An Assessment of South Africa's Investment Incentive Regime with a Focus on the Manufacturing Sector

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Acronyms

CGIC	Credit Guarantee Insurance Corporation of Africa
CGT	Capital Gains Tax
CIT	Corporate Income Tax
DBSA	Development Bank of South Africa
DOL	Department of Labor
DTI	Department of Trade and Industry
ECRS	Export Credit and Foreign Investment Reinsurance Scheme
EMIA	Export Marketing and Investment Assistance Scheme
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEAR	Growth, Employment and Redistribution
HDP	Historically Disadvantaged Person
ICA	Investment Credit Allowance
IDC	Industrial Development Corporation
IDZ	Industrial Development Zone
ITAC	International Trade Administration Commission of South Africa
MIDP	Motor Industry Development Programme
MNC	Multi-National Company
NPV	Net Present Value
PDB	Previously Disadvantaged Business
PIT	Personal Income Tax
R&D	Research and Development
RFIs	Retail Financial Intermediaries
SARS	South African Revenue Service
SIP	Strategic Investment Programme (of South Africa)
SMEDP	Small and Medium Enterprise Development Programme
SMME	Small Medium and Micro Enterprises
STC	Secondary Tax on Companies
TDI	Trade Development Institute
UNCTAD	United Nations Conference on Trade and Development
WTO	World Trade Organisation

Executive Summary

This paper investigates whether South Africa's tax incentives have been effective in generating additional manufacturing investment (both local and foreign direct investment). South Africa's investment incentive regime compares favourably with international best practice. However, the qualitative and quantitative evidence reviewed supports the hypothesis that the impact on manufacturing investment has been negligible. The paper concludes with some recommendations for the way forward, notably to rationalise the number of incentives and to move away from the use of discretionary allocation systems.

Incentives and their rationale

Provision of investment incentives is in the form of either tax relief or cash grants. International experience shows that such incentives play only a minor role in investment decisions. Firms make investment decisions based on many factors including projections of future demand, certainty about future government policy, prevailing interest rates and moves by competitors. In general, they see incentives as 'nice to have' but not deal-breaking. Yet incentives remain a popular policy for both developed and developing countries. The economic rationale for incentives in specific sectors or locations is based on market failure, which incentives seek to correct. Examples of market failure include information asymmetries, the public-good nature of investment in research and development and infant industry protection. However, governments often introduce incentives in response to political lobbying or to compensate for other policies that deter investment.

A careful review of international best practice provides a useful checklist for what characterises an effective and efficient investment incentive. Such an incentive stimulates additional investment for a minimum of revenue loss, and includes a cap on expenditure plus a sunset clause. Incentives should be transparent, easy to understand and with low administrative costs for both businesses and government. Incentives can be automatically available or provided on a discretionary basis, but discretionary allocation systems open up avenues for rent-seeking behaviour by public servants or politicians. The processes and procedures by which incentives are designed and implemented are therefore important in determining their effectiveness.

Investment incentives in South Africa

The Government of South Africa outlined its macroeconomic policy in the Growth Employment and Redistribution (GEAR) document published in 1996. GEAR proposed a wide range of policy reforms, the most important of which were gradual trade liberalisation, deregulation of capital control, deficit reduction and stabilisation of the exchange rate. Within this broad orthodox approach, GEAR also included specific reference to the need for incentives to stimulate 'labour-intensive manufacturing investment'. There is a good case for subsidising this sector in South Africa. The chronically high levels of unemployment and underemployment have significant negative externalities including links with poverty, crime and the spread of HIV and AIDS. Following GEAR, the government has adopted a cautious and well-informed approach on incentives, offering both up-front grant and tax relief incentives. There are also a number of parastatal lending institutions offering loans at sub-commercial rates. The balance of spend is heavily skewed towards off-budget tax incentives and subsidised finance rather than on-budget grants.

Since 1994, two ineffectual schemes - the General Export Incentive Scheme and the Tax Holiday Scheme – have been phased out and two significant new incentives targeted at the manufacturing sector – the Motor Industry Development Programme (MIDP) and the Strategic Investment Programme (SIP) – introduced in their place. The processes and procedures surrounding the implementation and execution of these two schemes have many of the characteristics of 'best practice' found through international experience. The results of a decade of reform, however, have been disappointing. The ratio of investment to Gross Domestic Product remains low at 16%. Investment in the manufacturing sector, while out-pacing investment in other sectors, has been too low to increase, or even maintain, the number of people employed in the sector.

The paper presents a quantitative evaluation of South Africa's tax incentives using Marginal Effective Tax rate (METR) analysis, based on a model developed by Bolnick (2004). The results show that the manufacturing sector faces a higher METR than any other because of tariffs on imported capital. By far the biggest determinant of a manufacturing firm's METR is its financial structure because interest payments on debt are tax-deductible whereas returns on equity are not. The METR exercise shows that incentives available to the manufacturing sector are largely negligible and therefore unlikely to affect the decision to invest. Incentives are also unlikely to be effective in the face of more significant factors such as a volatile currency, weak demand, crime or a shortage of skilled labour. A case study of a South African exporter of manufactured goods, Bell Equipment, corroborates this. Bell Equipment values the benefit it receives under the MIDP, but regards the incentive as a form of 'compensation' for the other major challenges of investing in South Africa: namely, a volatile exchange rate, a remote location and an ever-increasing regulatory burden. These factors recently caused Bell Equipment to open a new factory in Germany, despite the MIDP benefits on offer in South Africa.

Conclusions and ways forward

The paper concludes with some recommendations for the reform of South Africa's investment incentive regime. First, the government could do more to rationalise the number of incentives and of institutions offering them. Second, too many incentives remain opaque in their application and approval process. The fact that a major accountancy firm in South Africa has a practice dedicated to helping firms navigate the complex application and approval processes highlights the current administrative costs to both government and firms. Too many incentives are still available on a discretionary basis. Third, South Africa's motivation for subsidising the 'labour-intensive manufacturing sector' makes sense *a priori*. However, both the MIDP and the SIP have resulted in capital-intensive, not labour-intensive, manufacturing investment. The government should instead investigate ways of providing incentives directly on the hiring of low skilled labour rather than indirectly through 'labour-intensive firms'. Fourth, the government needs to devote more time and attention to the evaluation of incentives, both *ex ante* and *ex post*, including the calculation of tax expenditures. This will help improve the chances that any future incentive will be both effective and efficient.

Finally, the paper lends support to a common observation that governments should pay more attention to removing the disincentives to invest, rather than focusing on incentives to attract investment. In South Africa, the key issues to address include HIV/AIDS, crime, a shortage of skilled labour and an increasing regulatory burden.

Chapter 1: Introduction

In 1996, the Government of South Africa outlined its macroeconomic programme in the Growth Employment and Redistribution (GEAR) document. The strategy comprised a set of orthodox policy reforms aimed at boosting investment and labour-intensive growth (Gelb, 2003; Gelb and Black, 2004a). It also proposed 'tax incentives to stimulate new investment in competitive and labour-absorbing projects'. South Africa offers a range of incentives for investment in specific sectors. This paper investigates the extent to which these incentives have been effective and efficient in generating additional investment in the manufacturing sector. There are two main reasons for the focus on manufacturing. First, manufactured exports play a central role in the South African government's strategy for spurring growth and employment (Edwards and Golub, 2004). Second, South Africa's flagship investment incentive programmes are targeted at the export manufacturing sector.

The paper is organised in two parts as follows. In Part I, Chapter 2 addresses the economic theory behind investment incentives, and Chapter 3 reviews the literature on how they have worked in practice. These two chapters provide a theoretical and empirical underpinning to the arguments that follow. The vast majority of the existing literature demonstrates that investment incentives are rarely effective or efficient, and that the broader investment climate is significantly more important in determining investment decisions. However, there are some interesting exceptions to this conclusion.

A careful reading of the literature also provides a set of 'best practice' recommendations for the development and implementation of incentives. While it is problematic to make generic policy recommendations for different economies in different circumstances, it is possible to learn from and make specific recommendations about the processes and procedures for incentives. Section 3.3 draws out and identifies these lessons.

In Part II, Chapters 4 and 5 present South Africa's approach to industrial development and the role played by incentives. The government offers over 40 incentives through grants, tax relief and subsidised finance. However, there is no overarching 'incentive policy' within official circles and as a result each incentive has its own procedures for qualification and approval. Analysing the available incentives provides a broad picture of how far South Africa conforms to the 'best practice' guidelines. Chapter 5 also examines in more detail the country's two 'flagship' incentive programmes, the Motor Industry Development Plan and the Strategic Investment Programme. A case study of a South African manufacturer and exporter illustrates some of the arguments developed. Annex 4 documents the case study in more detail.

Assessing an incentive regime qualitatively against 'best practice' is only a first stage of the analysis, however. The second is to identify whether the incentives have led to additional investment that would not have occurred otherwise, and whether the costs of the incentive are justified by any additional investment generated. Chapter 6 uses Marginal Effective Tax Rate analysis to assess quantitatively the impact of South Africa's various incentives. This process demonstrates precisely how much incentives distort the returns faced by investors, and thus how effective they are likely to be in influencing the decision to invest.

Chapter 7 concludes the argument by drawing together both the qualitative and quantitative assessments of South Africa's incentive regime and makes recommendations for possible reform.

PART I: TOWARDS AN ANALYTICAL CONSENSUS ON INVESTMENT INCENTIVES

Chapter 2: Incentives and their Rationale

2.1 Defining an incentive

UNCTAD (2003) defines an incentive as 'any measurable advantage accorded to specific enterprises or categories of enterprises by (or at the direction of) government'. Using this definition, an across-the-board reduction in corporate taxation is not an incentive scheme even though it may lead to increased corporate investment.[1] Lowering corporate taxes to firms locating in a specific region, or producing certain goods or services, *is* an incentive scheme. By definition, if preferential tax treatment is applied to foreign direct investment (FDI) over local investments then this is an incentive scheme to attract FDI.

Incentives can be fiscal or non-fiscal, direct or indirect. Fiscal incentives include direct 'cash' grants or tax breaks. Non-fiscal incentives may include fast-track approval processes or exemptions from certain regulations. Investment incentives can be categorised in a number of different ways. The following is one taxonomy.

Direct incentives

- Cash payments
- Payments-in-kind (such as the provision of land or infrastructure to specific firms)

Indirect (tax) incentives

- Reductions in the rate of direct taxation, either permanent or temporary. These can be in the form of tax holidays with reduced Corporate Income Tax (CIT) rates, accelerated depreciation allowances, investment tax credits, investment tax allowances or deductions of qualifying expenses.
- Reductions in indirect taxation either permanently or temporarily (e.g. reduced import tariffs or VAT on inputs or capital equipment). These can either be upfront reductions in import duties, or administered via duty drawbacks.
- Protection against competition from rival firms through tariff increases.

Other, non-fiscal, incentives include:

- Special deals on input prices from parastatals (e.g. electricity, oil).
- Streamlined administrative procedures or exemptions from certain pieces of legislation.
- Export Processing Zones (EPZs) which offer a combination of fiscal and non-fiscal incentives within a particular geographical area, normally near a port.

[1] Chua (1995) argues that an across-the-board reduction in corporate income tax is the best 'incentive' for investment, as it does not distort the price signals faced by firms and lowers administrative costs. Boadway and Shah (1995) in contrast see corporate income tax reductions as an expensive way to stimulate new additional investment, compared with tax credits, though much depends on the concurrent economic environment.

- Legislation and/or policies that promote investment into certain sectors, or by certain investors.
- Subsidised financing through parastatal lending or equity.

From the standpoint of both the government and the beneficiary, there are arguments in favour of both tax incentives and up-front grants (Kaplan, 2001). Grants have the significant advantage of being 'on-budget', thus allowing for better oversight and monitoring, whereas indirect (tax) incentives hide the level of revenues forgone unless the 'tax expenditure' is calculated *ex post*. Even though they are less transparent, tax incentives are popular, as they involve no up-front financing cost. Grants are easier to target at specific categories of industry but tend also to be administratively expensive for both governments and businesses. Companies like tax incentives because they are less discretionary and more automatic. They are also less susceptible to budget reductions.

2.2 Why offer investment incentives?

Governments pursue investment incentives as a means to an end. Policy-makers attribute poor economic performance to a lack of investment.[2] Incentives are used as a tool to boost investment and growth, even if the causal links between each of these stages is far from proven.[3]

Incentives work by changing the parameters of an investment project. Companies choose to make investments when the Net Present Value (NPV) of a project's cash flows (suitably discounted) is greater than zero. In a world where companies face no rationing of capital at its going user cost, companies undertake every project with a NPV greater than zero. In a world where companies face capital rationing, they choose the mix of projects with the greatest Internal Rate of Return. Incentives bias investors' decision-making positively in favour of investments in certain sectors or regions. [4] By reducing the tax burden or providing cash incentives, there is increased expected profitability of projects in those sectors or regions. Where companies have good access to finance, the introduction of special incentives to certain sectors or regions should in theory lead to an overall increase in investment.

The tax code can also influence *how* an investment is financed. For example, in most countries' tax systems interest payments on debt qualify as a tax-deductible expense, whereas returns to equity do not. This creates an incentive in favour of debt financing. Incentives can also affect the *quality* of investment (i.e. its performance as well as its quantity).

Neo-classical economic theory argues that providing tax incentives to one group of investors rather than another violates one of the principal tenets of a 'good tax system' – that of horizontal equity.[5] This inequality distorts the price signals faced by potential investors and leads to an inefficient allocation of capital. The justification most often given for special incentives is that there are market failures surrounding the decision to invest in certain

[2] Investment is, for the purposes of this paper, defined as Gross Fixed Capital Formation excluding portfolio flows.
[3] See Fletcher (2003) for a discussion of the investment-growth linkages and surrounding debates.
[4] Bolnick (2004) shows that there are three ways the government can reduce the user cost of capital: by reducing the corporate tax rate, introducing tax incentives, or adjusting the tax treatment of the cost of funds.
[5] A 'good tax system' has four other attributes: economic efficiency, administrative simplicity, flexibility, and political responsiveness (Stiglitz, 1986). See Fletcher (2003) for a discussion of tax theory within South Africa's economy.

sectors and/or locations, which justify government intervention.[6] Market failures result in either too much or too little investment in certain sectors or locations. The key market failures most often cited (but hotly debated) are the following:

Externalities. Positive externalities (not internalised in the project's rate of return) are higher in certain sectors than in others. A classic example is Research and Development (R&D), where investment yields a higher social than private rate of return (because not all the technological knowledge can be effectively patented) – and as such there exists an *ex ante* justification for subsidising R&D investment (Kaplan, 2001). Without subsidy, the level of R&D investment would be below the optimum. A similar argument can be made for the reverse - that investment in sectors with significant negative externalities (such as pollution) should face a higher tax burden.

Infant industry. Markets often fail to correct for the gains that can accrue over time from declining unit costs and learning by doing. Capital markets are often very risk-averse and therefore avoid financing start-up companies, and equity markets are weak in developing countries. Hence, one argument for incentives is to support the establishment of businesses in the first few years. Subsidies to help potential investors overcome entry barriers in monopolised sectors, bringing about competition and lower prices, can be justified in a similar manner.

Information asymmetries and uncertainty. Both providers and users of capital suffer from less than perfect information. As a result, some investment opportunities may not be financed or undertaken, even though they are NPV-positive. Financiers face imperfect information about the level of risk in certain sectors of the economy because they lack experience in those sectors. Similarly, there is often a 'first mover disadvantage' for investors in new sectors, as they assume more risk than those that follow. Successful investments in new sectors or geographic areas have an 'agglomeration effect' as they provide information on the level of risk involved. For these reasons, it can be argued that incentives are required to counteract these inherent uncertainties and trigger a positive cycle of investment.[7]

In addition to market failures, other arguments for investment incentives are the following:

Equity. Whilst an allocation of capital directed by unfettered market prices might lead to an efficient outcome, it may not lead to an equitable one. For example, economically depressed remote areas are at a competitive disadvantage because it is harder to attract labour and costlier to transport inputs and outputs. The failure of depressed areas to attract investment is sometimes also categorised as a market failure because of the vicious circle created by a lack of investment feeding off and reinforcing itself.

Political economy. Opponents of investment incentives argue that many of them exist to support special (politically connected) interest groups. Politicians representing one region or province might argue for incentives in the region they represent without any economic justification for doing so.

There are other purported benefits of incentives, such as symbolic 'signalling' effects and the need to compensate for inadequacies in the investment regime elsewhere. For a full discussion of the pros and cons of investment incentives see Bolnick (2004) or Fletcher

[6] Although different tax rates based upon the elasticity of demand for each sector do raise a given level of revenue with a minimum dead weight loss (see the discussion of Ramsey taxes in Stiglitz (1986) and Boadway and Shah (1995). Furthermore, applying uniform tax rates to different sectors of the economy results in very different marginal effective tax rates because of differences in capital intensity, financing structure, etc. (Bolnick, 2004).

[7] Roberts (2004) goes so far as to argue that such market failures in the financial sector are 'intrinsic'.

(2003). Having now seen why incentives might be justified in theory, Chapter 3 reviews how they have worked in practice.

Chapter 3: Literature Review of Investment Incentives

3.1 The broad picture

By far the majority of the existing literature is extremely sceptical about the role of incentives in the decision to invest and therefore by extension the ability of incentives to affect investment patterns. The International Monetary Fund (Chua, 1995) takes the firm line that tax incentives do not stimulate investment significantly, and that, when they do, the cost often outweighs the benefits. Firms consider a myriad of factors when deciding whether or not to invest, affecting the perceived levels of both risks and return with specific projects. Major factors include confidence in the future, demand projections, interest rates, political and economic stability and the predicted moves of competitors. Firm surveys routinely show that incentives provided by governments are not particularly important in determining the decision to invest.

A substantial body of empirical work exists looking specifically at the efficacy of incentives in driving additional FDI – see, for example, Shah and Slemrod (1995), Slemrod (1995), UNCTAD (2003), Wells et al. (2001), Zee et al. (2002). Investor surveys, econometric studies or case studies are the primary tools used to assess the efficacy of FDI incentives.[8] The conclusions of this literature are the following:

- Foreign-based firms look at numerous factors when deciding whether and where to invest: namely, size of market, regulatory policies, natural resource endowments, and human capital availability. These fundamentals are examined first. Evidence from both surveys and econometric studies shows that fiscal incentives play an insignificant role in determining whether to invest. Surveys tend to show that tax incentives are 'good to have, but not a deciding factor'. Wells et al. conclude: 'experience strongly suggests that the fiscal investment incentives popular in developing countries have not been effective in making up for fundamental weaknesses in the investment climate. In fact, it seems that multinationals give more importance to simplicity and stability in the tax system than generous tax rebates, especially in an environment with great political and institutional risks.'

- This general conclusion is qualified when foreign firms are deciding *where* to invest. When faced with several locations with similar investment climates (in terms of fundamentals such as political/economic stability, infrastructure, skills availability, capital controls, etc.), fiscal incentives can play a significant role in attracting footloose, mobile capital.[9] Thus, for example, tax incentives have played a significant role in determining the location of FDI within the United States and the European Union (see Box 3.1). Bu, such 'tax competition' can easily lead to a detrimental Prisoners' Dilemma-type outcome in which competing countries or regions lose tax revenues. The result is often a transfer of resources from the host country government to the home country shareholders or, if there is no double taxation agreement, to the home country government.[10]

[8] Such as that by Wells et al. which uses Indonesia's historical on-off incentive regime as a case study for testing the efficacy of tax incentives.
[9] Clearly, investments to extract natural resources are location-specific. In this case, the only argument for tax incentives is that they can make non-viable investments profitable.
[10] This is the so-called 'race to the bottom', as regions/countries try to attract investment by successive rounds of tax reductions (see Wells et al., 2001 or Chua, 1995). The solutions proposed include voluntary collective tax agreements or through legal mechanisms such as the World Trade Organisation.

- The costs of doing business matter more where footloose FDI is seeking a location from which to export, rather than where there is a 'market-seeking' investor. Incentives are therefore more likely to be attractive to export-focused firms rather than market-seeking ones.

- There is little evidence that the benefits of tax incentives net of costs (i.e. their efficiency as well as their efficacy) add to the economic welfare of the host country. Existing studies do, however, suffer from severe data problems. Costs include forgone revenue, higher taxes for remaining taxpayers, administrative costs, etc. For a tax incentive to be beneficial to the host country fiscus, the NPV of the costs of the incentive would have to be more than offset by the NPV of the increase in tax revenue resulting from increased investment flows. Because of forecasting errors, incentives are often over-generous.[11]

- Where tax incentives do work in attracting FDI, effective marginal and effective average tax rates matter more or less to firms depending on: their home county and its tax regime; the size of firm investing; the industry or service sector; the investing company's age and capital structure; the strategy of the parent company.

- Incentives interact with a host of other public policies to increase or decrease their effectiveness. Important considerations are the degree of monopoly power, foreign-exchange rationing, credit rationing, home-country tax regimes and the transfer pricing practices of multinational companies (MNCs).

3.2 Rationale for the continued use of investment incentives

Despite the lack of evidence to support the efficacy or efficiency of fiscal incentives, governments continue to offer them.[12] Why is this? Wells et al. (2001) argue that tax incentives offer an easy way to compensate for other government-created obstacles in the business environment. In other words, fiscal incentives respond to *government* failure as much as *market* failure. It is far harder, and takes far longer, to tackle the investment impediments themselves (low skills base, regulatory compliance costs, etc.) than to put in place a grant or tax regime to help counterbalance these impediments. Although it is a second-best solution to provide a subsidy to counteract an existing distortion, this is what often happens in practice.

Agency problems also exist between government agencies responsible for attracting investment and those responsible for the more generic business environment. Whilst investment-promotion agencies can play an important role in co-ordinating government activity to attract investment, they also often argue for incentives without taking account of the costs borne by the economy as a whole.[13] Wells et al. (2001) point to 'stories' of potential investors locating elsewhere because of better incentive schemes, 'stories' that seldom stand up to rigorous analysis.[14]

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[11] Estimating the economy-wide costs and benefits is even more problematic because of the diffuse nature of both (Slemrod, 1995; Shah and Slemrod, 1995).

[12] There has, however, been a global trend toward incentives which are better targeted and better designed to fit local circumstances (UNCTAD, 2000).

[13] Costs (as opposed to benefits) are often not correctly accounted for, because they are especially hard to calculate (Bolnick, 2004).

[14] For example, in 2001 a Malaysian textile company seeking an investment location in southern Africa from which to benefit from the United States' Africa Growth and Opportunity Act , chose Namibia. The story is often cited as an example of South Africa not offering sufficiently attractive investment incentives. The facts point to a far more complicated situation (see James, 2003).

It may also be that incentives are the only policy tool available to the government at the time. A less cynical interpretation of the evidence would accept that governments often choose an active industrial policy that requires tools to implement it. Section 2.2 discussed in some detail the very real market failures that occur within an economy. Governments may legitimately feel that strict horizontal equity with government taxation and expenditure does not adequately address policy objectives and inherent market failures in certain sectors. The policy objectives might include:

- Increasing investment to a specific region, which does not receive as much investment as it should (given the economic fundamentals) because of information asymmetries.
- Increasing investment in R&D, an area often under-invested in by businesses because of its 'public-good' nature.
- Enhancing exports. Commentators now broadly accept that the majority of the successful East Asian economies provided incentives to firms to export, resulting in economy-wide benefits (see Wade, 1990).
- Employment promotion because of the economy-wide benefits of greater employment (lower crime, skills transfer, etc.), which are not taken into account by individual firms. (This final point is especially pertinent in South Africa, which has extremely high rates of unemployment and underemployment. Part II explores this issue further.

Box 3.1 The success of tax Incentives in driving FDI in Ireland

Ireland has transformed itself over the last 20 years from a poor backwater of Europe into the continent's most dynamic economy. Successive Irish governments earned this success through aggressive improvements in economic fundamentals, strengthening the education system, and promoting Ireland as an investment destination, with EU membership and attractive tax incentives as lures. Until the late 1950s, Ireland discouraged foreign investment, and the economy stagnated. In 1959, the government created the Shannon Free Zone to stimulate investment for export. Initially export profits were entirely untaxed. In 1981, a 10% tax rate was established for manufacturing, EPZ operations, and certain service industries, including international financial service centres. The government also provided financial grants tailored to each project. Nevertheless, manufactured exports did not take off until the 1980s, after the government adopted major reforms due to the 'sheer necessity of economic survival'. The reforms included tight monetary and fiscal policy to achieve macroeconomic stability, a social compact with business and labour, and low overall tax rates. The World Investment Report (1998) states that investment 'has been visibly influenced by this policy', attracting thousands of flourishing new enterprises and creating 'new comparative advantage' in sectors such as chemicals, office machinery, electrical engineering and computer software. Since 1987, Ireland has been the fastest growing economy in Europe. By the late 1990s, foreign-owned manufacturing firms accounted for nearly 60% of gross output and 45% of manufacturing employment, up from a zero base in the late 1950s. Between 1992 and 1997, full-time employment increased by 22%.

Ireland's current policy regime is focused on maintaining existing investment via a strategy of skills upgrading, a low stable tax regime (10% for all manufacturing and exporting companies until 2010; 12.5% otherwise) and the provision of critical infrastructure.

Source: Bolnick (2004) and Hinch (2004).

Given that investment incentives remain popular despite the dearth of evidence to support them and that carefully planned incentives can be theoretically justified, the next set of questions revolves around what determines the success or otherwise of an incentive.

3.3 Characteristics of effective investment incentives

Annex 1 draws together the existing evidence on the various incentive options available to government (see Shah, 1995, and Bolnick, 2004, amongst others). Every incentive has advantages and disadvantages, and it is thus extremely difficult to determine *one* set of 'incentives which work' for very different economies with different challenges and circumstances. Much of determining 'what works' will depend on the circumstances of the economy, the competence of the tax administration, the type of investment being courted and the budgetary constraints of the government.

Having said this, a careful reading of the evidence does provide a set of 'best practice guidelines' for policy-makers. The key lessons are necessarily broad and focus on the process and procedures surrounding incentive policy rather than a set of policy prescriptions. An effective and efficient incentive:

- Stimulates investment in the desired sector or location, with minimal revenue leakage, and provides minimal opportunities for tax planning.
- Is transparent and easy to understand, has specific policy goals and is expressed precisely in legislation.
- Is not frequently changed, and provides investors with certainty over its application and longevity.
- Avoids trying to target cyclical depressions due to the lag effects of intervention.
- Is developed, implemented, administered and monitored by a single agency.
- Has low administrative costs for both governments and firms.
- Co-ordinates national, regional and local governments effectively.
- Includes follow-up and monitoring, both to ensure that the incentive criteria are being met and also to provide a monitoring and evaluation feedback loop.
- Incorporates sunset clauses for both the scheme itself and for the duration of benefits to any one firm.
- Includes a cap on expenditure, or taxes forgone, to the fiscus.
- Is non-discretionary and applied consistently against an open set of transparent criteria.

This last point is debatable. Any benefit (such as an incentive) allocated by public servants or politicians is potentially open to abuse and corruption. There is therefore a strong argument that incentives should be automatically available to all investors who meet a set of open and transparent criteria. However, an alternative argument is that firms should receive just enough incentive to induce them to invest, and no more. Each potential investment therefore needs to receive an incentive specific to its particular situation. Clearly, which of these two alternatives the government chooses depends on the strength of governance within the appropriate institutions. If public servants and politicians retain decision-making power over the allocation of incentives, then the processes and outcomes need to be as transparent as possible.

If these guidelines are followed, governments are less likely to enter into some of the more egregious incentive schemes, which have proved so expensive and ineffectual in the past (Boadway and Shah, 1995). Historical experience of the efficacy of incentive schemes also provides, with some caution, the following key policy lessons:

- Incentives need to be carefully designed to achieve a specific policy goal. Poorly targeted tax incentives prove ineffective and expensive. Tax holidays, while being easy to administer, are a good example of a poorly targeted incentive.

- Moderate tax incentives that are targeted to new investment in machinery, equipment and R&D, and that provide up-front incentives, are more likely to be cost-effective in stimulating desired investment. These can have powerful signalling effects without significant loss of revenue. Investment tax credits and allowances provide specific and targeted policy tools to achieve this.

- Reducing corporate tax to a level comparable with other countries in the region is a 'sound tax incentive'. However, reductions beyond the level found in capital-exporting countries (say, below 20-30%) often bring about greater revenue losses than increases in investment.

- Removing taxes on imported inputs used in the production of exports (not across the board) removes a serious disincentive to export production. Such a move eliminates the distortion in international prices created by import tariffs and provides an incentive for firms to respond to the relative cost advantages of the home economy. Duty drawbacks provide a good example of an incentive which supports exports. Such schemes, however, require a competent tax administration.

- In situations where reducing unemployment is a major policy objective, it is important to bear in mind that many tax incentives (such as accelerated depreciation) can work in the opposite direction by favouring capital-intensive investments. Incentives can be created, however, to explicitly encourage labour-intensive production.

Finally, it is worth re-emphasising a few more general policy issues:

- Incentives play only a marginal role in the investment decision for businesses. Growth in demand, economic and political stability, the state of the infrastructure, the rule of law, and a skilled labour force are more important in determining investment decisions.

- Special features of developing countries (such as market power, accumulated tax losses by many firms, credit rationing, and exchange controls) can severely constrain the effect of tax incentives in stimulating investment.

- Well-designed but poorly implemented tax incentives are equally ineffective. Clear and transparent application and screening procedures, and an effective tax administration regime with 'bite', are crucially important to the ultimate credibility and success of a tax incentive programme. Governments need to bear in mind the capacity of their tax administration when considering whether to implement incentives, and if so which.

Armed now with both a theoretical justification for incentives and a wealth of experience on what tends to work and what does not in practice, the discussion now turns to the specific case of South Africa.

Box 3.2 Tax behaviour of MNCs: home and host country tax policy

Continued globalisation of capital has changed the environment within which tax incentives operate, making them both more relevant (because of the increased mobility of capital) and also more beneficial to MNCs because of the increased opportunities for tax planning and transfer pricing. This development has increased the focus on how home and host country tax policies combine to affect the level of FDI. There are three categories of tax regime, each with significant implications for the effectiveness of incentives:

1. Some home countries (e.g. France) do not tax income earned overseas. In such situations, the host country government need not concern itself with the combined effective corporate tax rate when determining the corporate tax for FDI.

2. The 'worldwide' approach to taxation (e.g. as followed by the US, UK and Japan) taxes resident investors on their worldwide income, which includes income from foreign sources. To avoid double taxation, the home country authorities usually provide a tax credit for foreign income tax paid. Without 'tax sparing' agreements, (see no. 3) however, the effect of this system is to nullify the effect of tax incentives.

3. Under a 'tax sparing' system, the home country treats offshore income that has benefited from host country tax incentives as if it had been fully taxed (Hanson 2001). This is a form of overseas aid. The US is the most high-profile example of a government that will *not* enter into tax sparing agreements. South Africa does have a tax sparing agreement with the UK, which is a major source of FDI. Tax sparing can, however, encourage repatriation of profits rather than their reinvestment in the host country subsidiary.

The exact details of home and host country tax regimes are usually included in double taxation agreements. South Africa has 53 such agreements in place or under negotiation.

Source: Slemrod (1995) and Slemrod and Shah (1995)

PART II: ASSESSMENT OF SOUTH AFRICA'S INVESTMENT INCENTIVES

Chapter 4: Industrial Development Policy in South Africa

4.1 Policy objectives

The primary over-arching macroeconomic policy document produced by the South African Government since 1994 has been the GEAR (Growth, Employment and Redistribution) Strategy of 1996. GEAR identified low savings and low investment as key causes of slow growth in the South African economy in the early 1990s. A key recommendation, therefore, was to raise savings and investment, both domestically and through Foreign Direct Investment (FDI). Policies to achieve this were orthodox, including gradual trade liberalisation, deficit reduction, 'consistent' monetary policy, the gradual relaxation of exchange controls, and an expansion of trade and investment flows in Southern Africa.

The role apportioned to active industrial policy in GEAR is modest. The GEAR document refers to the need to implement 'trade and industrial policies ... to promote an outward-oriented industrial economy'. Specific reforms mentioned (but not spelled out in detail) are:

- '... a further lowering of tariffs to compensate for the real depreciation,
- the introduction of tax incentives for a fixed period to stimulate investment,
- a campaign to boost small and medium firm development,
- a strengthening of competition policy and the development of industrial cluster support programmes, amongst other initiatives'.

Both the National Treasury (NT) and the Department of Trade and Industry (DTI) take a lead in industrial policy. Since GEAR was launched, the DTI has produced three other key policy documents: *Micro-Economic Reform Strategy* (2001a), *Driving Competitiveness: Towards a New Integrated Industrial Strategy for Sustainable Employment and Growth* (2001b), and *Accelerated Growth and Development: The Contribution of an Integrated Manufacturing Strategy* (2002). The Micro-Economic Reform Strategy document was released by the DTI in an effort to supplement the GEAR document which is principally macroeconomic, while the Integrated Manufacturing Strategy documents outlined the shift in the government's thinking toward supply-side measures such as enhanced competition, the creation of sector-specific regulators and a new small business institutional framework and legislation.

At the same time, the DTI has spent considerable time and resources developing overall strategies for different sectors – much of this under a cluster framework that owed a great deal to the ideas of Michael Porter (Kaplan, 2003). Integral to the Integrated Manufacturing Strategy documents is the concept of strategies for a number of so-called priority sectors, namely, clothing and textiles; agro-processing; metals and minerals; tourism; automotives and transport; crafts; chemicals and biotechnology; and knowledge-intensive service (IT). These sectors of the economy are targeted for what is vaguely termed 'government support'. The criteria for choosing them are based on the DTI's views of South Africa's comparative advantage (factor endowment, geographic location, trade agreements, etc.) and the impact the sectors will have on reducing unemployment. The focus of official policy-makers on

finding ways to reduce unemployment is understandable, given the almost unprecedented levels of unemployment and underemployment in the country (Kingdon and Knight, 2004).

Kaplan argues that sectoral strategies such as those put forward by the DTI can play a positive role by unveiling new opportunities, spurring confidence and overcoming failures in co-ordination. This is particularly the case where the strategies result from a close working relationship between government and industry, and sectoral strategies consequently enjoy the support of the firms in the sector. Kaplan cites 'anecdotal evidence' and a survey commissioned by the DTI to show that few firms regard the DTI as having industrial and trade policies suitable for their particular sector, and that only a limited number of them regard these policies as being effective. The exceptions to this are in the clothing/textiles and, more especially, the automotive manufacturing sectors which receive significant government support (see Chapter 5).

South Africa has not pursued FDI actively. The GEAR policy makes general reference to the expectation that FDI will respond favourably to more prudent fiscal deficits, the gradual relaxation of exchange controls and low inflation, arguing that such FDI will 'play an important part in encouraging growth through importing modern technology skills, management expertise, access to international sources of finance and access to global markets'.[15] In addition, South Africa has signed over 30 bilateral investment treaties that extend protection to both portfolio and direct investment, and is also a signatory to the World Bank's Multilateral Investment Guarantee Agency (see Gelb, 2003 and 2004a, Jenkins and Thomas, 2002, and Vickers, 2002). Yet South Africa has not implemented any incentives specifically targeted at FDI.[16] Gelb and Black (2004a) argue that attracting FDI has not been a major policy thrust of the government since 1994, citing a lack of any clear policy documentation on the issue.

Yet GEAR is only one policy document within a much broader political and economic framework within South Africa. The next issue to consider therefore is the extent to which GEAR has combined with other policies and processes to create a positive investment climate in the country.

4.2 The investment climate

Macro- and microeconomic policies in South Africa have had a mixed impact on the investment climate. Table 4.1 illustrates how South Africa compares with its peers, using data from the *World Development Report 2005: A Better Investment Climate for Everyone*. On overall investment risk, South Africa performs well in comparison with the rest of the world, other middle-income countries and sub-Saharan Africa. A similar picture emerges with regard to the intensity of local competition; South Africa has fewer entrenched monopolies than its peers. The South African government also scores well in terms of policy transparency. Only in the category of regional disparities does it not perform well.

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[15] See GEAR Appendix 12 (Government of South Africa, 1996).

[16] It is an interesting, but separate, debate whether South Africa should offer specific incentives for FDI. Arguments for preferential incentives for FDI centre on the information asymmetries faced by foreign investors and the positive externalities created by technology spillover, etc. Hanson (2001) argues that subsidies to FDI are more likely to be warranted where MNCs make intensive use of elastically supplied factors, where the arrival of MNCs in a market does not lower the market share of domestic firms, and where the FDI generates strong positive productivity spillover for domestic agents. Hanson is sceptical that these conditions hold in most cases, concluding 'A sensible approach for policy-makers in host countries is to presume that subsidising FDI is unwarranted, unless clear evidence is presented to support the argument that the social returns to FDI exceed the private returns'.

Table 4.1 South Africa's investment climate performance in comparison

	Metric	South Africa	World Average	Middle Income Average	Sub-Saharan Africa Average
Investment risk profile	1-12 1= highest risk	10.5	8.8	8.7	7.2
Intensity of local competition	1-7 1= no competition	5.3	4.7	4.6	4.2
Regional disparities in investment climate	1-7 1= no disparities	2.9	3.4	3.1	2.9
Transparency in policy-making	1-7 1= zero transparency	4.3	3.9	3.5	3.8

Given this generally favourable report, it is pertinent to ask why South Africa has not performed better in terms of investment and growth (see next section). In part, this can be attributed to South Africa's ambitions, which are not to be 'a well performing African economy' but to compete on the global stage. However, there is also a sense that the South African economy has not performed as well as it could, or should, have done, given its widely praised macroeconomic record. There is a heated debate about why this is so, which it is impossible to consider fully within the confines of this paper. One set of analyses, however, highlights the fact that the microeconomic reforms have not matched the progress made with the macroeconomy. Distortions have occurred within both the input and output markets, and especially within the labour market.[17] The mismatch between macroeconomic and microeconomic policy has created an environment where businesses are not investing and growth rates are disappointing.

FDI has also been lacklustre (see below). There has been considerable research into why this is so, given South Africa's stable macroeconomic and political environment (see Chandra et al., 2000 and 2001a, Gelb, 2003, Gelb and Black, 2004a, and Jenkins and Thomas, 2002). Analysts point to the following problems:

- For market-seeking FDI, the southern African economies are too small and are growing too slowly.
- Regional political instability (especially in Zimbabwe) spills over to South Africa, creating uncertainty for potential investors.
- There are high levels of HIV/AIDS and crime in South Africa.
- There is a shortage of skilled labour, not helped by South Africa's bureaucratic and complex immigration policy.
- There is regulatory uncertainty, particularly in the telecommunications, electricity and transport sectors.

This chapter has already hinted that the positive investment climate in South Africa has failed to deliver the sort of growth rates envisaged and certainly not sufficient to make significant inroads into the depth and extent of poverty. The following section discusses the results in more detail.

[17] This argument remains extremely controversial. For a good review of wider debates, see Fedderke (2004) and Lewis (2002).

4.3 Investment outcomes

The GEAR programme envisaged 'a brisk expansion of private sector capital formation' and 'an improvement in the employment intensity of investment and output growth'. This has not materialised. Despite a widely admired macroeconomic policy programme, growth and investment in the South African economy have remained disappointingly low since 1994. Total investment remains at around 16% of GDP.[18]

Expectations were that annual private sector investment would grow at 12% on average between 1995 and 2000. The GEAR document argues further, 'In the aggregate, these developments are expected to provide sufficient impetus for GDP growth to climb to the targeted 6 percent by the year 2000'. Tables 4.2 and 4.3 show more specifically that outcomes have not matched expectations especially as regards private sector and government investment. Figs. 4.1 and 4.2 demonstrate that, although all sources of fixed capital formation have risen, this has only kept pace with overall economic growth.

Table 4.2 GEAR's annual growth rate targets for investment (%)

	1996	1997	1998	1999	2000	Average
Real government investment growth	3.4	2.7	5.4	7.5	16.7	7.1
Real parastatal investment growth	3.0	5.0	10.0	10.0	10.0	7.6
Real private sector investment growth	9.3	9.1	9.3	13.9	17.0	11.7
Additional FDI (US$m.)	155	365	504	716	804	509

Source: Government of South Africa (1996) and South Africa Reserve Bank data.
Note: 'Average' figures are the arithmetic mean.

Table 4.3 Actual annual investment growth rates (%)

	1996	1997	1998	1999	2000	Average
Real government investment growth	14.1	7.3	-4.4	-9.6	-0.2	1.4
Real parastatal investment growth	60.2	13.3	13.3	-8.5	6.7	11.7
Real private sector investment growth	8.1	5.5	6.3	-8.8	1.9	2.6
Inward FDI (US$m.)[a]	818	3,817	561	1,502	877	1,515

Source: Reserve Bank of South Africa
Note: a) Data taken from *World Investment Report* (UNCTAD, 2004). Not directly comparable with 'additional' FDI targets in the GEAR document as the latter does not specify what these are additional to.

The quantity of FDI has been disappointing when compared with other developing economies. Since 1994, FDI in South Africa has averaged less than 1% of GDP. By comparison, over the same period, FDI/GDP averaged 2.5-3% for Argentina, Brazil, and Mexico, 4-5% for Hungary and the Czech Republic, and 3-5% for Malaysia, the Philippines and Thailand. Furthermore, much of this FDI has been market-seeking (not export-orientated), has been directed to the natural resources sector (rather than manufacturing and services) and has been driven by privatisations rather than being greenfield (Lewis, 2002).

The poor investment record has been cited as one of the causes of South Africa's poor overall economic growth rates. Average growth in the 1990s was a mere 0.94%. Of this Total Factor Productivity (TFP) growth contributed 1.07%, growth in capital 0.44% and the contribution from labour actually fell by 0.58% (Hartzenberg and Stuart, 2002; Fletcher, 2003). These figures show that firms have increasingly managed to increase output by

[18] South African Reserve Bank, *Quarterly Bulletin* No. 231 (2004). For the purposes of this paper, investment is defined as Gross Fixed Capital Formation, excluding portfolio flows.

squeezing existing capital equipment harder and by shedding workers, rather than by investing in new capital equipment or employment.

Table 4.4 Average annual real growth rates of fixed capital stock by sector

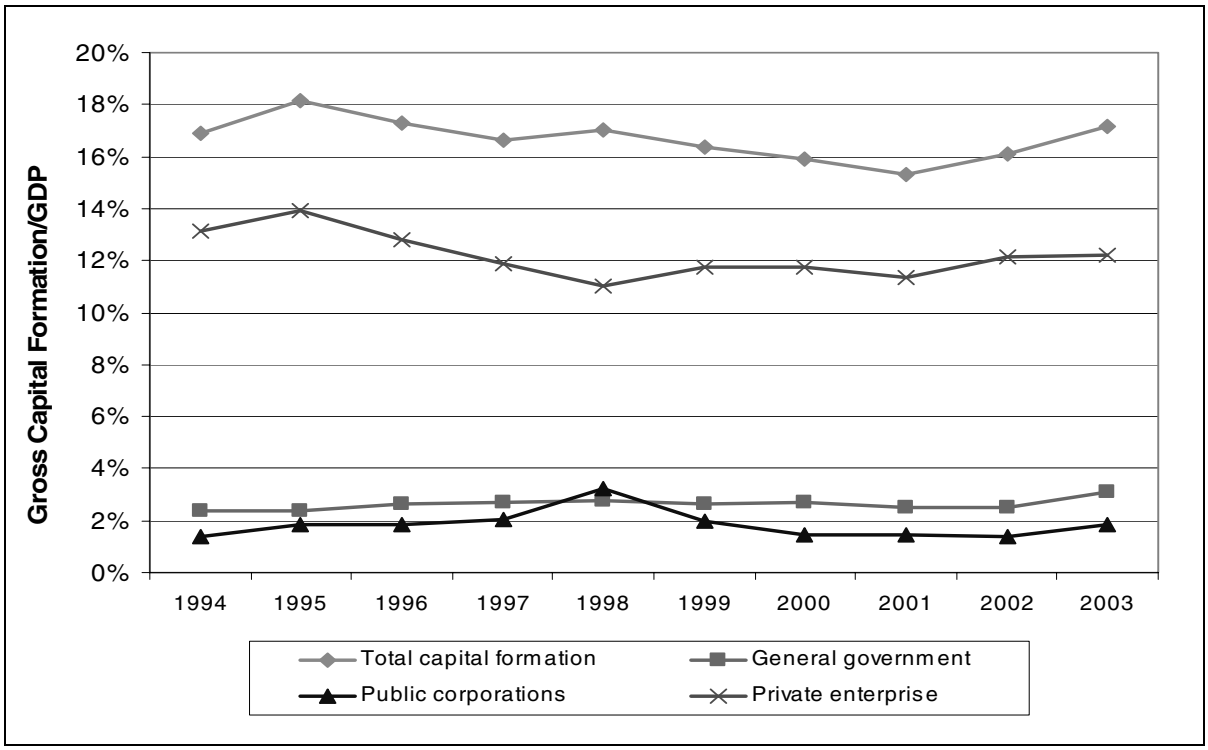
	1960-70	1970-80	1980-90	1990-2002	1994-2002
Agriculture	2.34	2.68	-0.97	-0.81	-0.27
Mining	1.93	6.19	6.04	0.58	0.44
Manufacturing	7.86	8.19	3.28	2.65	2.44
Electricity, gas and water	5.67	7.90	4.22	-2.37	-2.24
Construction	11.49	10.41	-0.48	-0.25	0.44
Retail	5.37	5.15	1.86	1.73	2.17
Transport, storage and communication	4.76	5.88	1.31	1.45	2.07
Financial	5.00	4.95	3.17	1.45	1.66
Community	7.52	6.47	2.84	1.31	1.06
Total	5.36	6.00	2.79	1.13	1.27
General government	6.09	5.90	-0.13	-1.68	0.77
Public corporations	8.47	13.59	8.98	5.47	0.85
Private corporations	4.41	4.60	4.00	2.57	-0.20

Source: Fletcher (2003)

Fig. 4.1 Relative investment rates in South Africa

Source: Reserve Bank of South Africa

Fig. 4.2 Gross capital formation to GDP ratio



Source: Reserve Bank of South Africa

Growth in manufacturing output averaged only 1% between 1990 and 2001 (Roberts, 2004). Kaplan (2003) has undertaken a comprehensive review of investment in the manufacturing sector and concludes, 'Over the last two decades, South Africa's share of developed market and world Manufactured Value Added (MVA) has declined persistently. Given the more rapid rate of population growth in South Africa, the relative decline in South African MVA per capita has been particularly pronounced'.

Kaplan's observation is especially interesting when taken together with the data in Table 4.4, which reveal that the manufacturing sector has in fact shown the highest level of fixed capital formation over the last ten years in South Africa. The simplest explanation for this apparent inconsistency is that the investment which has taken place in the manufacturing sector has simply not been enough and secondly that there has been very little investment in the government's target sector of 'labour-intensive manufacturing'. Kaplan summarises the situation as 'low rates of growth in the labour intensive sectors have combined with overall rising capital intensity resulting in consistent declines in manufacturing employment'. Kaplan uses official data provide by the Government of South Africa to show that total employment in the manufacturing sector fell from 1.5 million in 1990 to 1.3 million in 2003. Given the government's focus on labour-intensive manufacturing, this is especially disappointing.

It is beyond the scope of this paper to enquire into the causes of the low savings, investment and FDI rates in South Africa, though it is clear that these have limited the growth potential of the economy (see Roberts, 2004, for a more detailed review). Chapter 5 considers the extent to which investment incentives may have mitigated a low rate of investment in manufacturing.

Chapter 5: Assessing South Africa's Incentive Regime

5.1 Incentive policy

Prior to the democratic elections in 1994, the South African Government pursued a deliberate and well funded regional development strategy designed to support the homelands created by apartheid. Further industrial back-up was provided by high tariff barriers and government investment in state-supported enterprises such as SASOL (oil) and ISCOR (steel). The transition to democracy saw the termination of these spatial support programmes and the exposure of the manufacturing economy to global markets as a result of the removal of sanctions and South Africa's re-integration into the global economy (Nel, 2002).

In 1995, only one year after the first democratic election, the Katz Commission reported on a comprehensive review of the country's tax structure, and recognised the 'tenuous links between taxation, capital spending and economic growth'. Its primary recommendation was to 'broaden the tax base and remove or limit deductions, exemptions and other preferences' (Republic of South Africa, 1995). However, the GEAR document, which followed the Katz Report a year later, was more open to the concept of investment incentives designed to 'stimulate competitive and labour-absorbing industrial development'. The key section of the GEAR document states the desire to introduce 'tax incentives for a fixed period to stimulate investment'. The reference in GEAR to incentives for a 'fixed period' demonstrates the government's awareness of the international lessons on incentives. As Chapter 3 pointed out, giving incentives a specific term is one of the key lessons from international best practice. South Africa's entry into the World Trade Organization (WTO) helped accelerate the elimination of import-substitution programmes and other protectionist policies. For example, in 1997 South Africa phased out the General Export Incentive Scheme (a poorly targeted scheme that the WTO found to be illegal).

The GEAR document put forward three specific incentives: an accelerated depreciation scheme to 'enable existing manufacturing entities to expand in response to the challenge of globalisation', second, a tax holiday scheme aimed at 'new projects in key regions and industries, designed to favour labour-absorbing manufacturing activities,' and third a set of incentives to assist small-scale enterprises. The government phased out the tax holiday scheme as early as 1999, following internal reviews showing it to be expensive, poorly targeted and ineffectual. However, the accelerated depreciation scheme and the incentives for small businesses have remained. Other incentives were developed and implemented following GEAR, including the Motor Industry Development Programme and the Strategic Industrial Programme, which are discussed further in Section 5.4. The set of incentives to support small businesses were proposed both as a means of promoting labour-intensive growth and also as a vehicle for enhancing Black Economic Empowerment. GEAR also flagged the creation of a number of matching grant-based incentive schemes for technological innovation and skill creation. The absolute and relative level of expenditure is small, however, and these measures will not be discussed further in this paper.

Finally, in part response to the poor record in generating additional investment, provincial economic development agencies have been set up in each of the nine provinces, the most active being in Guateng, Western Cape and KwaZulu-Natal. These agencies tend to focus on investment promotion, actively marketing nationally available incentives and the provision of key infrastructure. There is almost no scope, however, for the provinces to implement tax

incentives, given their reliance on national transfers.[19] Municipal governments have more opportunity to affect the investment climate (by reducing the red tape surrounding planning, etc.) and to reduce property rates and/or utility charges for services such as sanitation and electricity. Cape Town municipality, for example, is currently considering investment incentives. Though the primary focus is on reducing red tape, it is also considering reductions in utility charges in certain, very poor, localities within the city for new and expanding businesses.[20]

5.2 Tax structure and incentives

The broad thrust of South Africa's fiscal policy since 1994 has been to lower tax rates and broaden the scope of the policy in order to improve the efficiency of the overall tax system. In consequence, the top marginal rate of tax on personal income has fallen from 45% in 1990 to 40% in 2003 and the corporate tax rate has come down from 50% to 30% over the same period. There is a secondary tax of 12.5% on dividends distributed to shareholders. Branches of foreign companies with management outside the country are subject to a 40% tax rate. South Africa also has a capital gains tax[21] and VAT of 14%. Like the global norm, nominal interest payments are deductible from taxable income.

Despite the praise given to South Africa for its relatively simple and broad-based tax structure, a surprising number of tax and grant incentives exist. Annex 2 collates a comprehensive directory of those currently available. Reviewing this list reveals some interesting observations, as follows:

- There are an equal number (14-17) of 'on-budget' grants and 'off-budget' tax incentives. The number of policy-specific grants has burgeoned over the past decade. The DTI accounts for these grants transparently through the annual reporting of expenditure.

- The level of spend, however, is heavily skewed towards tax incentives. An accurate assessment of the revenue forgone through these incentives is not therefore possible, as South Africa does not yet compute 'tax expenditures'.[22] Kaplan (2003) estimates the forgone revenue from the Motor Industrial Development Programme at 8.4 billion Rand in 2002. This programme and the Strategic Investment Programme totalled 9 billion Rand foregone in 2002/3, over 900% of the value attributed to the on-budget grant incentives.

- There is a set of both grants and tax incentives aimed at supporting small and medium-sized enterprises. This includes a CIT rate of 15% and the Small and Medium Manufacturers Development Programme. The rationale behind the government's policy of supporting small businesses is that they are both employment-intensive and part of the black economic empowerment agenda.

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[19] For example, the Western Cape Province collected only 7% of its own revenue in 2002/3, with the remainder coming from central government allocations.
http://www.capegateway.gov.za/Text/2004/3/budgetstateone.pdf.

[20] Interview with Interim Manager, City of Cape Town Economic Development Agency, July 2004.

[21] Effective rates are between 0% and 17.5% depending on who is affected. See PricewaterhouseCoopers (2002).

[22] The exception to this is the Strategic Investment Programme (SIP), which has a ceiling for forgone revenue, and reports specifically on revenue forgone. 600 million Rand has been forgone in revenue since its launch in 2001.

- There are also a number of development finance institutions such as the Investment Development Corporation, the Land Bank and Khula.[23] The precise amount of subsidy embedded in these 'soft loans' is difficult to estimate. As a rough estimate, however, the IDC committed 4.8 billion Rand in loans or equity in 2004. Assuming its debt and equity investments amount to 2.5% discounted over commercial rates of return,[24] this equates to a subsidy of 120 million Rand. The IDC plays a significant role, financing 12% of gross fixed capital formation in manufacturing between 1998 and 2000 (Roberts, 2004). Access to loans and equity from these institutions is limited and discretionary.

- South Africa has a fledgling system of Industrial Development Zones (IDZs) which offer 'Customs Secured Areas' exempt from excise duties, VAT and import duty on assets and inputs used in the production of exports. The IDZs also provide dedicated customs officials (to help speed up the administration surrounding importing/exporting) and key infrastructure. They do not, however, provide for concessions on regulations such as labour laws and health and safety legislation or environmental safeguards.

While GEAR refers to the need for 'labour-intensive manufacturing', this is not uniformly the policy objective of many of the incentives offered. As will be discussed in Section 5.3, many of the incentives support capital-, not labour-, intensive industries. Furthermore, incentives are offered in each sector, primary, tertiary and secondary. This may be an effort to be 'fair' to each sector and each segment of the economy, or may simply be a response to political lobbying. Either way, the result is an incentive regime which appears to lack strategic focus. Section 5.3 investigates in more detail how South Africa's incentive regime matches up in comparison with international best practice.

5.3 Evaluation of South Africa's incentives: international best practice

Through both design and trial and error, South Africa has avoided many of the worst examples of incentives. The positive features of the regime (using Section 3.3 as a guide) are:

- Corporate income tax of 30% is comparable with that in other countries in the region and other emerging market economies. Many argue, however, that the additional 12.5% tax on dividends paid pushes South Africa into the top tier of income tax countries when compared with its peers (Bolnick, 2004; Fletcher, 2003; PricewaterhouseCoopers, 2002).

- Apart from a brief period (1996-9), the government has eschewed tax holidays, one of the least effective investment incentives.

- Most incentives are well designed, well targeted and have a specific policy goal. The 40-20-20-20 depreciation schedule effectively targets additional rather than existing investment. The SIP is a well-designed Investment Credit Allowance scheme, though it is not possible to say yet what the redundancy rate is. The MIDP has successfully

[23] Khula Enterprise Finance Limited is an agency of the Department of Trade and Industry established in 1996 to facilitate access to finance for small and medium enterprises. Khula provides both financial and non-financial assistance to small enterprises through various delivery channels including commercial banks, retail financial intermediaries and micro credit outlets.
[24] IDC website states that 'loans are risk-related and based on prime lending rates'. Experience shows that IDC loans are between 2 and 3% lower than a corresponding commercial loan for a similar project. http://www.mallinicks.co.za/invest_info.

stimulated additional investment in the motor industry, as designed, but at an unknown cost (see Box 5.1).

- South African exporting firms can obtain relief on duties paid on products used in the manufacture of exports, even if the inputs are sourced from within the SACU region. Furthermore, in the IDZs exporters can also import capital machinery duty-free, thus providing effective support for manufacturing exports.

- The DTI and the National Treasury carry out regular assessments of the incentives on offer and which are removed or reformed accordingly. The policy process shows that the government is learning from past experience, and the most recent incentive (the Strategic Investment Programme) contains most of the features of a well designed incentive scheme (Bolnick, 2004).

In sum, the South African investment regime has much to recommend it, and it compares well with that in other countries in the region. However, there is also evidence that the regime is not as much in line with international best practice as might at first appear. Key problems include:

- Poor awareness of existing incentives, especially on the part of small and medium-scale enterprises. Only between 7% and 35% of South Africa's small businesses are aware of existing incentives for which they are eligible (UNCTAD, 2003). A separate survey by Business Map (2003) and the World Bank supports this point.

- For all but the largest schemes, application and approval processes are excessively bureaucratic and complex, especially for small and medium-sized enterprises. Businesses view the costs of applying as sometimes higher than the benefits provided.[25] By way of illustration, a large international accountancy firm in South Africa has a practice dedicated to assisting clients to apply and qualify for incentives. Further anecdotal evidence of this problem is provided by the case study of Bell Equipment (Annex 4), which complains bitterly about the level of bureaucracy involved in many of the DTI's grant-based incentives.

- Too many incentives lack sunset clauses, for the scheme itself and for the duration of the benefit provided. Both are needed to stop industries or businesses surviving on incentives, rather than using them simply to get started. The MIDP (see Section 5.4), for example, has been extended twice, and may be again, creating uncertainty for investors.

- South Africa has a relatively low tariff structure and is fully compliant with its WTO obligations. Tariff protection in manufacturing decreased from 15.6% in 1997 to 11.8% in 2002, but high rates still apply to certain manufactured products: textiles, clothing and related products remain the most heavily protected, with the *ad valorem* components of certain tariffs ranging up to 60% (WTO, 2003).

- South Africa also suffers from overlapping government agencies, each with a degree of responsibility for designing, budgeting and implementing incentives. The National Treasury focuses on costs and forgone revenue, whereas the DTI is more

[25] UNCTAD (2003). A similar situation exists with the Sector Education Training Authority awards, which cover 75% of training costs. But businesses, especially small ones, complain bitterly that the administrative procedures around access to this funding are so cumbersome that the net benefit is marginal at best.

focused on 'marketing' South Africa as an investment destination. The revenue service is most concerned with administrative simplicity. Semi-autonomous government agencies, such as Khula, the IDC, the National Research Foundation and the International Trade Administration Commission (ITAC), also play a role in various incentives.

- Too many incentives are applied in a discretionary manner, including requests for adjustments in import tariffs (see below). This complicates and slows down the approval process and adds to the level of uncertainty faced by companies.

- Outside the five IDZs, there is no clear strategy on tariff protection or relief. Firms may seek tariff protection from imports for their sector, and rebates or more general tariff reductions on inputs. Any manufacturing company, exporting or not, may apply to the Board on Tariffs and Trade for tariff adjustments which must then be approved on a discretionary basis by the Minister for Trade and Industry. The process whereby applications for tariff adjustments or rebates are considered, appraised and evaluated is opaque and potentially open to abuse.

- The government tends to introduce grant incentives in response to lobbying by different sectors within both the public and the private sectors without a rigorous *ex ante* assessment of the costs and benefits or a coherent strategic justification.[26]

Finally, there is a dearth of existing evidence on the efficiency or otherwise of South Africa's investment incentive regime.[27] There are internal reviews of specific programmes, commissioned by the relevant department and usually undertaken by independent outside consultants. While the majority of these do provide a critical evaluation of the incentive scheme under review, they tend to lack a rigorous analysis of the efficacy and the efficiency of the incentive. Instead, the evaluation focuses on whether the incentive has/has not led to a rise in investment, but not the counter-factual (would investment have risen anyway?), or whether the benefits were worth the costs.[28] South Africa does not yet calculate and report the 'tax expenditures' of revenue forgone through its tax incentives, with the exception of the SIP.

5.4 MIDP and SIP

It is worth looking in more detail at the Strategic Investment Programme (SIP) and the Motor Industry Development Programme (MIDP). These two programmes are financially the largest and also the schemes which have had the biggest impact on FDI (Business Map, 2002). Box 5.1 provides details on how the MIDP and SIP programmes operate.

[26] As recently as June 2004, new incentives were created for the film industry. Incentives for the Back Office Processing sector are under consideration.
[27] 'Up to now, assessment of the impact of our industrial policy in general, and of particular policies, has been lacking'. DTI (2001a) p. 43.
[28] For example, the mid-term review of the MIDP undertaken in 2000 (see Damoense and Simon, 2004).

Box 5.1 MIDP and SIP

The Motor Industry Development Programme (MIDP) was initiated in 1995. It entailed a phasing down of tariffs; a removal of local content requirements; duty-free imports of components up to 27% of the wholesale value of the vehicle; and duty rebate credits earned on exports. Duty credits are tradable and can either be used to import local content duty-free, or sold to provide a separate source of revenue for the exporter. The MIDP has been hailed as a great success, having achieved significant growth in vehicle imports and exports as well as substantial investments by major vehicle manufacturers such as BMW, Volkswagen and Toyota (Black and Mitchell, 2002).

The SIP is a more recent programme introduced in November 2001. The sole tax benefit is an initial capital allowance (ICA) of 50 or 100%, depending on the qualifying points score; points are awarded for the 'fit' of the project to strategic goals and employment creation. The ICA is *additional* to the normal accelerated depreciation provided through existing legislation. As companies are able to carry forward paper losses, the combined result is that companies operating under the SIP can operate in a tax-free environment for many years. The qualifying criterion is that projects must have a capital investment of at least R 50 million. The SIP imposes a ceiling (up to R600m.) on the cost of the industrial assets that may qualify for the ICA for any one project. Apart from this, the law sets a ceiling of R3 billion on the cumulative amount of ICA benefits that can be granted under the programme. The qualifying criteria are explicit and substantive, applications are gazetted, awards are reported annually, and revenue costs have to be monitored. The SIP is very attractive to investors and yet is fiscally reasonable; the initial allowance substantially lowers the Marginal Effective Tax Rate (METR) for most projects, while yielding revenue in the medium run (Bolnick, 2004).

The primary aim of the SIP is to contribute to the growth, development and competitiveness of specific sectors of industry by providing investment allowances (tax relief) to industrial projects that qualify. The key objective of the programme is to attract investment to South Africa in order to upgrade industry and create employment opportunities. However, this incentive is relatively new and there are little data on which to assess its performance. While the SIP is well-designed (see Bolnick, 2004), its impact in terms of generating additional investment is unclear. The DTI recently reviewed SIP.[29]

The MIDP is a longer-running programme which has become the subject of much debate (see Black and Mitchell, 2002; Barnes et al., 2003; Flatters, 2002). There is a consensus that the scheme has undoubtedly led to significant new investment in the automobile sector and associated downstream products such as leather seating. The debate surrounding the MIDP concerns whether this has been worth the cost to customers, taxpayers and the government in terms of forgone revenue.

Table 5.1 looks in more detail at how these two programmes measure up against the lessons developed in Section 3.3 on what makes for an effective and efficient incentive. It shows that both programmes have many of the characteristics of a well designed and effective incentive scheme. However, in terms of generating 'labour-intensive manufacturing', they have, on the balance of the evidence, failed. The motor industry in South Africa is extremely capital-intensive (Black and Mitchell, 2002; Damoense and Simon, 2004; Roberts, 2004) and the SIP has resulted in very few businesses which generate any significant long-term employment.[30] In fact, as Kaplan shows, the manufacturing sector has become increasingly capital-intensive over the past decade, requiring skilled labour (in short supply) rather than unskilled (in abundant supply).

Annex 4 provides a case study of a South African manufacturer and exporting firm which has benefited from MIDP - Bell Equipment. Bell Equipment employs 1,000 people in its South

[29] Neither the terms of reference nor the results of the review were made available to the author by the DTI.
[30] Discussion by the author with staff of the National Treasury and Revenue Service.

African facility. On average, it receives R32m. a year from the MIDP, equivalent to R32,000 per job per annum (not taking account of indirect employment). On the assumption that Bell Equipment would close were it not for the MIDP, the government of South Africa is paying R32,000 per annum per job in this case. Using the average minimum wage in South Africa as a proxy alternative,[31] this figure appears extremely high. Bell Equipment makes intensive use of fixed capital and, to an even greater extent, working capital.

Table 5.1 Analysis of South Africa's two primary indirect investment incentives

Effective and Efficient Incentives	**SIP**	**MIDP**
Effectiveness: Stimulate the desired investment (in the sector or location) with minimum revenue leakage, including minimal opportunities for tax planning.	Approval clearly linked to policy goals. Has been rapidly taken up by industry but at an unknown redundancy rate. Loss of revenue is approaching the R3bn ceiling.	Has effectively stimulated motor industry investment which rose from R85.4m. in 1995 to R2,345m. in 2001 (Roberts, 2004).
'Evaluability': Are evaluated on a regular basis against pre-agreed criteria.	Regular reporting to Parliament of revenue forgone and which companies are benefiting. Review of SIP in 2004 by DTI.	Substantially met. Evaluated both internally by government and externally by commentators. But exact costs to customers and revenue loss unknown.
Transparency: Are transparent and easy to understand for corporations.	Legislation is clear on how points are awarded and why.	Legislation is clear and close interaction between industry and government has helped ensure rapid take-up.
Precision: Have clearly specified and quantified objectives, which are expressed precisely in legislation.	Yes.	Yes.
Stability and Duration: Are not changed frequently. Have a well publicised finite life (in terms of time or revenue loss ceilings) both for the scheme and for the benefits provided to individual firms.	Substantially met. No changes as yet to criteria and benefits. Clear end date (2005 or when R3bn forgone revenue envelope is met, whichever is sooner). May or may not be extended.	Partly met. Reviewed and changed in 2002, extended until 2007, then to 2012. Uncertain future after that.
Are developed, implemented, administered and monitored by one agency.	No. Approval committee made up of several departments (DTI, NT, SARS). Agency co-ordination and co-operation is a problem.[a]	No. DTI, ITAC, NT and SARS all involved. Agency co-ordination and co-operation is a problem.
Have low administration costs to both government and firms.	Yes. Only 4% of incentive budget used in administration by government.[b] The size of the benefit to firms dwarfs any application and reporting costs.	Yes. Only 4% of incentive budget used in administration by government. The size of the benefit to firms dwarfs any application and reporting costs.
Are non-discretionary and applied consistently against a set of open criteria.	No. Applicants must apply and be recommended by a committee to the Minister of Trade and Industry.	Substantially, yes. However, there is some debate about definitions of 'motor vehicle' etc.

Notes:
a) Private discussions with a large multinational accountancy and consulting firm in Johannesburg, which has virtually cornered the market for helping firms apply for incentives;
b) Government of South Africa, *Estimates of National Expenditure*, February 2004.

[31] Minimum wages in South Africa are determined by sector and differ according to the exact nature of the job. The range is between 650 and 1,356 per month. http://www.labour.gov.za.

Chapter 6: Marginal Effective Tax Rate Analysis

Given the discussion so far, the salient question is, 'in those sectors which benefit from incentives, has there been higher investment than would have occurred otherwise?' This is a difficult question to answer. A full answer would require a comprehensive survey of firms that had both chosen and not chosen to invest. However, one indicator of the effectiveness of tax incentives is to use Marginal Effective Tax Rate (METR) analysis, which is a standard technical method for evaluating the impact of the tax system on investment decisions (Box 6.1).

Bolnick (2004) has amended a METR model originally developed by Dunn and Pellechio (1990). This 'Bolnick model' allows the user to evaluate the impact of different tax incentives on the METR faced by investors. In turn, this provides some indication of the likelihood that an investment would have been stimulated, given changes in the METRs.

Box 6.1 The Marginal Effective Tax Rate (METR)

The METR measures the extent to which the tax system reduces the real rate of return on investment, at the margin. More formally, the METR is defined as:-

METR = (RORbT – RORaT)/RORbT

where RORbT and RORaT are the real rates of return before and after tax, and ROR is:

$$\frac{\text{Present discounted value of annual net earnings}}{\text{Capital Expenditure}} = \frac{PDV(E)}{K}$$

For example, let us assume that the rate of return on an incremental capital project is 20% before tax and 10% after, from the equation: METR = (20-10)/20 = 0.5 or 50%. The METR of 50% indicates that the tax system diminishes the real rate of return by 50%. The METR shows how much the tax system distorts investment incentives by driving a 'wedge' between the underlying profitability of a project and the after-tax return to the investor. The METR can be compared across projects, sectors, and countries. The larger the METR, the bigger the tax wedge. Differences in the METR reveal tax-induced biases in the incentives that drive the allocation of productive resources. In some cases, the biases are deliberate aims of policy, such as preferences for exporters or for manufacturers in certain locations. In many cases, however, the biases are unintended consequences of the tax system.

It is possible to have a METR which is zero and yet also revenue-positive, as long as the rates of return before and after tax are the same. Bolnick shows how this can be the case with, for example, 100% deductibility of investment in the first year.

The tax wedge appears at two levels—one arising from taxes on the company, and the second stemming from taxes on the remittance of earnings or capital gains to the owners. There are thus two METRS. The first is in terms of the returns seen by the company undertaking the investment. The second analyses the rate of return to the equity holders themselves rather than the company. The present paper uses the second approach. It is the approach recommended by Bolnick, since it gives a better indication of the impact of the tax system on investment decisions. This is especially pertinent in South Africa, which has a substantial secondary tax of 12.5% on companies in addition to the standard corporate income tax of 30%.

It is important to recognise that this METR analysis only addresses how much the overall tax and incentive system reduces the relative rate of return to equity holders[32] before and after tax. It says nothing about the absolute rates of return to different projects. It is possible to have two projects with identical METRs but with very different rates of return. The Bolnick

[32] As discussed in Box 6.1, the model reflects cash flow to equity holders. Cash flow is thus determined after taxes on dividend distributions and after the taxation of capital gains on any sale of the enterprise.

model does not allow for any judgement on whether an enterprise is more profitable in one sector than another. Rather, it analyses how much the tax and incentive system distorts the decision to invest in that particular project. Some projects with very high rates of return can remain profitable even with a very high METR. Other projects will remain unviable, however low the METR. Adjustments in the METR are most likely to have an impact on projects that have a rate of return very close to the threshold rate for the investor, in other words the most marginal investments.

Tables 6.1 to 6.5 apply the Bolnick model to hypothetical manufacturing, agricultural and tourism/services firms in South Africa. Annex 3 details how the Bolnick model was configured to represent the South African investment climate. The model only allows for the incorporation of tax incentives, not cash grants.

There are three financing scenarios shown: debt at 0% of financing (equivalent to full equity financing); debt providing 28% of financing; and debt providing 50% of financing. The more likely scenario for South African companies is for debt to provide about 28% of all financing. The 50% ratio more accurately reflects the situation for smaller companies, which would use owner equity to start up and be less able to secure debt financing.

This 'base case' is extended to include the accelerated depreciation allowances provided for each type of enterprise. Separate models are developed for the SIP and for SMMEs. The SIP is available only to large corporations. SMME tax incentives include the immediate expensing of capital equipment and 15% CIT rate. The SMME scenario also includes a higher cost of debt (14% as against 12%) which they are more likely to face. The SIP and SMME incentives are mutually exclusive, but both build on and include the accelerated depreciation allowances.

The Bolnick model includes the effects of import tariffs on initial investments. However, it does not provide for an analysis of the impact of indirect taxes on working capital inputs. As a result, it is not possible to model the impact of the MIDP on the METR.

Table 6.1 Base case: Asset structure of different business sectors

	Land	**Buildings**	**M&E**	**Vehicles**
Manufacturing	50%	20%	20%	10%
Agriculture	60%	15%	20%	5%
Tourism/services	20%	30%	20%	30%

Table 6.2 How capital structure affects the METR in different sectors

	1	**2**	**3**
	0% debt	28% debt	50% debt
Manufacturing	35.78	31.15	27.03
Agriculture	33.41	28.49	23.84
Tourism/Services	38.59	34.42	31.29

Note: Does not include accelerated depreciation allowed with each category of enterprise.

Table 6.3 How incentive schemes affect the METR for manufacturing businesses

	1	2	3
	0% debt	28% debt	50% debt
Manufacturing	35.78	31.15	27.03
W/ Accelerated depreciation[a]	34.52	30.55	26.79
W/ SIP 50%	27.19	23.88	20.90
W/ SIP 100%	22.52	19.35	17.36
As an SMME	27.26	25.46	24.42
R&D Investment	31.33	27.42	24.20

Note: a) 40-20-20-20

Table 6.4 How incentive schemes affect the METR for agricultural businesses

	1	2	3
	0% debt	28% debt	50% debt
Agriculture	33.41	28.49	23.84
W/ Accelerated depreciation[a]	32.52	27.55	23.00
W/ SIP 50%	27.70	23.08	19.04
W/ SIP 100%	24.22	20.21	16.58
As an SMME	27.33	23.42	19.93

Note: a) 50-30-20

Table 6.5 How incentive schemes affect the METR for tourism/services businesses

	1	2	3
	0% debt	28% debt	50% debt
Tourism/services	38.59	34.42	31.29
W/ Accelerated depreciation[a]	38.20	34.16	31.17
W/ SIP 50%	30.96	28.09	25.77
W/ SIP 100%	26.53	23.68	21.87
As an SMME	33.93	31.18	29.42

Note: a) 20-20-20-20-20 assumed for 'hotel equipment'

Table 6.2 illustrates two important results. First, as would be expected, debt-financed projects face a significantly lower METR than equity-financed firms because of the tax shield provided to interest payments. The rate of return is higher for debt- over equity-financed projects in the manufacturing, agricultural and services sectors. The imposition of South Africa's standard corporate tax regime reduces the rate of return in each sector by roughly the same proportion. Second, under each financial structure scenario the METR is highest for the tourism/service sector, and lowest for agriculture, with manufacturing enterprises midway between the two.

Analysis of the model shows that this is principally due to the differences in import taxes (rather than corporate taxes on profits, dividend taxes or capital gains tax). The tourism/services model in Table 6.1 assumes that the capital start-up costs of such enterprises are skewed towards imported capital (vehicles, machinery and equipment) rather than locally procured capital (land or buildings). This is probably a safe assumption in terms of the relative mix of start-up capital. However, the absolute level of fixed capital investment by a tourism or services firm is likely to be less than that for manufacturing or agricultural enterprises. Tourist and service enterprises are more likely to invest in human and working capital. Therefore, it is probably the case that tourism and services firms face a *lower* METR than manufacturing or agricultural enterprises. The Bolnick model does not allow for different absolute levels of investment at start-up.

Although flawed, this application of the model illustrates the importance of import taxes in determining the METR of a project. Agricultural enterprises, for example, face a lower METR than manufacturing enterprises (assuming equal absolute investment) because a greater proportion of manufacturing enterprises' capital is imported. The MIDP, which provides automobile manufacturers with tax relief on imported parts used in export production, targets this issue very effectively. The MIDP is extremely important to the automobile manufacturers precisely because it eliminates one of the largest tax burdens they face, tariffs on imported parts, and provides a second revenue stream if the credits are sold to another importer.

Table 6.3 looks in more detail at how South Africa's investment incentives affect the METR for manufacturing firms. The main features of this analysis are the following:

- Accelerated depreciation provides a very small improvement in the METR, especially as the debt/equity ratio increases.
- SIP at the 50% level provides a reduction in the METR similar to that provided by SMME incentives.
- SIP at the 100% level provides a substantial METR reduction, greater than that provided to SMMEs.
- R&D investment incentives, which are especially applicable to manufacturing firms, provide a small but noticeable reduction in the METR.
- All incentives, but especially the SMME incentives and accelerated depreciation, provide a greater reduction in the METR when applied to firms that are equity-financed.

This last point makes intuitive sense. Equity-financed firms face a greater tax burden than debt-financed firms and incentives help to reduce that burden. Equity-financed firms are more likely to be small firms (unable to obtain credit at an early stage of development) and large public companies (more able to raise private or public equity). While the incentives available to manufacturing firms provide noticeable reductions in the METR, this is less than that provided by the deductibility of interest payments. In other words, the biggest incentive manufacturing firms face is to 'lever-up'.

As shown in Table 6.4, accelerated depreciation allowances are marginally more generous for agricultural enterprises than for manufacturing firms. Yet the benefits are still small. Table 6.5 shows that accelerated depreciation allowances for the tourism/services sector make even less of an impact on the METR than in manufacturing because this sector is less fixed-capital-intensive.

The SIP also rewards large fixed-capital-intensive investments by requiring investments of at least R50m. As a result, manufacturing firms benefit more from the SIP than agricultural or tourism/services firms. The SIP, especially at the 100% level, provides the largest reduction in the METR of any of the formal incentive programmes. At the 50% level the reduction in the METR is small but not insignificant and similar to that provided to SMMEs. But at the 100% level the SIP has far greater impact than SMME incentives – especially as the debt/equity ratio rises. This is perhaps a surprising result. The SIP programme, allocated to a few large capital-intensive firms, provides more generous relief than the incentives provided to SMMEs. Even though the SIP is not automatically available, this result demonstrates that small firms in South Africa may face a higher tax burden, after relief, than large public companies.

This chapter has used a simple METR model to illustrate a few facts about the South African tax and incentive system. First, it shows that import taxes matter a lot in the calculation of

the total tax wedge. South Africa is ahead of its WTO obligations, but tariffs on imports of capital equipment and inputs remain high relative to consumer goods. This makes intuitive sense if the intention is to create incentives for firms to choose labour-intensive techniques. The irony is that, while the tariff system meets the goal of supporting 'labour-intensive manufacturing', the incentive schemes do not. Finally, South Africa offers incentives to both SMME and very large and capital-intensive companies, and this appears inconsistent and contradictory.

Chapter 7: Conclusions and ways forward

This paper has begun to analyse whether the existing fiscal incentives available to the South African manufacturing sector effectively improve the incentive to invest. The literature on investment incentives (both tax and grants) is extremely cautious about their ability to induce additional investment and consistently highlights instead the fundamentals affecting the firms' decisions to invest, namely, expectations of future demand, the cost of capital, economic and political certainty, and the existence of strong legal institutions and good infrastructure. The literature also acknowledges that incentives remain a popular tool, despite the dearth of evidence in their support. Given this reality, there is also a broad consensus by policy analysts on the characteristics of an effective and efficient investment incentive, characteristics such as minimal revenue loss, simple and transparent rules, revenue caps, sunset clauses and low administrative costs.

Since 1996, the system of incentives in South Africa has broadly attempted to follow the principles outlined in the GEAR policy document, namely, the desire to increase 'labour-intensive manufacturing'. This is understandable given the extremely high unemployment and underemployment in the country and the associated economy-wide costs. Over the past decade, South Africa has adopted a cautious approach to incentives, abolishing some and introducing others. On the whole, there has been a reduction in the number and complexity of tax incentives and grants, and there is more emphasis on evaluating their impact. The result is that, today, South Africa operates a system of investment incentives that is comparatively well defined, effectively implemented, and evaluated on a regular basis. The system thus has many merits and is better aligned with 'best practice' than that of most other African economies.

The effects of these and other macroeconomic reforms have, however, been disappointing. The lacklustre investment performance in South Africa over the past decade of democracy shows that incentives have not been effective in delivering the sorts of levels of investment (either domestic or foreign) needed to raise the economic growth rate above the 2-3% range. Perhaps most importantly, there has been very little investment in the key target area of labour-intensive manufacturing.

The critique of South Africa's investment incentive regime has been both qualitative and quantitative. It is clear that South Africa has experienced a learning curve with its incentive schemes. Those most recently introduced are well targeted to achieve a specific policy goal and are the subject of scrutiny by government and non-governmental commentators alike. Many, but not all, are on-budget or have specifically calculated tax expenditures. South Africa has a competitive corporate tax rate and supports manufactured exports by providing duty relief on inputs and a fledgling set of Export Processing Zones.

The qualitative review also highlights a few areas of concern. First, despite rationalisation, there remains a proliferation of direct incentives with overlapping and sometimes incoherent mandates. Many incentives are too bureaucratically complex and there is confusion and uncertainty about the eligibility and approval process for many schemes. Too many incentives are discretionary, in particular the opportunity provided to firms to lobby government for tariff protection. Sunset clauses are being increasingly used, but this practice needs to become systematic for all incentives. The largest incentive schemes in South Africa in terms of expenditure are tax incentives, which are principally 'off-budget' (with the exception of the SIP). The calculation of 'tax expenditures' would be an effective first step towards a more rigorous analysis of the efficacy and (crucially) efficiency of the various tax incentives on offer. There is also some evidence that South Africa does not market its incentive schemes well.

The quantitative review applied the Bolnick model to calculate marginal effective tax rates. The results indicate that most widely available incentives have no significant effect on the METR of manufacturing enterprises. The financial structure of the firm has a far greater effect. A striking result is that manufacturing enterprises face a particular hurdle in having to pay import taxes on capital. Faced with a heavy tax burden on imported capital, as well as a host of other issues in South Africa's unpredictable business environment, it is not surprising that the effect of incentives on the METR is minor. This goes some way towards explaining why investment (and especially labour-intensive manufacturing investment) has continued to stagnate despite the existence of incentives. The flagship SIP and SMME incentives, which produce the largest effects, reduce the marginal effective tax rate by 17%. It is ironic, however, that some of the incentive schemes with the largest impact (SIP and MIDP) support capital-intensive rather than labour-intensive manufacturing.

The fact that South Africa subsidises both very large and very small firms equally does not appear to make strategic sense. Rather than subsidising both very small and very large firms, in the hope that these firms will generate employment, it would appear *a priori* more logical to target the subsidy directly, by, for example, providing a double tax deduction on low-wage labour expense for all firms. Providing employment subsidies, either directly to the employer or through employees, would be a simpler and more transparent way of creating incentives for greater employment than trying to select which firms are the most likely to create jobs.

The case study of Bell Equipment in Annex 4 provides only one data point, and many more are needed to get a clearer picture. However, its feedback does appear to support the wider conclusions of this paper. Bell Equipment welcomes the benefits provided by the MIDP and is desperate to retain them. It does, however, see the MIDP as a form of compensation for a volatile exchange rate, a manufacturing location far from its main market and an increasing regulatory and taxation burden on its business.

Given these conclusions, the key recommendations of this paper are as follows

- to continue the process of rationalisation, and focus all incentives in support of a clearly defined strategy. One way to do this might be to set a cap of (say) 20 fiscal incentives.
- to market existing incentives more effectively.
- to introduce sunset clauses both for the incentive schemes themselves and for the period a firm may benefit. This would help ensure that firms do not come to rely on incentives to survive, but instead that incentives reduce the risk of the initial and subsequent investments.
- to simplify the application and approval process so that decisions are quicker and more transparent.
- to bring all incentive schemes 'on-budget' by using tax expenditure analysis. This will help to illuminate each incentive and determine its effectiveness and efficiency in achieving the stated objectives.
- over time, to realign incentives to target *directly* the stated policy goal, namely greater employment, rather than 'labour-intensive manufacturing' - a fuzzy term which is hard to identify.
- finally, in common with other reviews of incentive systems, South Africa needs to continue to tackle the 'big picture' issues currently acting as a disincentive for firms to invest in labour-intensive manufacturing. A reading of the literature, informed by the case study of Bell Equipment, points toward areas such as currency (in)stability, crime, skills shortages and the ever increasing regulatory and tax burden businesses face when hiring labour.

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Annex 1: The Main Fiscal Incentives: Their Pros and Cons

Incentive	Components	Pros	Cons	Supporting circumstances
Direct incentives				
Cash payments	Grants (sometimes tax-free) provided to companies on proof of start up, or after *x* number of years of operation	On budget, transparent, easier oversight Firms prefer grants as they provide up from cash benefits	Up front, cash costs to the fiscus Can require need to recoup costs (difficult) ex-post if investment moves away prematurely	A cash rich fiscus
Critical infrastructure provision	Government funds, or partly funds, the provision of infrastructure such as access roads, dams, electricity connections	Transparent Easy to monitor Provides lasting infrastructure (tangible assets)	Up front cash cost to the fiscus Fungibility means that the subsidy could be to any part of the corporations operations Long lead times	Economies in need of infrastructure upgrading
Indirect (tax) incentives - Direct taxes				
Tax holidays	Exemption from corporate income tax for the first few years of operation (typically 3-5 years)	Easy to administer especially if corporate tax is recently introduced Reduce tax advantages of debt financing by reducing the tax distortion against equity financing Reduce incentive to 'lever up' the debt/equity ratio and therefore reduce the chances of bankruptcy Target infant industry specifically (versus across the board lower corporate taxes) Provide a strong signal to potential investors	Expensive, and uncertain, loss of revenue for given level of additional investment Less effective in high inflation environments, if interest costs are fully deductible for tax purposes (debt financed investment), or if investment financed in part with local borrowing Irrelevant to firms that are not initially profitable - most often large capital start-ups Encourage short- term investments, and footloose firms who 'hop around' for tax holidays avoiding tax at all Discriminate against future investment Create incentives for tax planning (avoidance) Not tied to the amount invested	Low inflation environments Benefit companies largely financing investment with equity Impact depends crucially upon whether accrued initial and/or annual depreciation allowances can be carried forward. If not, firms making losses in the first few years (often the case with start-ups) end up paying more CIT than they would without the tax holiday) Tax holidays less worthwhile if they take place many years in the future

	Components	Pros	Cons	Supporting circumstances
Investment tax credits	Credits earned for investment undertaken Credits can be used in lieu of CIT payments Can be either incremental (only on investments above a certain threshold) or fixed (applicable to all investment)	More cost effective than tax holidays Incremental credits target truly additional investment Revenue costs directly related to amounts invested Encourages firms to take a long-term view, because narrowly based Hard to reverse, so have good credibility Easier to estimate maximum revenue costs Qualification requirements easier to define and monitor	Favour more established firms over new ones Favours non-inventory and capital intensive investment Favours capital goods that depreciate quickly – requiring frequent re-investment Irrelevant to firms which would pay no tax (loss making) in the absence of the tax allowance/credit (often start-ups) If temporary, can simply bring forward investment decisions Difficult and complex to design and implement Allow tax planning via 'sham' sales/purchases of assets	Proficient and well administered revenue regimes (especially as regards incremental investments) Credits can sometimes be traded, so useful within a dynamic broadly balanced economy
Investment tax allowances	Taxable corporate income reduced via an investment allowance (a proportion of the investment cost)	As above	As above	Equivalent to ITC if there is a single CIR rate
Accelerated depreciation	Faster than economic depreciation schedule reduces the NPV of tax payments	Low revenue costs Neutral with regard to the durability of the investment Simple to implement	Favours capital-intensive investment	Less sophisticated tax regimes
Deduction of qualifying expenses	Investments in certain types of investment (e.g. R&D) are deductible for tax purposes	Can be very specifically targeted at certain policy objectives	Create complex tax regime Administration and oversight costs high	Where there is a clearly identified need to invest in one specific sector (R&D is a good example)
Indirect (tax) incentives - Indirect taxes				
Import duty increases	Protection from competitors	Easy to administer No up-front costs	May contravene WTO obligations Protectionist and distortionary	
Import duty decreases (on inputs or capital equipment)	Cheaper imports of raw materials or capital equipment	Easy to administer No up-front costs	Large revenue losses Reduced tariffs on capital imports enhance capital bias Provide tax planning opportunities for misclassifying consumer goods as capital goods	Efficacy depends on whether the tariffs costs on imported inputs can be passed onto consumers or not (if so, incentives are less effective)

	Components	Pros	Cons	Supporting circumstances
Duty drawbacks	A refund of duty paid on imported merchandise when it is later exported, whether in the same or a different form VAT is usually zero rated also	Effectively promote export-orientated companies WTO compatible	Complex to administer Require competent customs and excise regime	Where export growth is specifically the economic goal (e.g. need to earn foreign exchange)
Others (non-fiscal)				
Reduced regulatory compliance; or streamlined administration	Investment in certain sectors, or in certain geographic areas, are exempted from certain legislation, or receive priority treatment with respect to legislative requirements	No fiscal cost Regulatory compliance can be one of the main burdens to investment in developing countries	A preferred policy response would be to reduce the regulatory compliance costs for all business Sub-optimal response Can lead to a 'race to the bottom' in terms of regulation	Where regulatory requirements are a barrier to investment, and where different sectors face different compliance costs (e.g. SMMEs face higher costs proportionately than large firms)
Export Processing Zones	Geographic areas (normally near a port/airport) offering fiscal incentives (as outlined above), or non-fiscal incentives such as exemptions from regulatory regimes Normally have qualification requirements (% export etc.)	Focused on attracting export intensive investment	Can result in existing domestic investment re-locating to EPZs Leakage problems (smuggling) and associated loss of revenue	Most effective when linked to exporting locations with good infrastructure such as sea and air ports Requires competent customs and excise regime
Subsidised finance through parastatal lending	Government owned development banks provide low cost debt and/or equity	Specifically addresses one major market failure (risk-averse private sector financial sector) Can be targeted to those sectors most in need of investment (e.g. agriculture)	Non-transparent Can crowd out private sector finance Potentially open to abuse	Parastatals with a very clear mandate, with strong commercial guidelines, and with oversight
Low input prices from parastatal companies	Government-owned companies provide inputs (e.g. electricity, oil, transport) at below market price	No immediate budgetary impact	Non-transparent Potentially open to abuse	Parastatals with a very clear mandate, with strong commercial guidelines, and with oversight
Discretionary schemes (can apply to all of the above)	Industries apply for incentives which are granted at the discretion of an individual or Board	Allow negotiating space for the host country government Can target incentives to those firms who would not have invested without them (reduce the redundancy rate)	Inconsistently applied Open to abuse High administrative costs Create uncertainty for the investor	Best practice with discretionary regimes is to disclose procedures and outcomes of decisions (e.g. to Parliament)

Sources: Bolnick (2004), Chua (1995) and Fletcher (2003)

Annex 2: South Africa: Investment Incentives Active in August 2004

Expenditure subsidies (cash payments)	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Export Marketing & Investment Assistance Scheme (EMIA)	DTI	To increase export base of industry in SA by helping exporters find new markets	Grants to assist exporters with the costs of finding new markets and attracting investors. 9 schemes in total Vaguely defined 'criteria' for qualification for each of the schemes. 50-100% of flight costs, per diem, vehicle rental, plus up to R10,000 on marketing materials Applies to South African exporting manufacturers including SMMEs, PDI, and other SA Trading Houses. Also includes SA Export Councils and Industry Associations. Other business concerns qualifying in terms of the discretionary provisions[33]	R58.2m. used in 2002/3
Technology for Human Resources in Industry Program (THRIP)	DTI / NRF	To improve the competitiveness of South African industry, by supporting research and technology development activities and enhancing the quality and quantity of suitably skilled people	50% matching grant to industry's contribution for prioritised research R150,000 grant to the firm for each student involved and trained through the programme	R214m. in 2002
Small/Medium Manufacturers Development Program (SMMDP) (Replaced as Small/Medium Enterprise Development Program in January 2001)	DTI	Promote Small/Medium Enterprises in the manufacturing, agro-, aqua-culture, bio-tech, tourism, culture, business service and ICT sectors	Only firms formed after Oct 1996 (was limited to manufacturing firms prior to January 2001) Provides an establishment grant (1-10% of qualifying assets) up to a maximum of R100m. per enterprise per project. This tax-free grant is payable for three years on qualifying assets	R169m. used in 2002/3

[33] For more information, see www.dti.gov.za/exporting/exportincentives.htm.

Expenditure subsidies (cash payments)	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Foreign Investment Grant (FIG) (The only incentive specifically aimed at FDI, minimum 50% foreign holding)	DTI	Enhance technology transfer from FDI	The FIG will cover up to 15% of the costs of moving new machinery and equipment, to a maximum amount of R3m. per entity. (Tax-free grant) FIG is conditional upon enterprise gaining approval for the SMEDP	N/A
Skills Support Programme	DTI/DOL	Improve skills within SMMEs	Training grant (50% costs), up to max of 30% wage bill; Learning Programme Development Grant, paid to development training programmes (max R3m.) Capital grant for investment in training capacity Available to firms gaining approval for SIP or SMEDP	40 projects as of 2002/3
Black Business Supplier Programme	DTI	Provide HDI SMMEs with access to business development services that can assist them to improve their core competencies, upgrade managerial capabilities and restructure to become more competitive	An 80:20 cost-sharing, cash grant incentive scheme, which offers support to black-owned enterprises. The scheme provides such companies with access to business development services in order to assist them in improving their core competencies, upgrading managerial capabilities and restructuring to become more competitive Maximum from one of more grants is R100,000 on an 80:20 cost-sharing basis	R9m. projected for 2003/4
Innovation Fund	Dept of Arts, Culture, Science & Technology	Support to large-scale research with a significant R&D component to address research to overcome problems affecting socio-economic development or South Africa's ability to compete in products and services	Grants of a between R1m. and R5m. per year up to a maximum of 3 years (Information Technology; Biotechnology Value-adding in natural resources and materials and manufacturing) Projects must be large-scale science, engineering and technology (SET) innovation programmes Fund accessed via competitive bidding by statutory research and technology institutions, higher education bodies, the business and industrial community and non-governmental bodies	R71m. in 2003

Expenditure subsidies (cash payments)	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Support Program for Industrial Innovation (SPII)	IDC (on behalf of DTI)	Support SA based product or process development that represents a significant technological advance and provides a commercial advantage over existing products	Support is in the form of a grant of 50 % of actual costs incurred in development activities. The Matching Scheme supports product/process development to a maximum of R1.5m. per project. The Partnership Scheme supports large-scale innovation and products/process development by providing a conditional grant (>R1.5m, no upper limit), but repayable in the form of a levy on sales if the project is successfully commercialised Feasibility Scheme supports costs of consultants for SMMEs up to R30,000	R79m in 2002/3
Partnerships in Industrial Innovation (PII)	IDC (on behalf of DTI)	Support R&D (as above) where project is >R3m.	Tax-free loans are awarded to development projects (for a maximum of 50% of its qualifying costs)	N/A
Competitiveness Fund	DTI	Encourages competitiveness in SA enterprises both as exporters and import-substitutors	50% matching grant to support the introduction of technical and marketing know-how and expertise to firms Available to all SA private firms on a first-come first-serve basis (Used to include the Bumblebee programme that is no longer operative)	R39.98m. in 2002/3
Sector Partnership Fund	DTI	Improves competitiveness and productivity of the manufacturing sector and agro-processing through sub-sector partnerships in preparation of technical and marketing programmes	65% of costs of projects up to max of R1m. financed Available to any partnership of 5 or more organisations within SA manufacturing or agro-processing sectors Maximum project size is R1.5m.	R9.134m. in 2002/3
Film Industry	DTI	Encourages film and television programme production in SA	Rebate of 15% (for foreign productions) or 25% for qualifying South African productions. A finite sum has been allocated over an initial 3-year period. The maximum rebate for each project will be R10m.	Too early to judge
Call Centres/Back Office Processing	DTI	Under discussion		

Expenditure subsidies (Provision of firm-specific infrastructure)	**Implementing agency**	**Objectives**	**Details**	**Budget cost/take-up/other issues**
Critical Infrastructure Programme	Municipalities/ DTI	Facilitates investment in critical infrastructure	Financial support (10-30%) of costs of required infrastructure, such as roads, electricity cables etc. Available to private businesses or municipalities Projects >R15m. only	R296m.used in 2002/3
Indirect (Tax) Incentives				
Reduction in direct taxes	**Implementing agency**	**Objectives**	**Details**	**Budget cost/take-up/other issues**
Scientific R&D (11 P&Q)	National Treasury & SARS	Stimulates R&D investment	Allows a 25% deduction for R&D Capital Expenditure (approval by CSIR)	
Farming equipment (12 B)	National Treasury & SARS	Stimulates farming investment	Allows a 50-30-20 depreciation schedule for tax purposes	
Manufacturing (12 C)	National Treasury & SARS	Stimulates manufacturing investment & hotel equipment	Allows a 40-20-20-20 depreciation schedule for tax purposes	
Permanent structures (pipelines, rail-lines, telcom-lines and electricity cables) (12 D)	National Treasury & SARS	Bring permanent structures into line with other manufacturing incentives	10% depreciation allowance per annum for tax purposes for pipelines 5% per annum for all other structures	
Small business (12 E)	National Treasury & SARS	Assistance to SMME cash flows	Immediate expensing of capital equipment for SMMEs Graduated rate structure (15% CIT on first R150,000) SMME defined a gross income <R3m.	
Aircraft hangers, aprons, runways, etc. (12 F)	National Treasury & SARS	Incentives investment in airports	5% annual depreciation for tax purposes	

Reduction in direct taxes	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Strategic Investment Program (12 G)	National Treasury & SARS	Stimulates investment in 'projects that have significant direct and indirect benefits for the South African Economy' Criteria: Value-added Employment Linkages to SMMEs	Double deduction depreciation allowance - over and above existing allowances - is provided for on investments in industrial assets (over R50m.). To qualify for the allowance a project must be regarded as a 'strategic industrial project' (Defined as: - the manufacturing of any products, goods, articles (other than tobacco or tobacco-related products); - computer and computer-related activities; or - R&D activities as defined in the section or in the regulations issued under the section Only projects which meet the requirements as specified in section 12G are approved. The amount that qualifies for deduction is a specified proportion of the cost of investment in industrial assets Industrial assets are: · plant and machinery not previously used, brought into use within three years after approval, in an industrial project in SA; and · buildings or improvements to buildings, not previously used, brought into use within three years after approval, used wholly or mainly for carrying on a process in which the plant and machinery referred to in the previous paragraph are used Up to 10 Points are awarded to proposed projects, depending on the metrics above. A project scoring 6 or more points is regarded as a qualifying industrial project with preferred status and a project scoring 4 or 5 points is regarded as a qualifying industrial project. Where the project has preferred status, the taxpayer may deduct 100% of the cost of the asset in the year in which it is first brought into use. Deduction limited to the lesser of the amount of the assets reflected in the application for approval or R600m. In all other cases the taxpayer may deduct 50% of the cost of the asset, limited to the lesser of the amount of the assets as reflected in the application for approval, or R300m.	R3 bn foregone revenue envelope allotted over period 2001-5. 70% committed as of July 2004

Reduction in direct taxes	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Buildings and improvements (13)	National Treasury & SARS	Stimulate new building and improvements in certain sectors	Manufacturing and hotel building (new and improvements) depreciate at 5% p.a. Housing Projects (defined as >5 dwellings) receive (10%-2%-2%...) depreciation schedule Hotel Improvements: 20% per annum allowance (internal) 5% (external) Employee Housing 50% deductible, up to R6000 per dwelling	
Urban Development Zones (13 QUAT)	National Treasury, SARS and Municipalities	Counter decay and stimulate urban regeneration	Accelerated Depreciation allowance for new and renovated construction in designated UDZs 20-20-20-20-20 Depreciation Schedule for new buildings; 20-5-5- for rehabilitated buildings	
Value-added processes (37E)	National Treasury & SARS	Stimulate value-added manufacturing	12(c) and 13 apply for equipment and buildings used in manufacturing processes, which are at least 35% value-added	Discontinued, but existing certificates still valid Challenged under WTO rules
Tax holiday (37H)	National Treasury & SARS	Encourage manufacturing investment	Up to 10 year CIT-free holiday (Initial approval 2-6 years), starting as soon as CIT became due	No new applications accepted as of 1999
Specific tax treatment for the mining sector	National Treasury, SARS, DME	Ensures the fair taxation of South Africa's non-renewable natural resources Encourages exploration and opening-up of new mining opportunities	Basic Gold Formula: Rate = 37 – 185/profit margin In lieu of the 30% rate, the formula imposes no tax on marginal mines (up to 5% profit) with top-end mines paying up to 35% Optional Gold Formula: Rate = 46 – 230/profit margin In lieu of the 30% rate, the formula imposes no tax on marginal mines (up to 5% profit) with top-end mines paying up to 43%. This formula eliminates the 12.5% dividend tax Capital exploration costs are eligible for a 100% immediate write-off, but can only offset mining income; the Commissioner has the discretionary authority to reduce to annualised amounts Exploration expenses are immediately deductible, but all exploration incurred before mining can only offset income from that mining trade once the trade begins	

Reduction in direct taxes	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Specific tax treatment for the mining sector (cont.)			Mining Capital Costs provide a 100% immediate write-off, including: Shaft sinking and mining equipment & pre-production development, administration and management costs Employee/Community Capital Costs provide a 10% per annum write-off, including: Employee housing; Hospitals, schools and shops; Mineral transport from the mine to the nearest transport outlet	
Reduction in indirect taxes	**Implementing agency**	**Objectives**	**Details**	**Budget cost/take-up/other issues**
Motor Industry Development Program (MIDP)	DTI/ITAC	Improves international competitiveness of original equipment manufactures and the automotive component firms Improves vehicle affordability in real terms; Improves the industry's trade balance	An import-export complementation scheme allows both original equipment manufacturing and component manufactures to earn duty credits from exporting. These duty credits can then be used to offset import duties on cars, components or materials. They can also be sold on the open market - Vehicle manufacturers producing on a CKD basis enjoy a 27% duty-free allowance of their wholesale vehicle sales turnover - For every R1 of local content vehicles exported, R1 worth of duty-free imports on vehicles or components are allowed For every R1 of components exported, R0.75 of vehicles and R1 of components can be imported duty-free - There is an additional formula-based small vehicle duty-free allowance in respect of vehicles below a net ex-factory price of R40,000 - There is an excise duty on CBU's penalising imports of expensive vehicles	Motor industry investment rose from R85.4m. in 1995 to R2,345m. in 2001 Vehicle exports increased by 1274% in inflation-adjusted Rand value during the same period Due for phase-out by 2012 Kaplan (2003) estimates value of forgone revenue to be R8.4 bn in 2002 (forgone tax revenue at 40% of 21 bn credit rebates earned)

Reduction in indirect taxes	**Implementing agency**	**Objectives**	**Details**	**Budget cost/take-up/other issues**
MIDP – Productive Asset Allowance	DTI/ITAC	Encourages investment in this sector and the rationalisation of model ranges by manufacturers of specified light motor vehicles	20% of the value of the investment, spread equally over a 5-year period	
Duty Credit Certificate Scheme for Textiles Industry	DTI	Temporary kick-start measure to enhance export competitiveness (Targeted at SMMEs)	Exporters of textiles and clothing can earn duty credits on imports of inputs as follows: clothing & clothing accessories (30%); household textiles (20%); fabric & other textiles (15%); and yarn (10%)	Less successful than envisaged[34]
Tariff Rebate/Refund Provisions	DTI/BTT	Promotion of manufacturing and exporting	Available to all manufacturing industries Provision for rebate or drawback of certain duties applicable to imported goods, raw materials and components used in manufacturing, processing or for export	
Tariff increases to provide protection	DTI/BTT	Protect domestic industry from overseas competition	Application for tariff increases can be made to the DTI/BTT	
Non-fiscal	**Implementing agency**	**Objectives**	**Details**	**Budget cost/take-up/other issues**
Reduced electricity rates	Eskom or local municipality	Facilitate investment	'Special deals' are available with Eskom for specific large customers on a negotiated basis. Or:- Some local authorities offer lower electricity rates as incentives to certain sectors or locations	
Reduced transportation rates	Transnet	Facilitate investment	Reduced rail rates are available for commodities exported on a contractual basis Road transport concessions can be negotiated with the local Road Transportation Board	
Industrial Development Zones	DTI/SARS	Richards Bay; JIA; East London; Coega IDZ	Duty-free and VAT-free imports for exporters based in IDZ locations Good transport and other infrastructure links One-stop shop regulatory approval	Investment less than forecast; partly because IDZ advantages eroded by general tariffs reductions

[34] UNCTAD (2003).

Legislation and policies promoting investment	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Restructuring of State-Owned Enterprises	DPE	Raise black ownership of equity in SA businesses	19% of licences for 2nd fixed line network operator reserved for black equity investors Minerals & Petroleum Development Bill (2002) creates a series of opportunities for black entrepreneurs to gain access to mining licences	
Independent Broadcasting Authority Act		Deregulates the broadcasting industry, and encourages domestic investment	Issued a free to air TV licence Issued 8 private sound broadcaster licences Limits foreign ownership to 20% of total equity in an individual broadcaster	
Spatial Development Initiatives	DTI	Economic development of geographically discrete regions with both high growth potential and a history of economic marginalisation	Complementary public and private investments, neither of which would have been made without the presence of the other	Now somewhat defunct
Double Taxation Agreements	SARS	Promote FDI by negotiating double-taxation agreements with source/host countries	53 existing and 26 under negotiation	-
Work Place Challenge	DTI	Enhances co-operation between workers and management to boost competitiveness and employment through improved industrial performance and productivity	DTI pays 75% of cost of the scheme. Companies pay 25% Bi-partisan business/trade union committee established that is committed to the WPC Minimum company size determined on sectoral basis (e.g. 6 companies in chemicals)	
Industrial Participation Program (Off-Set)	DTI/NT	To leverage the benefits and support the development of SA industry by effectively utilising government procurement. (Not an incentive, but obligation when contracting with the government)	All government and parastatal purchases or lease contracts with an imported content >US$10m. (Suppliers to the government are subject to an industrial participation obligation of 30% of the imported content)	

Industrial financing activities	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Khula Enterprises	Khula is part of DTI	Established to enhance the availability of loan and equity capital to small, medium and micro-enterprises	Khula is registered as insurer under the Insurance Amendment Act (49 of 1998). It is governed in terms of the regulations of the Financial Services Board	
Khula Start		To promote access to micro-credit in rural areas, especially women to start/expand any business activity	Loans to groups of 3-10 members of R300-R3,500	
Khula: Technology Transfer Guarantee Fund		To provide loan guarantees for SMMEs for the sole purpose of acquiring manufacturing technology, which could be from South Africa or international	Available to SMMEs with an approval certificate from CSIR for a technology evaluation on the proposed technology to be transferred before applying to a financial institution for a TTGF guarantee	
Khula: Business Loan for RFIs		To expand lending to SMMEs through provision of business loans to RFIs for on-lending	Less experienced RFIs: R1m. to R10m. More experienced RFIs: R2m. to R100m. Negotiable interest rates, repayment terms and security	
Khula: Capacity-Building Support for Retail Financial Intermediaries (RFIs)		Provide capacity-building support to RFIs	Capacity-building support to RFIs in such forms as: strategic planning and accounting systems, debtor systems, training of loan officers, and skills development for BoD	
Khula: Credit Guarantee Scheme		Enables entrepreneurs to access finance from the formal financial sector through credit guarantees to the former, for the establishment, expansion or acquisition of a new or existing business	Individual Guarantees: Security of up to R600,000 over 3 years to bank providing loan to individual Institutional Guarantees: Guarantees to bank to provide loans for on-lending by RFIs Portfolio Guarantees: Indemnity for up to 80% of losses on RFI's loan portfolio	

Industrial financing activities	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
Khula: Equity Fund		Fund joint ventures, expansions, re-capitalisations and buying out of existing shareholders	Equity stake in enterprise of not more than 49%, disinvested within 7 years	
Khula: Seed Loans for Retail Financial Intermediaries (RFIs)		Provide start-up capital to new RFIs whose target market is SMMEs and fund operational expenses over a predetermined period	Interest-free loans of between R50,000 and R20m. Seed loans can be converted to grants once mutually agreed performance criteria are met	
Development Bank of South Africa	DBSA	Subsidised loans to facilitate infrastructure (Water and Sanitation, Solid Waste Management, Transport, Energy, Telecommunications, Health, Education, Eco-Tourism)	Provides financial and/or technical services to leverage private sector infrastructure provision that would not otherwise be realised through commercial banks Finance: Long-term (20 – 25 years) finance in the following forms: Loan finance Equity investments Guarantees Refinancing commitments Technical assistance: Assistance in finance structuring, negotiation and with respect to the tender process	
Land Bank	Land Bank	Facilitate agricultural development through concessional loans	Specific Schemes include: Production credit. Loans for 3-5 years top cover acquisition of inputs Section 34 Loans: Medium term finance (5-8 years) to cover acquisition of livestock, vehicles, tractors etc. Mortgage Loans (25 years): Acquisition of land or property Step-Up loans of R250-R18,000 repayable over 6 months All require adequate security, debt ratio and repayment ability	

Industrial financing activities	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
IDC	IDC	Contributing to economic growth, industrial development and economic empowerment through its financing activities. (Debt, equity or quasi-equity) See www.idc.co.za	Loans at 2-2.5% less than prime Equity or quasi-equity stakes	R 26 bn of debt and equity under management in 2003/2004
IDC: Bridging Finance		Assistance to emerging industrialists with short-term financing needs	Annual turnover must be >R1m., and financing requirement >R500,000	
IDC: Empowerment Finance		Assistance to emerging industrialists wishing to acquire a stake in a formal business	Total financing requirement between R5m and R100m. Minimum cash contribution from the entrepreneur of 10%	
IDC: Entrepreneurial Mining & Jewellery Finance		Assistance to SMMEs in mining and beneficiation activities and jewellery manufacturing	Establish or expand junior mining houses, acquire mining assets by HDIs, undertake mining-related activities such as contract mining, or establish or expand jewellery manufacturing activities	
IDC: Technology Industry Finance		Development and expansion of technology-intensive businesses in IT, telecoms, electronic and electrical industries	New tech ventures with proven technology. Minimum financing of R1m. (loans, equity or quasi-equity)	
IDC: Tourism Finance		Development and expansion of the tourism industry	Medium term financing (loans, equity, quasi-equity) for new or upgraded tourist facilities	
IDC: Manufacturing Finance		Development and expansion of the manufacturing industry	Medium term financing (loans, equity, quasi-equity), with minimum financing requirement of R1m.	

Industrial financing activities	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
IDC: Agro Scheme		To establish farming infrastructure (orchards, dams, canals, irrigation systems etc.)	Medium-term financing (loans, equity, quasi-equity), with minimum financing requirement of R1m. Orchards covered are citrus, deciduous and sub-tropical, and at least 10 new jobs at a capital cost per job of R100 000 or less need to be created to qualify	
IDC: Trade Finance System		To assist local importers and exporters of capital goods	Importers of capital goods and services are provided access to credit and guarantee facilities (such as Deferment of Payment Scheme and Duty Drawback Scheme)	
IDC: Venture capital scheme		To stimulate the development of new products with sound growth potential	A financing package is available, which can include a stake-holding by the IDC (equity or quasi-equity)	
IDC: Entrepreneurial finance scheme		The purpose is to assist new entrepreneurs or historically disadvantaged individuals (HDIs) to gain access to mainstream economic activities	Manufacturing business usually requires owner funding of at least 33% to 40% of total funding to ensure long-term viability. The scheme provides for a reduced contribution, with the IDC providing a larger than normal contribution of the project funding	
IDC: Takeover and acquisition scheme		To assist HDIs in acquiring a significant stake in an industrial concern	Maximum of R100m. per project	
IDC: Consortium finance scheme		Aimed at assisting empowerment groups to increase their equity base		
IDC: Wholesale finance scheme		Enhance wholesale funding to intermediaries	This scheme is available to companies or franchises for on-lending to emerging entrepreneurs. It has to involve a minimum of ten projects (at least 60% HDI) and a minimum financing requirement of R1m.	
IDC: Cleaner production scheme		Promote investment in cleaner technologies	This scheme provides finance for acquisition of fixed assets to control/abate pollution, protect environment, safeguard exports (at normal interest rates)	

Industrial financing activities	Implementing agency	Objectives	Details	Budget cost/take-up/other issues
IDC: Midi projects initiative		The purpose is to stimulate the establishment of new, internationally competitive medium-sized industrial manufacturing projects	This is done through financing and knowledge-based inputs with respect to establishment of viable industrial projects with funding needs between R10m. and R500m. that are competitive internationally	
IDC: Standard Leased Factory Scheme		To increase industrialists' capital, cash flow and borrowing power	IDC makes general purpose factory buildings available for lease	
Export Credit and Foreign Investment Reinsurance +Scheme	CGIC	Facilitate and encourage South African export trade by underwriting bank loans and investment outside the country in order to enable foreign buyers to purchase capital goods and services from the Republic. To achieve this objective, the corporation evaluates export credit and foreign investment risks and provides export credit and foreign investment insurance cover on behalf of government (Reinsurance by DTI)	Offered in terms of Export Credit and Foreign Investment Reinsurance Act. All facilities are available through Credit Guarantee Insurance Corporation of Africa Limited (CHIC). Where applicable, facilities are reinsured with the DTI. Five different facilities are available: 1. SMME Export Finance Scheme: Loan between R50,000 and R1m. Premium rates of 0.75% to 3% depending on loan period and risk. SMME defined as total assets <R5m. 2. Short-term finance: (Pre-shipment cover; post shipment cover; Consignment stock cover) 3. Medium/Long-Term Insurance: Insurance of repayment risks over 2-10 years 4. Export Finance for Capital Goods and Projects: Minimum purchase of R100,000. Loan and ForEx cover provided 5. Foreign Investment Guarantees: Insures SA investors in foreign countries against political risks. Minimum investment R100,000	Payments to CGIC of R195m. in 2002/3
Domestic Credit Insurance	CGIC	Facilitate exports	Protection against non-payment of debts incurred by debtors based in South Africa and the CMA. Cover against non-payment of debts	Included in the above figure

Sources: www.thedti.gov.za; DPRU (2001); www.idc.co.za

Annex 3: Application to South Africa of the User's Guide to the Dunn-Pellechio METR Model: 2004

Parameter	SA Benchmark
Physical Investment. User specifies the composition of the capital investment by designating percentages (which should add to 100%) for each of four categories: Land, Building, Machinery and Equipment, and Vehicles	Initially set at Land (20%), Building (20%), Machinery (50%) and Vehicles (10%)
User has the option to specify whether the capital stock is maintained through re-investment each year to replace economic wear and tear. This is done by entering '1' for the parameter 'Replace Original Investment' in cell C12. This is the default option. (The rate of depreciation is specified separately in the block starting at cell B40)	Initially set as capital stock maintained
Operation. The user must provide the target 'Real Before Tax Rate of Return' and the operating period for the investment. The Model assumes that the project is shut down and sold at the end of the operating period, generating a capital gain	Estimate via CAPM of (real) 16%. (9.27%35 + β*6.7%36 = 16%, assuming β of 1) Nominal is therefore (1.16/1.072-1) = 8.2%
Maximum operating period is 30 years	Set at 10 years. The model is very sensitive to this parameter
The share of annual profits retained by the firm after expenses and taxes is entered as the parameter 'Ret. Ear. % of after tax'. The default value is 0%	Set at 20% because: (a) model simulates a start-up company, likely to use REs as capital; and (b) helps capture the effect of Secondary Tax on Companies (STC) - (Likely to be zero in for private limited companies)
Financing. If the project is financed entirely by equity then the user sets the 'Debt' parameter to 0%; otherwise enter the appropriate share of debt financing. If debt is used, then it is necessary to enter the 'Loan Term' and 'Interest rate on Debt' (nominal). The default loan term is the operating period for the project	Initially set at 28% debt, 72% equity. Average PLC debt/equity ratio in SA is 40%. (60% for SMMEs)[37]
The cell 'Constant D/E?' is used to specify whether the Debt to Equity ratio is to be held constant through the duration of the project. If the parameter is 0, then the stock of debt drops each year. Setting this to 1 (the default option) implies that the investor borrows each year to keep the debt-equity ratio constant. The 'Years Interest Only' parameter allows the user to specify a grace period in which there is no repayment of principal. The default value is 0	Loan term 10 years to match project life

[35] Risk Free Return on a 10 year GSA Bond.
[36] Equity Risk Premium of 6.7% taken from Dimson, et al. (2003).
[37] Source: RBSA, *Quarterly Bulletin* and advice from a corporate law firm in South Africa.

Parameter	SA Benchmark
Financing (cont.). The 'Amount Borrowed' is computed automatically from the investment amount and the percentage of Debt. This cell should not be changed. The 'Loan Payment' parameter is also determined automatically based on constant payments (interest and principal) for the specified loan term and interest rate.	Initially set at 1 = constant debt/equity ratio
The default value for the 'Interest Rate on Debt' is set equal to the target before-tax rate of return for the project. This specification keeps the before-tax rate of return constant for any given debt ratio. But it is an unrealistic assumption, so the user may wish to enter a different interest rate. In this case the realised rate of return before tax may differ from the target rate in the presence of debt or retained earnings. Since the numerator and denominator for the METR calculation are equally affected, the METR result is unchanged.	Initially set at zero: no years of interest, only payments Interest rate set at 12% = current average medium / long-term interest rate in the commercial market
The model assumes a constant rate of inflation rate throughout the project life. This is entered as the parameter 'Inflation Rate'	7.2% (= producer price inflation between 1996 and 2003)
Taxes on Income. The income-tax rate is the statutory rate. In case of a progressive tax rate, the user should enter the rate that is appropriate for the case under investigation. For large taxpayers, using the maximum rate is appropriate. The cells 'Surtax Rate' and 'Surtax Years' allow the user to specify a surtax as a percentage of the income tax, applicable for specified years from the start of the project. If the tax system has a minimum tax as a percentage of revenue or assets, then the user enters the pertinent tax rate in the cell so labelled. The default values are 0%, i.e. no minimum tax	30% CIT Rate No surtax No minimum tax
Deductions. These cells indicate whether the tax system allows deductions for wages, materials and depreciation (yes=1, no=0). There is also an option for indicating whether and to what extent depreciation is indexed. If so, the default value for the rate of indexation is the inflation rate	Wages, materials and depreciation deductions are allowed No indexation
Debt. In this block the user can allow for the deduction of interest paid, and for interest to be indexed if allowed in the tax code. If indexation is allowed, the default value is the inflation rate	Interest is deductible, but there is no indexing in the SA tax code
Capital Gains. In this block the user specifies the Capital Gains Tax (CGT) rate as applied at the company level. The model allows four methods to calculate Capital Gains in the cell 'Cap Gain Option'. The usual value is '3.' This calculates the Capital Gain as Sale Price less the adjusted basis, which is the original cost of the assets less depreciation allowances already taken. The adjusted basis is sometimes called the Written Down Value or Book Value of the Assets. The model also allows the user to indicate whether capital gains are indexed, and if so by how much. Another important parameter is 'Capital Loss Offset.' If this is set to '1' the tax system allows Capital Losses to be set off against income from other sources. The parameter should be set to '0' if capital losses are ring-fenced	CGT Effective rate for companies is 15% (30% of an eligible 50%) Capital Gains Option 3 applies in SA No indexing on Capital Gains CGT losses are ring-fenced (Set at 0)

Parameter	SA Benchmark
Losses and Unused Credits. The Model allows the user to specify the treatment of tax losses. If the parameter Full loss offset is set to '1' then the firm obtains full benefit from losses in the current period by applying using them to offset income from other activities. This may be the case when the project is a part of an enterprise group with other taxable income. In this case the offset automatically overrides any carry-forward provision	SA tax code allows full loss offset for multiple-activity enterprises
If the project is isolated and the firm is allowed to carry over losses from one period to offset future taxable income, then the 'Carry-Over Losses' parameter is set to '1' and the parameter 'Full Loss Offset' is set to '0'. If only a certain percentage of the tax loss can be carried forward, the user enters this in the cell 'Shr Eligible for COL'. If unused losses are indexed when carried forward the parameter 'Index COL' is set to '1.' The default value for the 'Rate of Indexation' is the inflation rate	Corporations are allowed to carry over losses inter-temporally Initially set at Carry Over Losses = 1, Full Loss Offset = 0
'Eligible Years' is the number of years that the facility of carrying forward losses is allowed. If this is a permanent feature of the tax system, set this parameter to the maximum value of '30'. 'Forward Years' is the number of years that a particular loss can be carried forward. If this parameter is set to '5', then unused losses can be carried forward for no more than 5 years. If losses can be carried forward indefinitely, enter the maximum number of 30 here. 'Exempt Years' is applicable in the case of Tax Holidays and indicates the number of years when losses can be saved and carried forward once the holiday is completed. After the tax holiday, the losses can be carried forward in the normal manner. This cell is set equal to '0' if losses can are carried forward during a tax holiday in the usual manner. Similar specifications apply to the carry forward of investment tax credits. Also, if credits are redeemable for cash payments from the government, the 'Credits Redeemable' parameter is set to '1'	10 years No tax holidays
Dividends. The dividend specification has several options. The user can allow for deduction of dividend payments by setting 'Deduct Dividends' equal to '1'. If there is a final tax on dividend payments, the rate goes in 'Divd Tax/Cred (+/-).' If the system provides for credits on dividends (to avoid double tax), the percentage is entered here with a negative sign. If tax is withheld by the company, but final tax is paid by the investor as personal income tax, then this parameter should remain at '0%'	Benchmark = 1 STC on dividends on 12.5%
If the tax system allows for credits in the hands of the shareholders of corporate tax paid by the company, then the share of taxes paid by the company eligible for credit is entered in the parameter 'Corp Inc Tax Credit'. On the other hand, if the tax system makes the firm liable for paying corporate income tax as well as a withholding tax on dividends that is credited to the tax liability of the shareholder, the appropriate share of the corporate income tax should be entered in the parameter 'Corp Inc Tax Offset'	No such provision exists in the SA tax code

Parameter	SA Benchmark
Dividends (cont.). This credits the shareholder for taxes paid by the company, up to the amount of withholding tax. In this case the user must also specify the limit of the offset by setting the 'Limit (% of Divd)' parameter which is usually equal to the withholding tax rate. If the corporate tax paid exceeds this limit, the firm can carry the excess forward for future offsets. (Yes, this module can be complicated)	
Retained Earnings. Some tax systems allow for a deduction of retained earnings if they are compulsorily invested in a fund. Withdrawals are then added back to taxable income. If this is the case, 'Deduct RE' is set equal to '1'. If retained earnings are taxed, the tax rate is entered for the 'RE Tax/Cred (+/-)' parameter. The model allows for retained earnings to earn interest. The interest rate is entered for the parameter 'Interest Rate on RE'. If the interest earned on retained earnings is taxed and/or indexed, the appropriate values can also be entered in this section	This is not allowed in the SA tax code REs earn interest at 7.2%. Interest is taxed, but not indexed
Import Taxes. In this block the user can specify the share of each asset that is imported, and the applicable import duty rate. If imported capital goods are exempt for a number of years, the 'Exemption Rate' and 'Exemption Period' can be specified for each asset	Majority (90%) of building materials are sourced locally. Imported materials have a duty of 0-30%. Average of 15% For M&E, percentage imported will vary by sector. Benchmark 50% to start. Rate used is 10% (average import tariff) Vehicles. Percentage of vehicles imported will vary by sector. Benchmark 50% to start. Duty ranges from 0 to 36%. Rate used initially is thus 18%. Excise duty of 20%, brings total to 38% (VAT at 14% charged on all imports, but ignored here as most businesses can claim VAT back as an input tax)
Other Taxes. The user can specify several other taxes that may be part of the system. For an excess profits tax, the 'normal' rate of profit can be specified as a percentage of assets. In the case of a Wealth Tax, the user can specify if this payment is deductible from the taxable income	None
Treatment of Investors. This section allows the user to analyse the combined effect of the Corporate and Personal Income Tax (PIT). The user can specify the tax on dividends and capital gains in the hands of the investor. One can also indicate whether the capital gains base is indexed, and whether capital losses can be used to offset other personal tax liabilities	Set at highest marginal PIT rate: 40% Dividends are fully deductible for individuals and mutual funds Individual pays CGT at a maximum effective rate of 10.5% (42% on an eligible 25% of CG) CG losses can only be used to offset future capital gains taxes – not other PIT. (Thus, set at 0)
Depreciation. Here the user specifies the rates of Tax Depreciation and Economic Depreciation. The values for the economic depreciation are initially set at standardised values of 3.6%, 12.25% and 30% for Buildings, Machinery & Equipment and Vehicles respectively. The Tax Depreciation rates are entered under the parameter 'Depr Rate'	Benchmark economic depreciation rates initially set at those used by the South African Reserve Bank: M&E (8 years: 12.5%), Buildings (50 years: 2%), and Vehicles (8 years: 12.5%). Land does not depreciate

Parameter	SA Benchmark
Depreciation (cont.). The parameter 'Depr Meth?' is set to '0' for straight line and '1' for declining balance. The 'Depr Rate' and 'Depr Life' are set to appropriate values for each asset category. With declining balance depreciation, set the 'Depr Life' to the maximum number i.e. 30 years. If the tax system allows for a switch-over from declining balance to a straight line depreciation after a certain number of years, 'Depr Meth' is set to '1' and the appropriate rate is entered for 'Depr Rate', just as in the case of declining balance method. But in this case the 'Depr Life' is set to the finite depreciable life instead of '30' and the 'Switchover' parameter is set equal to '1'. The model automatically calculates the time for switch-over to straight-line depreciation, i.e. when it becomes beneficial to the firm If the tax system provides for an initial allowance in the first year of the asset's depreciable life, the relevant percentages are entered under 'Initial Allow' parameter. If the initial allowance is a permanent feature of the tax system, i.e. if replacement investments as well as original investments are eligible for the allowance, the 'Initial Yr' and 'Final Yr' are set to '0' and '30'. If this is a temporary feature, the relevant years of project life are entered. Providing an initial allowance can also affect how the basis is determined to calculate the annual depreciation allowance. If the initial allowance reduces the basis for calculating depreciation, set the 'Adj Base?' to '1'. In this case the initial allowance serves as a method for accelerated depreciation. If the basis is not adjusted -- implying that the initial allowance is granted in addition to full depreciation – set the 'Adj Base?' parameter to '0'	Benchmark depreciation rates for accounting purposes initially defined by guidelines in the SA Tax Code M&E (6 years: 16.67%) Buildings (20 years for manufacturing: 5%) Vehicles (4 years: 25%) Land does not depreciate The difference between these two rates of depreciation creates an automatic tax incentive Straight-line depreciation is used by all SA companies This is included under SIP program and the effect is modelled via a specific tax incentive

Annex 4: Bell Equipment Ltd.

Bell Equipment Ltd. was established in 1954 in Natal, South Africa. The company makes, distributes and supports a wide range of heavy-duty vehicles and equipment for the mining, construction and sugar cane and forestry sectors. Bell employs 2,176 people directly in two plants, one in Richards Bay (KwaZulu-Natal Province) and the other in Germany. The Richards Bay plant is one of the largest employers in the KwaZulu-Natal Province. The years 1997-9 were especially difficult for the company which suffered contagion, along with much of the South African economy, from the East Asian economic crisis. A joint venture with the John Deere Construction and Forestry Company in 1999 (which now holds 32% of the equity) helped re-capitalise the company, which has emerged successfully from that difficult period.

Bell Equipment has a highly capital-intensive balance sheet. A majority of its physical components are sourced from Europe where Bell is not able to obtain good financing terms. Long manufacturing lead times mean that inventory stocks are high, and the net result is working capital at 83% of total assets in 2003. The return on net assets was around 20% over the period 1999-2003.

In 2003, Bell Equipment had R1.3 billion of assets and generated sales of R2.78 billion, which resulted in a profit of R36m. after taxation. The company sells locally and internationally, with 52% of sales revenue coming from exports. It has benefited substantially from South African export incentives over the years, initially under the General Export Incentive Scheme (GEIS, now defunct) and currently under the MIDP. Since 1995, GEIS or MIDP 'revenues' have accounted for an average 40% of income before tax (see Table A1).

Historically, the company has not made investment decisions based on whether or not it has access to incentive schemes. The most recent significant investment it made was in 2003, with the establishment of a new plant at Eisenach, 10 km inside former East Germany. This is geared to produce up to 650 units a year and will be the focal point from which Bell supplies its markets in the northern hemisphere, in Europe and North America (though the exact mix of production in each location will depend on the strength of the Rand).

The strategic reasoning behind the decision to invest abroad rather than to expand production in South Africa was based upon global market positioning and exchange-rate risk, rather than on government incentives. Having a manufacturing facility near the European market frees up a considerable amount of working capital by avoiding the necessity of having to import major components from Europe to South Africa, fit these to production at the Richards Bay factory and then ship the completed products back to Europe. It also helps reduce transportation costs. Finally, the company acknowledges that the 'branding' opportunity of being able to use 'made in Germany' provides for greater price margins.

The primary drivers of investment decisions for this firm are thus not tax incentives but currency values, currency volatility, proximity to markets and branding. But Bell Equipment argues strongly that its ability to continue to benefit from the MIDP is very important for its continued success in South Africa.

Table A1 presents basic financial models for Bell Equipment with and without the export subsidies the company has received since 1999. These show that the company would still have generated positive net income *without* export incentives every year that it had incentives, although its growth would have been substantially slower, with an impact on exports and

employment. The effect on cash flow is more substantial. Taking 1999 as a base year,[38] average cash flow would have been 110% down without export incentives. The company faces fierce competition from Caterpillar and Volvo and is a price taker in the market. It has been unable to pass on to consumers the price effects of the Rand's revaluation since early 2003 and would not be able to pass on price increases associated with the removal of export subsidies.

It is difficult to assess whether the MIDP programme is changing the invest/not invest decisions for Bell. It would appear that the company would have survived without investment incentives, but would not have grown or invested as much as it has. The MIDP effectively helps to counter some of the more fundamental threats to the investment environment within South Africa – an open trade regime, distance from primary suppliers and major markets, and a volatile currency. Bell Equipment also makes the point that investment incentives are available to its competitors.

Table A1 Bell Equipment financial statements: with and without MIDP and GEIS Incentives

WITH SUBSIDIES					
R '000	**FY Dec 1999**	**FY Dec 2000**	**FY Dec 2001**	**FY Dec 2002**	**FY Dec 2003**
Revenue	1,163,526	1,438,507	1,658,096	2,386,356	2,778,279
(From GEIS or MIDP)	29,465	35,900	23,912	41,236	30,267
COGS	840,670	1,032,289	1,228,425	1,768,707	2,173,237
Gross profit	322,856	406,218	429,671	617,649	605,042
SG&A	233,948	288,289	296,696	386,423	452,333
Operating profit before financing (EBIT)	88,908	117,929	135,204	231,226	152,709
Adjustments for depreciation	8,321	9,411	13,706	19,904	24,162
Increase in warranty provision	-	25,407	-2,099	15,486	38,736
Loss on disposal of PP&E	-2,717	96	-425	-320	54
Forex exchange differences for subsidiaries	3,250	20,114	74,840	-54,888	-28,424
Operating profit before working capital changes	97,762	172,957	221,226	211,408	187,237
Change in inventory	26,620	-180,272	-122,200	-208,156	-11,797
Change in receivables	-46,317	-71,971	-90,783	43,773	55,643
Change in trade and other receivables	16,138	87,383	90,773	133,466	-139,202
Total cash generated from operations	94,203	8,097	99,016	180,491	91,881
Net finance costs paid	-32,477	-14,079	-3,530	-57,718	-80,492
Taxation paid	-1,358	-4,955	-41,268	-64,402	-62,599
Net cash flow from operating	60,368	-10,937	54,218	58,371	-51,210
Net cash flow from investing	-46,724	-28,091	-58,015	-45,155	-40,975
Free cash flow	13,644	-39,028	-3,797	13,216	-92,185

[38] This is a suitable base year because Bell Equipment was recapitalised this year following the take-up of a sizeable minority equity stake by John Deere & Co.

WITHOUT SUBSIDIES					
R '000	**FY Dec 1999**	**FY Dec 2000**	**FY Dec 2001**	**FY Dec 2002**	**FY Dec 2003**
Revenue	1,163,526	1,438,507	1,658,096	2,386,356	2,778,279
(From GEIS or MIDP)	29,465	35,900	23,912	41,236	30,267
COGS	840,670	1,032,289	1,228,425	1,768,707	2,173,237
Gross profit	322,856	406,218	429,671	617,649	605,042
SG&A	233,948	288,289	296,696	386,423	452,333
Operating profit before financing (EBIT)	59,443	82,029	111,292	189,990	122,442
Adjustments for depreciation	8,321	9,411	13,706	19,904	24,162
Increase in warranty provision	-	25,407	-2,099	15,486	38,736
Loss on disposal of PP&E	-2,717	96	-425	-320	54
Forex exchange differences for subsidiaries	3,250	20,114	74,840	-54,888	-28,424
Operating profit before working capital changes	68,297	137,057	197,314	170,172	156,970
Change in inventory	26,620	-180,272	-122,200	-208,156	-11,797
Change in receivables	-46,317	-71,971	-90,783	43,773	55,643
Change in trade and other receivables	16,138	87,383	90,773	133,466	-139,202
Total cash generated from operations	64,738	-27,803	75,104	139,255	61,614
Net finance costs paid	-32,477	-14,079	-3,530	-57,718	-80,492
Taxation paid	-1,358	-4,955	-41,268	-64,402	-62,599
Net cash flow from operating	30,903	-46,837	30,306	17,135	-81,477
Net cash flow from investing	-46,724	-28,091	-58,015	-45,155	-40,975
Free cash flow	-15,821	-74,928	-27,709	-28,020	-122,452

Source: Bell Equipment <www.bell.co.za>; information provide by Bell Manufacturing; interviews with Bell Equipment staff.