equation (c).

$$4) \quad D_t/Y_t = [(1+r_t)/(1+g_t)](D_{t-1}/Y_{t-1}) - B_t/Y_t + R_t/Y_t \dots\dots\dots d$$

The absolute change in the debt ratio may now be written as

$$5) \quad D_t/Y_t - D_{t-1}/Y_{t-1} = [(r_t - g_t)/(1 + g_t)](D_{t-1}/Y_{t-1}) - B_t/Y_t + R_t/Y_t, \dots \dots \dots e$$

The first items in both equation (d) and (e) represents the interest - growth effect, where its impact depends on the margin between the real interest rate and the real GDP growth rate (or equivalently, the difference between the nominal interest rate and the nominal growth rate). The debt-to-GDP ratio will, for example, automatically increase if the interest rate exceeds the GDP growth rate since the debt will then compound at a faster rate than GDP. Conversely, the debt ratio will decrease over time if r is less than g . The second term captures the contribution of discretionary fiscal policy. Its effect is easily calculated by simply subtracting the primary balance (expressed as a percentage of GDP) from the debt ratio. A negative primary balance will raise the debt ratio and *vice versa*. [A Roux; the SA Journal of Economics, p 327-8]

From this model, Roux argued that the nineties reached a fiscal squeeze. That is, a combination of economic contraction, shortfall in revenue and a disturbing deficit. The negative real interest rates witnessed over the period between 1948 -1982, changed to positive real interest rates. And the latter, r , grew way above g thus compounding the problem of debt servicing (from equation e above). To be exact, in the 1992/93 financial year the real rate on the public debt stood at 4 percent and the growth rate dropped to -2 percent. To this, Roux points out the dangers of possible crowding out of the private sector investment. In this instance Roux agrees with the neoclassical school of thought that budget deficit, with rising interest rates, tend to crowd out private sector investment.

Furthermore, Roux ran simulations for the debt ratio of the country [see annexure]

Another perspective on South Africa's public debt was advanced by Black P A and J H Cooper. By working on a simple deficit equation, they determined the short and the long run effects of government financing requirement. In essence, the short run effects, can be associated with the neoclassical paradigm on budget deficits, and the long run effects are in fact an extension of the Keynesian school of thought.

If G is government spending, R is loan redemptions and T is taxes; then total financing requirement F will be:

$$F = G + R - T$$

G can be broken up into G_c (capital expenditure by general government) and G_w (current expenditure by government).

The expansionary effect of F will depend on how it is financed, ie, either by an increase in the money stock or the sale of additional government securities. However, Black and Cooper state that an important consideration in this regard is the size of R relative to G and G_c. More importantly the impact of G_c and R on income. To this they advanced the short and long run effect of financing government deficit.

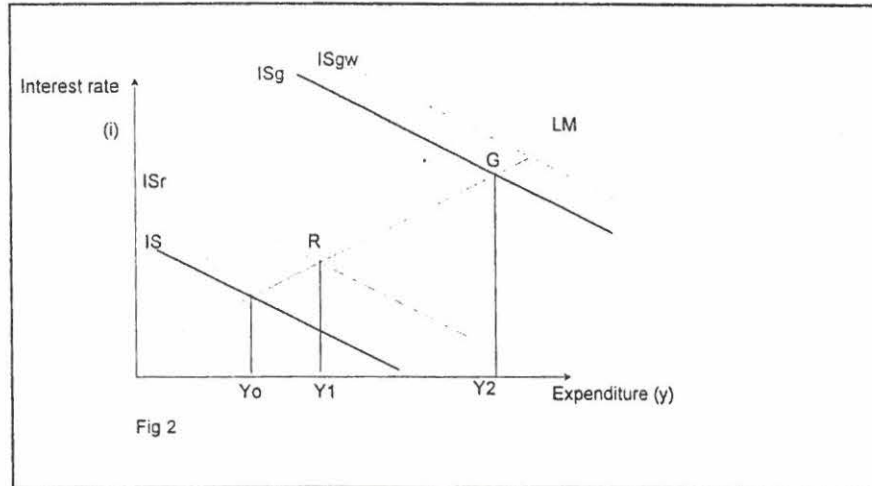
2.5.1 The short run effect

Primarily the short run analysis by and large represents arguments raised by the neoclassical school of thought. In instances where government runs a deficit, income increases and through the multiplier effect, aggregate demand increases. Irrespective of how the financing requirement is met, the larger R is relative to G_c, the smaller will be the multiplier effect on the level of income.

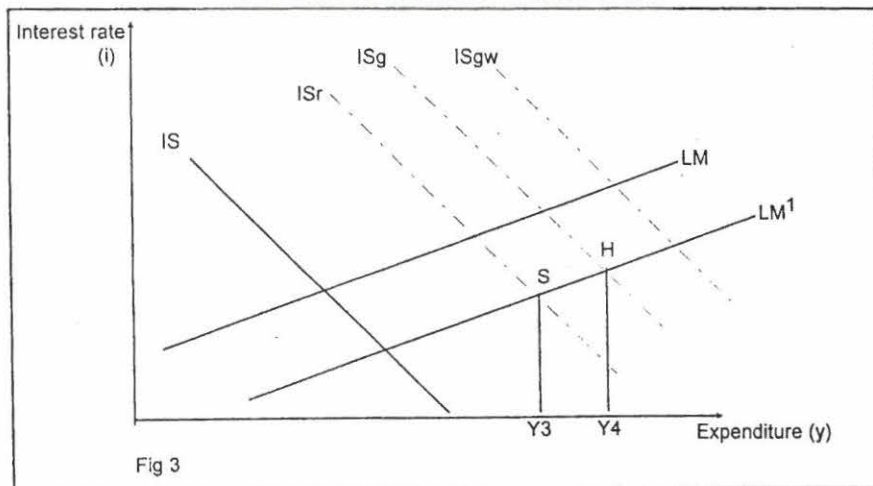


In the short run, financing F by printing money is more inflationary/expansionary than borrowing from the public. In case of bond financing, a given increase in G_c will normally induce a multiplied expansion in the aggregate level of income. But because capital is mostly imported, interest rates will have to rise to maintain an equilibrium position in the capital market. This crowds out private sector investment (a critical aspect of the neoclassical theory described above)[see fig2 below]. However, an equal increase in R, will have only a marginal impact because new bonds are simply substituted for old ones [Black and Cooper; Leading issues...p294]. But this substitution still has a positive effect on income for as long as the proportion of R spent on goods and services exceeds the corresponding proportion of money withdrawn from circulation through the sale of new bonds [cf fig2 below]. Thus the effect of income will depend on the extent to which

idle balances are being activated in the process of replacing old with new bonds.



In the case where F is financed by the creation of money, loan redemptions have a larger impact on income than in the case of bond financing. In the latter case old bonds were simply replaced by new bonds. In the case of creation of new money, old bonds are replaced by money. As a result there is no offsetting withdrawal from the circularflow of income, and the net effect on income will depend on the entire portion of R spent on



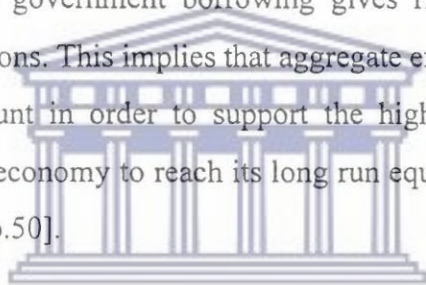
goods and services [see fig3 below].

There is a larger shift of the IS curve to IS r. Equal increases in Gc and R produce

outward shifts in both the IS and the LM curves, resulting in new equilibria at points H and S respectively. Once again, a larger increase is associated with G_c than with R, ie, the increase from Y_0 to Y_4 as opposed to Y_3 .

2.5.2 The long run effect

The arguments of the long run effect are said to be an extension of the Keynesian school of thought. As far as the long run is concerned, borrowing from the public is more expansionary than money creation, in the financing of F. The reason for this lies in the role played by induced taxes in closing the budget deficit. Specifically, the initial increase in income, and hence in induced taxes, tends to be smaller if F is financed by new bonds rather than by newly created money; and to the extent that it is, the former method will bring about larger deficits during future financial years. These differences will be magnified by the fact that government borrowing gives rise to increased interest payments and loan redemptions. This implies that aggregate expenditure would have to increase by a greater amount in order to support the higher level of government expenditure and enable the economy to reach its long run equilibrium level of income [Blinder and Solow, 1974, p.50].



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2.6 CONCLUSION

The aim of this chapter was to present some of the important points of the contending theories on budget deficits. It is however important to state that government deficits are not necessarily always having a negative effect on an economy. If borrowed funds are used for productive outlays where such activities generate a return higher than future tax liabilities, then it certainly becomes relevant to borrow. Loans should be used more for capital expenditure than current expenditure. The latter implies that the outlay would be able to service and retire the debt obligations.

Not much differences were elicited from the South African perspective as advanced by Roux, and Black and Cooper. However it should be noted that it is not the deficit that matters *per se*, but the purpose of the deficit.

CHAPTER 3

INDICATORS OF THE STATE OF PUBLIC FINANCE

3.1 INTRODUCTION

The purpose of this chapter is to identify indicators that can be used to assess the nature of the state of public finance.

There is a considerably large number of indicators that can be used to determine an appropriate level of both domestic and foreign debt of a country. Certain well established criteria such as the ratio of foreign interest payments to exports, the ratio of foreign debt to gross domestic product, the ratio of government debt to gross domestic product and the ratio of foreign debt to exports, are amongst the pool of indicators that can be used. However, the following indicators have been identified as the most commonly used in the analysis of budget deficits:

- i) the ratio of the deficit before borrowing and debt repayment to gross domestic product;
- ii) the ratio of government debt to gross domestic product;
- iii) the ratio of interest payments to government expenditure;
- iv) the level of real interest rates relative to economic growth
- v) the net asset value or net worth of the government.

3.2 THE INDICATORS

3.2.1 The deficit before borrowing

Expressed as a percentage of GDP, the deficit before borrowing can be used to determine the extent of a country's debt situation, and is an advantageous yardstick in the sense that it enables the authorities to monitor and control arising developments on an ongoing basis. It indicates to what extent government expenditure exceeds government revenue. Excessively large budget deficit implies that the deficit/GDP ratio is large as well. This then increases the need to borrow.

However, there are pitfalls associated with using the deficit before borrowing as a yardstick. The deficit/GDP ratio is a function of inflation, amongst others. Such that in an inflationary environment, variation in the ratio of the fiscal deficit to GDP might well be caused mainly by changes in the nominal interest payments on the stock of public debt with floating interest. Similarly, cyclical conditions can influence the deficit before borrowing making it difficult to determine the underlying state of government finance. Although methods have been developed to adjust the indicator for cyclical influences, such an adjustment brings an artificial element into the evaluation of government finance.[van der Merwe : 1993: p4]

On its own the deficit before borrowing has little meaning, since a given deficit can be achieved at various levels of government spending and taxation. Thus, it is only in conjunction with other criteria, pertaining to the level and composition of government spending and taxation, that the deficit assumes any real significance. Moreover, it has to be borne in mind that a significant portion of public sector loan financing is done by the public corporations and other budgetary institutions, with the result that the budget deficit is no real reflection of the borrowing requirements of the public sector at large.

Suffice the above to refer to what is commonly known as the conventional deficits which is the difference between total fiscal expenditure (where fiscal expenditure includes payments of interest on the public debt) and revenue. There is another measure associated with this indicator. The primary deficit, which refer to the difference between total fiscal expenditure and revenue, adjusted for interest and amortisation payments on the public debt. Or total deficit before borrowing and debt repayment less interest payments. It is argued that this is the appropriate measure to analyse in terms of potential crowding out effect and the fiscal impulse. However the primary deficit shows the influence of expenditure other than interest payments in arriving at the total deficit. Similarly it has been established that debt issues do affect real interest rates consequently affecting the decision of the private sector to invest.

3.2.2 The ratio of government debt to GDP

By far the most widely used indicator (at par with the above mentioned indicator), the ratio of government debt to GDP. It indicates whether the debt is increasing, decreasing or constant in relation to production. From a macroeconomic point of view, the growth in the public debt becomes problematic once if its growth rate exceeds the rate of growth of the economy over time.

But using this indicator independent of other economic magnitude could prove fatal. It has been shown that the debt/GDP ratio depends largely on the relative magnitude of the real rate of economic growth and the real interest rate. Thus the conduct of the country's monetary policy will undoubtedly exert an influence on the country's public debt/GDP ratio [Abedian: 1992; p33].

3.2.3 The ratio of interest payments to government expenditure

The significance of using the ratio of interest payment to government expenditure as an indicator is its ability to show the effect of interest rate changes to both the expenditure and the revenue sides of the budget. High interest rates have a high opportunity cost on the expenditure side of the budget. Similarly a high ratio of interest payments to government expenditure has negative tax implications - for the revenue side of the budget.

However this ratio has certain disadvantages. Inflation may erode the values of interest and capital thus disguising the true dimensions of the debt problem. For instance, if nominal interest rates are lower than the rate of inflation, interest payments may well be increasing at a lower rate. The ratio of interest payments to government expenditure could remain relatively low despite a substantial increase in government debt.

3.2.4 The level of real interest rates relative to economic growth

Using this ratio, the level of real interest rates relative to economic growth, is advantageous in determining the sustainability of the public debt. Large real interest rate increases relative to the real growth rate of the economy imply that interest payments

have to be financed by an increase in public debt or at a cost of other important government services. Similarly this ratio identifies the big/small chunk consumed in the government budget. Suffice this to mean how much of the budget is spent on interest payments as a percentage of GDP, compared to other expenditures.

On its own this level only informs us of the interest payable and provides no information on the state of public debt. The only time where this ratio really matters is when the ratio of the public debt to GDP increases. In this case it has to be ascertained whether the level of real interest rates exceed the real growth rate of the economy for debt servicing charges might become uncontrollable. Similarly any real interest rate reduction, engendered by, inter alia, interest rate controls or in any other artificial way, might give completely wrong impression of the state of government finance.

3.2.5 Net asset value or net worth of the government

The classical doctrine that government borrowing should be used, normatively so, for capital expenditure, inaugurated this yardstick of net asset value. One advantage of this yardstick is its ability to assess whether loans have been used for current or capital expenditure. Consequently, any increase in the net asset value of the government implies that loans have been used largely for productive outlays. This will materialise if the value of government investment exceeds the rise in the value of outstanding debt.

However there are hurdles that arrest the potency of this yardstick. Chief amongst these is the problem of verifying and calculating the net asset value of the government. This is brought about by the failure to present a sound balance sheet of the government. The drafting of the balance sheet of the government is compounded by the following: How should certain assets that yield no return be valued? Should non-tangible assets be included in the balance sheet? Should expenditure on education and training be regarded as investment expenditure? Should non-tangible liabilities, such as the capitalised value of future state pension commitments and the depletion of natural resources, be included? [van der Merwe: 1993; p5]

Suffice the working definition of the net worth of the government to be: the government's capital stock less its financial liabilities.

3.2 CONCLUSION

The purpose of this chapter was to identify the indicators which will be used to verify the extent and sustainability of the budget deficit. This indicators might help inform a viable borrowing strategy for South Africa, ie should the government borrow domestically or off-shore.



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CHAPTER 4

DEFICIT FINANCING

4.1 INTRODUCTION

Albeit it was stated in the preceding chapter that running a fiscal deficit is not necessarily a bad thing for as long as the central government targets capital expenditure and aims at stabilising fiscal policy. However, it becomes imperative to physically reduce any fiscal deficit. Even if it means running a surplus in the government budget. This ensures a restoration of sustainable fiscal balance and decisively avoids the debt trap.

Suffice deficit financing to refer to the ways in which the budgetary gap is financed. Governments resorts to this method of financing when it is unable to cover its total expenditure from normal sources of revenue, such as taxation.

This chapter attempts to identify stratagems that can be employed to finance the deficit. In particular this chapter distinguishes between foreign and domestic borrowing - for the financing of the fiscal deficit. Overreliance on domestic borrowing may mean high real interest rates and falling investment. Overreliance on foreign borrowing can cause appreciating real exchange rates and unsustainable external indebtedness, amongst others. Nevertheless, the maturity structure of debt issues plays a pivotal role in determining to a greater degree the type of institutions that will be taking up the debt. That is whether internal or foreign finance will be used. (choosing between internal borrowing or external finance)

Any borrowing strategy therefore, should be informed by a sound knowledge of a country's savings position, investment status, government spending, tax revenue position, balance of payments, and other relevant economic scenarios amongst others.

4.2 FOREIGN BORROWING

External finance is provided either by foreign currency borrowing from the banks or by

direct external finance. The latter consists primarily of the purchase by foreign residents of the government securities or stock, and also direct overseas official financing in the form of changes in the official reserves of foreign currency plus borrowing from overseas monetary authorities such as the I.M.F.

Perceived advantages of offshore borrowing for budgetary reasons is that it takes the pressure off the domestic money and the capital market and reduces the need to raise domestic taxes. In addition foreign borrowing supplements and replenishes the country's depleting foreign reserves. Thus external finance provides the recipient country with foreign exchange for importing necessary materials and equipment directly required for development projects. It also makes it possible to import other commodities which will be demanded indirectly as development proceeds and income increases. In essence, external resources facilitate a rapid pace of development.

For South Africa the case for external finance should weight more favourably compared to domestic finance. Well over 90% of the central government debt is held domestically. With the country reeling under the cloud of very high interest rates, the case for external finance is enhanced. High domestic interest rates are a huge opportunity cost. Neither can the central government raise taxes as this will be in direct contrast with the investment philosophy and serve as a disincentive to work. By international standards, our taxes are already too high as such there is limited scope to borrow domestically.

For South Africa being a net capital exporter since 1985 needs to be a net foreign capital importer for its imperative development process. Knowing that foreign reserves are finite, foreign borrowing becomes inevitable. But such a strategy should be accompanied by sound foreign debt management policies as will be shown below (4.3).

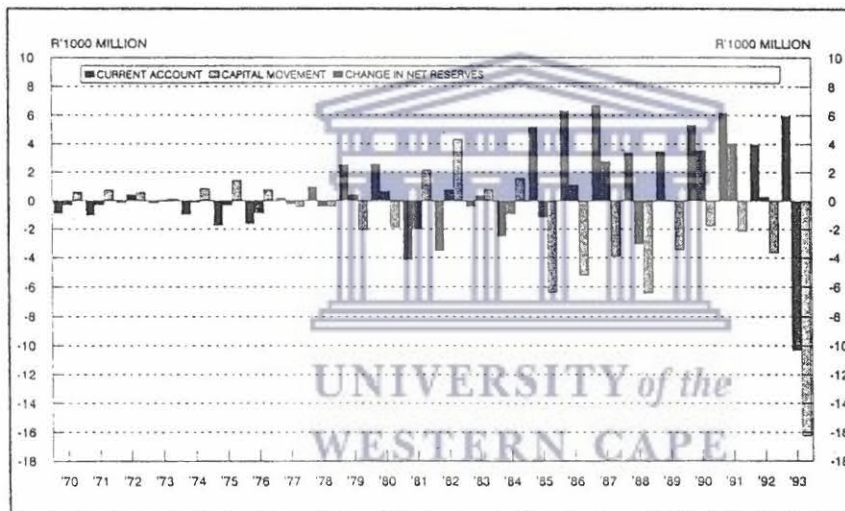
4.2.1 Foreign Borrowing and the Balance of Payments

External debt is claimed to be a burden because of its effect on the balance of payments. The purchase of the S.A. national debt by overseas residents will assist initially the S.A. balance of payments on capital account because of foreign currency inflows. However, the resale of this debt to S.A. residents by foreigners or repayment to foreigners on

maturity of the debt result in capital outflows. Similarly an increase in the budget deficit that increases expenditure will result in balance of payment difficulties.

Since 1985 debt repayment commitments resulted in the need to run current account surpluses [see fig 4.1]. Also South Africa has been a net exporter of capital since then. This was largely exacerbated by the fact that not only were there no forthcoming loans but existing loans were recalled on a large scale and suddenly. Similarly, sanctions and disinvestments compounded the problem. Most of the debt was of a short term nature making it increasingly difficult for South Africa to honour its obligations. Nevertheless, South Africa up till that time was never a bad debt country.

BALANCE OF PAYMENTS: CURRENT VALUES



SOURCE: SARB Fig. 4.1

However, the current account surplus witnessed since 1985, is very vulnerable. Between 1984 and 1989, the percentage of gross domestic product accounted for by imports fell from 29.5% to 27.9%. Suggesting that any modest recovery in the economy could wipe out the surplus on the current account. Furthermore deficits that increases expenditure normally fall in part on imported goods thus crowding out exports. This has negative consequences for the balance of payments. Thus any foreign borrowing strategy should be well aware of the effects on the balance of payments equilibrium.

The capital market is equally prone to the dangers posed by the lifting of the exchange controls. If exchange controls were to be scrapped overnight, the balance of payments will suffer "unprecedented" damage. With individual taxes having risen sharply over the years, emphasis has shifted away from national savings to institutional savings of which insurance companies are the main beneficiaries. Such that any scrapping of exchange controls will automatically encourage the insurance companies to seek more lucrative markets internationally resulting in capital flight. This will then adversely affect domestic investment and defeat the basic objective of employment creation. Presently, the South African insurance fraternity is prohibited by the existence of the exchange controls to invest internationally.

4.2.2 Foreign Borrowing, Exchange Rates and Interest Rates

The South African economy cannot insulate itself from the international interest rate and exchange rate movements more especially when it has a foreign currency-denominated debt. External borrowing involves risks associated with currency devaluation, international interest rates etc. Thus if the rand devalues relative to the dollar, then the rand value of the debt increases. Such that in the face of real currency depreciation the burden of the debt increases. Equally any exposure to high international interest rates, increases the interest cost associated with the debt. Also interest payments have an immediate impact on the balance of payments. Thus though there are perceived advantages of utilising external finance, there are equally problems involved with such a borrowing strategy.

4.3 Foreign Debt Management

Undoubtedly South Africa has meticulously met its foreign debt obligations under the various debt agreements with foreign creditors and the country is becoming more accessible for foreign capital. It thus become necessary that this hard-won position be maintained. This then requires appropriate foreign debt management policies.

Munla [1992: 63] identified two general requirements of effective debt management strategy that should be emphasised.

i) The appropriateness of borrowing depends on the use of the resources.

External finance supplements domestic savings and provide the debtor country with scarce foreign exchange which enables it to finance a greater volume of investment. South Africa is currently inundated with depleting reserves. By borrowing off-shore South Africa is exhausting foreign savings. Such savings should be utilised to augment the stock of domestic capital over and above what could be provided by domestic savings. A crisis is inaugurated when international funds are directed at or used to finance unproductive outlays.

However following the law of diminishing marginal productivity, which means that a country can not always achieve significant levels of prosperity even if foreign credits are used entirely for investment purposes, it therefore becomes imperative to direct such funds to foreign exchange earning outlays. Where the marginal product of capital exceeds the interest rate charged on foreign borrowing.

ii) The effectiveness of debt management depends on the appropriateness of other policies. Trade, exchange rate and pricing policies, as well domestic monetary and fiscal policies, directly affect the return on investment and therefore the appropriate level of foreign borrowing. Further, the level and terms of indebtedness have important implications for policy options in these areas.

In particular South Africa's exchange controls are said to be influential to the creditor when considering extending credit. Similarly, a depreciating currency tends to have disastrous consequences for the debt denominated in foreign currency.

Therefore debt managers should have a clear understanding of expected macroeconomic developments, while policy makers must have a good grasp of expected new borrowing requirements and debt service payments.

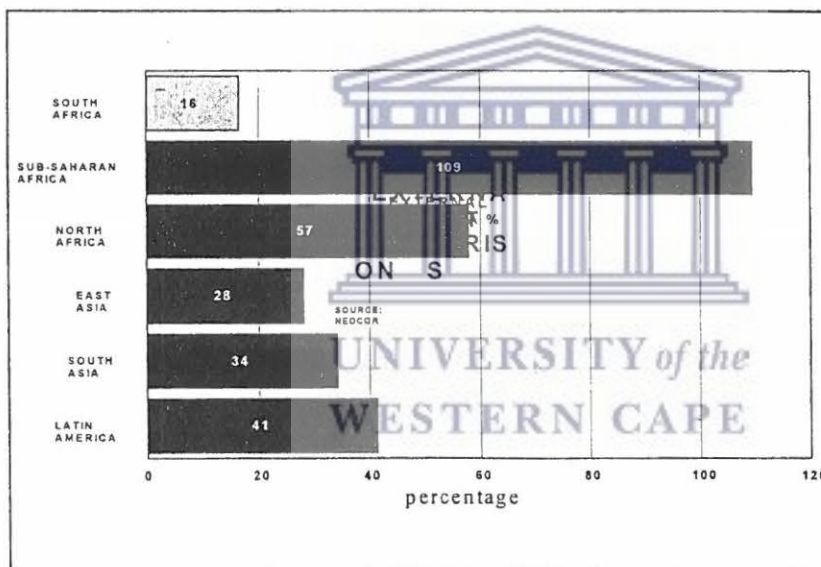
4.4 FACTORS IN FAVOUR OF A FOREIGN BORROWING STRATEGY FOR SOUTH AFRICA

Below is a summary of the factors in favour of external finance.

i) Low External Debt

South Africa's external debt is very low by international standards [see fig 4.2]. Other than that, the country had an impeccable record when it came to honouring its debt obligations prior to the 1985 debt moratorium declaration. Albeit external debt grew geometrically from \$1.6bn in 1960, to \$3.7bn in 1970, to \$16.9bn and \$24.3bn in 1980 and 1984 respectively, it has, however, been reduced to \$16.7bn in 1993.

External Debt: International comparison



Source: Nedcor

Fig. 4.2

In recent years there's been a marked improvement in the foreign debt. This is vindicated by table 4.1 below.

Table: 4.1

	RATIO Foreign debt/GDP	RATIO Foreign debt/ Total Export Earnings
1985	43%	126%
1992	15%	61%

ii) Domestic Interest Rates

The persisting high level of domestic interest rates does not augur well for domestic borrowing [see fig4.3]. This means that interest rates on bonds increases, thus increasing the burden on debt servicing. The combination of high interest rates and budget deficits has meant that the savings of South Africans have been sacrificed to meet current needs [see fig4.4]. With the need to service domestic debt severely constraining the expenditure options, it becomes "inevitable" to seek off-shore assistance or borrowing.

iii) Domestic Taxes

Bracket creep is running rampant in South Africa. Currently direct taxes account for over half the total receipts of the government. Since the beginning of the 1990's, direct taxes have averaged 52.02% of the total receipts. This has deleterious effect on disposable income. Not only does it minimise or lower the disposable income but it also robs the income earners of their chance to save. Evidenced by fig 4.5 below, it can be seen that individual taxes accounted for the largest portion of the total composition of the total ordinary revenue. Thus any fiscal strategy that is going to increase individual taxes will have unpalatable political and economic consequences.

A panacea for the economic ills of the country does not reside with the raising of taxes and exacerbating bracket creep. Amongst the pool of available stratagems, the reduction in government consumption needs no introduction. Albeit there is presently no convincing evidence to suggest that government consumption will be reduced in the not too distant future, commitment and will should be there all

the same. Since 1980, current expenditures have exceeded current revenues. Current expenditures largely constitute of wages, pensions and other transfers, such as interest payments, which are very difficult to reduce. To reverse the trend appropriate macroeconomic policies need to be employed. Such policies should be consistent with the overall objective of generating economic growth.

Taxes from companies and mines have over the years declined putting pressure on individual taxes. An increasing demand for more schools will certainly require an increase in taxes or budget deficits. Sourcing external finance will provide the means to meet expenditures and thus lessen the need to raise taxes.

iii) Improved Political Dispensation

South Africa has achieved one of the most dreamt about solution to its internal problems. This has encouraged the IMF and the World Bank to reconsider and resume their much awaited financial assistance. In turn this will send a vivid signal to the international banking fraternity that lending to South Africa is both politically and financially correct. Similarly with such an achievement the level of investor confidence is rejuvenated and restored both internally and internationally [see fig.4.6]. This will then boost the level of falling investments, to the extent that such an inflow of funds is used primarily for capital expenditure.

With the recent promulgation of South Africa's international credit rating, this will allow the country to borrow at rates which are more favourable than a lack of an investment grade. Albeit even with Moody's Baa3 we won't be able to borrow at the best rates, we sure are better than no rating at all. The significance of gaining an investment grade rating will largely be symbolic, a sign that we are back in the international community.

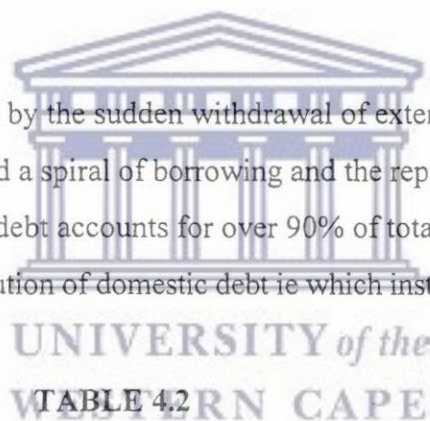
In essence foreign financing should, normatively, be used to fund projects which increase the capacity to earn foreign exchange, such as export related projects and

the costs should be carefully considered.

4.5 DOMESTIC BORROWING

Domestic borrowing by the public sector can be defined as the process whereby the government borrows internally from the domestic monetary banking sector (including the Reserve Bank), the non-bank private sector (in particular the life assurance companies and the private pension funds) and the Public Investment Commissioners (PIC). Objections to this type of borrowing have been largely associated with the Neoclassical school of thought. Where the emphasis has been on its (domestic borrowing) tendency to crowd out private sector investment. Another method associated with domestic borrowing is the printing of money (monetisation of debt) to finance government budget short fall. This method has since received criticism primarily because of its inflationary consequences

This was largely influenced by the sudden withdrawal of external financial aid to South Africa. This then occasioned a spiral of borrowing and the repayment of ever increasing amounts. To date domestic debt accounts for over 90% of total government debt. Table 4.2 below shows the distribution of domestic debt ie which institutions accounts for most of the debt.



	'87	'88	'89	'90	'91	'92
Domestic Debt(bn)	53.2	64.9	79.9	90.2	112.5	136
Held By: Reserve Bank	60	73	55	653	423	2204
Banks	93	-	17	952	1518	3192
PIC	25	82	1900	1871	1853	3334
Other	7944	7311	11876	13707	22389	37451

Source: SARB

It can be seen that the Public Investment Commissioners hold much of the debt. The

"official" function of the PIC as defined in the annual report is: "All trust and other funds in the hands of government departments, ..., and which are available for investments, are payable to the commissioners who are obliged to invest such funds in government and semi-public debt instruments" [Faure: 1993; P115]. Thus the PIC receives funds from the public sector for long-term investments and administers a range of funds on behalf of the public sector. The short-term deposits of the PIC are held with the CPD (Corporation for Public Deposits) and other institution.

Khan B[1990, p] state that the PIC are a captive market for a large proportion of debt issues. The PIC are seldom in competition with the private sector. This is largely because the PIC do not normally submit a competitive tender for government stock. The allocation of government stock to the PIC is determined on the basis of the PIC's own expected requirements.

Nevertheless, in nominal terms domestic borrowing has reached alarming levels. At the end of 1987 domestic debt stood at R53,188bn. In 1991 it reached R112,470bn. Three years later it rose to R171,6bn. This is 223% increase from 1987. This is a vivid sign of a blatant failure to curb government spending which is equally not likely to be reduced in the near future.



From the table above it can be seen that the Reserve Bank accounts for the least in the distribution of domestic debt. One can summarily conclude that public sector borrowing from the Reserve bank is in fact inflationary. However it is not always inflationary. If the Reserve Bank takes up a new issue of debt, the treasury's account with the Reserve Bank is credited by the amount of the purchase. For as long as the funds are not utilised, there won't be any change in the money supply or the bank's cash reserves. However, the sooner the money is spent, the government's deposit with the Reserve Bank declines. This will then necessitate an increase in the banking sector's net claims on the government, equal to the decline in government deposits. At this point it will appear as though the money supply has increased as there is an increase in the deposits of the non-bank private sector with banks. In fact, because the banks have excess liquidity, this will be used to

redeem paper on rediscount with the Reserve Bank. Thus albeit the Reserve Bank's increased holdings of Government securities increases the money base, this is offset ultimately by a decline in accommodation. In this case then it can be argued that borrowing from the Reserve Bank to finance the deficit is not inflationary, ie in the sense of increasing the money supply [Khan B: 1990; p18].

However, the De Kock Commission recommended that the public sector should avoid credit extended by the Reserve Bank. The reason being its tendency to increase the money supply [De Kock Commission quoted in Black P A and Dollery B E; 1989; P164]

It can be seen from table 4.2 that the private banking institution also have a significant stake in the domestic debt market. If the private banking sector takes the treasury issue, their cash balances are reduced because they are offered to the government through the sale of its stock. This then enables the government to finance its deficit. [For the banks to replenish their depleting cash, they need to rediscount bills at the Reserve Bank's discount window]. Rising interest cost tends to create problems for the government. If interest rates rise, the debt issue loses its value thus forcing the government to pay more for the debt issue – a direct depletion of its resources.

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The popular objection to Domestic borrowing is that of crowding out private sector investment. This is effected when the Treasury directly sells securities to the capital market. In this case the public sector is said to be competing with the private sector for available capital funds. The sale of securities to the private sector reduces their deposits with the monetary banking sector and thus reduces the funds available for investments. For the fact that, in the interim, government deposits increases, the sale of these securities crowds out private sector investment.

Various critics, economists, politicians, etc, have argued strongly that though South Africa has a large domestic debt, it has been manageable. However, the question remains: how do we reduce our significant domestic debt? Borrowing to finance current expenditures (comprising mostly of bureaucrats' salaries) is a recipe for disaster. This is

vindicated by the progressive decline in the proportion of spending representing investment from the state expenditure (see chapter 5 for more details).

4.6 ECONOMIC CONSEQUENCES OF DOMESTIC BORROWING

South Africa kept domestic debt at manageable level to the peril of other economic variables. Direct personal taxes have increased over time and at the same time personal savings have declined and depreciation has increased. This engendered deleterious effects on personal disposable income and accelerated bracket creep. Government revenue has been lagging behind state expenditure for some time without any sign that it will increase to values greater than state expenditure. Company taxes as a percentage of total revenue have declined excessively putting much pressure on individual taxes. For the 1977/78 financial year, company taxes accounted for 24% of total tax revenue and for the 1993/94 financial year they reached a low of 12.6%. At the same time individual taxes increased from 26.8% of total tax revenue for the 77/78 financial year to 42.7% of total tax revenue for the 93/94 financial year (IDC: graphs data bank)

By implication this means that individual taxes have continuously been used to cover the state budget short fall. Personal savings have similarly declined from 7% of gross domestic savings in 1970 to 2.4% of gross domestic savings in 1991. By the same token gross domestic savings have declined from a high of 33.1% of GDP to a low of 16.7% of GDP. One can summarily conclude that a decline in savings by this margin had necessitated that direct personal taxes had to increase as a percentage of GDP to compensate for the decline in savings.

4.7 CONCLUSION

The main emphasis of this chapter was to identify the implications of domestic and external borrowing. Though the arguments were strongly in favour of external borrowing, there are hazards associated with such a borrowing strategy. The London School of Economics's Centre for Research into Economics and Finance has warned that the government might have to pay hefty interest premiums if it taps the international capital markets. To this the Centre stated the uncertainty about the 1999 election, which was

most likely to affect the bond issues with a maturity period of longer than four years. The study vindicates this by stating that a five year S A bond is most likely to be priced in the region of 150-200 basis points above US Treasury bonds. With US Treasury five year issues presently yielding 7.5%, that points to SA having to pay 9%-9.5% [Business Day: 26/10/1994; p3]. Given such a prediction, it is nothing less than an educated guess.

South Africa is in good shape with respect to external debt. Past repayments have placed the country in a position in which it could comfortably shift back from being a capital exporter to a capital importer.

Nevertheless, utilising external finance for foreign exchange earning outlays should be more beneficial than for the financing of current expenditures.



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CHAPTER 5

SOUTH AFRICAN SITUATION: ITS INDICATORS AND FINANCING METHODS (THE STATE OF PUBLIC FINANCE)

5.1 INTRODUCTION

Amongst the available remedies for debt ills in South Africa (particularly the ever increasing domestic debt), is the suggestion to significantly cut government spending. However, reducing state expenditure is compounded by visible factors. Chief amongst these is the increase in the number of state employees; from the previous homelands and constitutionally guaranteed employment of civil servants from the old order, to the newly employed "politically correct" civil servants. The integration of the different military forces, from the homelands and the liberation movements, need no introduction in this regard. Equally the contentious issue of privatisation of parastatals has gained support as a viable debt reducing strategy. Nevertheless South Africa's state of public finance has reached alarming levels.

The purpose of this chapter is to look at South Africa's indicators of the state of public finance. It is from these indicators that South Africa can assess its strength in relation to servicing its debt obligations. Though the indicators below are not the only ones that can be used, they are the most commonly used in the analysis of budget deficit.

5.2 INDICATORS OF THE STATE OF PUBLIC FINANCE

- the ratio of government debt to GDP;
- the ratio of interest payments to government expenditure;
- the ratio of the deficit before borrowing to GDP;
- the level of real interest rates relative to economic growth;
- the ratio of taxation to GDP;
- the net asset value or net worth of the government and
- the level of government expenditure to GDP

5.2.1 The Ratio of Government Debt to GDP

The trend in the ratio of government debt to GDP has been increasing since 1982 [see fig. 5.1]. From a low of 30.5% in 1981 to a high of 48.4% of GDP in 1993, this ratio is rapidly approaching alarming levels. Albeit these figures are within acceptable limits given the internationally acceptable ceiling of 60%, industrious efforts need to be employed to keep the value way below the international ceiling. Ratios of similar magnitudes were recorded during the 60's. However these ratios were compatible with favourable levels of economic growth experienced at that time.

TOTAL GOVERNMENT DEBT

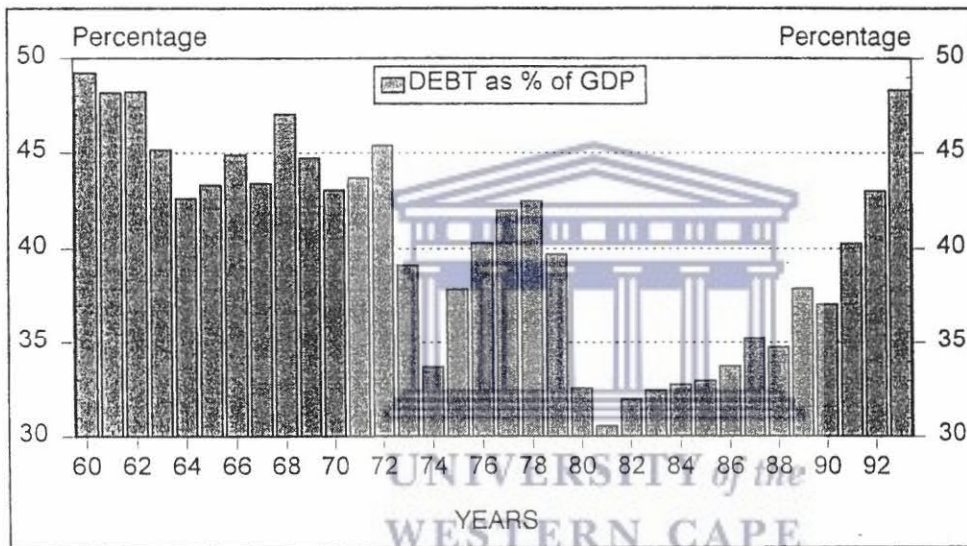


Fig. 5.1 Source: SARB

Although it is economically sound for our economy to utilise borrowed funds, (in fact de Kock [in Black and Dollery: 1989; p269] states that "Debt is not a dirty word. On the contrary, debt can be beautiful) there is a pressing need not to allow this sharply rising trend to continue. An ever increasing trend implies that taxes have to be raised to service the interest payments of the debt. With the significantly low level of savings, the state may find it exceedingly difficult to raise funds in the domestic capital market without having a negative impact on private sector investment.

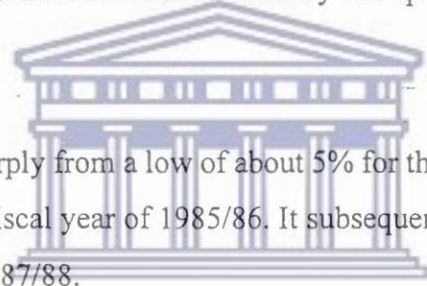
Economist Edward Osborn [quoted in the Financial Mail May 20 1994; p22] believes that the ratio of Government Debt to GDP will be around 55% by the end of 1994, which will have to accommodate inter alia inclusion of almost R15bn TBVC state's debt.

In comparison with the OECD countries, SA has not done too badly by this yardstick. Most hover between 60% - 70%, with Belgium having the highest Debt:GDP ratio at 144.8% and Australia the lowest at 41.3%. The problem is that SA has had to pay higher interest rates for its borrowings.

5.2.2 The Ratio of Interest Payments to Government Expenditure

The present value (1994) of this ratio at 17.5% of total government expenditure, makes it to be the second highest spending on item in the national budget. Certainly there are more deserving expenditures that should be covered by this spending rather than interest payments.

This ratio has increased sharply from a low of about 5% for the fiscal year 1960/61 to a high of 15.4 % during the fiscal year of 1985/86. It subsequently declined to a level of 12.9% for the fiscal year 1987/88.



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Interest Payment as a Percentage of Government Expenditure

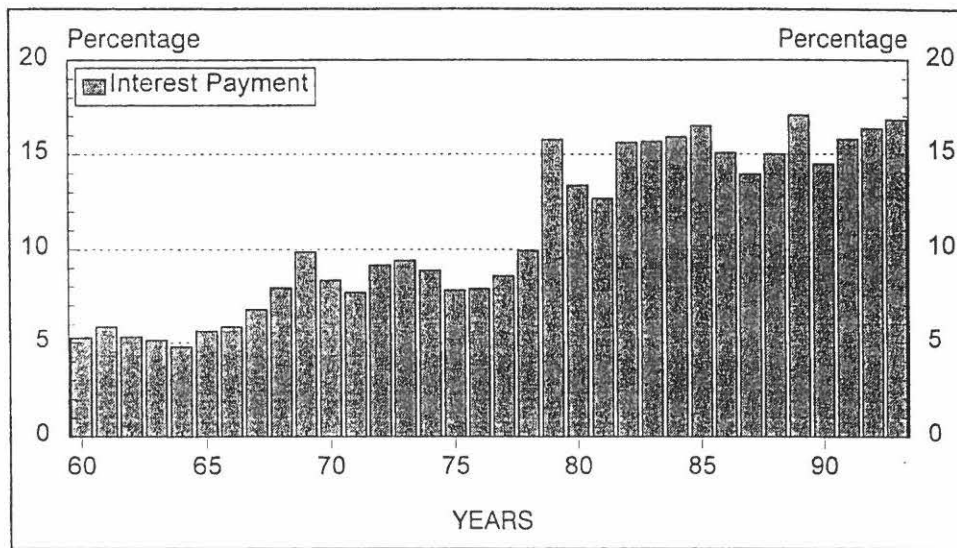


Fig. 5.2 Source: SARB

However its decline during this period was largely attributed to a sharp decrease in interest rates during the same period. More importantly, the decline was necessitated by a considerable acceleration in the rate of increase in other government expenditures. Nevertheless, the decline was short lived, for the level rose to 16.2% in fiscal 1992/93 and to the present level of 17.5% of government expenditure (see fig5.2). This unprecedented rise was as a result of a combination of lower rate of increase in total government expenditure, a rise in average interest rate level, and a sharp increase in government debt.

Such high interest rate payments by the fiscus have important consequences for both the expenditure and revenue sides of the budget. On the expenditure side, they have a high opportunity cost; and on the revenue side, interest payments had deleterious tax implications.

This ratio significantly highlight the decaying nature of the state of public finance. Increasing state borrowing will necessitate an increase in interest payments and loan redemption. This state of affairs can be allowed to continue only if the country is

enjoying a substantial increase in its economic growth. Naturally, a significantly high growth rate can sustain high levels of borrowing.

5.2.3 The Ratio of the Deficit Before Borrowing to GDP

Over the last two decades this ratio recorded its first ever high at 8.6% for the 1992/93 fiscus (this figure was blamed partly on outside forces such as drought). From fig 5.3 it can be seen that the deficits recorded over the years were exceptionally large given the World Bank directive of at least 3% of GDP. High ratios suggest that the government has to borrow more to finance its budget shortfall.

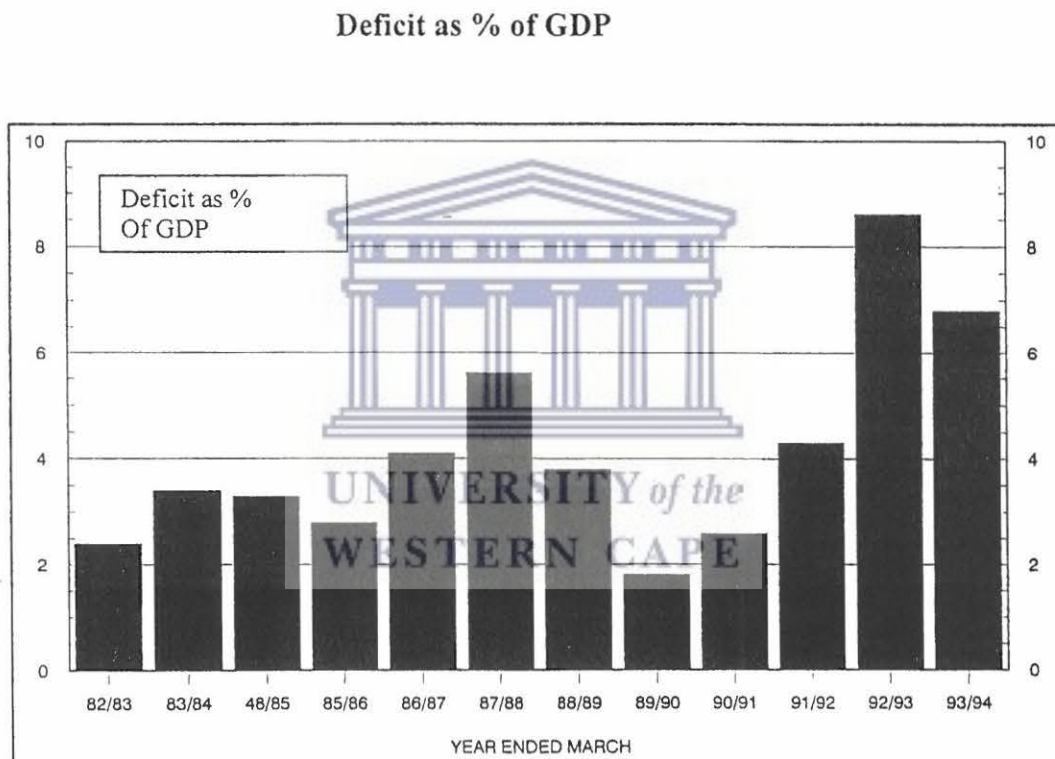


Fig. 5.3 Source: SARB

The current high levels of large deficits is more disconcerting than similar levels witnessed in the last half of the 70's. For the 70's, the South African economy was considerably higher than in the early 90's. When these levels were recorded in the 70's, the government was still a net saver. From 1984, the government has become a net dissaver[E.J. van der Merwe: 1993; p6]. Presently the new government is trying hard to

keep the ratio at 6% a figure condoned by the World Bank, for a limited phasing in period of the Reconstruction and Development Programme. The fear is that this could become a new norm. Thus by all means, there should be a visible strategy to at least approach the 3% directive as suggested by the World Bank. With an embarrassed economic growth rate, such high levels of the deficits can never be sustained.

5.2.4 Real Interest Rates and Growth Rates

To a large extent, payment of debt interest is a function of the level of real interest rates. If the latter (as stated in chapter 3: 3.2.4) exceeds the growth rate of the economy over a long period of time, this indicates that interest payments will increasingly have to be financed by an increase in the debt or at the cost of other essential government services. Evidenced by figure 5.4, the real yield on government stock

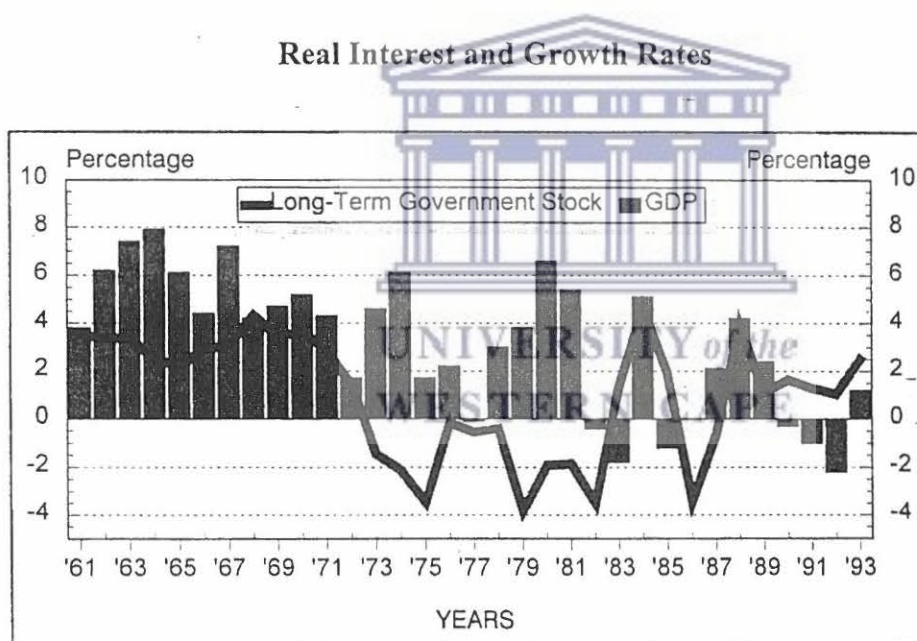


Fig. 5.4 Source: SARB

was almost persistently lower than the growth rate of GDP. Exceptions in this regard were recorded in 1977, 1983, 1985 and the early 90's. It is particularly in the 1990's that the real interest rates exceeded the GDP for more than one year in succession. The primary reason being the longest recession ever experienced since the second world war. And it was during the very years (early 90's) that the government experienced higher

levels of interest payments.

Any sustained rise in the real interest level relative to the growth rate indicates that current debt ratios may be difficult to sustain in the future. This is even made worse by the currently high level of the deficit before borrowing, the low growth in the economy and the high ratio of interest payments to total government spending. It thus becomes imperative to guard against any sustained increase in the level of real interest rate relative to the GDP. This is a luxury the country can ill afford.

4.2.5 The Ratio of Taxation to GDP

It is important in the evaluation of the government debt to take into consideration the relative size of government revenue. This yardstick (ratio of taxation to GDP) is used primarily to assess the extent of the tax burden in South Africa. There has been a noticeable gradual upward trend in the ratio of taxation to GDP since the early 70's (see figure 5.5).

TOTAL ORDINARY TAX REVENUE AS A PERCENTAGE OF GDP

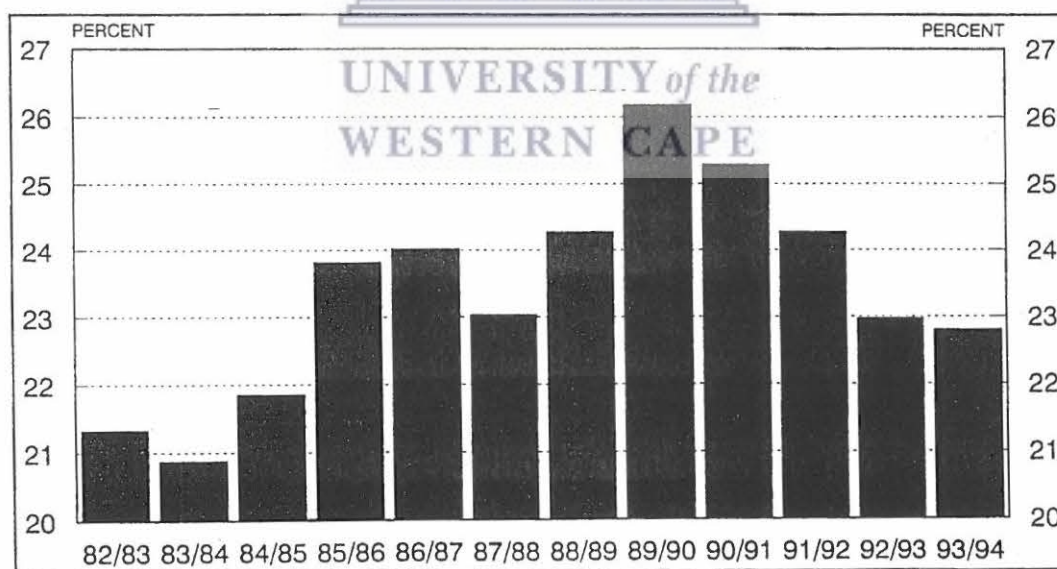


Fig. 5.5 Source: Dept. of Finance

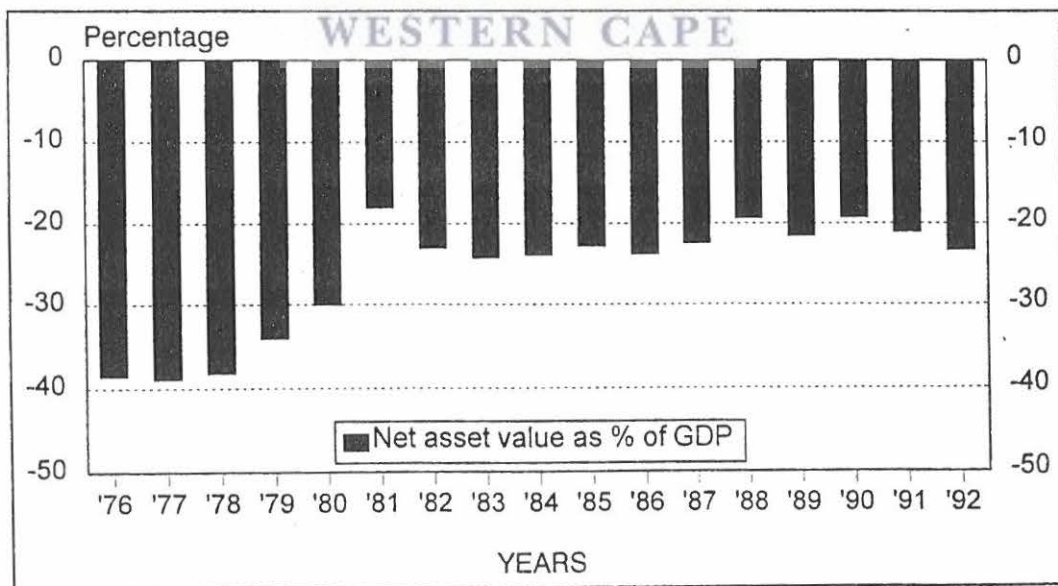
During the years of relatively high growth, this ratio was decreasing, notably during

fiscal 1979/80 and fiscal 1983/84. Between 1990 and 1993, this ratio declined consistently indicating the effects of the down turn in economic activity since March 1989. However, van der Merwe[1993: p9]states that the recent downward trend may not only be due to exceptionally long and severe decline in economic activity, but may also reflect structural weaknesses in the tax system and the inefficiency of tax collection, as well as the low rate at which the value-added tax was introduced in 1991. There are fears, however, that this ratio might increase further given the demands of the RDP (Reconstruction and Development Programme)and partly the transitional levy. Nevertheless, tax changes have both an income and substitution effect. This has direct implication for the economy.

4.2.6 The Net Worth of the Government

It has been stated on numerous occasions that borrowing to finance current expenditures feeds on the debt problem rather than reducing the debt burden. This yardstick (net value of government) attempts to indicate whether government borrowing or loans have been used for capital or current expenditures. [Refer to section 3.2.5 for the definition of the net asset value and also van der Merwe's article]

Fig. 5.6 Source: SARB Net Worth of the Central Government



From figure 5.6, government debt has consistently exceeded the government's capital stock by a considerable margin. This clearly indicates that large parts of government borrowing were not undertaken for the traditionally sound and sustainable economic reasons. Albeit there has been a visible movement towards positive values, the pace is not pleasing at all. In the mid-70's, the net worth of government as a ratio of GDP came close to negative 40%. With the increase in the gold price in 1980, this ratio narrowed considerably and fluctuated around negative 20% in the subsequent period. Recently the ratio has deteriorated sharply from minus 19% in 1990 to minus 23% in 1992 [van der Merwe:1993; p8].

Since the 1920's South Africa engaged in a development drive armed with the world's largest endowment of non-fuel minerals. Today SA has disposed much of those assets but failed to invest the portion of mineral rents representing depletion in assets with the same or better ability to generate income. In other words, assets below the ground were not adequately replaced by assets above the ground.

5.2.7 The Level of Government Expenditure to GDP

Fiscal stringency has been hailed as one of the ingredients for the future economic success of this country. Thus a need to significantly curb government spending becomes an integral part of fiscal prudence. Presently the level of government expenditure stands at 21% of gross domestic product. In five years time the government of national unity wants to reduce this ratio to 17%. This vividly shows the difficult task ahead.

Level of Government Expenditure as % of GDP

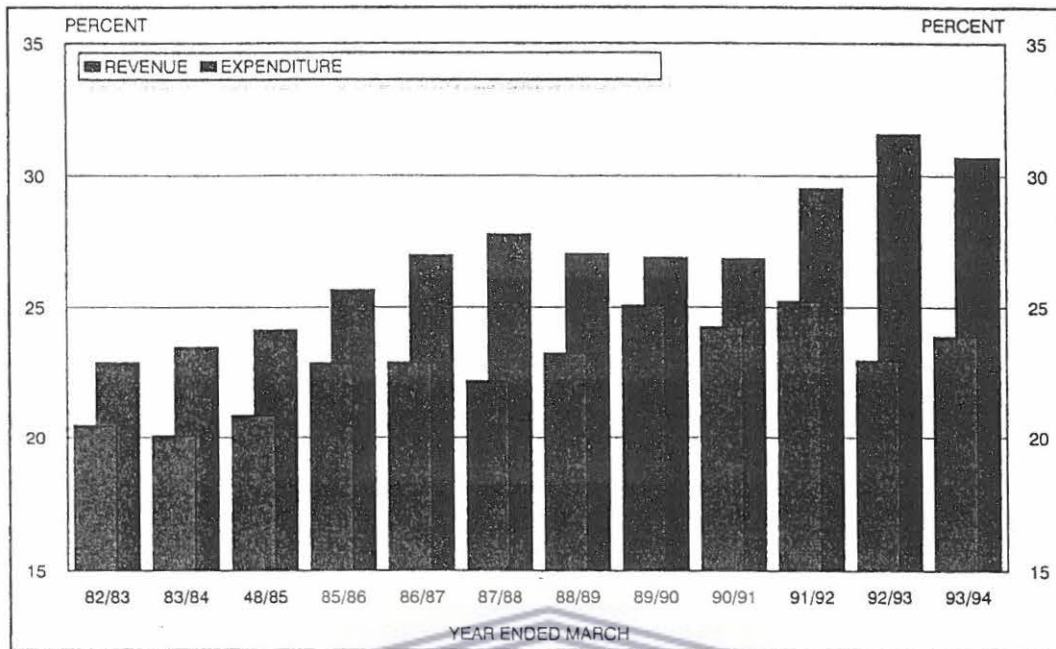


Fig. 5.7 Source: SARB

During the 1992/93 fiscus, the ratio of government expenditure to gross domestic product increased to just more than 30%. This increase was largely attributed to an increase in the interest payments engendered by a rise in the government debt. Thus the ratio of government expenditure including interest payments rose more sharply compared to that level of government expenditure that excludes interest payments. The latter rose more slowly from a low of 19.5% for the 1980/81 fiscus to only 20.5% for the 1984/85 fiscal year. It then rose to 23.6% in fiscal 1986/87 and fluctuated around this level in the next five years. However, it increased sharply to 26.3 for the 1992/93 fiscus.

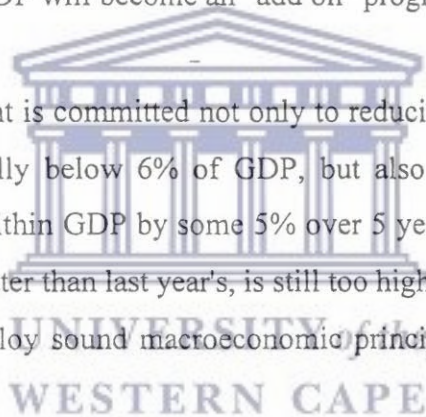
By international standards, the level of SA government expenditure is exceptionally high. For instance, social expenditure by the South African government substantially exceeds international norms for both developing and developed countries.

5.3 CONCLUSION

Caught between the anvil of a rising domestic debt and the hammer of rising interest payment, the South African economic managers need to engage in the much talked about belt tightening process pronto. Nearly two out of every ten rand received by the government now has to be used to finance interest payments on the growing public debt. This is certainly an unpalatable state of affairs.

The conduct of the fiscal policy is a *sine quo non* to demonstrate fundamental progress in the fight against rising government debt. This is crucial in view of concerns both within the local financial markets and the foreign investment community. Financial markets will be particularly eager to see whether more existing spending can be effectively re-oriented towards achieving RDP objectives as promised or whether - as feared by the market - the RDP will become an "add on" programme.

On the face of it, government is committed not only to reducing the size of the deficit progressively to meaningfully below 6% of GDP, but also to reduce the share of government consumption within GDP by some 5% over 5 years. Although this year's budget deficit, somewhat better than last year's, is still too high for comfort. It therefore becomes imperative to employ sound macroeconomic principles in the fight against rising interest costs.

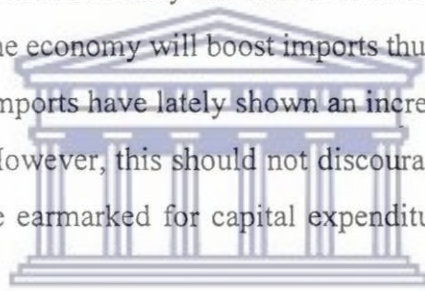


CHAPTER 6

Conclusion

Budgetary realities in South Africa have prompted frequent questioning of whether the country is not already in a so-called "debt trap". Countries find themselves in a debt trap when they have to borrow more and more to meet a growing interest bill. In such circumstances, governments have little room to manoeuvre. The government's hands are tied in counter-cyclical fiscal policy, such as cutting taxes. Similarly high interest rates make servicing the debt more costly.

On the international front, South Africa is under-borrowed. In this regard favour should go more for off-shore borrowing more than domestic borrowing. Certainly South Africa has to generate the means of meeting debt obligations by running a surplus of exports over imports of goods and services. Presently this state of affairs look bleak given the fact that any modest recovery in the economy will boost imports thus forcing a deficit on the balance of payment. In fact imports have lately shown an increase particularly imports of machinery and vehicles. However, this should not discourage off shore borrowing, particularly if such funds are earmarked for capital expenditure or foreign exchange earning outlays.



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The bulk of South Africa's debt is of domestic origin, accounting for over 90% of the total debt. In comparing South Africa's debt and the deficit with the developed countries, evidence suggest that South Africa fares well (see table 6.1). The anti-inflationary monetary policy with its concomitant high real interest rates makes domestic borrowing more costly. Similarly increasing the tax burden has deleterious effect on the economy. The solution in this regard is to borrow overseas. As to how large a foreign debt should be, its a function of a combination of factors. Amongst others, the international interest rates, devaluation of the domestic currency relative to the debt denominated currency and the maturity schedule. It is, however, necessary to ensure that the government determines the destination of the funds and that this accords with its investment priorities. The use of funds for purposes which are not in accordance with the investment and growth strategy is to be strongly discouraged. This caveat applies not only to the overall

destination of the funds , but also to the nature of the government expenditures.

Table: 6.1

COUNTRY	Deficit as % of GDP	Debt as % of GDP
SA	6.8	48.7
US	4.4	53
UK	7.5	46
France	4.8	56
Germany	4.5	47
Italy	9.8	114
Japan	1.6	56
Spain	7.2	57
Sweden	14.3	68

Source: First National Bank (1994)

There are fears that whatever route South Africa takes, debt trap is inevitable. Given the lack of an effective brake on expenditures the country simply cannot accommodate any taxation reforms without compounding its overall public debt dilemma.

Domestic borrowing has a tendency to crowdout private capital accumulation. Caution should be taken when the public sector starts competing with the private sector for available funds. At the same time South Africa has been a net exporter of capital since the mid-80's. On the international front, by the end of 1993 South Africa's reserves (excluding gold) could only cover 0.7 months of imports equal to US\$1bn. By the second quarter of 1994 the reserves could only cover 0.3 months of imports equal to US\$0.5bn. At least the reserves should be able to cover 3 months of imports. Thus by borrowing off-shore will not only save the worsening domestic debt by it will simultaneously replenish our depleting reserves.

Econometrix director Azar Jammine says that SA's foreign debt to GDP ratio is so low it could take on an additional \$16bn of foreign debt without being overborrowed. The foreign debt ratio to GDP of 14% is half the average level for emerging countries [The Star, 5 January 1995, p19]. This further enhances a case for off-shore borrowing. SA is in a position in which it is short of foreign exchange, but can solve the problem by exploiting its underborrowed situation.

The fiscal strategy that should govern South Africa in future would depend largely on ones outlook for growth, so attests André Roux [Journal of economics...p332]. A fiscal programme premised on a poorly performing economy would have to rely on a combination of expenditure restraints and tax increases since it is politically unrealistic to expect that a transitional government would be able to impose the full burden of the adjustment on one side of the budget.



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ANNEXURE

1.1 PROSPECTS FOR THE DEBT RATIO

Roux advanced medium term strategies by running simulations, one of a zero growth rate scenario and the other with a growth rate of 2.5% per annum. The simulations were based on the 1993/94 budget.

Table 2.1: Debt Ratio under zero growth scenario

Budget year	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00
Growth rate	0	0	0	0	0	0	0
Tax rate	23.7	23.7	23.7	23.7	23.7	23.7	23.7
Growth in spending	-3	-3	-3	-3	-3	-3	-3
Debt ratio	51.9	54.8	57.9	61.1	64.4	67.9	71.4
Tax rate	23.7	24.2	24.7	25.2	25.7	26.2	26.2
Growth in spending	-3	-3	-3	-3	-3	-3	-3
Debt ratio	51.9	54.3	56.3	57.8	58.9	59.5	60.2
Tax rate	23.7	23.7	23.7	23.7	23.7	23.7	23.7
Growth in spending	-3	-2	-2	-2	-2	-2	0
Debt ratio	51.9	54.3	56.3	57.8	59.0	59.7	59.9

With a constant interest rate of three percent per annum and expenditure and taxes that are kept at levels established at the 1993/94 budget, the debt ratio is envisaged to accumulate to just over 70 percent by the end of the century. This resides with a very contentious issue of cutting expenditure by 3 percent (in real terms) until the turn of the 21st century. This level is above the internationally acceptable maximum of 60 percent of GDP. To try to prevent the debt from rising above 60 percent, the government will have to increase the average rate of taxation (assuming that annual increments are confined to half a percentage point of GDP). Then in this case, the tax rate will increase to just over 26 percent per annum. In essence this means five successive increments in the VAT rate of 1.5 percentage points each. This will realise a debt ratio of about

60percent of GDP by the end of the century.

Table 2.2: Debt ratio under High growth scenario

Budget year	93/94	94/95	95/96	96/97	97/98	98/99	99/00
Growth	0	1	2	3	3	4	4
Tax rate	23.7	23.7	23.7	23.7	23.7	23.7	23.7
Growth in spending	-3	1	2	3	3	4	4
Debt ratio	51.9	54.3	56.3	57.8	59.3	60.2	61.2
Tax rate	23.7	24.2	24.7	24.7	24.7	24.7	24.7
Growth in spending	-3	1	2	3	3	4	4
Debt ratio	51.9	53.8	54.7	55.1	55.5	55.4	55.4
Tax rate	23.7	23.7	23.7	23.7	23.7	23.7	23.7
Growth in spending	-3	0	2	3	3	3	4
Debt ratio	51.9	54.1	55.5	56.2	56.9	56.8	56.8

The scenarios presented in table 2.2 are sensitive to the real interest rate. For example, if the four percent real interest rate (existing during 92/93) were to be maintained until the end of the decade, the effect would be to drive the debt ratio up by an additional two percentage points. It is also envisaged that, during the high growth scenario, the debt to GDP will average about 57.4 of GDP. This figure is just below the international limit of 60% of GDP.

BIBLIOGRAPHY

- | AUTHOR | TITLE |
|-------------------------------------|---|
| 1. Abedian I. and Standish B. (ed) | 1992 <u>Economic growth in South Africa.</u>
Selected Policy Issues, Oxford University Press, Cape Town |
| 2. Barro R.J. | 1974 <u>Are Government Bonds Net Worth?</u>
Journal of Political Economy, Nov/Dec, pages 1095-1117 |
| 3. Barro R.J. | 1979 <u>On the Determination of the Public Debt.</u> Journal of Political Economy, October, pages 940-971 |
| 4. Bernheim B.D. | 1989 <u>A Neoclassical Perspective on Budget Deficits.</u> Journal of Economic Perspective, Vol, 3 No 2 pages 55 – 72 |
| 5. Black P.A. and Dollery B.E.(ed) | 1989 <u>Leading Issues in South African Macroeconomics Selected Readings</u>
Southern Books Publishers, JHB |
| 6. Blackman C. | 1982 <u>Managing Foreign Exchange Reserves in Small Developing Countries</u>
Occasional Papers II, Group of Thirty, New York |
| 7. Caprio G. et al (ed) | 1993 <u>Building Sound Finance in Emerging Market Economies.</u> IMF and World Bank |
| 8. Carter H. and Partington I. | 1981 <u>Applied Economics in Banking and Finance</u>
Second Edition, Oxford University Press, New York |
| 9. Davis J.M. (ed) | 1992 <u>Macroeconomic Adjustment: Policy Instruments and Issues</u> IMF, Washington D.C. |
| 10. Derburg T.F. and Mcdougail D.M. | 1968 <u>Macroeconomics: Third Edition</u> Tosho Printing Company, LTD, Tokyo Japan. |

11. Dornbusch R. et al (ed) 1991 The Open Economy Tools for the Policymakers in Developing Countries, Oxford University Press, New York
12. Eckstein O. 1979 Public Finance, Fourth Edition, Foundations of Modern Economics Series, Prentice Hall, Inc., Englewood Cliffs, New Jersey
13. Eisner R. 1989 Budget Deficits: Rhetoric and Reality in the Journal of Economic Perspective, Vol 3 No. 2 – Spring – pages 73 – 93.
14. Fallon P et.al 1994 South African Economic Performance and Policies. Discussion Paper, the World Bank Of Southern Africa Department, Informal Discussion Papers on Aspects of the Economy of South Africa
15. Fischer S. and Dornbusch R. 1983 Economics, Macgraw-hill International Book Company, USA.
16. Folkerst- Landau E. 1994 Developing a Domestic Funding Strategy for South Africa's Public Sector The World Bank Southern Africa Dept.
17. Gelb S. 1991 South Africa's Economic Crisis David Philip Publishers, Claremont, SA
18. Goldin I. 1992 External Financial Assistance and Post Apartheid South Africa. Economic Policy Series, EPRP, University of the Western Cape
19. Herber B.P. 1983 Modern Public Finance, Richard D. Irwin Inc., Homewood, Illinois, USA
20. Kahn B. et. al. 1992 Informal Discussion Pepers on Aspects of the Economy of South Africa. Paper No. 2, The World Bank, Souhthern Africa Department.

21. Khan B. 1991a Budgeting for a Future South Africa: Fiscal Policy and the Constraints on Deficit Spending. Economic Policy Series No. 3, EPRP, University of the Western Cape
22. Khan B. 1991b Capital Flight and Exchange Control in South Africa. Centre for the Study of the South African Economy and International Finance, Research Paper NO.4, London School of Economics, London.
23. Krugman P. 1987 Adjustment in the World Economy Occasional Papers 11, Group of Thirty, New York.
24. Khan M.S. and UI Haque N. 1985 Foreign Borrowing and Capital Flight A formal analysis, IMF Staff Papers, December.
25. Kulkarni R.G. 1966 Deficit Financing and Economic Development; with special reference to Indian Economic Development, Loyall Art Press LTD, Calcutta, India.
26. Lachman D. et. al (ed) 1992 Economic Policies for a New South Africa IMF, Washington D.C.
27. Louw A. 1989 Die Implikasies van die Algemene Owerheid se Leningsbehoefte op die Suid Afrikaanse Ekonomie, Masters Thesis UNISA
28. Meyer L.H. (ed) 1983 The Economic Consequences of Government Deficits. Kluwer-Nijhoff Publishing, Netherlands.
29. Mohr P.J. 1994 Restructuring the South African Economy Some Pertinent Issues. In the Studies in Economics and Econometrics, BER, August

- Stellenbosch.
30. Nattrass J. 1988 The South African Economy: Its Growth and Change, Oxford University Press, Cape Town.
 31. Nunnenkamp P. 1986 The International Debt Crisis of the Third World: Causes and Consequences for the World Economy, Wheatsheaf Books LTD, Great Britain.
 32. Razin A. and Sadka E (ed) 1987 Economic Policy in Theory and Practice Macmillan Press, Hong Kong.
 33. Roux A 1993 The Public Debt: A Medium-Term Perspective, The South African Journal of Economics, Vol 64, No. 4.
 34. Tobin J. 1988 Policies for Prosperity. Does Fiscal Policy Matter? Wheatsheaf Books, U K.
 35. Van den Bogaerde F. 1978 Elements of Price Theory J.L. van Schaik Limited, Pretoria
 36. Van der Merwe E.J. 1993 Is South Africa in a Debt Trap? South African Reserve Bank, Ocaasional Paper No,6, Pretoria

JOURNALS

1. The South African Journal of Economics 1992 Volume 60, No 4, December.
2. The South African Journal of Economics 1991 Volume 59, No 4, December
3. The South African Journal of Economics 1993 Volume 61, No 1, March
4. The South African Journal of Economics 1990 Volume 58, No 4, December
5. The South African Journal of Economics 1985 Volume 53, No 2, June
6. The Journal of Economic Perspectives 1988 A Journal of the American
Economic Association,
Vol. 2, No. 2.
7. Journal of Economic Literature 1990 Volume XXVII, No. 3
8. Journal for the Studies in Economics and
9. Econometrics (s.e.e) 1994 August



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