THE IMPACT OF TAX POLICY ON FOREIGN INVESTMENT FLOWS TO CAPITAL-SCARCE ECONOMIES

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DECLARATION

I hereby declare that, “the impact of tax policy on foreign investment flows to capital scarce economies” is my own work, that it has not been submitted before for any degree or assessment in any other university, and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

..................................................................................................................

Egildo Gito Sabia Massuanganhe
March 2009
I dedicate this research report to my young cousin, Denia Nhamire
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ABSTRACT

THE IMPACT OF TAX POLICY ON FOREIGN INVESTMENT FLOWS TO CAPITAL-SCARCE ECONOMIES

Developing countries all over the world are competing for greater shares of foreign investment flows in a world where capital has become much more mobile. Also changes to tax policies have been implemented to make the domestic economies of host countries more attractive in the eyes of foreign investors.

South Africa is an example of a capital-scarce country requiring much higher and more sustainable levels of foreign investment in order to reach the growth target as envisaged by AsgiSA. This problem is exacerbated by the current deficit on the current account of the balance of payments, together with the extremely low rate of national savings.

Recent empirical findings indicate that various aspects of tax policy (nominal versus effective rates of company tax, tax incentives, accelerated depreciation allowances, etc) do affect investment decisions and that harmonisation of tax policies is important. It emphasises that tax policy is a very important aspect considered by multinational companies in their investment decisions. It therefore cannot be ignored by policy makers in capital-scarce countries.

The study presents an economic appraisal of the South African situation in the context of important lessons which can be learnt from behavioural responses to international tax rules. It finds inter alia that along with other countries, such as Ireland and Singapore, South Africa implemented various changes, such as reducing the nominal and effective rates of company tax. Another example is the recent announcement of the phasing out of the secondary tax on companies. However, studies also indicate that, although not a first best solution, the use tax incentives is standard practice which cannot be ignored. Uncertainty regarding tax policy also seems to impact on the host country’s ability to attract foreign investment inflows and may even result in disinvestment. A case in point is the recent disinvestment from the South African mining sector.
LIST OF ABBREVIATIONS

ASGISA: Accelerated And Shared Growth Initiative For South Africa.
BOP: Balance Of Payments
CGE: Computable General Equilibrium Models
EU: European Union
FDI: Foreign Direct Investment
GDP: Gross Domestic Product
METR: Marginal Effective Tax Rates
OECD: Organization for Economic Cooperation and Development
SIP: Strategic Investment Program
SSP: Skills Support Programme
STC: Secondary Tax on Companies
UNCTAD: United Nation Conference on Trade and Development
CHAPTER ONE
INTRODUCTION

1.1 STATEMENT OF THE PROBLEM

Developing countries throughout the world are eager to attract foreign investment especially in the form of direct investment. It is a necessary, although not a sufficient condition for sustainable economic growth in these countries. It may create additional jobs, introduce new technology, and bring investment to keys sectors of the economies of capital-scarce countries such as South Africa. Simson, Gwilt and Reinhardt (1998:117) state it clearly: “Foreign investment is of crucial importance to the future economic growth of South Africa”. Consequently, this country along with other developing countries made various structural and other changes in recent years to improve their relative attractiveness to foreign investors.

However, the South African economy needs a much stronger, steady and reliable inflow of foreign capital in order to reach the growth target envisaged by Asgisa\(^1\). The urgency of this need is accentuated by the current exceptionally high deficit on the current account of the balance of payments together with the extremely low national rate of savings.

Globalisation also brings about new challenges to fiscal policy, such as tax competition. It undermines the discretion of especially developing countries to make independent policy decisions. Abedian (1998:510) clearly states that “...Economic globalisation has increasingly diminished the powers of national states over their fiscal-policy options. There is an emerging policy convergence in fiscal and financial management. Divergence from standard norms of good fiscal and financial governance is heavily penalized by the market”. This means that changes in domestic fiscal policy should reflect changes to fiscal policy elsewhere. Simson \textit{et al.}

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\(^1\) See Mohr & Siebrits (2007:234) for a detailed discussion of the South African government’s latest growth initiative. The Accelerated and Shared Growth initiative of South Africa (AsgiSA) is a government strategy that seeks \textit{inter alia} to ensure that an annual growth rate of real GDP of between 4.5\% and 6\% is secured between 2005 and 2009, and between 2010 and 2014 respectively.
(1998:117) states that “In an increasingly interconnected world, domestic fiscal policy must cater for the perceptions of foreign investors”

Tax policies have also been re-examined and adapted to contribute towards a more enabling and competitive environment to lure investors. Recent studies emphasise that tax policy is still an important aspect considered by multinational firms before they engage in FDI in host countries (Overesch & Wamsen, 2008:01). According to Simson et al. (1998:117) local policy makers should follow the trends in international best practise to design suitable (i.e. appropriate given their specific context) tax policy to encourage additional foreign investment flows.

However, tax factors in isolation do not explain the nature, location, and amount of foreign investment. Others determinants, such as access to markets, macroeconomic and political stability, institutional support and the level of skills and availability of public infrastructure are important factors to consider by policy makers in host countries.

South Africa has always been a capital importing country. However, since the 1960’s, through the 70’s and especially after the Rubicon Speech of 1985, political factors (i.e. apartheid and financial sanctions) caused a continuous outflow of capital which seriously constrained the capacity of the economy to grow.\textsuperscript{2}

However, following the official ending of apartheid in 1992, financial and economic sanctions were lifted by the international community. Over the past decade this was supported by sound macroeconomic policy management and reforms which created a credible platform for the economy to grow. Moreover, the lower inflationary environment after 2003 was partly indicative of a stronger economy and attracted rising levels of especially portfolio investment.

The country has a long history of tax reforms to increase the equity and economic and administrative efficiency of the tax system, but also to level the playing field for

\textsuperscript{2} The reader is referred to the political unrests in Sharpeville in 1960, the Soweto uprising of 1976 and the notorious Rubicon speech by a former South African president on 15 August 1985. See Reader’s Digest: Illustrated history of South Africa (1995:484) for a detailed discussion.
foreign investors, given the challenges of international tax competition. For example, the nominal corporate tax rate has been reduced significantly since the 1990’s and tax incentives through the Strategic Investment Program (SIP) were introduced although later cancelled. Although changes to tax policy and special incentives are not first best solutions, the fact of the matter is that almost every country in the world uses tax incentives to lure foreign investors. It is vitally important that South African policy makers should take cognisance of the changes to international tax rules and of the findings of recent empirical studies.

The main focus of this study is therefore on changes to international tax rules and practices which may impact on the decisions of foreign investors and on the findings of recent empirical studies in this regard.

1.2 THE PURPOSE OF THE STUDY

The main purpose of this study is twofold: Firstly, it is to investigate the state of empirical evidence regarding the impact of international tax arrangements and tax policy changes on the nature, quantity and location of foreign investment flows. Secondly, it is to critically assess the South African situation after 1994, given important lessons which can be learnt from behavioural responses of international investors to tax rules.

1.3 RESEARCH OBJECTIVES

More specific objectives are:

- To provide a theoretical framework for the study of tax policy on foreign investments flows;
- To derive lessons from international empirical evidence on how tax rules impact on the nature and location of foreign investment flows;
- To examine foreign investment trends as well as tax policy changes in recent years in South Africa;
- To investigate how South Africa has responded to international pressures to use the tax system to create an environment conducive to foreign investment.
1.4 DELIMITATIONS

This research report focuses on the theoretical relationship between tax policy and investment decisions. It examines the state of empirical evidence on the impact of international tax rules and tax policy changes on the nature and direction of foreign investment flows. It finally examines the relevance of the theory and empirical findings in the South African context.

1.5 LIMITATIONS

This research report does not include a sectoral analysis of foreign investment in South Africa. Despite the fact that such limitations limit the ability to made industry specific conclusions, it narrows down the scope or the report, allowing for a more specific focus.

1.6 SIGNIFICANCE OF THE STUDY

This study provides a platform to examine whether changes in tax policies would improve the relative position of developing countries to attract foreign investment, especially FDI. It is relevant at present because it examines how South Africa has been reacting to the demands of international tax harmonisation in order to level the playing field for foreign investors. The World Bank (1991) indicates that the effect of tax matters on developing countries is an unresolved issue and requires further research. According to Abedian and Biggs (1998:137), more studies are needed in the area of tax policy, especially in developing countries. They (1998:513) argue as follows: “It is true that within the context of globalisation, much less is known about taxation than public sector expenditure policies and management issues. As theoretical and empirical research in the field increases, experiences of countries have to be monitored in order to establish the emerging global pattern of response to worldwide economic integration...”. This study, therefore, responds to the need for more research on tax policy issues in developing countries.
1.7 METHODOLOGY AND ORGANISATION OF THE STUDY.

“It is a foolish thing to make a long prologue” (II Maccabees 2:32) quoted in Rosen (2005). I will be consistent with this Bible recommendation in presenting the outlay of this research report.

It is divided into five chapters. Chapter One introduces the topic, explaining the relevance and objectives of the study. Chapter Two presents the theoretical framework and focuses on how the various elements of tax policy (for example nominal versus effective rates of company tax; tax incentives, etc) impact on foreign investment flows. Chapter Three investigates the state of empirical evidence on the impact of tax policy changes on foreign investments and summarises the main findings. Chapter Four presents the case of South Africa. Chapter Five concludes.

The study is descriptive and investigative. It is qualitative as well as quantitative in nature. It presents a descriptive overview of the relevant theories on the impact of tax policy on foreign investment flows and of the findings of recent empirical studies. The South African situation is presented as a case study. Typology tables are used to summarise the main findings of the empirical studies. The report also used descriptive statistics (including a correlation matrix) where tables and graphs were constructed from the following secondary sources: the South African Reserve Bank; the South Africa Revenue Service (SARS); the United Nation Conference on Trade and Development (UNCTAD); the Organisation for Economic Cooperation and Development (OECD) and the World Bank.
CHAPTER TWO
TAX POLICY AND FOREIGN INVESTMENT- THEORETICAL FRAMEWORK

2.1 INTRODUCTION

The aim of this chapter is to provide the necessary theoretical framework in order to analyse changes in tax policy as determinants of foreign investment flows. Section 2.2 explains the meaning of relevant foreign investment concepts, whilst Section 2.3 distinguishes between various classifications. Section 2.4 explores the theoretical relationship between tax policy, the cost of capital and investment decisions. It explains various elements of tax policy that may impact on the cost of capital, such as the effective rates of company tax, provision for accelerated depreciation, tax holidays, reinvestment allowances, the tax treatment of dividends and other tax exemptions. Finally Section 2.5 focuses on the impact of globalisation on tax policy towards foreign investment.

2.2 DEFINING FOREIGN INVESTMENT

Foreign investment can be classified as direct, portfolio and other investment (Salvatore, 2007: 418). It is important to distinguish between various types of foreign investment in order to examine (in subsequent sections) whether and how tax policy influences the specific nature of foreign investment. Section 2.2.1 defines FDI, Section 2.2.2 portfolio investment and Section 2.2.3 other investments flows.

2.2.1 FDI

FDI (FDI) is defined as “…investment in which the investor acquires a substantial controlling interest in a foreign firm or sets up a subsidiary in a foreign country” (Maskus et al, 1995:395). FDI therefore reflects a long-term relationship and a lasting interest and control by a foreign direct investor or parent enterprise in a firm resident in a country other than that of such investor (UNCTAD, 2005:297; Krugman and Obstfeld 2006:157). Salvatore (2007:418) explains that this type of investment can be in manufacturing plants, land and/or other types of capital goods.
Furthermore, the United Nations Conference on Trade and Development (UNCTAD\textsuperscript{3}, 2005:297) defines control with regards to FDI, as owning 10% or more of the ordinary shares or voting power of an incorporated firm or its equivalent for an unincorporated firm. This definition therefore implies that when a foreign investor buys less than 10% of the shareholding of a company, his/ her interest is not classified as FDI, but as indirect or portfolio flows (See Section 2.2.2.).

The term FDI is, however, not free of confusion (Kamphuis \textit{et al}, 1996:100). This is because researchers tend to use the concepts of flows and stocks interchangeably. The former suggests a volume of foreign capital flows moving from one place to another in a specific year only. In contrast, the total sum of foreign capital in a given year and in years to come is referred to as stock of capital. In this report FDI is referred to in terms of a flow that involves the volume of the cross border movements of capital in a given year.

FDI can take on three main forms (Kamphuis \textit{et al}, 1996:99), namely equity capital, reinvested earnings and intra-company loans.

\begin{itemize}
\item \textit{Equity capital}
Foreign investment in this form takes place when a direct foreign investor buys shares in a company in another country. For example, if an American citizen buys 10% or more shareholding and thereby securing a controlling interest in a domestic firm, such as Engen South Africa, then such equity capital is an example of FDI.

\item \textit{Reinvested earnings}
On the other hand, when a direct investor’s dividend is not distributed, but retained to increase the level of investment, such FDI is regarded as reinvested earnings.
\end{itemize}

\footnote{\textsuperscript{3} In the rest of this research paper, the abbreviation UNCTAD will be used.}
Intra-company loans
An example of this form of investment would be when a South African affiliate of British Petroleum (BP) borrows from its parent company BP in England to be able to invest in the domestic plant.

2.2.2 Indirect/Portfolio Investment
The term portfolio refers to financial assets (i.e. bonds and shares) that are held by foreign investors\(^4\) who are mainly interested in the expected financial return on the investment and not in the acquisition of a controlling interest.

- Bonds
  Gapenski and Brigham (1996:518) explain that “… a bond is a long term contract under which a borrower agrees to make payments of interest and principal on specific dates to the holder of the bond.” When a bond is issued and foreign investors purchase such a bond it is categorised as part of foreign portfolio investment.

- Shares (equities)
  Marx et al (2007:13) state that equity in a firm originates from selling shares. An important element of shares as a portfolio investment is that the foreign investor does not interfere in the management of the enterprise (Mohr, 2005:134). In practice, this would mean that his/her interest is less than 10% as explained in Section 2.2.

2.2.3 Other Foreign Investment
Other foreign investments consist of investments that is categorised neither as part of a portfolio nor as direct investment (Mohr & Fourie, 2005:438). This consists of loans and short term trade credits.

- Loans
  A South African firm can, for example, borrow from other international banks in the course of their business dealings (McCarthy & Smit, 2000:205).

- Short term trade credits
  These credits are used to finance the exportation of goods in the following manner:

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\(^4\) For the sake of argument, if bonds are tax exempted and shares are not, foreign investors have an incentive to purchase bonds instead of holding shares to lower their tax liability (See Brown & Reilly, 2000:49). Tax factors may therefore influence the nature of foreign investment flows.
“The exporter arranges credit in favour of the goods importer to accompany the export transaction. In practise, this means that the importer needs not to pay for the goods for a certain period of time. Instead of payment the exporter receives a claim on the importer, which often takes the form of a bill of exchange drawn by the exporter on the importer.” (Kamphuis et al, 1996:223).

This means that the higher the level of exports the higher will be the flows of this type of foreign investment.

2.3 CLASSIFICATION OF FDI FLOWS

FDI can be classified according to two main perspectives (Caves, 1971:27), namely the investor’s perspective (the source country) and the host country’s perspective. The following paragraphs distinguish between these.

2.3.1 Perspective of the Investor

From this perspective FDI is classified as horizontal, vertical, or conglomerate.

2.3.1.1 Horizontal FDI

This type of FDI occurs when foreign companies or their affiliates in the host economies use their monopolistic advantages to expand their operations. (Urban et al, 2005:447) More precisely, it occurs when MNC’s produce or sell the same product or service in various countries (Marion & Aizenman, 2004:125). A practical example of a horizontal FDI would be when Microsoft (USA) expands its operations to South Africa to produce similar products, whilst on the other hand taking advantage of its monopolist position as the world largest producer of computer operating systems.

2.3.1.2 Vertical FDI

Vertical FDI occurs when multinational companies invest abroad by setting up different plants where operating costs are relatively low, allowing them to exploit the availability of raw materials (Marion & Aizenman, 2004:124). This type of FDI consists of two groups: backward and forward vertical FDI (Zwinkels et al, 2008:01). In the case of backward vertical FDI, a foreign company sets up a plant abroad with the intention of taking advantage of existing raw materials as input for the firm's domestic production (Zwinkels et al, 2008:01). For example, if an American firm, say General Motors, establishes a plant in South Africa to produce cars to be sold in America (assuming that steel is much cheaper locally). On the other hand, forward
FDI occurs when a foreign company opens a branch in a host country where its products are sold with the intention to be close to the buyers through the establishment of various distribution outlets around the world (Moosa, 2002:04). For example this would occur when Microsoft (USA) establishes a branch in South Africa for sales purposes, but the software is produced in America.

### 2.3.1.3 Conglomerate FDI
This type of FDI consists of a combination of both vertical and horizontal FDI as discussed in Section 2.3.2.1. In recent years, three other distinguished forms of conglomerate foreign investment emerged: Greenfield investment cross border, mergers and acquisition (M&A) and joint ventures (IMF, 2004).

- **Greenfield investment**
  According to (UNCTAD, 1996), Greenfield investment occurs when a foreign direct investor establishes a new facility or revitalizes the old ones. For instance, the ChevronTexaco Oil (USA) starts its new business operations in South Africa.

- **Mergers and acquisition / joint ventures**
  The IMF (2004) defines mergers and acquisitions as “…an investment that occurs when a transfer of existing assets from local firms to foreign firms takes place.” This often occurs when two companies (one domestic and the other MNC) join to form one single company. A recent example in the South African context was the merger in 2002 of SA breweries (SAB) and Miller Brewing (USA) that resulted in the creation of SABMiller (Mohr & Fourie, 2004:307).

### 2.3.2 Perspective of the host country
From this perspective FDI can either be import-substituting, export promoting or government initiated. These types of foreign investment are associated with the fact that the choices between the two trade strategies of import substitution or export promotion (to promote trade and development) appear high on the agenda of many developing countries (Narula, 2002:03). Three distinct types of FDI are discussed in the following paragraphs.
2.3.2.1 Import substitution FDI
This type of FDI occurs when foreign companies or its affiliates produce goods in host countries that were initially imported (Erdilek, 1985:38). This means that the host economy becomes less dependent on foreign imports (Harris & Schmit, 2000:88). An example of import substitution FDI is a new foreign company that is encouraged to set up a new aluminium smelter to reduce South Africa’s dependency to foreign supply of aluminium.

2.3.2.2 Export promotion FDI
This type of FDI occurs when foreign companies or its affiliates produce goods in the host countries destined for exports (Erdilek, 1985:38). Multinationals might move abroad in search of relatively new cheaper factors of production, such as raw materials and intermediate goods. In turn, such cross border investment might promote domestic exports from the host economies. Consider the example of a South African company, such as De Beers, venturing into Botswana in search of relative cheaper factors of productions. This investment may increase exports of related goods from Botswana.

2.3.2.3 Government initiated FDI
This type of FDI occurs when the government of the host country initiates FDI. Koutsoyiannis (1982:321) explains that government induced FDI is supported by tax concessions, tax incentives, depreciation allowances, and subsidies. The South African government can also, for example, initiate the sale of previously state owned enterprises to foreign investors, which in effect is a form of privatisation. An example in the South African context was the privatisation of Sasol, Telkom, and Iscor in the 1980s (Mohr, 2005:398).

2.3.3 Other types of FDI
Chen and Yang (2000:153) classify FDI as expansionary or defensive.

2.3.3.1 Expansionary FDI
In this case, foreign firms invest abroad because they are able to exploit their advantage from having a significant stock of intangible assets such as business expertises. Chen and Yang (2000:153) state that expansionary FDI is very important because it has the capacity to increase the sale of goods and services in the host countries. However, it is also associated with the strategy of firms to search new
ways of reducing the costs of production by increasing output networks in several countries (Wilkinson et al, 1996:3407).

2.3.3.2 Defensive FDI
Defensive FDI, on other hand, occurs when firms invest abroad to decrease operating costs in order to secure its market share (Harris & Schmit, 2000:88). This type of FDI also occurs when foreign firms or their affiliates exploit the existence of cheap factors of production, such as labour, in the host economies (Chitrakar, 1994:16). It is logical that defensive FDI shifts to countries where wages are relatively low (Chen & Ying, 2000:28). For example, should a South African foreign direct investor, such as De Beers invest in gold mining in Botswana, this would be defensive FDI. With this investment de Beers will secure its market share as the major gold producer in the world.

2.4 TAX POLICY, COST OF CAPITAL AND FOREIGN INVESTMENT

This section focuses on the theoretical relationship between tax policy and foreign investment flows. Tax policy impacts on investment decisions via its impact on the cost of capital. In this section, the cost of capital is firstly defined. Thereafter, the theoretical link between tax policy and the cost of capital is explored. Finally, the different elements of tax policy which may affect the cost of capital are discussed.

2.4.1 Defining the cost of capital
It is widely recognised in the literature (Jorgenson & Yun, 1991:02) that the concept of cost of capital is not a straight forward concept. It has many components: opportunity costs, depreciation and capital loss or gain (Agenor, 2004:54).

- **Opportunity cost**

Black et al (2005:178) explain that a firm’s cost of capital includes the opportunity cost of having a business interest in a firm rather than keeping it as savings. To put it differently, Salvatore (2003:228) states that “opportunity cost of a firm in using any input is what the input could earn in its best alternative use.” The argument is that, for example, if firms invest in additional assets such as machinery, the opportunity cost would be the return forfeited on an alternative investment
- **Depreciation of the capital goods**

  According to Jorgenson and Yun (1991:04) the cost of capital includes depreciation of capital goods. Firms acquire equipment, buildings and other capital goods to do business. This equipment depreciates over time and if the tax rule dictates the rate of depreciation of assets it will influence the cost of capital and ultimately also the investment decisions (Musgrave & Musgrave (1989:306-309). Provision for accelerated depreciation brings down the cost of capital.

- **Capital loss or gain**

  Agenor (2004:55) argues that the cost of capital includes the “the capital loss (or gain) resulting from the fact that the price of capital may be falling (rising), implying that the firm would obtain less (more) if it wait to sell the capital.”

The following sections explore the relationship between tax policy and the cost of capital.

### 2.4.2 Exploring the theoretical link between tax policy and the cost of capital

Mintz (1996:162) explains that tax policy can positively influence the profitability of a firm by bringing down the cost of capital. Changes to tax policy, such as changes to the statutory tax rate, special allowances for depreciation and the provision for incentives can either increase or decrease the user cost of capital.

In practice, tax rules determine the rate at which foreign investors recover the cost of the capital investment (Musgrave & Musgrave, 1989:280-308). An accelerated rate of depreciation of capital equipment will reduce the cost of capital in the following financial years. To avoid high cost of capital, firms can postpone the purchase, lease, or rent of capital assets (Jorgenson & Yun, 1991:04). This view suggests that tax issues do affect the investment behaviour of firms (Musgrave & Domar, 1944:388).

The provision of tax rebates, holidays and exemptions also affect the cost of capital. For example, if a South African company accumulates a gross income in a given year and an asset that could have taken 5 years to wear off is allowed to fully depreciate in

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5 Other economic variables might also determine the cost of capital. This includes the interest rate. Section 2.8 briefly refers to some of these factors.
one single year, then in subsequent years the after tax return of this company will increase substantially. It is logical to assume that foreign would consider to locate to jurisdictions where tax benefits can be reaped.

The following paragraphs focus on the mechanisms through which the cost of capital impact on investment decisions.

2.4.2.1 Neoclassical perspective
The neoclassical viewpoint is that the cost of capital is a key determinant of investment. Jorgenson (1963) as referred to in Jorgenson & Yun (1991:02) argues that investment responds gradually to variations in the user cost of capital. The Jorgenson’s theory of investment assumes that profit maximising firms make use of capital and other factors of production until the marginal product is equal to their prices. The model postulates that the demand for capital depends on the output and the rental price of capital, thereby asserting that the cost of capital is a determinant of private investment.

The main theoretical explanation for the Jorgenson’s assertion is that changes in cost of capital are expected to reduce or increase the net return of investment (Musgrave & Musgrave, 1989:306-309). A tax on profits in the short term reduces a firm’s purchasing power, unless it is capable of making immediate adjustment to shift the increase in the cost of capital in some way (Hyman, 1999:554). For instance, faced by a new tax rate on income, firms might shift the tax burden forward by increasing the price of its goods and services. As profit seekers, firms would react by changing their investment decision in case of an unexpected change in the cost of capital due to changes in the tax policy.

The neoclassical definition of the cost of capital can be represented mathematically as follows (Mintz, 1996:162):

\[ C = \frac{(r + \sigma) x (1 - \psi - \kappa)}{(1 - \theta) x (1 - t)} \]  ……………………………………… (1)

\[ \]
where \( r \) is the after tax rate of return\(^7\), \( \sigma \) indicates the economic depreciation, \( \theta \) the corporate tax rate, \( \kappa \) the investment tax credit and \( \psi \) the present value of depreciation allowance, say per rand. From equation (1), *ceteris paribus*\(^8\), a lower corporate tax rate, \( \theta \) decreases the cost of capital. Similarly, an increase in investment tax credit, \( \kappa \) will also decrease the cost of capital.

**2.4.2.2 Accelerator Theory**

According to this theory firms are assumed to be profit seekers and therefore invest in additional capital to ensure that profits are maximised. However, firms may lack additional capital to finance new projects. The difference between the actual and desired capital can be reduced by supportive tax policy that would reduce the cost of capital (Bernanke *et al*, 2008:131). Supportive tax policy includes, for example, a lower nominal tax rate on business income, a tax allowance and tax/or exemptions.

Clark (1917), as referred to in Summers (1987:66), explains that current investments are determined by the gap between the desired and the actual (or existing) stock of capital. He further postulates that for each unit of increase in output, the firm should increase its capital stock. His accelerator theory implicitly explains that planned output affects investment decisions. He explained that the larger the gap between the existing capital stock and the desired capital stock, the more rapid a firm’s investment rate tends to be. Firms would, therefore, raise more capital in order to match the actual level of capital to the desired level of capital.

It follows therefore that the gap between the existing and the desired capital stock can be minimized by a supportive tax policy. For example, a tax incentive influences the desired stock of capital when it reduces the relative price of capital (Boadway & Shah, 1992:75). This gap can also be minimized by a change in tax policy that make provision for incentives for research, deductions for training expenses, tax holidays, accelerated depreciation, reinvestment allowance, subsidies, grants and other exemptions.

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\(^7\) A rate of return is a minimum return that an investor is willing to accept from an investment he/she engages in (Marx *et al*, 2006:03).

\(^8\) It is assumed that other economic variables are kept constant.
2.4.3 Elements of tax policy which impact on the cost of capital
Section 2.1 refers to various elements of tax policy which impact on a firms’ decision whether to invest or not and where to invest. These are discussed in more detail in the following paragraphs.

2.4.3.1 Statutory and effective rates of company tax
It is important to distinguish between a statutory and effective tax rate. The former represent the legal tax rate on income as stipulated by the fiscal authority. According to Musgrave & Musgrave (1989:306-384) the “effective tax rate is the percentage reduction in return due to tax.” To put it in another way: an effective tax rate shows the ratio of tax paid to a total tax base-tax liability as percentage of total tax base. This is made clear with the following mathematically expression that represents the effective tax rate;

\[
\frac{r_b - r_a}{r_b} \quad \text{...} \quad (2)
\]

Here, \(r_b\) is the rate of return before tax and \(r_a\) is the rate of return after tax.

Bernanke et al (2008:132) explain that an increase in the nominal tax rate will increase the cost of capital and thereby reduce the desired stock of capital, as discussed in section 2.4.2. Similarly, an increase in the effective tax rate reduces the desired stock of capital (Bernanke et al., 2008:133).

It is important to note that, “… in a globalised economy with factor mobility, such a higher effective tax rate reduces the rate of return on capital, leading to an outflow of scarce resources; or reducing the comparative advantage of the country in attracting long term capital…”(Abedian and Biggs, 1998:513). This means that effective tax rates should be kept as low as possible and in line with effective tax rates in other countries.

Section 2.4.2 explains that a change in tax policy, such as an increase in the statutory company tax rate, influences the investment decision of firms because tax in general not only reduces the firm’s purchasing power, but also reduces the firm’s after tax income (Hyman,1999:373). Therefore, a reduction in the statutory corporate income tax rate increases the after-tax revenues from investment (Clark, 2005:114).
One of the objectives of this research is to examine the impact of tax rules on the nature, quantity and location of foreign investment. It is clear from the literature that tax exerts an influence on the quantity of physical investment and the amount of the financial assets that foreign citizens accumulate in a host country (Rosen, 2005:424). It is logical that foreign direct investors would rather invest in safer assets. Therefore, if a statutory tax rate gives an incentive for the foreign investors to shift from physical investment to a purely financial asset, the economy is likely to attract more portfolio investments. The policy implication is that the statutory and effective rates of company tax should be kept relatively low in order to enhance the host country’s ability to attract foreign investment.

2.4.3.2 Fiscal incentives
Chia and Whalley (1995:439) explains that the key objective of a fiscal incentive is to attract foreign investment to a specific region/sector. The question is how such incentives affect the decisions of firms to invest? The firm’s cost of capital and desired and actual stock of capital are relevant for investors, as discussed section 2.4.2. Clark (2005:1142) explains that tax relief for foreign investors through accelerated write-offs for capital expenditures, investment tax credits and reductions in dividend withholding tax rates are important tax factors that influence the firm’s cost of capital and thus investment decisions. In fact, most governments in developing countries resort to fiscal incentives to encourage foreign investments (Shah, 1992).

The following paragraphs will briefly explain the most common types of incentives.

(a) Type of incentives

- Tax holidays
Tax holidays grant investors certain tax exemption over an agreed holiday period (Morisset & Pirnia, 2000:01). In this manner a foreign firm is exempted from some tax liabilities for this specified period. Auerbach (1995: 152) explains that a tax holiday is an important instrument to attract new investment. According to Clark (2005) developing countries are keener to use tax holidays to attract foreign investment than the developed ones. This is because such tax relief is in practise often used when the investment risk is high and these countries are in fact often indexed with high investment risks (Srinivasanb, 1998:1). An important observation from
Mintz (1995) (discussed in Auerbach 1995: 152) is that since tax holidays are temporary, the firm’s cost of capital changes once the tax holiday is over. This might impact on the nature and quality of foreign investment in the sense that foreign investors might engage in short term investments in the host country and as soon as the tax relief ends, they could shift the investment to other countries in order to benefit from other tax relief.

- The provision/extension of integration relief
  Corporate income and individual income can be integrated for tax purpose. Two systems of such integration exist, namely full integration and dividend relief (Musgrave & Musgrave, 1989:375). In a system of full integration, all profits in a given financial year, either undistributed or distributed, are due to each shareholder for tax purposes. In this case, tax on corporate income is removed. As a result individual shareholders pay tax on his/her share of the profits at their respective marginal tax rates (Rosen, 2005:450).

On the other hand, there are situations where the corporation and shareholders are treated as separate entities and not a one single unit (Black et al., 2005:175). The shareholder and the corporation pay taxes on the same source. This is referred as the problem of double taxation. However, some countries sustain a dividend credit system which permits deferral of home country tax until foreign profits are paid (OECD, 2008:4). Since both the shareholders’ dividend and the company’s earnings are subject to taxation, the income can be taxed twice. On the other hand, certain countries opt for hybrid entities (Rosen, 2005:433). However, some countries have systems where dividends are exempted. The argument is that the choice of whether or not to tax dividends, after taxing the corporation, could give an indication to the foreign investor where he/she can maximise his/her dividends. Tax policies of different countries cannot be compared without looking at overall tax treatment of dividends. This is because some countries give tax credit for taxes paid abroad (to avoid double taxation) and other countries simple do not offer such tax arrangements.

- Accelerated depreciation; Investment tax allowance or tax credits
  Another important tax incentive widely used in both developing and developed countries to encourage foreign investment is the accelerated writing off of investment expenditure (Gaspar & Estache, 1955:319). The host government may permit firms to
write off capital expenditure in a short space of time. This fiscal incentive often comprises of accelerated depreciation and/or allowance for investment expenditure and/or investment tax credit (Chia & Whalley, 1995:439). Another similar form of tax relief that also reduces the cost of maintaining an asset is an investment expenditure allowance. This form of tax relief permits a firm to write off a percentage of investment expenditure from the firm’s taxable income for tax purposes. Lastly, investment tax credit permits firms to pay lower taxes, reducing the firm’s cost of capital and increasing the firm’s profitability.

- **Export subsidies**
  A subsidy (or a negative tax) is also an important tax tool to lure foreign investment by reducing the cost of capital. According to Siggel (2005:134) export oriented industries may benefit from an export subsidy as incentive and attract export oriented FDI (See 2.3.2.2). For countries to use export subsidies is very controversial, given the requirements of the WTO. Producers, particularly in the agricultural sectors of developing countries, have complained with the WTO that they cannot compete with the developed countries, because of the large export subsidies. According to McCarthy et al (2000:120), the provision of export subsidies to domestic producers at the expense of the foreign firms may, if losses are incurred by MNCs, precipitate disinvestment. Foreign and domestic investors should be treated equally. (See Section 2.4.3.4).

The above-mentioned forms of tax relief have advantages but also disadvantages which are only briefly discussed in the following paragraphs.

(b) **Arguments for and against the use of fiscal incentives**
There is a debate on whether or not governments should provide fiscal incentives for foreign investors. Some economists believe that fiscal incentives are very important, because it compensates investors for other non-tax distortions, such as risk and uncertainty. Calitz (2000:565) argues that tax incentives can be provided as a way to address market imperfections, such as externalities, imperfect competition and uncertainty in host countries. It is also a sign of a government’s willingness to cooperate with the private sector (Black et al, 2005: 180).
Fiscal incentives are important because they can lower the cost of raising investment funds (i.e. the cost of capital) in the host economies\(^9\) (Morisset & Pirnia, 2000:04).

On the other hand, the provision of various types of incentives is not a first best solution. The argument is that incentives undermine efficient tax administration, erode the tax base and reduce government revenue and among other things result in an uneven tax burdens among tax payers (De Mooij, 2003:180). This view is shared by Mohr & Siebrits (2007:127) & Calitz (2000:565). They further argue that tax incentives may change relative prices and as a result intervenes in the proper functioning of the market mechanism.

2.4.3.3 Source or residence principle of taxation as an element of tax policy

The way in which government determines the tax base might exert an influence on foreign investment decisions (Hines, 2000:306). Two principles of determining the tax base exist, namely the residence and source of income principle (Boshoff, 1993:303). According to the former, the country of residence of the company or person determines and collects the tax (Black \textit{et al}, 2005:239). Musgrave (1964:127) argues that “tax neutrality with regard to capital flow does indeed require that the applicable rate of profits tax be independent of place of earning, thus (in the absence of uniform rates) the rate of the country of the owner’s residence should apply”. According to the latter, income should be taxed at the source where the taxable income is generated. This means that a foreign investor’s perception with regard to these two types of tax regimes can influence investment decisions on whether or not to move capital across the border in order to avoid double taxation (as discussed in the previous section). The existence of a dual system can either signal an encouraging or discouraging environment for the inflow of foreign capital.

2.4.3.4 Equity, economic and administrative efficiency

The economic assessment of a tax is based on the following criteria: equity, economic efficiency, and administrative efficiency (Musgrave & Musgrave, 1989:218). Therefore, host governments should strive towards an equitable system of taxation in respect of foreign capital (Musgrave, 2002:05). The perception of foreign

\(^9\) Mohr & Siebrits (2007:127) also regard tax incentives as effective avenues to attract foreign investment. And they are more efficient than other measures because firms can rapidly enjoy the benefits arising form such incentives.
investors with regards to the fairness and efficiency of the specific tax regime influences the decision to invest. As explained in Section 2.4.1, tax policy influences a firm’s investment decision via its impact on the cost of capital. It is therefore important to examine foreign investors’ perception of equity of the current tax system.

Musgrave (as referred to in Oates 2000:11) argues that investors (both resident and non-residents within a country) should enjoy equal treatment before the tax law. Therefore, if investors are treated differently, in the sense that certain investments are tax exempted while the investors are capable to pay taxes, this can influence other foreign investors’ perception of the host country’s tax system as being discriminatory.

Musgrave & Musgrave (1989:211) state that all types of taxes impose a burden, however the distortive impact should be minimized. The excess burden of taxation may change the behaviour of investors. Economic efficiency means, for example, that a higher tax rate on corporate income aught not to create market distortions. That is, it should not change dramatically individuals decisions on how much to save, investment, consume as result of tax changes. Rosen (2005:345) states that when the tax burden is relatively small within a tax system, such a system is economically efficient. A change of the perception of investors regarding the efficiency of the host country’s tax system may impact on the type, quality, and location of foreign investment (Oates, 2003:98).

According to Musgrave & Musgrave (1989:211) the main purpose of taxation is to generate sufficient government revenue. However, tax administration should be efficient and compliance cost has to be low. For example, Musgrave & Musgrave (1989:279) argues that “the average hours spent on tax compliance including account keeping during the year and the actual process of filing returns…..is costly for the tax payers.” To put in into perspective, if foreign firms find it cumbersome to comply with tax requirements in a host country, they may be encouraged to engage in tax planning, corruption and ultimately reducing their business interest.

Tax neutrality, therefore, implies that domestic and foreign companies should bear the same tax burden (Dale, 1997:788). The important issue is that a cross-country comparison of tax policies and foreign investment without looking at the implications
of not complying with the tax neutrality rules is deemed to provide unsatisfactory theoretical results.

2.5 GLOBALISATION, TAX POLICY AND FOREIGN INVESTMENT

Abedian & Biggs (1998:509) claimed: “It may be no exaggeration that since the advent of industrialization in the eighteen century, no phenomenon has impacted upon socio economic life worldwide like economic globalization…national affairs would be identical or closely intertwined with their foreign counterparts...”. Tax policy is no exception.

Economic globalisation accelerates the financial integration of world economies through mobile financial flows, but also brings about challenges to domestic government fiscal policy, specifically to tax policy (Calitz, 2000:564). Economic globalisation forces policy makers to take cognisance of international trends and experiences when considering changes to domestic tax policies. It is especially important in the case of capital-scarce countries where it is crucial to attract significant flows of foreign investment.

The following paragraphs briefly discuss some of the issues (related to globalisation) which are important in the context of tax policy and foreign investment.

2.5.1 The role of MNC

FDI are mainly carried out by Multinational companies (MNCs). According to Iyanda (2000:08): “…the benefits of MNCs to their host country were cast in terms of capital inflow, creation of employment, transfer of technological, entrepreneurial and managerial skills, the promotion of exports and contribution to the government revenue”. The above indicates that FDI inflows through MNCs have the potential to support a country’s economic growth and development. This view is also shared by other economists, such as Stiglitz (2002), Chang (2007), Thirlwall (2006) and Akyuz (2007).

Other economists such as Gallagher and Barky (2007:75) state clearly that the benefits of FDIs are well researched and documented. They claim that: “Given the
appropriate host country policy and basic level of development, a preponderance of studies shows that FDI triggers assist human capital, contributes to international trade integration, help create a more competitive business environment and enhance enterprise development”. All of these contribute to higher economic growth, which is the most potent tool for alleviating poverty in a developing country.

2.5.2 Tax Competition

In the light of increased international movement of capital due to the economic globalisation tax harmonisation and competition are very important tax issues taken into account by foreign investors (Rajan et al, 2001:119). Tax competition occurs when countries lower tax rates in order to attract mobile factors of production, such as capital (Abedian and Biggs, 1998:137). Mitchell (2004:01) explains that “tax competition exists when people can reduce tax burdens by shifting capital and/or labour from high-tax to low-tax jurisdictions. This migration disciplines profligate governments and rewards nations that reduce tax rates and engage in pro-growth tax reform”. Alfano (2001:213) agrees that economic globalisation is likely to increase the race for capital. Therefore, excessive taxation of income will force firms to migrate from one region to another. Domestic tax policy would have to follow international trends.

2.5.3 Tax Harmonisation

The other side of the coin relates to tax harmonisation, which has become a very important issue (Morisset & Pirnia, 2000:19). It takes place when various governments coordinate their tax policies by reducing or increasing tax rates in a uniform manner. According to Musgrave (discussed in Oates, 2000:384) tax harmonisation or coordination is also achieved when countries lay down tax rules among themselves to achieve various goals. One of these goals is to ensure that the tax system is neutral regarding the treatment of foreign versus local firms. It also ensures that countries agree to impose the same tax rates on foreign investment and the same range of fiscal incentives (Musgrave, 2000:385). Although economic globalisation is likely to increase the race for scarce foreign capital, governments can agree to set equal tax burdens for investment in order to avoid unnecessary competition. Domestic tax policy should therefore be adjusted gradually to meet the demands of tax harmonisation.
2.5.4 Role of WTO
It is important, given the agenda of WTO to promote free trade, that foreign trade taxes are decreased. In a globalised world lowering trade taxes (i.e. import tariffs) as integral package for deeper trade liberalization may increase foreign investment. There are significant numbers of foreign trade taxes that may impact on FDI flows, such as import tariffs and duties, export tax and import quotas. According to Krugman (2006:99) import tariffs are tax levied on import. And this tariff makes the imported goods relatively dear in a domestic country compared to other countries. On the other hand, an export subsidy which is defined as government transfers to domestic producers engaged in exports may also support domestic producers.

On other hand, it is logical to argue that a reduction in import tariffs, *ceteris paribus*, may have a positive impact on investment made by firms that import capital goods such machinery and equipment. Section 2.4 explains that a tax increases the cost of capital hence it reduces foreign investment. With this in mind, an export subsidy will induce export oriented FDI to produce more because the cost of capital is reduced and among other things investment may increase - hence their competitiveness. On the contrary, a tariff on import of capital goods for instance will increase the cost of capital and firms are likely to reduce planned investment.

2.5.5 Resource Royalties
According to Black (2003:410): “Royalties are so called because the owner is frequently a sovereign, or state. Royalties are governed by agreements, which may specify them in amounts per unit extracted, or a percentage of revenue...”. These royalties (i.e gold and platinum) are very important for most of the natural endowed countries with mineral and other resources. “Mining taxation is a hot topic of late” Otto et al (2006) Clausen (1998:137) argues that favourable resource royalties are important to attract foreign investment. On other hand, Manuel (2008) argues that “resource royalties are not a tax; they instead represent compensation for the permanent loss of non-renewable commodities. These royalties are payable to the State as custodian of the country's mineral wealth.” The argument is that an increase

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10 A detailed discussion of trade taxes is beyond the scope of this report. See Krugman & Obstfield (2006) for a discussion.

11 To narrow down the focus of this study the reader is referred to Otto et al (2006) for a comprehensive discussion of mining taxation and investment.
in such royalties may result in disinvestments by foreign investors. Resources royalties increase the effective tax rate. As discussed in section 2.4.3.1, in a globalised world with mobile factors of production, effective tax rates should be considered carefully. This is an example of how disaggregation of FDI flows (e.g. between resource-seeking and market seeking FDI) facilitates a more efficient analysis of the influence of tax policy. It should be kept in mind that natural resources are not regarded as mobile factors of production.

2.6 NON-TAX FACTORS AND FOREIGN INVESTMENT

Other studies mention that non tax factors, such as trade effects, exchange rates, trade protections, the quality of institution matters for foreign investors (See Blonigen, 2005:384-392)

2.6.1 Political Stability

According to Van der Walt (1994) in (Schoeman 2000:237) lack of political stability is a major deterrent of foreign investment. Political instability distorts the investor’s calculation of the rate of return of their investments, because it increases the opportunity cost (Black et al (2005:179). And since foreign investors seek to maximize profits, they will move to countries where there is no uncertainty with regard to their long-term profitability. However, in practise foreign investors sometimes tolerate severe political instability when sufficient profit-making opportunities exist (e.g. in Angola and parts of the Middle East).

2.6.2 Macro economic stability

According to Montiel (2003) macroeconomic stability, which includes sound monetary and fiscal management and economic reforms, influence the direction of foreign investment flows. He also claims that: “…from an emerging market perspective macroeconomic stability entails the avoidance of high and variable inflation, as well as financial crisis”. The latter relates to the public sector’s inability

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12 A comprehensive discussion of non-tax factors affecting foreign investment falls beyond the scope of this research paper.
13 …there is a political stability to the extent that members of society restrict themselves to the behaviour that fall within the limits imposed by political role expectation. Any act that deviates from these limits is an instance of political instability…”Ake (1975:273)
to service its obligations, as well as the central bank’s inability to maintain the value of the domestic currency.

2.6.3 Institutional framework
Economists have also tried to explain the direction of foreign investment by assessing the institutional framework in host economies (Schoeman, Robison & Wet, and 2000:236). Sophia du Plessis (2006:06) for example, claims that property rights are of the key components of an institutional framework which accompanies the economic development and economic growth. And if property rights are well defined and enforced, the market will take care of externalities, as consequence this might work as an incentives for foreign investors to invest in these countries.

2.7 CONCLUSION

This chapter provides the theoretical framework for the study. It explains the different types and classifications of foreign investment flows. The difference between FDI and portfolio investment clearly defines the nature of and motives behind these investments. A portfolio investor does not seek control of the company whilst the direct investment aims to have control of the enterprise. Specific tax policy arrangements may provide incentives for the foreign investors to shift from a direct investment to a purely financial asset.

Two theories explain how tax policy influences the nature and the quantity of foreign investment. The neoclassical theory explains that the cost of capital influences the investment decisions, whilst the accelerator theory explains that a supportive tax system can increase investment by narrowing the gap between the desired and actual stock of capital.

It is also clear that various forms of tax relief for foreign investors, such as tax holidays, accelerated depreciation, investment tax credits, etc are important factors that influence the firm’s cost of capital and subsequent investment decisions. All these provisions also decrease the effective tax rate on companies and it is actually the effective tax rates that influence the investment decision.
Furthermore, in a global world, tax harmonisation and competition are also important aspects to consider, especially by policy makers in capital-scarce countries. It is also clear that other non-tax factors are also important to attract foreign investment. These include political stability, macro economic stability and a supportive institutional framework.
CHAPTER THREE

EMPIRICAL EVIDENCE: TAX POLICY AND FOREIGN INVESTMENT

3.1 INTRODUCTION

This chapter provides a summary of the findings of various recent empirical studies on the relationship between tax policy and foreign investments flows. This is necessary to relate recent tax policy developments to the theoretical principles to be able to interpret the changes to the South African tax system in recent years.

"Developing countries such as South Africa ought to take other countries’ (developed and more especially developing) experience of tax competition and reform measures into account to ensure the best outcome from tax competition….It appears that South Africa can learn a lot from developed countries" (Clausen, 1998:146). This is the main focus of this chapter.

Firstly, a brief overview is presented in Section 3.2 of the various types of studies used to investigate this relationship. Thereafter, in Section 3.3, the findings of the empirical studies are summarised in order to derive meaningful conclusions which can be applied to the South African situation. Finally, Section 3.4 presents examples of countries that made significant changes to tax their policies and that attracted significant flows of foreign investment in recent years.

3.2 TYPES OF EMPIRICAL STUDIES

This section briefly explains the nature of the econometric models and of questionnaires (surveys) used in recent empirical studies.

3.2.1 Econometric models

3.2.1.1 Nominal or statutory tax rate models

A statutory tax rate model focuses on the relationship between nominal or statutory tax rates and foreign investment. The model describes the dependent variable, foreign

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14 Other non-tax factors, such as political and macroeconomic stability, the availability of public infrastructure, governance, and corruption, among others, are also important factors explaining the direction of foreign investment. Econometric models cannot make provision for all these factors and for simplicity’s sake it is often assumed that other factors are held constant.
investment, as function of nominal tax rates. It is, however, criticised for not being able to explain clearly how the real tax burden on corporate income tax affects business decisions (Nicodeme, 2001:04). This is because the nominal tax rate does not reflect the exact tax burden on companies. It ignores other important tax factors such as tax incentives, tax exemptions and tax rebates (Devereux & Griffith, 1998:354). The other reason for questioning the reliability of this type of model is that statutory tax rates in general do not change frequently and it is therefore difficult to draw convincing conclusions. In addition it does not consider tax exemptions which are important factors determining foreign investment (Revil et al, 2005:586). Therefore, in order to include these variables economists suggest the use of effective tax rate models which do take tax incentives and exemptions into account. However, despite these weaknesses, statutory tax rate models are still widely used in empirical studies, as it is shown in Section 3.3.

3.2.1.2 Effective tax rate models
Recent empirical studies emphasise the fact that the inflow of foreign investment depends more on effective tax rates, rather than on statutory tax rates. The effective tax is believed to reflect the interaction of various tax rules within a host country (De Mooij & Ederveen, 2006:647). In other words, effective tax rate models are able to take into account other important tax issues, such tax credits, which is of importance for investors (Nicodeme, 2001:03). The effective tax rate is thus a better indicator of the real tax liability of the investor.

In these models the average tax rate is the independent variable and foreign investment is a dependent variable. The effective tax rate is defined as the ratio of the amount of tax paid to the total tax base (Nicodeme, 2001:04). According to Chirinko (1993:1882) the effective tax rate is an important tax measure because it shows exactly what an investor pays in terms of taxes. For example, Feldstein (1987) discussed in Chirinko (1993:1882) pioneered an econometric model where the dependent variable, the net investment, is explained by an independent variable, the effective tax rate. And he computed the corporate effective tax rates as the ratio of all tax paid on income minus depreciation and studied its relationship to foreign investment.
(a) Marginal effective tax rate model\textsuperscript{15}

This model studies the relationship between changes in tax policy and specific investment projects (Nicodeme, 2001:04). Although this is also an effective tax rate model, it is treated differently because a marginal tax rate is computed for different types of investments (for example machinery and equipment). To model this relationship a sequential analysis is used to calculate the marginal effective tax rate (METR) for each additional investment. Zodrow \textit{et al.} (2000:10) defines METR as “the tax wedge on investment - the difference between the gross return on marginal investment and the return received by the saver or provider of funds, expressed as a percentage of the gross return”.

This can be clarified with a hypothetical example. For example, assume that an investor invest in a company. Subsequently, he/she makes a marginal or additional investment in a capital asset. Furthermore, it is assumed that the gross return is 15 percent and after tax return is 10 percent. For this particular example, the METR is 33 percent (0.33= (0.15-0.10)/0.15). Zodrow \textit{et al} (2000:10) argues that the METR should be calculated for different types of assets (equipments, structures, inventories and land). This approach clearly shows the different tax burdens faced by various types of investments (Shah, 1995:98). Furthermore, the investor can, based on the METR, decide whether to invest in an additional asset (Devereux & Griffith, 1998:353) or not.

It is however important to note that this model relies on some important assumptions, for example (a) a company purchases additional assets and (b) it focuses on the present value of returns and deductions associated with that purchase (Zodrow \textit{et al}, 2000:10). Other assumptions include: the absence of tax policy uncertainty, and the fact that firms operate in a well-functioning perfect and competitive market (Shirazi \textit{et al}, 1991:10). Given these assumptions the results of such models must be interpreted with caution.

Despite the relatively, strong assumptions, the marginal effective tax rate model is used for various reasons. It takes into account various other tax issues that other tax models ignore. For instance, tax incentives and other tax deductions are incorporated

\textsuperscript{15} The reader is referred to OECD (2008) for a more detailed analysis of METR.
in this model. Shah (1995:98) explains that tax incentives reduce the marginal effective tax rate on investment. Consequently, it will encourage firms to invest in additional capital until the after tax rate of returns for various projects are equalized (Boadway et al, 1995:98).

3.2.1.3 General Equilibrium models
A general equilibrium model evaluates the impact of tax policy on all the markets within a domestic economy, where one equilibrium price eventually clears the market (Whalley & Shoven, 1984:1009). It assumes that equilibrium is defined by a set of prices and quantities for goods and services in various industries so that the quantities demanded of all goods and services are equal to the quantities supplied (Agenor & Montiel, 1999:538). It is also assumed that the firms are profit seekers and that an equilibrium price is set to clear the market. To set up an applied and numerical general equilibrium (according to Boadway and Shah 1995:100) a sequential analysis is required. Data is collected and the functional form of the mathematical model is chosen to estimate the elasticity parameters. To determine the parameters of this model a calibration procedure\(^{16}\)(where various simulations to the model, often referred as shocks are undertaken until a model solution is found) needs to be conducted.

To determine the impact of tax policy on investment behaviour by means of a computable general equilibrium models various assumptions are necessary (Clarete, 1995:673-674). Musgrave (1953:507) also explains that in both partial and general equilibrium frameworks, it is difficult to explain, for instance, the impact of corporation income tax, unless various assumptions are made about the behaviour of economic agents. A CGE model assumes that equilibrium is defined by a set of prices and quantities of goods and services in various industries so that the market demand of all goods and services is equal to its market supply (Agenor & Montiel, 1999:538). It is also assumed that the firms are profit seekers and that an equilibrium price is set to clear the market. In this case, (a) the host government is included as variable, as it imposes taxes on goods and services, (b) corporate income tax is included as an explanatory variable of the profits earned in each production sector (Clarete,

\(^{16}\) The process of choosing or selecting the parameter values in the computable general equilibrium model (Whalley & Shoven, 1984:1019).
The impact of a tax policy is then traced by various mathematical relationships that embody the interaction of a government utility function, the demand for goods and services and investment (Agenor & Montiel, 1999:538).

Due to its reliance on calibration, various concerns are raised about the applicability of the CGE models (Whalley & Shoven, 1984:1019). For example, to calibrate a CGE model, the researcher only uses data for one single year. Such information can, therefore, not summarise the benchmark behaviour of various economic variables over the years. In fact, various studies carried out thus far, employing a CGE technique, do not agree with these results (Agenor & Montiel, 1999:537-540). CGE model results should therefore be interpreted with caution. Although a CGE Model is a powerful econometric tool to visualize the impact of a certain policy changes (in this case tax changes) on the whole economy, it cannot take factors like the policy uncertainty into account.

### 3.2.1.4 Total tax burden model

Another widely used method to study the impact of taxation is to compare foreign inflows to the total tax burden, i.e., the ratio of total tax revenue to the gross domestic product (Heady, 2006). Foreign investment can then be expressed as a function of tax burden. This model summarises the interaction of all tax rules within an economy (De Mooij & Ederveen, 2006:647). Foreign firms need to therefore comply with set tax rules in terms of tax payments to be made to governments in host economies (Kneller et al., 1999:177). These include, for example, taxation on income and profit, payroll and manpower, property, goods and services, international trade, as well as social security contributions. Since all of the above form part of tax revenue, tax revenue itself may capture closely the impact of tax rules within a domestic setting and it can be regressed against foreign investments.

### 3.2.2 Questionnaires (Opinion surveys)

A questionnaire is a set of questions used to collect information and data from targeted respondents (Lategan & Lues, 2006:21). Similarly, surveys are used to gather information from foreign investors on their investment decisions. This type of data collection, especially from firms that are involved with tax issues abroad, gained
popularity in recent years (Morisset & Pirnia, 2000:05). A survey of firms entails the collection of data and information from a relatively large sample which is then quantified (Lategan & Lues, 2006:21). In this case, a set of tax and investment related questions, in most cases to be answered by managers on behalf of their firms, are developed. These questionnaires attempt to determine all tax related issues that have impacted on the decision of firms to invest abroad. Afterwards, the findings of these surveys are analysed and published.

Opinion surveys of managers are important because they examine in a very direct manner the effectiveness of various changes to tax policies, such as the introduction of tax incentives (Morisset & Pirnia, 2000:05-06). Such opinion surveys collect feedback from the executives of companies regarding their reaction to certain changes in tax policy. The government of the host country can quickly react to any concerns raised. According to Boadway & Shah (1995:95) opinion surveys can ask more direct questions, such as whether they are willing or not to move abroad if host countries would grant them tax exemption and tax incentives, to executives of companies. This shows that the opinion survey is a tool to closely monitor the impact of changes in tax policy on investment decisions. However, one of the criticisms of this type of methodology is the problem of selection bias (Studenmund, 2006:549). In other words, when a sample of investors is selected certain executives of companies may be deliberately excluded (creating a biased sample) or certain ‘powerful’ managers may elect themselves to be part of the respondents. It is important to note that executive managers may also use such opinion surveys as a way of practicing rent seeking. This will impact on the outcomes of these types of the study.
3.3 A COMPARISON OF FINDINGS OF DIFFERENT EMPIRICAL STUDIES

This section compares the findings of recent empirical studies on the impact of different elements of tax policy on foreign investment decisions\(^\text{17}\).

3.3.1 Studies on statutory rates of corporate tax

  They developed an econometric model and studied the impact of a statutory tax rate on corporate income on FDI in OECD countries between 1988 and 1997. They found that a low statutory tax rate on corporate income is linked to a higher inflow of FDI. For example, this study shows that the mean value of FDI reduces by 0.030 per unit increase in statutory corporate tax, other factors kept constant. This means that one percentage point increase in corporate tax rate led to a 3\% reduction in FDI. For an economy in dire need of capital these results are significant in sense that any form of capital formation within national borders has positive external effects.

- **CBO (Congressional budget office of United States of America, 2005)**
  They conducted an international comparison of corporate income tax rates and foreign investment in OECD countries between 2003 and 2005. This study relied on models developed by Deuverex, Griffith & Klemn (2003) and came to the conclusion that that a higher statutory tax rate negatively affects the investment decisions of firms. A relatively higher statutory tax rate reduces the demand for capital because it increases the cost of capital. It is interesting to note however that in 2005 the top statutory tax rates in Ireland, Hungary, The United Kingdom and The United States were 12.5, 18, 30 and 39.3 per cent respectively and total foreign investment were 34, 21, 309 and, 2037 billions of American dollars. This meant that, although some countries had lower statutory tax rates in that specific year, they attracted lower levels of foreign investments. The important lesson is here, that other non-tax matters should be considered to can explain these discrepancies. The policy implication of the study was

\(^{17}\) These studies were randomly selected based on availability. There are no noteworthy empirical studies of specific tax issues (i.e. effective tax rate) and FDI with particular reference to Sub Saharan African economies.
that the governments of OECD countries were persuaded to gradually reduce statutory tax rates on corporate income.

  
  Hartman developed an econometric model and examined the possible impact of increasing statutory rates of corporate tax on the inflows of FDI to United States of America. He found a positive relationship between inflows of FDI and tax statutory tax rates. This finding contradicts the discussion in Chapter Two (See section 2.4.2) which explains that an increase in tax rate increases the cost of capital and therefore reduces investment. This study concludes that the difference in rates of return between countries matter relatively more in attracting foreign investment in general than differences in nominal tax rates (Blonigen, 2005:388). However, as explained in section 3.2.1.1, the statutory corporate tax rate is not as good an indicator of the corporate tax burden than the effective tax rate. It may well be that in this specific case, the effective rate was much lower than the nominal rate.

- **Romagosa et al. (2007)**
  
  They studied the impact of the statutory tax rates on the inflow of FDI in the European Union (EU) over the years 2002 to 2004 by using a CGE model. The study, all others things remaining the same, found that it had been very effective to decrease the statutory rate as a tool to attract FDI. They found a tax elasticity of -1.91 across the EU, which means that a one percentage point decrease in nominal tax rates led to a 1.91 percentage point increase in FDI. This study also found that compliance and labour cost are important non-tax factors determining FDI in the EU.

- **Wamser & Overesch (2008)**
  
  They used an econometric model and studied the impact of statutory rates of corporate tax on the investment decisions of German multinationals in other European countries over the years 1989 to 1995. They found that vertical FDI are more sensitive to tax changes than the horizontal FDI\(^\text{19}\) and that tax policy influences the quantity as well as the composition of the type of FDI. It was determined that a one

\(^{18}\) See also Blonigen (2005) for a comprehensive review of the empirical literature on FDI determinants. He also explains the role of non-tax factors, such as institutions, trade protection, and exchange rates as determinant of FDI flows.

\(^{19}\) See section 2.31- it distinguish between variois types of FDI, such as horizaontal and vertical FDI.
percentage point increase in the host country’s corporate tax rate leads to 0.68 percent reduction of FDI from Germany. This study is amongst the few that studied the impact of taxation on the types of FDI.

3.3.2 Studies on effective rates of corporate tax

- **Grubert & Mutti (1991)**
  They studied the impact of effective rates of company tax on American FDI into 33 countries using a using a marginal effective tax rate model and cross sectional data for 1982. They found that it is actually changes in the effective tax rate that matter in the case of U.S foreign direct investors abroad. More specifically, they found that one percentage point increase in effective tax rates leads to a reduction of U.S FDI by 0.7 percent. This is quite a significant finding.

  Using an effective tax rate model, they explored the relationship between average effective tax rates and inflows of FDI from the USA. They concluded that foreign investment was very responsive to average tax rates. They found a tax elasticity to FDI of -3. This means that one percentage point increase in the average effective tax rate will cause a 3% decrease in FDI.

- **CBO (Congressional budget office of United States of America, 2005)**
  This study relates to the impact of an effective tax rate on foreign investment flows between 2003 and 2005, relying on an effective tax rate model developed by Devereux, Griffith & Klemen (2003). It concluded that effective corporate tax rates influenced investment decisions not only in the U.S.A., but also in the OECD countries. It was found that although the effective tax rate was higher in the U.S.A than in the OECD countries, rates were comparable in the sense that, despite some discrepancies between rates across countries, they could be compared on a one to one basis. Changes to tax policy in the OECD by one country made other countries to follow suit. For example, from 1982 to 2003, Ireland, the United Kingdom, and the United States made significant changes to statutory tax rates and in the following years other OECD countries also reduced their statutory rates on corporate income (CBO, 2005:1). This shows the importance of tax harmonisation (See Section 2.5.3).
• **Blonigen (2005)**

He used an effective tax rate model to study the impact of corporate tax rates on FDI flows into the United States of America between 1979 and 1991. He concluded that a lower effective tax rate in the United States of America would increase the inflow of FDI. He found a tax elasticity of -3.3 (i.e. a one percentage point reduction in the effective tax rate would increase FDI by 3%). The implication of these findings is that policy makers host countries should focus on the steady reduction of effective rates of corporate tax.

The evidence from empirical studies on the impact of statutory and effective tax rates on foreign investment flows proves that lower statutory and effective tax rates are associated with the higher inflow of foreign investment. Policy makers in capital scarce countries should therefore consider reducing nominal as well as effective rates of company tax. Table 3.1 summarises the findings of the above discussed empirical studies.
Table 3.1: Typology summary of the impact of statutory and effective rates of corporate income tax in foreign investment flows

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country/Region</th>
<th>Type of Study</th>
<th>Years</th>
<th>Main findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hartman (1985)</td>
<td>USA</td>
<td>Econometric /Effective tax rate model</td>
<td>1984-1985</td>
<td>Differences in rates of return across countries matter relatively more in attracting foreign investment in general than the differences in nominal tax rates.</td>
</tr>
<tr>
<td>Grubert &amp; Mutti (2000)</td>
<td>USA</td>
<td>Effective tax rate model</td>
<td>1984-1992</td>
<td>Foreign investment was very responsive to average tax rates.</td>
</tr>
<tr>
<td>Gropp &amp; Kostial (2000)</td>
<td>OECD</td>
<td>Econometric/Effective tax rate model</td>
<td>1984-1992</td>
<td>Low statutory tax rates resulted in higher inflow of FDI into the OECD.</td>
</tr>
<tr>
<td>Blonigen (2005)</td>
<td>USA</td>
<td>Econometric/Effective tax rate model</td>
<td>1979-1991</td>
<td>Lower effective tax rates in the USA would increase the inflow of FDI.</td>
</tr>
<tr>
<td>Romagosa et al. (2007)</td>
<td>EU</td>
<td>Econometric model/CGE</td>
<td>2002-2004</td>
<td>The impact of a higher statutory tax rate on the inflows of FDI in European Union (EU) is negative</td>
</tr>
<tr>
<td>Wamser et al. (2008)</td>
<td>EU</td>
<td>Econometric model</td>
<td>1989-1995</td>
<td>Vertical FDI are more sensitive to tax changes than the horizontal FDI</td>
</tr>
</tbody>
</table>
3.3.3 Studies on specific tax incentives

This section briefly discusses the findings of various studies on the effect of tax incentives (in this case tax holidays and accelerated depreciation) on foreign investment decisions. It should be kept in mind that tax incentives bring down the effective tax rate, which means that the findings of these studies also relate to the effective burden of company tax.

3.3.3.1 Tax holidays

- *Trela and Whalley (1991)*
  They used a computable general equilibrium model to examine the effectiveness of tax holidays to promote FDI in Korea between 1962 and 1982. They found that tax holidays are effective policy instruments to attract FDI. According to them, the results of this study were very significant because changes in tax policy accounted for almost one-tenth of the growth of the Korean economy during the period 1962 to 1982.

- *Shah and Boadway (1992)*
  They conducted a survey on the impact of tax incentives such as tax holidays on the foreign investor decision to commit their savings to developing countries in 1995. Tax holidays reduce the amount of tax that companies have to pay and as a result more companies would be willing to invest in countries where they can optimise returns. However, this survey found that for some investors it was not the case because other non-tax issues, such as access to markets, political climate and political uncertainty influenced their decisions to invest relatively more.

- *Estache and Gaspar (1995)*
  They studied the impact of changes with regard to tax holidays in Brazil between 1988 and 1989. They used a marginal effective tax rate model to examine the effectiveness of tax holidays as policy tool in order to promote FDI. The main conclusion of the study was that tax holidays encouraged firms to invest in additional capital asset, without tax holiday the average METR increased from 55 percent to 61

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20 Another important element that may have an influence on foreign investment decision, especially, import substitution FDI is a tax subsidy (negative tax). And this can be also regarded as an incentive.

21 See definition in section 2.4.3.2 (a).
percent. The study also observed not all firms and industries were supported by the policy.

- **Flatters et al (1995)**
  They studied the impact of tax holidays on FDI in Malaysia between 1983 and 1987. Based on a marginal effective tax rate model, they concluded that tax holidays increased FDI in specific sectors, such as food, building materials and manufacturing. In addition, Flatters *et al* (1995:341) explain that tax holidays are important instruments to attract FDI, because it reduces the amount of tax that investors have to pay and as a result increases the profitability of the investor's company. Foreign investors are therefore willing to invest where tax holidays are granted to them.

- **Halvorsen (1995)**
  He carried out a survey to examine the impact of tax holidays and other tax issues on FDI in Thailand in 1990. He ranked tax issues according to investors’ perception and experience. Most of the respondents indicated that tax holidays were amongst the most important tax incentives. Foreign investors indicated that they are willing to move to countries where tax holidays were provided for longer periods.

- **Clarete (1995:673)**
  He used a computable general equilibrium model using 1989 as the year of reference to study the impact of tax holidays on FDI in the Philippines. He also found that tax holidays have a significant and positive impact on foreign investment flows. He also asserts that tax distortion were amount to 2.67 billion pesos, almost 1 percent of Philippine’s GDP. Therefore, reducing such distortions through tax holidays could have reversed this scenario.

- **Morisset and Pirnia (2000)**
  In an attempt to examine how tax holidays affect FDI in general, they found that tax holidays do not compensate for serious deficiencies in a country's investment environment, such as a lack of public infrastructure. Tax holidays do not always compensate investors for other non-tax distortion in place in the host countries.
In conclusion, the studies prove that tax holidays are important tax incentives determining FDI especially for government initiated FDI. However, there is also proof that it is not a sufficient measure to attract foreign investment. Table 3.2 summarises findings of empirical studies on the impact of tax holidays on foreign investments.

Table 3.2: Typology summaries of empirical studies on tax holidays and foreign investment

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country/region</th>
<th>Type of Study</th>
<th>Years</th>
<th>Main findings/ Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shah and Boadway (1992)</td>
<td>Bangladesh, Brazil, Côted’Ivoire, Lesotho, Malaysia, Morocco, Pakistan, and Thailand</td>
<td>Survey</td>
<td>1995</td>
<td>A tax holiday attracts foreign investment in developing countries. However, other non-tax issues influence their decisions to invest such as access to markets, political climate.</td>
</tr>
<tr>
<td>Estache and Gaspar (1995)</td>
<td>Brazil</td>
<td>Marginal effective tax rate model</td>
<td>1988-1989</td>
<td>Tax holidays encourage firms to invest in additional tangible assets in Brazil. Tax holidays were provided for firms already established.</td>
</tr>
<tr>
<td>Flatters et al (1995)</td>
<td>Malaysia</td>
<td>Marginal effective tax rate model</td>
<td>1983-1987</td>
<td>Tax holidays are the most important instruments to attract FDI in Malaysia. And in specific sectors such as food, building materials and manufacturing</td>
</tr>
<tr>
<td>Halvorsen (1995)</td>
<td>Thailand</td>
<td>Survey</td>
<td>1990</td>
<td>Foreign investors in Thailand ranks holidays among the most important tax incentives. In addition, they are willing to move to countries were tax holiday are provided for longer periods.</td>
</tr>
</tbody>
</table>
3.3.3.2 Accelerated depreciation

The provision for accelerated depreciation as incentive also plays a role in attracting FDI.

- *Estache and Gaspar (1995)*

They studied the impact of accelerated depreciation on investment in Brazil between 1988 and 1989. They concluded that rapid depreciation of capital assets lowered the marginal effective tax rate. Interestingly, they also found that the impact of accelerated depreciation based on the METR depended on the nature of the asset invested in (machinery or buildings) and the source of financing (debt or equity).

- *Feltenstein and Shan (1995)*

The researchers used a general equilibrium model to estimate the impact of accelerated depreciation on foreign investment projects in Mexico between 1980 and 1988. They observed that it had a significant and positive effect on foreign investment decisions since accelerated depreciation reduces the effective tax rate, and thereby increasing the firm’s profitability.

- *Cummins et al (1996)*

They conducted a survey to examine the impact of accelerated depreciation on the inflow of FDI in OECD countries. They found that the majority of countries in OECD provided tax incentives, such as accelerated depreciation, as an instrument to attract private foreign investment.

- *Tung and Cho (2000)*

They examined the impact of accelerated depreciation on the inflow of FDI in China. They found that it improved China’s ability to attract more FDI in recent years, to extent that China has become the top source of FDI in Asia. They also observed that other non-tax policy such as political stability improved China’s attractiveness to FDI. The policy implication of these findings is that governments of host countries should also consider other non-tax policy factors in order to attract FDI.
In summary, the studies show that accelerated depreciation as a tax incentive is also a good measure to attract foreign investment. Table 3.3 summarises findings of empirical studies on the impact of accelerated depreciation on foreign investments.

Table 3.3: Typology summary of empirical studies on accelerated depreciation and foreign investment

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country/region</th>
<th>Type of Study</th>
<th>Year</th>
<th>Main findings/ Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cummins et al (1996)</td>
<td>OECD</td>
<td>Survey</td>
<td>1996</td>
<td>Foreign direct investor responds positively to the introduction of accelerated depreciation of tangible assets in OECD.</td>
</tr>
</tbody>
</table>

3.3.4 Studies on tax policy uncertainty

Tax policy uncertainty and tax administration are other issues that can influence foreign investment.

- **Bizer and Judd (1989)**

They studied the impact of tax uncertainty on investment in the United States of America between 1970 and 1985 applying a dynamic general equilibrium model. They observed that unexpected changes in tax policy were a source of uncertainty and lead to the reduction of foreign investment. Investors are interested in the future direction of a current tax law and they also have expectations. Therefore, if tax policy changes happen overnight, foreign investors would then search for new ways to avoid taxation or consider venturing into other relatively less uncertain tax environments.
• *Gaspar and Estache (1995)*

Using an effective tax rate model, they explained that uncertainty about future tax policy influences the location of FDI in Brazil between 1988 and 1989, argued that investors are keen to know the direction of host government economy policy with regard to investment specifically and the economy in general.

• *Asiedu (2001)*

Asiedu (2001) studied the determinants of FDI in developing countries in sub Saharan Africa between 1988 and 1997. Using econometric model for her estimates, she found that policy uncertainty in general, including uncertainty about governance influence the direction of such flows to Africa. In other words, foreign investors see political instability as one of the impediments to invest in Africa.

• *Niemann (2001)*

He developed a theoretical model to explain the impact of tax uncertainty on real FDI and portfolio investment. He described the former as real investment and the latter as pure financial investment. He found that increases in tax rates on these types of investment made investors uncertain about the direction of tax policy. As a result, tax uncertainty influenced negatively foreign investment. The implication of these findings is that both portfolio and direct investors take into account the direction of any government policy in general. Generally speaking, uncertainty about future tax policy might encourage investors to postpone their investment in the host country.

• *Karzanova (2005)*

He studied the impact of tax policy on Russia’s real investment. He explained among other things that tax policy uncertainty had a negative influence on foreign investment decision in Russia. Table 3.4 summarises findings of empirical studies on the impact of tax policy uncertainty on foreign investments.
Table 3.4: Typology summary of empirical studies on policy uncertainty and foreign investment

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country/region</th>
<th>Type of Study</th>
<th>Year</th>
<th>Main findings/ Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bizer and Judd (1989)</td>
<td>United States of America</td>
<td>Econometric Model / CGE</td>
<td>1970-1985</td>
<td>Unexpected change in tax policy leads to the reduction of foreign investment</td>
</tr>
<tr>
<td>Gaspar and Estache (1995)</td>
<td>Brazil</td>
<td>Marginal effective tax rate model</td>
<td>1988-1989</td>
<td>Foreign investors are keen to know the direction of tax policy toward investment and the economy in general.</td>
</tr>
<tr>
<td>Niemann (2001)</td>
<td>N/A</td>
<td>Mathematical model</td>
<td>N/A</td>
<td>Increases in tax rates makes foreign investors uncertain about the direction of tax policy.</td>
</tr>
</tbody>
</table>

3.3.5 Studies on tax planning

According to the OECD (2008) tax planning is an important issue that is often ignored by empirical studies. It is therefore important to examine the impact of such strategies on foreign investments inflows.

- **Grubert (2003)**

He studied the impact of tax planning on FDI in the United States of America in 1996. According to Grubert (2003), relative tax burdens increase the possibility that investors will avoid taxes. The study recognized that tax planning reduces FDI. The implication of this is that host countries should find ways to monitor tax planning by foreign investors. In practice, the government should reduce the tax burden on foreign investment. This will prevent foreign investors from moving or engage in tax planning.

- **Hong and Smart (2007)**

They developed a mathematical model to explain the relationship between tax planning and foreign investment in the United States of America in 2007. According to Hong and Smart (2007) an increase in the tax rate on corporate income encourages foreign investors to not only find new ways to avoid taxes, but also encourages them
to engage in tax planning strategies. Such tax planning strategies have implications for government revenues, as the government may collect less revenue.

They, furthermore, simulated in a general equilibrium framework, the implication of tax planning. They found that tax planning is likely to occur in instances where the tax burden is relatively high and foreign investors will be willing to move to a lower tax country or they will find ways to avoid the imposed tax burdens. They also found that tax planning reduces foreign investment in the host country.

3.3.6 Studies on the impact of globalisation
There are a significant number of empirical studies that investigate the impact of globalisation on tax policies in host countries. Tax matters logically affect the cross border movement of mobile factors of productions, such as foreign investment flows.

- **Swank and Steinmo (2000)**
  They surveyed the impact of globalization on tax policy, hence on foreign investment, in developed countries in the OECD. They observed that between 1981 and 1995, OECD member states lowered their tax rates as the result of pressures from other members that had initial reduced their rates thus creating a competitive race to attract more foreign investment through a lower corporate tax rate.

  They surveyed the impact of corporate taxation on FDI in OECD countries between 1988 and 1997. They found that, as demanded by globalization, tax harmonization and competition affected government revenue and it affected the inflow of FDI. They state that globalization brings about “harmful tax competition” that may distort foreign investment decisions (Gropp and Kostial, 2000:04).

- **Asher and Rajan (2001)**
  They argue that globalisation changes the level and administration of tax in a host country. In other words, since the implication of globalisation is that countries no longer formulated their tax policy without focusing on the international practise and experience, countries are forced to cooperate with other nations and sometimes to
compete with them, in order to be able to attract foreign investment in a sustainable way (Asher and Rajan, 2001:119).

In 2001, they surveyed the impact of globalisation on foreign investment flows to Southeast Asia. They observed that countries no longer formulated their tax policy without focusing on the international practise and experience. Due to globalisation, countries cooperate with other nations and at time compete, in order to be able to attract foreign investment in a sustainable way (Asher and Rajan, 2001:119).

- **Hallerberg and Basinger (2004)**

They developed a mathematical model to study the link between liberalisation of capital and corporate income in order to determine the impact of globalisation in the OECD between 1980 and 1997. They predict that due to globalization, corporate tax rates might reduce and foreign investment might increase. Other studies show that tax planning and globalisation explain the location and amount of foreign investment flows. Table 3.5 summarises the findings of empirical studies on the impact of tax planning and globalisation on foreign investments.

Table 3.5: Typology summary of empirical studies on tax planning, globalisation and foreign investments

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country/region</th>
<th>Type of Study</th>
<th>Year</th>
<th>Main findings/ Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hong &amp; Smart (2007)</td>
<td>OECD</td>
<td>Mathematical model</td>
<td>2007</td>
<td>Tax planning reduces foreign investment in host country.</td>
</tr>
<tr>
<td>Swank &amp; Steinmo (2000)</td>
<td>OECD</td>
<td>Survey/Literature review</td>
<td>1981-1995</td>
<td>Corporate tax rates dropped significantly and foreign investment increased</td>
</tr>
<tr>
<td>Gropp &amp; Kostial (2000)</td>
<td>EU</td>
<td>Survey</td>
<td>1988-1997</td>
<td>Foreign investment are likely to be affected negatively by harmful tax competition</td>
</tr>
</tbody>
</table>
3.3.7 Studies on the total overall tax burden

Other empirical studies suggest that the overall tax burden (tax revenue as percentage of gross domestic product) has a negative influence on a host country’s ability to attract more foreign investment. The following paragraphs discuss some of the findings to support or reject this view shared by many other economists.

• *Schoeman et al* (2000)

They developed an econometric model based on ordinary least square regression analysis to study the impact of a tax burden on FDI in South Africa in 1995. Using tax revenue as percentage of GDP as indication of a tax burden, they found that tax burden lowered South Africa’s attractiveness to foreign investment, including portfolio and direct investment. The policy implication of this study is that government should reduce tax burden for foreign investors.22

• *Yoo* (2003)

He studied the impact of tax burden on FDI in the OECD, including Canada, Ireland, and Japan, for the period 1991-2001, based on an effective tax rate model. He found that during the 1990’s the tax burden in these countries increased sharply, exceeding 9% and later it reduced by almost 8%. He observed that the tax elasticity to FDI is approximately -3.

• *Bellak, Leibrecht and Romisch* (2005)

They developed an econometric model to examine the impact of a tax burden on FDI in Central and East European Countries (CEECs) between 1995 and 2003. They found that FDI is very responsive to changes in tax rates. They also found that one percentage point increase in tax burden would lead to -1.45 percentage point of FDI in the CEECs.

• *Adam and Kammas* (2007)

They developed a correlation matrix to study the impact of a tax burden on 17 OECD countries between 1970 and 1997. They found that a higher tax burden negatively

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22 However, the higher tax burden can be ascribed to more efficient collection by SARS.
influence the inflow of mobile factors of production, such as FDI, they confirmed the
tax elasticity below -3% across these 17 OECD member states.

3.3.8 Studies on double taxation rules
Very recent empirical studies confirm that the double taxation rules have impacted on
foreign investment decisions.

- *Hine & Rice (1994)*
  By means of a survey they investigated the impact of double taxation rules on the
  investment behaviour of American multinational companies abroad in 1994. They
  found that these firms were willing to invest abroad regardless of tax credit
  arrangements. An important observation was that, although U.S firms abroad would
  only apply for tax credit in the home country they were still responsive to a tax burden
  in the host countries.

- *Revil at al (2005)*
  They surveyed the impact of tax schemes (tax agreement between countries to avoid
double taxation of earnings) on FDI in OECD countries during 1984-2000. They
  found that FDI sourcing from countries that uses a credit system (corporations paying
taxes according to the tax structure of the country of the parent company and later
receive a credit for tax liabilities paid in host a country) reacted with more negativity
to changes in tax policies than FDI sourcing from tax exemption countries (in this
case repatriated profits are not taxed).

The implication of the above findings is that countries should be willing to cooperate
in order to avoid the outflow of investment from one country to another because of
these tax schemes.

- *Neumayer (2007)*
  He explored the relationship between tax agreements (tax treaties between countries
to avoid double taxation of earnings) and FDI in developing countries. More
precisely, he explored the impact of double taxation treaties signed between U.S and
some of the developing countries. He found that such treaties significantly increased
FDI in the developing countries. In addition, he also found that only few countries benefit more from those treaties. These countries include China, India, Indonesia, Mexico, Philippines, South Africa, Brazil, Morocco, and Argentina.

To conclude, the studies demonstrate that double taxation rules determine the location of foreign investment. Table 3.6 summarises findings of empirical studies on the impact of double taxation rules on foreign investments.

Table 3.6: Typology summary of empirical studies on double taxation rules and foreign investment

<table>
<thead>
<tr>
<th>Authors</th>
<th>Country/region</th>
<th>Type of Study</th>
<th>Year</th>
<th>Main findings/ Conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hine &amp; Rice (1994)</td>
<td>USA</td>
<td>Survey</td>
<td>1994</td>
<td>U.S firms were willing to invest abroad regardless of tax credit arrangements.</td>
</tr>
<tr>
<td>Revil at al (2005)</td>
<td>OECD</td>
<td>Survey/Literature review</td>
<td>1984-2000</td>
<td>Tax agreements between OECD countries were a determinant tax factor in promoting foreign investment</td>
</tr>
<tr>
<td>Neumayer (2007)</td>
<td>USA</td>
<td>Survey/Literature review</td>
<td>2006</td>
<td>Tax treaties increased significantly U.S foreign direct investment to the developing countries. These include: China, India, Indonesia, Mexico, Philippines, South Africa, Brazil, Morocco and Argentina</td>
</tr>
<tr>
<td>Desai et al (2004)</td>
<td>USA</td>
<td>Survey/Literature review</td>
<td>1982 - 1994</td>
<td>Interestingly, they found the U.S tax system of source principle (credit system) encourages its firms to invest more abroad.</td>
</tr>
<tr>
<td>Ederveen et al (2005)</td>
<td>USA</td>
<td>Meta analysis</td>
<td>2003</td>
<td>They found with other researchers such as Hines (1996) that the choice between source and residence principle does not matter much for investors</td>
</tr>
</tbody>
</table>
### 3.3.9 Studies on international taxation of earnings (the choice between residence and source principle)

Other recent empirical studies also investigated explicitly the impact of a host country choosing to tax corporations based on the residence or source principle. This discussion is closely associated with the one in section 3.3.7. The argument here is that, when countries opt for a tax exemption system, it is analogous to a residence principle of taxation. And when a country opts for a source principle of taxation, it is therefore comparable to a credit tax system\(^{23}\) (Ederveen *et al*, 2005:675).

- **Desai *et al* (2004)**

They investigated the impact of multiple taxes on U.S FDI abroad between in 1982 and 1994. They found that the U.S tax system of source principle (credit system) encourages its firms to invest more abroad. This is because such a system significantly reduces the impact of direct taxation on the U.S firms abroad. The implication of this is that a source principle of income taxation could provide incentives for investors to invest abroad since the home country guarantee a tax credit for taxes paid in the host economies. This finding is, however, contested in the literature.

- **Ederveen *et al* (2005)**

In 2003, they developed a Meta analysis\(^{24}\) to investigate the impact of tax rules on FDI. And it includes countries from OECD. They found, as did other researchers such as Hines (1996) that the choice between source and residence principle does not matter much for investors. This is because, in the case of the American firms where tax credit system is available, they were already in an advantage, compared to other competing firms from countries where such credit is not available. Therefore, firms could find ways to avoid any home country tax (Ederveen, 2005:676). This suggests that firms react quickly to changes in tax policies of the host countries instead of home country.

\(^{23}\) See also Section 2.4.3.2

\(^{24}\) “Meta analysis is the statistical analysis of results from various individual studies” (De Mooij *et al*, 2005:684). The reader is referred to De Mooij *et al* (2005) for more detailed analysis of Meta analysis.
3.3.10 Studies on the nature of foreign investment flows

There is very little empirical evidence on the impact of taxation on the foreign investor’s choice between FDI and portfolio investment. Nonetheless, the impact of taxation on portfolio composition is stated in the literature. Taxation has an impact on the manner in which households decide on the types of financial assets to include as portfolio. For the sake of this research report, only taxation, foreign portfolio, and FDI in aggregates are explored.

Portfolio investors seek to maximize return on investment by investing in high risk assets and the foreign direct investors invest in long term capital assets but he/she seeks to control the company (See also section 2.2.2.) In fact, both the portfolio and foreign direct investor seek to maximize profits in different ways. The former attach more value to short term pure financial assets, such as bonds, and the latter invest in new factories and plants. Therefore, the tax burden may offer an incentive for foreign investors to choose between direct or portfolio investment.

- **Kaplow (1994)**

Using a CGE model he explains that tax policy affects the investor’s choice of whether to invest in safe or risk financial assets. He mentioned that an increase in income tax lowers the demand for high risk business investments and common stocks and therefore, reduces portfolio investment in the economy.

- **Domar and Musgrave (1944) discussed in Feldstein (1976:634)**

Using a theoretical model they argue that taxes in general increase the demand for relatively risky financial assets. The general understanding is that financial assets with high risk are likely to produce high returns contrary to a direct investment where the return would be present in a long term. Therefore, investors may engage in portfolio investment in order to maximise its return in the short term.

- **Hanson (2001)**

Hanson (2001) studied the determinants of foreign investment in host countries in Africa. He observed that Africa generally promotes more FDI than portfolio investment. The reason for this is that other non-tax factors are important to foreign investors. Hanson (2001:23) argued that certain developing countries have relatively
poor financial markets and it is therefore difficult to have vibrant trading in financial assets. Hanson’s work also suggests that the impact of tax policy is country-specific in line with specific contexts: countries with non-existent or even badly underdeveloped financial markets would not attract portfolio investment no matter how much the company tax rate is reduced.

3.3.11. Foreign trade taxes\textsuperscript{25}

In recent years lowering foreign trade taxes, such as import and export duties, became an integral package of trade liberalisation. Reduction in foreign trade taxes may promote free trade, hence encourages a deeper regional integration among countries. There are significant numbers of empirical studies that explain the importance of lower trade taxes in promoting FDI in host countries (See Section 2.3.2.2).

- \textit{Woodward & Rolfe (1993)}
  
  They studied the location of export oriented FDI in the Caribbean basin between 1988 and 1989. They found that tariff incentives provided in free trade zones positively affect export oriented FDI. The empirical result shows that one percentage point increase in free trade zones increased export oriented FDI by 0.225 per cent.

- \textit{Raff & Srinivasan (1998)}

  They develop a game-theoretic model to study the host countries policies to lure import substitution FDI in U.S. They found that lowering tariffs promotes import substitution FDI.

- \textit{OECD (2001)}

  They investigated the determinants of FDI, recent trends and policy implications. They found that lowering tariffs attract export oriented FDIs. In addition they observed that bilateral trade agreements are significant factors explaining the direction of export oriented FDI\textsuperscript{26}.

\textsuperscript{25} Reduction in trade tax has become an integral part of increasing trade liberation in recent years. This section will briefly provide some empirical studies on trade taxes and foreign investment. See Burgness & Stern (1993) for a comprehensive discussion of foreign trade taxes and development.

\textsuperscript{26} This study also mentions that market size and growth prospects, natural and human resource endowments, physical and technological infrastructure, the regulatory and policy framework and policy coherence, investment promotion and protection are very important non-tax factors considered by foreign investors before engaging in FDI abroad.
3.4 EXAMPLES OF SUCCESSFUL COUNTRIES IN ATTRACTING FDI FLOWS

This section shows how changes in tax policy have been shaping foreign investment, in particular the FDI in Singapore and Ireland.

3.4.1 THE CASE OF SINGAPORE\textsuperscript{27}

Singapore transformed itself as one of the top destinations of foreign investment in Asia, in particular for FDIs (Tarzi, 2005:497). Special attention was paid to Singapore because of its overwhelming ability to attract foreign investment. It has also been recognized that tax policy played a role in the Singaporean economic transformation (Rajan et al, 2001:26). In light of Singapore’s experience other countries might follow suit by implementing similar policies in order to attract more foreign direct investment (FDI). This view is also shared by Park (2005).

3.4.1.1 Changes in tax policy

According to Asher & Rajan (2001) over the years the government of Singapore introduced various changes in tax policies to attract FDI such as a significant reduction in nominal corporate tax rates and provision for tax incentives. These changes were also in line with challenges imposed by globalisation on domestic tax policy.

According to Park (2005), nominal corporate tax rates in Singapore dropped from 40\% to 20\% between 1965 and 2005. In 2005, the effective corporate tax was among the lowest in the world, with 6.2\%. A lower effective corporate tax rate shows that fiscal incentives also made a contribution to Singapore’s ability to lure more foreign investments. Park (2005) in explains”…the main conclusion is that corporate taxation is definitively an important component of a package of factors that made Singapore an attractive FDI destination”

Park (2005) argues that foreign firms in Singapore benefits tremendously from specific tax incentives (accelerated depreciation, tax holidays, tax rebates). He

\textsuperscript{27} This section relies heavily on a comprehensive study by Park (2005) on FDI and Corporate taxation: overview of the Singapore experience.
comments that the number of tax incentives to be considered for foreign investors in Singapore is also growing.

In recent years it became clear that a supportive tax policy matters for foreign investors (See section 3.3). Singapore is a good example of a country that has substantially lowered the effective corporate tax rates. Section 3.3.2 studies the impact of effective corporate tax on foreign investments and it concluded that both lower nominal and effective tax rate are associated with higher inflows of foreign investments.

Singapore also recognised the need to cooperate with other countries throughout the world on matters related to tax policy. For example it is estimated that Singapore signed more than 51 double taxation treaties with other countries in an attempt to avoid double taxation of corporate income.

Furthermore, among other important tax changes, Singapore in 2003 opted for a tax exemption system where both resident and non-resident companies pay no tax on dividends. This avoids the problem of double taxation. Section 3.3.8 summarises the findings of recent empirical studies on the impact of double taxation on foreign investment flows. The conclusion was that double taxation treaties matter to promoting an enabling tax environment for foreign investors. Therefore, Singapore’s choice is in line with international experience and evidence.

3.4.1.2 Trends of FDI in Singapore
Figure 3.1 illustrates the trends on the inflow of FDI in Singapore between 1970 and 2007. A close look at figure 3.1 reveals that, ceteris paribus, changes in tax policy contributed significantly to Singapore’s ability to attract FDI in recent years. In a short space of time, FDI increased significantly. For example, between 1970 and 1989 the inflow of FDI to Singapore were annually less than 5 billion U.S dollars. Between 1990 and 2007, as result of various government interventions, among others, the changes in tax policy, FDI increased as a result of lower corporate tax (Park, 2005:30). FDI in Singapore has now, with few exceptions, reached unprecedented levels of more than 10 billion U.S dollars per annum since 1996.. There is a
worldwide recognition that Singapore’s supportive tax policy is the driving force behind the current ability to attract FDI in the current and much more globalised world.

Figure 3.1 Inflows of FDI in Singapore (in levels, millions of U.S)

Source: UNCTAD (2008)

3.4.2 THE CASE OF IRELAND

Ireland is an OECD member state that is widely recognised for implementing supportive changes in tax policy such as a significant reduction in the corporate income tax rates. Consequently, FDIs to Ireland increased significantly.

3.4.2.1 Changes in tax policy

Ireland has a very recent and successful history of tax policy changes to attract foreign investment. Between 1995 and 2005 the corporate income tax rate reduced from 30% to 12.5%. At the same time the government of Ireland provided tax incentives such as tax credits on expenses undertaken by companies engaging in research and development. This covers expenses on salaries, plant and machinery and buildings (KPMG, 2007). The government of Ireland is gradually shifting its tax policy from tax incentive based toward a lower corporate income tax rate environment (Buckley & Ruane, 2006:13)
Economists have long debated the merits of two options: introducing tax incentives and lowering the nominal tax rate as it did Ireland. Unless there is a compelling argument for targeted incentives to stimulate investment in particular activities, most academics regard the lowering of the nominal rate to be the better option. Politicians and other policymakers do not necessarily agree, which explains the popularity of tax incentives in practice.

In addition, along other Europeans nations, it recognises the need to address the challenges of globalisation. In recent years Ireland signed various tax agreements with other countries to encourage international business. According to KPMG (2007) changes in tax policy in Ireland were accompanied by an open door policy for FDI.

According to Friedman (2005) “Ireland's advice is very simple: make your corporate taxes low, simple and transparent; actively seek out global companies; keep your fiscal house in order; and build a consensus around the whole package with labour and management - then hang in there, because there will be bumps in the road - and you, too, can become one of the richest countries in Europe”.

3.4.2.2 Trends of FDI in Ireland

Figure 3.2 demonstrate how Ireland attracted FDI over the years and especially between 1990 and 2003. A shift in tax policy with an emphasis on a lower corporate tax rate seemed to have influenced the direction of Ireland’s total FDI. FDI going to Ireland has grown rapidly between 1990 and 2003. According to UNCTAD’s 2007 World Investment database, Ireland attracted less than $3 billion in FDI between 1970 and 1997. In following years, that is, between 1998 and 2003 the economy registered a substantial annual increase in FDI, amounting to $10 billion. As indicated in section 3.4.2.2, a lower tax on corporate income contributed to the increased FDI inflows.
Figure 3.2 Inflows of FDI in Ireland (in levels, millions of U.S)

Source: UNCTAD (2008)

3.5 CONCLUSION

This chapter summarised the findings of recent empirical studies on the impact of various aspects of tax policy on foreign investments. It firstly explains the types of studies and thereafter the findings of the studies. It is clear from various studies that lower statutory as well as effective rates of company tax positively affect the cross border movement of mobile factors of production, such as investment. Various studies emphasise that the inflow of foreign investments also depends on specific tax incentives, such as tax holidays, accelerated depreciation, and lower foreign trade taxes. Most developing countries use various incentives to lure foreign investors, Incentives also decrease the effective tax rate and therefore the cost of capital in these countries.

Furthermore, it is clear from the findings of specific studies that tax planning and policy uncertainty, or frequent changes to policy impede the inflow of foreign investment in host countries. However, there is a little empirical evidence on tax policy as determinant for the substitution between direct and portfolio investment. It seems as if the total tax burden in a host country is not an important impediment to foreign investment flows.
There is also a void in the literature as various important tax issues such as the impact of choosing a source versus the residence principle of income taxation on foreign investment remains inconclusive. However, the empirical studies in general confirm that tax arrangements between countries to avoid double taxation amongst others, improve host countries’ attractiveness to foreign investment flows. In addition, globalisation has brought tax competition, which forces various countries to decrease tax rates in general and to sign specific treaties to harmonise tax policies.

As referred to in Chapter One this study relates to the impact of tax policy on foreign investment in capital-scarce countries. Yet many of the studies reviewed in Chapter 3 cover mostly industrialised countries, which generally do not lack capital. However, regarding the relevance in the South African context, these countries are the main trading partners and also considering the effect of globalisation, the findings have important lessons to be learnt and also highlight what has become global standard practise.

With reference to Singapore and Ireland it is clear that, *ceteris paribus*, changes in tax policy driven by significantly lower nominal as well as effective tax rates might secure much higher inflows of foreign investment. Important lessons can be learnt from tax policy towards foreign investment in these countries.
CHAPTER FOUR

TAX POLICY AND FOREIGN INVESTMENTS – THE CASE OF SOUTH AFRICA

4.1 INTRODUCTION

A capital scarce and poor country such as South Africa needs a consistent inflow of foreign capital to realise a sustainable level of economic growth. This view is shared by many economists, such as Lucas (1990), Stiglitz (2002) and Joon Chang (2007). For South Africa this need to attract foreign investment is exacerbated by the extremely low rate of national savings, together with an unsustainably high deficit on the current account of the balance of payments. Foreign investment flows are thus vitally important in order to finance the much-needed import of capital goods.

Mr. Trevor Manuel recently mentioned that the South African government aims to increase fixed investment to a rate of 26% of GDP. He then stressed the need to attract higher levels of foreign investment, given the national savings rate of 14% of GDP (Rapport). In recent years, along with other macroeconomic policy measures28, such as inflation targeting, South Africa introduced various tax reforms to improve the efficiency and equity of the tax system in order to provide an enabling tax environment for foreign investors, and to follow international experience, in particular with regard to tax harmonisation and the competition brought about by globalisation.

This chapter focuses on South Africa and on changes to tax policy in recent years. It is structured as follows. Section 4.2 provides a very brief overview of the foreign investment trends in South Africa. Section 4.3 discusses tax policy towards foreign investment flows in South Africa. And Section 4.4 concludes.

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28 “..Macroeconomic stability should always be maintained in the presence of tax competition and investment capital which is still a concern in South Africa should kept constant (instead of flowing out)…” (Clasusen, 1998:161).

This section focuses on the trend of the national savings rate, the position of the current account of the BOP and the position of the financial account to illustrate the dependency of the economy on foreign investment.

4.2.1 Overview of national savings
The downward trend of the national saving rate is an alarming signal for policymakers. If the current situation is not reversed (See fig 4.1), it might have serious macro economic consequences and it can make the country even more dependent on foreign investment. To emphasise this need to attract consistent inflows of foreign investment, Figure 4.1 illustrates the position of the ratio of gross saving to GDP from 1973-2006. It is clear that in recent years, especially after 2002, gross savings decreased continually to only 14% of GDP in 2006 (See figure 4.1). The lower national saving seriously undermines South Africa’s ability to finance investment needs through internal sources and exacerbates the need to attract more foreign investment to fill this gap.

Figure 4.1: Ratio of gross national savings to GDP (1973-2006)

Source: Compiled by the researcher from the online database of the Reserve Bank of South Africa (2007)
4.2.2 Overview of the current account
Between 1985 and 1993 the balance on the financial account was negative (See Figure 4.3). South Africa was under severe economic sanctions and the government at that time was also facing financial sanctions and could not borrow internationally to finance domestic investment needs (Kahn, 1989:248). The country experienced disinvestment at an alarming rate by MNC who left the country. It includes among others Kodak, Shell and BP.

McCarthy et al (2000:213) and De Kock (1989:268) explain that between 1985 and 1994 South Africa had a current account surplus, but accompanied by problems on the financial account which was negative (See fig. 4.3). Therefore, with insufficient inflows of foreign investments into South Africa, the stability of the balance of payment was compromised. Such problems also affected other sectors of the economy. For example, during this period, the Reserve Bank had to use restrictive monetary policy, such as relatively high interest rates, to keep the current account positive. This seriously impacted on the economy’s capacity to grow and to create jobs. Developing economies, like South Africa, need consistent inflows of foreign capital especially to finance large capital projects.

The balance on the current account of the BOP has deteriorated in recent years (See figure 4.2). From 1971 to 1884/5 the balance on the current account was strong, reaching 8 percent in 1971 but deteriorated to almost 3 percent in 1985. After 1985, especially between 1985 and 1993, the balance on the current account had to be positive to counter the outflow of funds from the financial account. However, in recent years, between 1995 and 2006 the deficit on the current account increased from 2 to 8 percent of GDP (SARB 2007). At present there is concern that the deficit is not sustainable in the long run and it accentuates the seriousness to attract more foreign investment, especially FDI.

According to Mohr (2005:437) a deficit in the current account of the BOP suggests that the economy is importing more than it can actually export. The country is therefore consuming above its capacity at a particular point in time (Krugman & Obstfeld, 2006:489). Such consumption must be financed and the economy can do so
by using the balance it holds on the financial account of the BOP, where foreign investments (direct, portfolio and others investment) are held (Blanchard, 2006:414). Therefore, the deterioration of the current account implies that the economy must make use of its surplus in the financial account to meet its international obligation, such as debt servicing (Mohr, 2005:437).

**Figure 4.2: Ratio of balance on the current account of BOP to GDP (1971-2006)**

Source: Compiled by the researcher from the database of the Reserve Bank of South Africa online (2007)

**4.2.3 Overview of financial account**

Figure 4.3 illustrates the history of South Africa’s balance on the financial account between 1970 and 2004. As it is illustrated in the figure below, the position of the financial account after 1994 was relatively favourable compared to the period between 1984 and 1993. According to McCarthy *et al* (2000:213) before 1985, with a few exceptions (1977-1980), South Africa had a surplus on the financial account and a deficit on the current account and this attracted foreign investment (See Figure 4.3). McCarthy *et al* (2000:213) also explain that this current account deficit (See Figure 4.2) provided room for South Africa to experience relatively stronger economic growth than it could have experienced without such inflows. This also explains why a consistent inflow of foreign investment is essential.
4.2.3.1 Overview of foreign investment flows

The trend in the inflow of foreign investment into South Africa between 1960 and 2006 is illustrated in figure 4.4. It is clear that, before and after 1994, total inflows of foreign investment into South Africa were very volatile. For example, between 1960 and 1994 South Africa’s economy always attracted consistently more foreign portfolio investment than any other type of foreign investment. The percentage of portfolio, direct and other investment of total foreign investment into South Africa in the same period was 63, 6.9 and 29.7 respectively. And this also meant South Africa could not attract significant amounts of FDI.

According to McCarthy *et al* (2000:313) before 1994, in particular since 1960 and 1980, political instability increasingly impacted on the trends of foreign investment inflows into South Africa. As stated in Section 1.1 important political unrests occurred, namely Sharpeville in 1960 and the Soweto uprising in 1976 and growing political tension after 1976. Before the end of apartheid the country was under severe economic sanctions (Habib & Padayache, 2000:249).
Another important historical event that undermined South Africa’s ability to attract foreign investment was the notorious Rubicon speech by the former South African State President P.W. Botha on 15 August of 1985 where in stead of political changes, a state of emergency was declared. According to Mercer (1988) more sanctions against South Africa followed after this speech and the failure to release Nelson Mandela at that time contributed greatly to the country’s inability to lure significant foreign investments. These events resulted in large outflows of much needed foreign capital and seriously compromised the stability of the balance of payments.

In addition the inability of South Africa to attract massive foreign investment was often associated with the manner in which government managed the affairs of its economy under severe international sanctions and political instability (Boshoff, 1993:301). In addition, McCarthy et al (2000:313) explained that before 1994, more precisely from 1979-1983, a dual exchange rate system was in place and this could also have impeded inflows of foreign investment29.

After the release of Nelson Mandela (1990) and with the newly democratic elected government (in 1994) the need for South Africa to attract foreign investment inflows became more critical than ever before (Nattrass et al, 2002:122-124). This is because South Africa then entered into a globalised world economy and had to compete to attract foreign investors.

In the period after 1994, with the new democratic government, compared to the situation discussed in earlier paragraphs, the situation changed significantly and the country started to attract relatively more foreign investment.

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29 South Africa had two exchange rates: commercial and securities rand. Inflows of capital entered the country with a different rate than the rate at the time of departure. This created huge price differentials and caused losses to foreign private investors (McCarthy et al (2000:310).
Figure 4.4: Ratio of foreign investment flows to GDP (1960-2006)

![Graph showing foreign investment flows to GDP (1960-2006).]  

Source: Compiled by the researcher from the database of the Reserve Bank of South Africa online (2007)

Figure 4.4 illustrates how the country’s ability to attract foreign investment changed since the 1960’s. However, the country is still not able to attract sufficient flows of foreign investment to finance the required domestic investment in order to reach the objectives for economic growth as was envisaged by AsgiSA. As mentioned in 4.1, the Minister of Finance (Rapport) referred to the gap of 12% between the national savings ratio and the planned fixed investment ratio. This is what is needed in terms of foreign investment. Arvanitis (2005:64) agrees and claims that South Africa attracts less foreign investment compared to other emerging economies such as India. This needs to be invested by policy makers in South Africa.

4.2.3.2. The composition of foreign investment flows in South Africa

It is important to consider the composition of foreign investment. This is because; over the years tax policy could have shaped the composition of foreign investment (portfolio, direct and other). It changed significantly over the years. Figure 4.5 (a) shows the situation from 1960-1993 and Figure (b) shows the situation after 1994.
The percentage of total portfolio investment to South Africa between 1960-1993 and 1994-2006 were 63% and 61% of total foreign investment respectively. This may be a positive indication that the country is now able to attract higher shares of FDI. It is clear that over the same period the share of FDI out of total foreign investment increased from 7% to 21.5%. This constitutes a significant increase.

The relative share of other foreign investment inflows is dropping steadily. As illustrated in figure 5.4 (b), South Africa’s ability to attract other foreign investment reduced from 29.7% (as % of total foreign investment) to 17.9 % between 1960- 1993 and 1994-2006 respectively.

This analysis shows that the composition of total foreign investment in South Africa changed over the years. It is important to note that in both periods portfolio investment remained the major source of external finance compared to direct and other investment. Policy makers should focus on measures to attract more FDI flows into the country.

**Figure 4.5: Composition of foreign investment flows in South Africa**

![Pie charts showing composition of foreign investment flows in South Africa](image)

Figure (a): Foreign investment inflows (1960-1993)   Figure (b): Foreign investment inflows (1994-2006)

Source: Compiled by the researcher from the database of the Reserve Bank of South Africa online (2007)
4.3 TAX POLICY AND FOREIGN INVESTMENT IN SOUTH AFRICA

The aim of this section is to provide an overview of changes to tax policy that could have had an impact on foreign investment flows in recent years.

South Africa has a long history of tax reforms, firstly to improve the efficiency and equity of the tax system (Grote & Fletcher, 2000:786), but also to create an enabling environment for private investment, both domestic and foreign (Clegg, 2001:96). It is important to note that after 1994 South Africa entered into a democracy and with the lifting of economic sanctions, the country was gradually integrated into the world economy. Tax competition and harmonization brought by globalisation then became part of the government policy agenda.

Two commissions were appointed to review the South African tax system in recent years: the Margo Commission (1987) and the Katz Commission during the period 1994 to 1999 (Black et al, 2005). Since the early 90’s important tax reforms were made that could have impacted on foreign investment inflows. The Katz Commission broadly scrutinized almost all aspects of the tax system and suggested important modifications to the tax system. According to Black et al (2005), after 1994 various tax reforms were introduced that could have impacted on foreign investment flows to South Africa.

Since the focus of this report is on taxation and foreign investment, only aspects of the tax system that are relevant are considered in the following sections.

4.3.1 Changes to the nominal rate of company tax
One of the key recommendations from the Katz Commission was that lower tax rates in general may have positive externalities. It encourages business activity, investment and economic growth (Boshoff, 1993:301). The government of South Africa recognises the need to lower the nominal corporate tax rate and as recently as

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30 For the sake of this study, tax factors that clearly affect foreign investment are discussed. An extensive discussion of the recommendations and findings of tax commissions fall outside the scope of this research report.
February 2008, the Minister of Finance announced a reduction in the statutory corporate tax rate to 28% in his annual budget speech. In 1990 it was still 50%. This shows that in a short space of time the nominal corporate rate was reduced sharply. It can be regarded as an attempt to provide not only an enabling environment for foreign investment but also to address the challenges of tax competition and harmonisation brought about by globalisation. The tax burden on companies is likely to decline if the direction of tax policy is to reduce the nominal rate of company tax even further in the near future.

4.3.2 Changes to effective rates of company tax
Section 3.3 explains that a lower nominal tax rate also reduces the effective tax rate and hence is associated with higher inflows of foreign investment. According to Abedian & Biggs (1998:513) “The gap between the nominal and effective tax rate should be eliminated”. They also argue that a lower effective tax rate will not be counterproductive.

Abedian and Biggs (1998:513) also noted that, although nominal tax rates are not out of line by international standards, the effective tax rate on companies was relatively higher. This is because other taxes as payment for public services such as policing, education and health services raise effective tax rates. They further argue it is important that the gap between nominal and effective tax rates is eliminated in South Africa.

Section 4.3 refers to fiscal incentives that were introduced (and are still in the process of being introduced) in South Africa and which also brings down the effective tax rate on companies and will thus support foreign investment flows into the country.

It is also important to take note of the fact that the introduction of capital gains tax as well as the secondary tax on companies increased the effective rate of company tax in South Africa. These two taxes are mentioned in the following two paragraphs.
4.3.3 Introduction of Capital gains tax
According to Grote and Fletcher (2000:786), the Franzsen Commission (1968) recommended the inclusion of capital gains as a taxable income, but it was rejected. This tax is levied on company’s and an individual’s capital gains (Steenekamp, 2000:798). As explained by Black et al (2005:181), a capital gain tax is not a different type of tax. According to the Haig-Simons definition of comprehensive income, it “…encompasses those items ordinarily thought of as income: wages and salaries, business profits, rents, royalties, dividends and interest” (Rosen 2005:361). Capital gains should therefore be treated as ordinary income.

In 1987 the Margo Commission also investigated and rejected capital gains as a taxable income (De Wet, 1989:316). According to him changes to tax policy were necessary because the tax system at the time was unfair because the tax structure encouraged tax payers to evade and avoid taxes through careful tax planning. However, Grote & Fletcher (2000:794) explain that such tax on capital gains will affect the cost of capital and therefore investment decisions. In other words, the decision to exclude capital gains as taxable income could have positively influenced investors’ decisions at that stage.

In 2001, following international trends and experience, the government introduced capital gains as part of taxable income. Grote & Fletcher (2000:794) and (Steenekamp, 2000:803) share the view that tax on capital gains levied on firms and individual raises many concerns. They share the same sentiment that capital gain tax distorts investment behaviour and as such tax affects also the opportunity cost of capital. On the other hand, Manuel (2005) explains that one way that government could reduce the overall tax burden was through broadening its tax base.

The introduction of capital gain tax in 2001 was put in place on grounds of fairness and economic efficiency as discussed in section 2.4. The rationale for implementing such tax was that the appreciation of assets held by individuals or firms would constitute revenue, therefore it should be subject to taxation. It improved the vertical and horizontal equity and also the efficiency of the tax system through the broader base. In the light of international trends in tax harmonisation it was also appropriate to implement such tax (Manuel, 2005). However, given the urgency of the need to attract
more foreign investment, especially FDI, policy makers should commission research on the possible impact of capital gains tax on FDI flows to South Africa.

4.3.4 Secondary tax on companies (STC)
In 1993 the government introduced a secondary tax on companies (STC). The rationale behind was to promote reinvestment of after-tax profits (Black et al, 2004:155). However, the STC increased the effective rate of tax on company’s which would definitely have influenced the decisions of foreign firms to invest. It also happened at a time when other emerging economies introduced all sorts of incentives to lure foreign investors, thereby decreasing effective rates of tax.

Sections 3.3.7 studies the state of empirical evidence on the impact of tax policy on foreign investment inflows and it explains that such types of taxes encourage the double taxation of foreign earnings (See Section 3.3.7). It is standard practise at present for countries to sign tax treaties to avoid double taxation. The STC is also not in agreement with the requirements of tax harmonisation.

The South African policy makers recently decided to cancel this tax are currently phasing out the secondary tax on companies. This decision will definitely impact on foreign investment flows and as The Citizen (2007; 22 February) states it clearly: STC, which targets company distributions, is one of a few aspects of South Africa’s income tax act that differs from international norms. The decision to phase out the tax is thus a step in the right direction.

4.3.5 Specific fiscal incentives
According to Mohr & Siebrits (2007:127) during the 1960’s, 1970’s, and 1980’s tax incentives in South Africa were used quite extensively. They were aimed at stimulating sectorial investments. As explained in Chapter two and three, fiscal incentives are very important instruments to attract foreign investment, specifically FDI.

However, according to De Wet (1989) the Margo Commission recommended the elimination of investment allowance for business and various special provisions were phased out which would have affected investment flows into the country. The rationale behind the recommendation was the assertion that tax allowances create
distortions and erode the tax base and it should be cancelled. However, they bring
down the effective rate of company tax and should therefore promote the inflow of
investment as is evident from the empirical studies (See section 3.3).

In the light of globalisation, tax competition and harmonisation, the government of
South Africa (through its National Treasury and the Ministry of Trade and Industry)
recognises the need to speed up industrial development. Fiscal incentives, as an
international practise, should be used for this purpose. In addition investment
strategies received tremendous public attention and academic debate and fiscal
incentives are used throughout the developing world to design a favourable
investment climate for potential investors both foreign and domestic. South Africa
should not be an exception.

The Katz Commission (1994) recognized that a supportive tax environment for
private investors should not encourage repatriation of profits earned in a host country.
For example, foreign firms can choose to establish a small branch instead of affiliates
so as to practise transfer pricing which is common practice if an investment is highly
sensitivity to tax issues (Black et al, 2005:175).

The following paragraphs refer to some provisions in recent years to attract foreign
investment.

*Tax incentives*: To compensate for other tax distortions tax incentive are used to
attract foreign investment in particular sectors of the South African economy.
According to Political Risk Services (2005), between 1993 and 2005, the government
of South Africa put aside R3 billion in respect of incentive packages for foreign
investors. The current regional development plan spells some interesting tax
incentives in existence. This includes special depreciation allowance, tax holidays and
writing off expenses such as patents, designs. It also provides certain tax exemptions
for certain areas and industries (NIPF, 2008:08). The South African Department of
Trade and Industry provides a range of tax incentives to promote foreign

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investment\textsuperscript{31}. In this same context the government is reconsidering a comprehensive
tax incentive packages for foreign investors.

\textit{Motor Industry:} South Africa is following other developing countries by providing
tax relief to investors in specific industries such as the motor industry. The case of the
South African automotive industry can illustrate the role of a supportive programme
designed to promote an export oriented industry. According to Black (2007), in 1995
the government of South Africa initiated the so-called Motor Industry Development
Program\textsuperscript{32} (MIDP). The MIDP provides rebates on import duties (Black, 2007:09).
This particular example can illustrate how South Africa addressed the issues of tariffs
to promote export oriented FDI. See Black (2007) for a discussion of Tariffs and
MIDP.

This programme is a good example of how the government is promoting export
oriented production instead of import substitution using among other things, trade
taxes (i.e rebating import duties) and specific fiscal incentives. In order to encourage
exports in particular in the automotive sector various programmes were implemented
in various phases\textsuperscript{33}. According to Black (2007) between 1996 and 2005 exports of the
South African automotive sector has risen from R 5.6 billion to 45.6 billions.
Therefore it can be concluded that the MIDP was a relatively successful programme
that encouraged export oriented FDI\textsuperscript{34}. This allowed the South African Motor
Automotive sector to reap the benefits of economies of scales (Black, 2007:28).

However, the success of MIDP it is topical issue in South Africa. It is common
knowledge that there has been some tension between the National Treasury (anti) and
the Department of Trade and Industry (pro) on the appropriateness of introducing
more tax incentives for industrial development. Although less is published and

\textsuperscript{31} To support the industrial development, between 1993 and 2005, the government also introduced a
series of programmes, the Skills Support Programme (SSP), Skills Incentive Programme (SIP) and
Small and Medium Enterprises Development Programme (SMEDP) aimed at encouraging greater
investment in training, including the introduction of new advanced skills. (UNCTAD, 2006:47).
\textsuperscript{32} A study of other programs falls beyond the scope of this research paper.
\textsuperscript{33} See Black (2007:2-4) for detailed analysis.
\textsuperscript{34} Government support led to a increase in export of automotive leather requirement. According to
Black (2007), South Africa is the major supplier of BMW’s automotive leather supply and it the
supplier for other firms abroad.
debated in public, such debates within governments some scepticism over the provision of incentives.

_Export subsidy:_ Section 2.6 explains that an export subsidy (or negative tax) reduces the cost of doing business in general. South Africa has a history of export driven tax schemes. This includes the General Export Incentive Scheme (GEIS). According to McCarthy (2000) the government of South Africa through the Department of Trade and Industry introduced a direct subsidy in 1990. This was a tax free cash grant implemented to promote the export of goods which were manufactured in South Africa. Critics of this programme argue that it was very expensive and that it could have been implemented as an expense for the tax payer. Furthermore this scheme was criticised for protecting firms that had the ability to export without such subsidy. This was a five year old program and it expired in March 1995.

Since South Africa agreed to the rules of the WTO, further subsidising would have contradicted the section on export subsidies. The government embarked on other schemes. Very recently, on the 20th February 2008, during his annual budget speech the Minister of Finance, Mr. Trevor Manuel, announced that R5 billion would be provided as tax subsidies for investors to support industrial development. This policy stance is likely to lure export oriented FDI in South Africa.

_Import duties:_ Section 2.6 indicates that import tariffs increase the cost of capital and hence negatively impact on foreign investment. It is however, important to note that in terms of the WTO’s trade policy, over recent years and along with other developing countries, South Africa implemented tariff reforms designed to promote free trade. However, import tariffs can be used to protect domestic industries as ideal mechanism of import substituting industrial growth. It should be noted that the South African motor industry has been under heavy government protection over many years (McCarthy et al, 2000:120). This surely would have encouraged foreign investment into this industry.

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35 The top value of the incentive was 25% of the free-on-board value of exports. See McCarthy et al (2000) for a comprehensive analysis of the mechanics of this scheme.
4.3.6 Total tax burden

As discussed in chapters two and three, the total tax burden influences the direction of foreign investment. Investors react to changing expectations and an increasing tax burden may create uncertainty about the future growth prospects of the country.

As it is illustrated in Table 4.1, between 1970 and 1985 tax revenue as % of GDP increased steadily. From 1970 to 1985 the total tax revenue as a percentage of GDP increased from 18.4% to 24.4 %, thus following an increasing trend with few exceptions (See fig 4.6).

Figure 4.6: Total tax burden, 1973-2003

Source: Compiled by the researcher from Reserve Bank of South Africa online database (2007) & the Department of Trade and Industry online database (www.thedti.co.za/econlab)

Table 4.2. highlights two important issues. In recent years the contributions of companies to tax revenue increased significantly. In 1997 their contribution represented 26.2 % of total tax revenue and in 2004 it reached 41%. Taxation of companies after 1994 has become a more significant source of government revenues.

However, Mohr (2005:196) argues that an increase in the total tax burden can partly be ascribed to the improvement in the tax collection by SARS as well as an
improvement in overall tax administration. Table 4.1 illustrates how the tax burden increased sharply over the years.

Table 4.1: Taxation in South Africa, 1997-2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Taxes as % of GDP</th>
<th>Contribution to direct taxes (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Individual</td>
</tr>
<tr>
<td>1997</td>
<td>24.8</td>
<td>73.8</td>
</tr>
<tr>
<td>1998</td>
<td>26.2</td>
<td>71.6</td>
</tr>
<tr>
<td>1999</td>
<td>26.2</td>
<td>73.6</td>
</tr>
<tr>
<td>2000</td>
<td>24.8</td>
<td>72.5</td>
</tr>
<tr>
<td>2001</td>
<td>26.0</td>
<td>60.4</td>
</tr>
<tr>
<td>2002</td>
<td>25.4</td>
<td>58.2</td>
</tr>
<tr>
<td>2003</td>
<td>25.3</td>
<td>58.6</td>
</tr>
<tr>
<td>2004</td>
<td>26.1</td>
<td>59</td>
</tr>
</tbody>
</table>

Source: Mohr (2005:196)

Table 4.1 and figure 4.6 illustrate that the tax burden in South Africa had a mixed trend over the years. From 2004 to 2006 the tax burden increased from round 26% to 27%. This might suggest that companies are paying more taxes than before and this would have affected inflows of foreign investment in South Africa. It is important to mention that some observers argue that prior to the mid-1990s, the tax burden had shifted strongly from companies to individuals, and the recent trend therefore represents a partial reversal of this (some might even describe it as a correction). Furthermore, the fact that the tax burden is increasing does not prove that it is too high already, and a higher tax burden on companies would necessarily affect foreign inflows to South Africa. There is always a need for caution in interpreting the trends in overall tax burden.
Table 4.2 shows a correlation matrix to explain the association between the tax burden and foreign investment in South Africa between 1973 and 2006 (see the discussion of correlation analysis in appendix I). The correlation coefficient between foreign investment and tax burden is 0.650825 as indicated in table 4.3. This indicates that there is a linear and positive association between foreign investment and tax burden. Section 2.3 explains that the increase in the tax burden is associated with lower foreign investment flows. Using South African data on foreign investment and the total overall tax burden there is no statistical evidence to suggest that an increase in the tax burden reduces foreign investment. The correlation matrix indicates a positive and significant relationship between the tax burden and foreign investment. This conclusion contradicts one of the studies discussed in section 3.3. The implication of these findings is that foreign investors in South Africa do not take the total tax burden into consideration for business decisions.
4.3.7 The choice between source and residence principle of taxation

Manuel (2002) argues that the government responds to international tax pressures by implementing some broadening tax strategies such as the taxation of worldwide income. It is clear that globalisation exerts an effect on the domestic tax system since foreign investors can choose to locate their investment to where they experience a lower tax burden. As a result the domestic tax system would be pressurised to lower such burden in order to attract such needed investment.

South Africa responded to international pressure by choosing a worldwide income base in 2001. This means that South Africa now tax its citizens on worldwide income. That is, the country of residence of the company or person determines and collects the tax (Black et al, 2005:239). The rationale for this choice was, according to Manuel (2002), the recognition that due to globalisation and the relaxation of foreign exchange controls (where South Africans now have more opportunity to invest abroad) it is appropriate at this stage to tax its citizens beyond its national boundaries.

Additionally the introduction of such a system was aimed at removing incentives for South Africans to choose to invest abroad as this could compromise the stability of the balance of payments (Manuel, 2002). A more interestingly rationale for the introduction of the residence principle is that it minimises tax arbitrage, evasion and avoidance (Black et al 2005:160). Therefore the introduction of this system was accompanied by the special provision for repatriation of income from abroad. (National Treasury, 2002).

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36 Every statistical and econometric result should be interpreted with caution. Lucas (1976) is often cited in literature for having mentioned that due to expectations and other factors purely statistic relationship can be broken up - this is referred as the famous Lucas critique.
4.3.8 Double taxation treaties
According to (Clegg, 2001:99) South African policy makers reacted to international pressure to lower corporate taxation by signing double taxation agreements with various countries, including the: United Kingdom, Tunisia, Russia and other countries. As discussed in Chapter Three, countries sign bilateral tax treaties to avoid double taxation and therefore South Africa recognises the need to work together with other foreign countries in this regard. Such agreements show that policy makers are trying to adhere to the requirements of tax harmonisation. The avoidance of double taxation on company profits will also bring down the effective rate of company tax and therefore impact on foreign investment flows.

4.3.9 Policy uncertainty
Policy uncertainty as a determinant of foreign investment is discussed in Section 3.3.4. Very recently, the South African media announced that uncertainty about government policies among foreign investors led to disinvestment in the mining sector. Black (2007) explains that an unexpected change in tax policies may lead to the withdrawal of foreign investments from host countries. He gives the example of the MIDP in South Africa and mentions that over the years this programme was changed so frequently that it created a sense of uncertainty among foreign investors.

The MIDP has proved to be a controversial initiative, and press reports indicated that the National Treasury had serious misgivings about the programme that delayed its renewal in 2008. Flatters (2006), a critic of this initiative, argue that “Since 2000, employment in vehicle production has more or less stabilized, but has not grown significantly. Investments in excess of R12 billion since 2000 have resulted in virtually no job growth in vehicle assembly”. Although it was noted that the programme was successful in the sense of having stimulated growth in the industry; it is less clear whether or not that growth has become self-sustaining, and some has argued that the money invested in the Programme could have been used more effectively elsewhere (the basic opportunity cost argument).

Rose (2007) agrees and refers to the impact of mining tax in South Africa and he states as follows: ‘Mining royalties, uncertainty on black empowerment and delays in getting mining licences have been cited as three reasons for foreign investors to think
twice about putting money into the sector”. The implication of such uncertainty among foreign investors in South Africa (As indicated in Section 3.3.4) is that it may trigger disinvestment. It is important to note that foreign investors in South Africa shared the sentiments that strong public intervention in the mining sector will entice investors to gradually move their interest elsewhere.

Van Gass in *Business day* (2008) refers to the new Mineral and Petroleum Resources Royalty Bill that the government of South Africa is considering. He confirms that the mining investors view this bill as an example double taxation. In the case of gold, the proposed average rate (2002-2011) is 3.3% compared with the treasury’s average rate of 2.1% for 2002-06 (Van Gass, 2008). Mining investors complain that this policy direction will jeopardise their production and competitiveness. Policymakers should give serious consideration to policy uncertainty in this sector.

**4.4 CONCLUSION**

This chapter firstly accentuates the need to attract more significant flows of foreign investment into the country. The low national savings rate as well as the position of the current account of the balance of payments is discussed as factors that exacerbate the need.

The overview of foreign investment over the years illustrates the impact of apartheid policies and political uncertainty. Considering recent trends in foreign investment flows to South Africa, it is clear that although portfolio flows are still the largest component, FDI flows forms a greater part of total foreign investment than before. This is a positive development.

Various tax changes were introduced in recent years that should have an increasingly positive effect on foreign investments inflows in the years to come. Policy makers reacted to the international pressure and the nominal rate of company tax was brought down significantly. Along with the requirements of tax harmonisation, various tax treaties were signed which may also affect future investment positively. The phasing
of the STC will also bring down the effective rate of company tax, which is in agreement with international tax practise.

Taking the mining sector as an example, it is clear that policy uncertainty negatively affects foreign investment into this sector. This should be avoided at all times and is a costly lesson to learn. Policy makers should address the concerns raised by mining investors with regards to mining royalties as a matter of urgency.

The total tax burden increased in recent years, also because of much more efficient administration and collection. However, this does not seem to be such an important determinant of foreign investment. From the empirical studies it is also clear that non-tax factors also play an important role in the direction of foreign investment flows.

All other things equal, investors could also base decisions on the location of, for example, financial holding companies on tax considerations alone. In most cases, however, investment decisions depend on a range of other factors, such as political and macroeconomic stability, that may outweigh tax-policy considerations.
CHAPTER FIVE: GENERAL CONCLUSION

This chapter provides some concluding remarks on the study of the impact of tax policy on foreign investment flows to capital scarce economies like South Africa. Chapter one explains the relevance of this topic and the significance of the study in the present South African context. Chapter two distinguishes between various types and categories of foreign investment and explains that tax policy impacts on foreign investment flows via its influence on the cost of capital. Various elements of tax policy determine the cost of capital, the most important are: nominal and effective rates of company tax, various types of incentives such as accelerated depreciation, double taxation, policy uncertainty, etc. It is also clear that globalisation has important implications for tax policy and thus tax competition and the need for tax harmonisation cannot be ignored.

International empirical evidence on the impact of international tax rules and tax policy changes on the quantity and location of foreign investment shows that international tax rules do matter. Foreign investors can take their money anywhere in the world and will go where the return on their capital can be optimised. The tax systems of host economies in capital-scarce countries should therefore create a supportive policy environment, not discriminate, and be efficient. The examples of Singapore and Ireland show that a support tax policy with lower corporate tax rates instead of tax incentives can also encourage foreign investment in a host country.

In recent years South Africa reacted to the international pressures to lower taxation by implementing various changes, such as the phasing out of secondary tax on companies and the adoption of the principle of the worldwide taxation of income. Foreign investments flows to South Africa are likely to increase in years to come because of lower nominal rate of company tax. Given the examples, it is recommended that policy makers should consider bringing down the statutory rate even further. It is also important that the concerns raised by mining investors with regard to increase in mining royalties be addressed. The country cannot afford any further disinvestment from the mines. The special incentive programmes may also encourage increased inflows of FDI into the specific sectors.


Buckley, P.J & Ruane, F. 2006. *FDI in Ireland: policy implications for emerging economies*. Institute for International Integration Studies. Discussion paper nr.113


APPENDIX I: Correlation analysis

Correlation analysis is a statistical tool that attempt to explain the degree of association between two or more economic variables such as foreign investment and tax burden (Wilson & Keating, 1998:70). This statistical technique answer the question: is there a significant (linear) association (negative or positive) between two variables? To measure such association quantitatively using correlation analysis, statisticians, and economists follows sequential steps. Firstly, a correlation coefficient is calculated. Secondly, a testing of significance is conducted. Thirdly, some conclusion can be drawn from the results obtained in two previous steps. This is made clear in the following paragraph.

The correlation coefficient is determined as follows:

\[ r_{xy} = \frac{\sum (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum (x_i - \bar{x})^2 \sum (y_i - \bar{y})^2}} \]  

(1)

Where \( x_i \) and \( y_i \) stand for the values of first and the second economic variables (i.e foreign investment and tax burden) respectively. According to Van den Honert (1999:98) the correlation coefficient lies between -1.0 and +1.0. He further notes that if two variables have no association then the correlation among such variables is zero. And a negative results shows that there is a negative association between such variables. The opposite is also true. The closer the result is to 1, it suggests a robust relationship.

Therefore, given the value of (1), it is then necessary to test its significance at various level of confidence (i.e 1% or 5%). In order to test the level of significance some hypothesis testing should be indicated (Wilson & Keating, 1998:71).

\( H_0: \rho=0 \) (no correlation at all)
\( H_1: \rho\neq0 \) (there is evidence of correlation)

Where, \( \rho \) is population correlation coefficient

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37 This section relies heavily on a comprehensive discussion of correlation analysis by Van den Honert (1999:93)
Then, a test statistic is conducted using the t-distribution with n-2 degree of freedom. Mathematically, t test is given by:

\[ t_{obs} = r_{xy} \sqrt{\frac{n-2}{1-r_{xy}}} , \text{…………………………………….. (2)} \]

Where \( n \) is the sample size (the number of observations)

At later stage, taking into account the values of correlation coefficient, \( r_{xy} \), and the value of the t statistic, the decision rule will be based on the following\(^{38}\):

- If at n-2 degree of freedom, the table value (at either 1% or 5 % level of significance) is less than the t statistic, it is concluded that population correlation coefficient, \( \rho \) is different from 0. Statistically this shows that there is evidence of correlation. As result the \( H_1 \) hypothesis is accepted.

It is important to note that although level of significance is an assurance that the variables are correlated, the interpretation of correlation coefficient should be done with a great deal caution (Van den Honert 1999:101). This is because correlation coefficient measures accurately only the degree of linear relationships among variables and it does prove to explain the same association of non linear data unless some mathematically transformations are undertaken. Secondly, correlation does not explain in detail the cause and effect relationship among variables. That is, there is probability that some unrelated variables can be highly correlated and thus producing spurious results (Wilson & Keating, 1998:70).

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\(^{38}\) Statistical tables should be used and for this analysis t distribution is often applied. It can be either one or two sided test.