



ZAMBIA

SECTORAL STUDY OF THE EFFECTIVE TAX BURDEN

December 2004

**Foreign Investment Advisory Service
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International Finance Corporation
and
The World Bank**



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On behalf of the Government of Zambia, the Ministry of Finance, in conjunction with the Zambia Revenue Authority, requested that the Foreign Investment Advisory Service (FIAS) conduct a study of the effective tax burden on five key sectors in the Zambian economy.

The purpose of the study is to determine whether the current tax/incentive scheme in each of the designated sectors is conducive to growth goals and whether these sectors are competitive domestically and internationally. This study provides the government with information it seeks through use of marginal effective tax rate calculations to be carried out in each of the identified sectors and through qualitative analysis about the appropriateness of the tax /incentive scheme done by sector experts. It also offers cross-country analysis from which international competitiveness can be assessed. A third component built into this study is a capacity building exercise, with the group of international consultants tasked to work closely with a Ministry of Finance and Zambia Revenue Authority-identified counterpart group to transfer the knowledge and methodology underlying such an analysis.

This project was co-financed by the Swedish International Development Agency.

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SUMMARY OF ACRONYMS

DFID	Department for International Development
GOZ	Government of Zambia
GDP	Gross Domestic Product
METR	Marginal Effective Tax Rate
VAT	Value Added Tax
ZNFU	Zambia National Farmers' Union
ZRA	Zambia Revenue Authority

EXECUTIVE SUMMARY

i. In June, 2004, the Government of Zambia (GOZ) launched a comprehensive private sector development agenda during a workshop involving both public and private sector stakeholders. This forum put the GOZ on public record that it intends to implement its private sector development strategy, funded by donors (the World Bank and DFID) over the next three years. A key aspect of the program was the identification of five sectors as critical sources of growth.¹ In addition, the government stated its determination to remove barriers to investment posed by its policies, procedures, and regulations. A full study of the administrative/procedural obstacles to investment was presented to the government by FIAS in May, 2004. One area not studied in that report is whether the tax and incentive structure in the five key sectors is indeed growth-enabling. For this reason, the GOZ asked FIAS to study of the effective tax burdens on the selected sectors as an input into the evolving set of policies in support of the government's private sector development goals.

A. Background

1. Growth

ii. In the past four decades since independence, economic growth has averaged 1.4% annually. Most of the poor growth results can be attributed to a combination of past government policy not being conducive to private sector growth, including the creation of a vast array of administrative barriers, and the resultant low levels of investment.² In particular, this outcome reflects the decline in the mining sector, which has not been offset by growth in other sectors of the economy. Over the period, per capita GDP has actually declined by on average 1.6% per annum. In 2002, per capita income in Zambia was around three-quarters of what it had been at independence.

2. Tax revenue

iii. From a macroeconomic perspective, tax policy in Zambia has been effective at raising revenues, as measured by tax/GDP ratios. The 18 percent tax/GDP ratio, which has been maintained over the past 4 years, is among the highest rates in Africa.

iv. Total central government revenues in 2003 amounted to 4,440,000 M Kwacha (approximately US\$888M). 80% of which was collected through taxation, with the largest sources being personal income tax at 31% of revenues and VAT (including import VAT) at 23% (see chart 1 below).

¹ The sectors identified include agriculture, tourism, manufacturing, mining, and the finance.

² For a comprehensive analysis of administrative barriers in Zambia, please refer to the 2004 FIAS study.

B. Main findings of the report

v. The main findings of the quantitative and qualitative analysis of the tax/incentive schemes suggest that:

General conclusions:

The overall tax system and incentive scheme, currently stipulated by the income tax code is broadly appropriate and conducive to growth of the five sectors studied; thus, the tax system issues identified, though important, are in general second-order problems [section II], Therefore, the study concludes that main barriers to growth in these five sectors are can be attributed to administrative and procedural impediments identified in the 2004 FIAS study [section II], as well as constraints on raising financing, weak infrastructure, and sector specific issues (see below). Having said that, however, there are issues mainly with the application of the tax regime which merit review and perhaps policy reform (see below). Compared to other countries in the region, Zambia's tax and incentive system is broadly equivalent both in rates and application, suggesting that from the tax perspective, Zambia is competitive in the region [section III].

Specific conclusions:

On a sector-by sector level, there are variations in effective tax burdens, suggesting that there is room for improvement but none of these sectors carries an excessive tax burden; the financial sector appears to carry the heaviest effective tax burden and mining the lowest [section II],

The effective tax burden on small businesses appears to be relatively high, as these firms are not part of the VAT registrations system and thus cannot reclaim VAT paid on inputs [section II. 6.]. At the same time, these firms operating outside the tax net face disadvantages not associated with tax liabilities, including the loss of "legitimacy" as a firm which has implications for obtaining finance and business (especially obtaining government contracts). Thus, although compliance costs incurred by being included in the tax net might be high for many small businesses, it may be worth it in the long run for some. Currently, small firms do not have the option to opt into the VAT net.

The mission found that general VAT system functions effectively, though there are some second order deviations from international best practice and could usefully be addressed in order to make the system more transparent and equitable. In some cases it is unevenly applied within and across sectors which could be a deterrent to investment.

vi. The results of this study provides input into the government's tax policy discussions; it will allow the authorities to assess the relative tax and incentive packages in each of the key sectors of the economy and to determine the effectiveness of each package to investment and private sector development in the country as a whole.

C. Sector analysis

1. Agriculture

vii. **METR calculations in agriculture are around 10% (Table 7), which is low compared to other sectors.** Slow development in agriculture is only marginally

attributable to taxes with the main problem being increased costs of capital equipment due to un-reclaimed VAT. Instead, the primary current constraints to expansion derive from high interest rates or lack of access to credit, risks in production due to policy induced instability and market fluctuations, management constraints due to skills shortage, barriers to functional efficiency arising from unreliable utilities and services and the inefficiencies inherent in dealing with unnecessarily bureaucratic government institutions. At the same time, the following lists “second-order” issues which if addressed could improve growth and profitability of agricultural firms.

viii. **Corporate income tax rate application changes frequently and retroactively.** Ginning companies invested in Zambia under an investment code that granted them 15% concessionary company tax rates in line with farming companies and rural enterprises. The classification has been reversed so that they are now liable to 35% tax on profits. The cotton companies gain access to seed-cotton by managing the inputs and extension services in a synergistic arrangement with their out-growers, thereby creating a conduit for the flow of cash to the rural areas. Reclassification has changed the basis of their business performance.

ix. **VAT appears to be applied unequally across products as well as across the sector, both in terms of rates and status (exempt versus zero rating).** For example, although cotton is standard rated for VAT, the definition does not cover the major products of the industry. Cotton lint is exempt because the ownership of the seed-cotton has been transferred from the farmer to the ginner, which is classified as a manufacturer and not an agricultural producer. The ginning companies therefore pay standard rate VAT on transport, fuel, energy and spares but not on the raw seed-cotton bought from the farmers.

x. **VAT exempt status hurts farmers because their effective burden rises sharply without the ability to reclaim VAT on inputs.** The Zambia National Farmers’ Union (ZNFU) calculates that increases in costs of production of wheat as a result of the exemption of VAT amount to K617,380 per ha and thereby reduce profit margins from 11% to 4% for an established farmer. Another calculation by an accountant firm engaged by ZNFU shows that a profit of K577,300 per ha is converted to a loss of K49,500 by the changes. Given the risks inherent in the production of an irrigated agricultural crop in the Zambian economic context, such a precarious margin is not attractive to new investment, and does not provide sufficient inducement for established growers to expand.

xi. **The turnover tax burden appears to be heavy on small agricultural producers.** The 3% level turnover tax applied to agriculture for small producers and processors assumes a profit rate of 20% if it is to be equivalent to 15% tax on income. The threshold applies to operations that are much larger than small-scale farmers (\$40,000 annual turnover). In Tanzania, for example, a turnover tax of 1.2% is applied to enterprises with a much lower threshold of 3 million Tanzanian shillings (\$2,850) per annum.

2. Tourism

xii. **The METR calculation on assets in tourism are calculated to be 0%-10 percent.** The sector benefits from highly accelerated (2-year) deductions for machinery and deductions that are moderately accelerated, given the 17 percent inflation rate, for industrial buildings (20-year), coupled with an effective 20 percent first-year allowance.

xiii. Although the tax/incentive scheme in Zambia is broadly pro-growth, tax policies and rates are not being evenly and consistently applied in the tourism sector. Some sub-sectors of the tourism industry enjoy favorable benefits such as those attracting international package tourists (where the VAT is zero-rated). In addition to the inconsistencies in the application of taxes, in the past, certain taxpayers have secured preferential treatment in respect of large-scale investments, through direct negotiations with government.

xiv. **VAT is inconsistently applied in the tourism sector in Zambia which is contrary to sound taxation policies and principles and results in increased administration costs associated with managing multiple rates.** Variable rates in the tourism sector also encourage corruption at border posts and the manipulation of the system in the form of declaration of overseas business bookings as packages, and the setting up of fictitious booking offices in international source markets.

xv. **In addition to having a negative effect on the competitiveness of the Zambian tourism sector, the high cumulative duties and excise costs associated with particular items are likely to result in a reduction in revenue to the ZRA.** High duties and excise costs encourages cross border smuggling and selling on the black market which is apparently evident in the informal markets in Lusaka where a bottle of wine can apparently be obtained for a third of the price of comparable supermarket products. In addition high excise costs result in a drop in the sales of these items, especially with regards to wines (wines in lodges in Zambia cost up to 3 times more than in lodges in South Africa).

xvi. **Although Zambia currently offers three incentives applicable to the tourism sector, the extent and positive effect on the growth of the sector is limited.** Incentives in Zambia are generally focused on the entire tourism sector and concentrate on providing accelerated rates of depreciation on buildings and equipment which results in a reduction in the taxable income of operators. Considering that the industry suffers from low profit margins (which are further reduced because of the difficult operating conditions in Zambia) the net effect of this type of incentive is negligible.

xvii. **The current tax burden on the industry is not one of the major factors hampering the growth and development of the sector.** However, it does have an impact and adjustments to taxation policy can contribute to the growth of the sector, at least, in the short-term. **There are more serious issues that severely hamper growth in the tourism sector, such as the cost of capital, lack of infrastructure and, as mentioned previously, an excessively bureaucratic environment.** As a priority,

government should focus its efforts on resolving these issues. Significant reductions in taxation are not recommended as they will negatively influence the government's ability to resolve these issues.

3. Manufacturing

xviii. **The METR on assets used in manufacturing are calculated to be 0%-10 percent** As in tourism, manufacturing benefits from highly accelerated (2-year) deductions for machinery and deductions that are moderately accelerated, given the 17 percent inflation rate, for industrial buildings (20-year), coupled with an effective 20 percent first-year allowance.

xix. **The rates of corporation tax (35%) and VAT (17.5%) in Zambia are neither excessively high (although they are probably on the high side) nor are they out of line with other countries in the region.**

xx. **The main issues that arose from consultation with the manufacturing sector related to issues of tax administration.** These arose in relation to corporation tax and VAT and are not specific to the manufacturing sector – they also relate to other sectors.

4. Financial Sector

xxi. **The METR of the financial services sector confirms that its tax burden is relatively high, ranging from 25-35 percent.** This result obtains primarily because the financial services sector faces a 45 percent tax rate, and takes less accelerated deductions for machinery than the manufacturing, tourism and agricultural sectors, although it does benefit from the accelerated depreciation and investment allowances for industrial buildings.³ In addition, since the financial services sector is largely exempt from VAT, it suffers significant irrecoverable VAT on machinery, so that the indirect tax on machinery purchases is relatively high (20 percent).

xxii. **The tax burden on the financial sector is relatively high compared with other countries in the region.** The top rate of tax of 45% is high by comparison, and applies at a relatively low threshold – about US \$ 50,000. The recently levied 15% tax on interest on government bonds adds to the burden. The rationale would appear to be a desire to tax what are seen as above-normal profits, particularly when most recent bank lending was regarded as risk free as it was financing the domestic borrowing requirements of the government. The high interest rate environment, created by this demand to finance the public sector borrowing requirement, has effectively squeezed the private sector out of the domestic Kwacha market.

³ Note that the METR on the financial services sector is understated to the extent that its buildings are classified as commercial rather than industrial, but overstated to the extent that some firms are subject to a 35 percent tax rate.

xxiii. VAT exemption status of many firms especially in the agricultural sector has hurt the leasing market, which suffers because VAT on leased equipment cannot be reclaimed by these firms. **Internationally, access to credit through finance leasing has been shown to be an extremely important source of finance for investment in plant and equipment, particularly for small businesses. Effectively, the cost of leasing for VAT exempt firms is higher because that they cannot lease equipment and claim back the VAT on payable on lease rentals as an input cost.**

5. Mining

xxiv. A review of this sector suggests that the tax code is generally supportive of the mining sector. In addition, the rates of taxation and the tax incentives are not generally out of line with competitor countries in the region.

xxv. **Because of the relatively low tax rates and significant incentives, the mining sector enjoys an METR of around 0% (Table 1, Appendix 1).** In particular, with expensing of many equipment purchases and moderately accelerated depreciation deductions for the rest, the METR on machinery reflects the largest subsidy (-18.3 percent) received in any sector for any asset. Investment in buildings is untaxed, although inventories are taxed relatively highly. The net result, given that mining is relatively machinery intensive, is a sectoral METR in the neighborhood of zero. Of course, the overall sectoral METR depends on the tax treatment of the acquisition of land/reserves, which varies from mine to mine and is not considered in this analysis.

6. Small Businesses

xxvi. **The effective tax burden on small business is in the 20-25 percent range, unless the business is machinery intensive, in which case it would be somewhat higher.** Small businesses subject to the gross receipts tax and exempt from the VAT face a relatively high METR (36.3 percent) on machinery due to the gross receipts tax, which is based on total sales rather than a measure of income and is thus relatively burdensome despite its low rate, and the indirect tax due to a lack of recovery of the VAT (see below).

xxvii. **Small businesses in Zambia see the turnover tax system as an onerous financial burden which does not offer the “legitimacy” of being a registered firm in the tax net.**⁴ In particular, small businesses complain that the level of the VAT registration threshold is too high. Pitched at K200 million (US \$40,000) when per capita income is only K 1.75 million (US \$375), provides a high threshold for firms to enter the formal sector and thus encourages even medium-sized firms to remain outside the tax net and avoid even the 3 percent turnover tax.

xxviii. At the same time, **non-registration for VAT means that producers and traders cannot reclaim VAT incurred on items for processing or onward sale, thereby**

⁴ By being covered by the tax net, a firm has easier access to credit, the possibility of offsetting VAT obligations with reclaim, and legitimacy of being a proper business.

increasing the cost of final production to the consumer. In some cases, VAT recovery could be substantial enough such that the 3% presumptive tax could be operationally higher than if a small business paid VAT; in this event, the effective tax burden could be higher than with a VAT. The high VAT threshold may also have the unintended consequence of locking the small business sector out of the mainstream economy as, it is understood that the public sector and registered traders are unwilling to do business with unregistered traders.

xxix. **A further concern about the threshold and the withdrawal of the option to tax is that it has the effect of “locking” businesses, which are below the threshold, out of the mainstream economy.** This is because registered businesses and (it has been suggested) the government will not do business with them. If this is indeed the case, clearly the Department of Commerce should forcibly explain the shortsightedness of their ways to the government departments involved.

xxx. Finally, **it is difficult for small businesses to have a collective body to represent them, given the diversity of firms and thus interests.** Thus, there is no effective mechanism for small entrepreneurs to voice their tax concerns. Furthermore, the sector is invariably poorly funded and so is often not in a position to formulate policy in specialist areas, such as tax. Accordingly, this report should not be taken as a representation of the views of any of the parties interviewed during the course of this review.

International Comparisons

xxx. **A rough comparison of METRs in Zambia with those in the neighboring countries of South Africa, Malawi, Tanzania and Zimbabwe suggests that METRs in Zambia are generally lower than or roughly similar to those in the comparison countries,** except for investment in inventories in countries with lower rates of inflation and some investments in Zimbabwe. However, METRs in Zimbabwe are relatively low (for assets other than inventories where the FIFO accounting results in taxation of inflationary gains) not because the tax system is more generous than in Zambia (the two systems are roughly comparable) but because the inflation rate is so high in Zimbabwe (over 50 percent) – not an example Zambia would want to emulate. And, METRs on investments in inventories in Zambia would be reduced dramatically if firms were allowed to utilize the LIFO inventory accounting system. Thus, it seems that the tax component of the investment climate in Zambia is not a significant barrier to investment, relative to the tax systems of these neighboring countries.

xxxii. **At the same time, the standard corporate tax rate in Zambia, 35 percent, could be lowered to 30 percent to be in line with other countries in the region.** Given the low contribution of CIT to total tax revenues of around 6 percent, the loss of revenue would be small. In addition, international best practice on CITs is lower rates and a wider base.

Summary of Recommendations

xxxiii. The following is a summary of the recommendations presented in this report, based on international best practice.

General recommendations

- The application of VAT should be made more uniform both within and across sectors to create a level playing field.
- The designation of “exempt” from VAT should be reviewed and replaced with zero-rating.
- Firms should be allowed to use LIFO accounting to reduce the relatively high METRs on inventories.
- To the extent politically possible, every effort should be made to reduce METR differences across industries.
- Small businesses should be given the option to register for VAT.
- The standard corporate income tax rate should be reviewed with a view to lowering the rate to 30 percent to be consistent with other countries in the region.

Sector recommendations

Agriculture

- An effort should be made to apply a uniform VAT policy across the agricultural sector to “level the playing field” within the sector; firms should be allowed to register for VAT even if their turnover is under the threshold.
- Exporters of agricultural produce should enjoy zero-rating VAT status for their export enterprises.
- Harmonize the corporate profit tax across the sector.

Tourism

- Uniform application of the Value Added Tax perhaps at a concessional rate.
- As a first step, a the impact of the VAT reduction in Livingstone should be studied in order to assess whether such a reduction has attracted investment.
- The existing incentives providing to accelerated depreciation should remain.

Manufacturing

- Review and change VAT exemption status to zero rated for pharmaceuticals industry.
- Harmonize the rate of VAT across the sector for clarity, transparency, and fairness,

- Review and perhaps eliminate the five percent excise tax on electricity.

Financial Sector

- Reduce the 45 percent corporate income tax rate on the profits from banking operations as it is around 15 percentage points higher than in neighboring countries and 10 percentage points higher than in the standard rate.

Mining

- The main recommendation is to review the VAT and withholding tax schemes on the procurement of services of foreign firms to bring eliminate the distortion between procurement of domestic from foreign services.

Small Businesses

- Allow small businesses to enter the VAT tax net and thus enter the formal sector.
- VAT penalties are excessive for small businesses and could usefully be reduced.
- High rates of customs and excise taxation should be reduced for small firms.

INTRODUCTION

1. In June, 2004, the Government of Zambia (GOZ) launched an comprehensive private sector development agenda during a workshop involving both public and private sector stakeholders. This forum put the GOZ on public record that it intends to implement its private sector development strategy, funded by donors (the World Bank and DFID) over the next three years. A key aspect of the program was the identification of five sectors as critical sources of growth.⁵ In addition, the government stated its determination to remove barriers to investment posed by its policies, procedures, and regulations. A full study of the administrative/procedural obstacles to investment was presented to the government by FIAS in May, 2004. One area not studied in that report is whether the tax and incentive structure in the five key sectors is indeed growth-enabling. For this reason, the GOZ asked FIAS to conduct a study of the effective tax burdens on the selected sectors as an input into the evolving set of policies in support of the government's private sector development goals.

A. Context of the Study

2. This study of the effective tax burden is a natural follow up to FIAS's work on administrative barriers to investment and private sector development in Zambia, completed in 2004.⁶ The Administrative Barriers work concluded that:

- (a) administrative and regulatory procedures are a significant factor in the overall investment climate, not least because of their cumulative impact. While no single procedure has a "make-or-break" characteristic, together they make the process of establishing and operating a business more onerous than necessary. One-third of survey respondents report that they spend at least 20% of their senior management time dealing with requirements imposed by government regulations, and a further one-third indicate more than 10%. Three-quarters of respondents indicate that they are dissatisfied to some degree with the performance of the bureaucracy. The response rate for these questions was high, a good indication of how widely perceived these problems are.
- (b) Zambia has constructed its legal, administrative and regulatory framework for managing a market economy since the early 1990s. The report concludes that the emphasis has been on building the regulatory system during this period; while this has been broad-based, the process appears to have lacked a strategic focus, resulting in a complex, cumbersome and poorly coordinated system. The GOZ's focus has been largely on

⁵ The sectors identified include agriculture, tourism, manufacturing, mining, and the finance.

⁶ FIAS (2004), *Republic of Zambia: Administrative Barriers to Investment*.

increasing compliance in the formal sector and fine-tuning regulations to deal with loopholes and poor drafting, rather than on rationalizing and streamlining the system as a whole. There has been little systematic reform in the area of administrative procedures since the late 1990s, although, as this report demonstrates, there have been some improvements in specific areas, such as taxes and customs.

3. With this background, the GOZ asked FIAS to investigate the effective tax burden in the key sectors identified as potential growth sectors, as the tax system is one of the pillars of the investment climate. This work fits into the GOZ's strategy of undertaking a targeted review of its policy structure is conducive to private sector growth. In this context, FIAS worked with the government to determine whether the tax/incentive system, including both the policy and application of policy, was growth enabling.

4. The remainder of the report is organized as follows. The first section presents brief background information and data underpinning the study, including growth, FDI, and tax revenue data and analysis. The second section offers a brief introduction of how the quantitative investigation is carried out using marginal effective tax rate analysis, followed by sectoral analysis using both qualitative and quantitative methodology. The third section compares the results in Zambia with its main competitor countries to give a sense of how competitive Zambia's tax/incentive regime is vis-à-vis other southern African countries. Additionally, as requested by the authorities, each sector investigation focuses on the VAT system as it is applied as well as analysis of the effective tax burden faced by small businesses. Each section concludes with key recommendations to improve the tax system in each of the sectors. Attached to the main report is a series of annexes which give more detail into the technical calculation of METRs.

B. Background to the study

1. Growth and performance in the past

5. In the past four decades since independence, the economic growth has only averaged 1.4% annual GDP growth. Most of the poor growth results can be attributed to a combination of past government policy not being conducive to private sector growth, including the creation of a vast array of administrative barriers, and the resultant low levels of investment.⁷ In particular, this outcome reflects the decline in the mining sector, which has not been offset by growth in other sectors of the economy. Over the period, per capita GDP has actually declined by on average 1.6% per annum. In 2002, per capita income in Zambia was around three-quarters of what it had been at independence.

⁷ For a comprehensive analysis of administrative barriers in Zambia, please refer to the 2004 FIAS study.

2. Sectoral contributions to growth

6. The GOZ gave priority to the five sectors chosen because of important contribution to current output and production and for their potential for growth and new investment. The five sectors identified by the GOZ as key to private sector development represent around half of the total sectoral contribution to GDP.⁸

Table 1. Zambia: Sectoral contribution to total GDP, 1998-2003
(in percent of total GDP)

	1998	1999	2000	2001	2002	2003
Agriculture	18.7	21.6	19.9	19.7	20.0	20.8
Mining and quarrying	6.3	3.8	4.1	4.0	3.5	2.8
Manufacturing	11.5	10.8	10.2	9.8	10.4	10.9
Financial institutions and insurance	9.1	9.0	9.8	9.4	9.2	9.1
Tourism	2.2	1.9	2.1	2.4	2.5	2.6
Subtotal	47.8	47.1	46.1	45.3	45.6	46.2

Source: IMF, *Zambia: Selected Issues and Statistical Appendix*, 2004

7. Despite the importance of these sectors, sectoral growth rates have been mixed, due to external factors (for example variability of weather in agriculture, slowdown of global tourism after September 11, 2001, etc.) and also likely due to internal factors, changing government policy and administrative barriers.

Table 2. Zambia: Sectoral Growth, 1998-2003
(constant prices)

	1998	1999	2000	2001	2002	2003
Agriculture	1.3	9.9	1.7	-2.6	-1.7	4.9
Mining	-25.0	-24.9	0.0	14.4	16.4	3.3
Manufacturing	2.1	2.8	3.5	4.2	5.5	6.6
Financial institutions and insurance	0.5	2.5	-1.0	0.5	3.4	3.3
Tourism	4.5	-6.5	11.6	25.0	5.0	6.3
Total GDP real growth	-1.9	2.2	3.6	4.9	3.3	4.3

Source: IMF, *Zambia: Selected Issues and Statistical Appendix*, 2004

8. This report will concentrate on the internal factors, tax and incentives issues in an attempt to understand better whether policy is growth promoting or growth inhibiting in each of the selected sectors and to assess Zambia's competitiveness in each of these sectors vis-à-vis its competitor countries in the region.

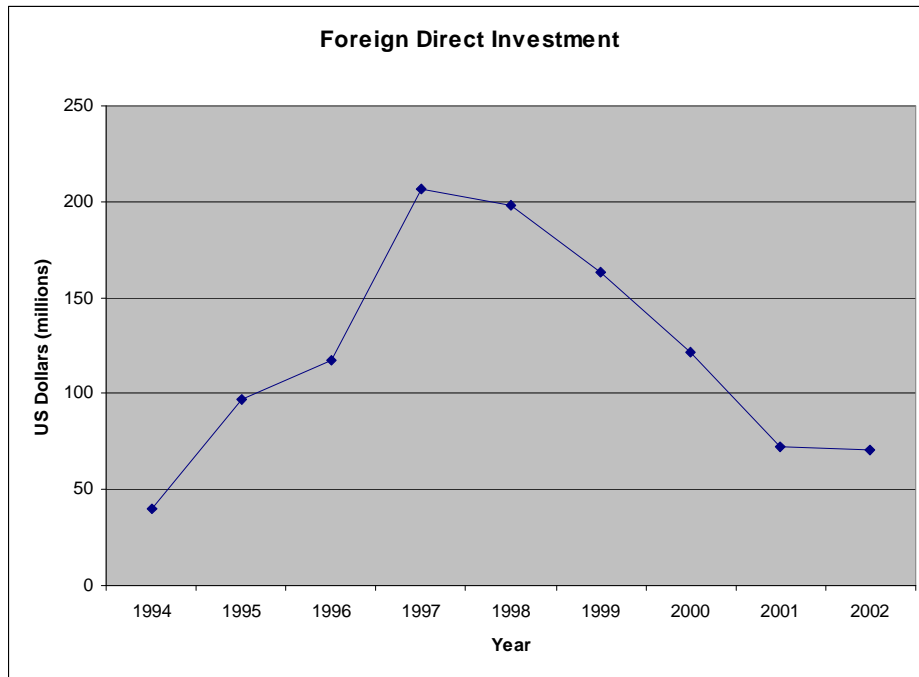
⁸ The only other sector not included in the government's program and this study is retail trade, which constitutes around 17 percent of total GDP.

C. Foreign direct investment in Zambia and the business climate

1. FDI in Zambia

9. FDI flows into Zambia remain low in absolute terms, amounting to only \$71 million inflows during 2002, or about 2.0% of GDP and less than 1 percent of total FDI inflows into Sub-Saharan Africa. The peak flows into Zambia reached around 4 percent of GDP in 2001. FDI stocks in Zambia has remained consistently around 4.5 percent of GDP for the past 8 years.

Figure 1. FDI Flows into Zambia 1994-2002



Source: IMF and World Bank

10. While an increasing number of countries, including some regional competitors, have experienced rapid increases in FDI and the share of investment in the form of FDI over the past decade, Zambia has not. Moreover, much of the FDI entering Zambia has been associated with mining and the government's privatization program, and relatively little has been associated with manufacturing and services.

11. Statistically speaking, it appears that Zambia receives the highest level of FDI in the region when using FDI/GDP as a measure. But this statistic is more a reflection of low levels of GDP than high levels of FDI:

Table 3: Foreign Direct Investment
(percent of GDP)

	1979-84	1985-90	1991-96	1997-2001
Zambia	0.7	3.3	2.01	4.5
Kenya	0.2	0.3	0.2	0.6
Tanzania	n.a.	0.1	1.1	2.2
Uganda	0	0	1.4	2.7
Mozambique	0	0.2	1.7	6.8
Cote d'Ivoire	0.6	0.5	0.7	2.7
Ghana	0.2	0.2	1.7	1.3
Vietnam	n.a.	0.1	7.8	5.5
Honduras	0.5	1.1	1.4	3.3
South Africa	0.002	0.0003	0.003	2.2
Sub-Saharan Africa	0.7	0.8	1.3	2.6
Low income	0.2	0.4	1.1	1.1
World	0.5	0.8	0.9	2.6

Source: IMF and World Bank

12. Although the government has undertaken a range of policy reforms in the past years, it is clear from the data presented above that the impact and effectiveness of the reforms have been limited in terms of attracting investment. Moreover, the economic reforms that have taken place at the macroeconomic level in Zambia do not appear to have altered the perceptions of the international business community that the business climate is generally poor.

2. Brief overview of the business climate in Zambia

13. The study of administrative barriers prepared by FIAS in 2004 looks at one component of the investment climate--administrative and regulatory procedures involved in establishing, locating and operating a business in Zambia. The report undertook a survey, the results of which indicated that tax administration, customs regulations and procedures did more than 50% of respondents identify a procedure as a problem. Specific problem areas identified as the most important obstacles were:

- tax administration (52% of respondents identifying it as a problem, and 56% of those rating it as “major” or “very severe”);
- customs regulations (51%, and 65%, respectively);
- labor regulations (37%, and 49%, respectively);
- foreign exchange regulations (27%, and 63%, respectively);
- business licensing and operating permits (25%, and 52%, respectively); and
- duty draw back (24%, and 63%, respectively).

14. Nonetheless, administrative and regulatory procedures are a significant factor in the overall investment climate, not least because of their cumulative impact. While no single procedure has a “make-or-break” characteristic, together they make the process of establishing and operating a business more onerous than necessary. One-third of survey respondents report that they spend at least 20% of their senior management time dealing with requirements imposed by government regulations, and a further one-third indicate more than 10%. Three-quarters of respondents indicate that they are dissatisfied to some degree with the performance of the bureaucracy. The response rate for these questions was high, a good indication of how widely perceived these problems are.

D. Tax Policy in Zambia⁹

15. Tax and incentive policies are key parameters in defining a business climate. Taxes are essential for the financing of government activities, but at the same time, they should be set and administered to be as growth enabling as possible. Thus the revenue raising authorities (in the Zambia case it is the Ministry of Finance that sets tax policy and the Zambia Revenue Authority [ZRA] which administers it) must set a tax policy which meets both needs.

1. Foundations and Background

16. Tax policy in Zambia governed by the following Acts of parliament:

- Zambian Revenues Authority Act, No. 28 of 1993;
- The Income Tax Act, 1993, and as amended¹⁰;
- Value Added Tax Act of 1995;
- Regulations to the Value Added Tax Act of 1995;
- Value Added Tax General Rules of 1997¹¹; and
- Customs and Excise Act of 1955, as amended.

17. The legal framework for taxation administration is defined by regulations, guidelines, specific schemes, and Zambia’s adoption of international obligations, such as the WTO Valuation Agreement. Zambia has also concluded Double Taxation Treaties

⁹ For a complete description of the tax system in Zambia, please refer to FIAS, *Zambia: Administrative Barriers to Investment*, 2004. See also Appendix II for a full description of the tax system in Zambia, used as input into the METR calculations.

¹⁰ <http://www.zra.org.zm/dtax/pubs/actcap323.pdf>.

¹¹ internal administrative provisions describing the tax procedures for the officials.

with 21 countries to avoid double taxation of companies operating in other countries as well as Zambia.¹²

2. Description of tax instruments described in this study

18. This study will concentrate on taxation of the corporate sector, which include primarily of:

- Corporate income tax
- Value Added Tax (VAT)

19. In addition, companies may have to pay the following contributions during their operations, depending on the type of business:

- Customs duty;
- Excise tax;
- Withholding tax;
- Property transfer tax;
- Medical levy; and
- Social contributions

20. The general corporate tax rate is levied at 35% of profits. Profits are defined as revenues minus depreciation, production costs and wages. The following can be deducted from revenue to form the taxable income base:

- All operational expenses (rent, advertisements, packaging, repairs etc.) related to the business;
- Contributions to approved charitable organizations up to 15% of taxable income;
- Tax credits for tax paid abroad on dividends and interest;
- Deductions for K240,000 (\$51) for each handicapped employee.

21. Capital investments are not deductible. However, capital allowances are granted as described under section 5 below. Losses may be carried forward for up to five years. There are several exceptions to the general corporate tax rate as shown in Table 4.

¹² Canada, Denmark, Finland, France, Germany, India, Ireland, Italy, Japan, Kenya, Mauritius, Norway, Romania, South Africa, Sweden, Tanzania, The Netherlands, Uganda, U.K., Yugoslavia, Zimbabwe. See <http://www.zra.org.zm/dtax/treaties.htm> for details.

Table 4. Zambia: Schedule of Corporate Tax Rates

Category	Corporate Tax Rate
General	35%
Companies listed on the Lusaka Stock Exchange	33% ¹³
Profits of (unlisted) financial institutions above K250 million	45%
Profits from agriculture, non-traditional exports, and manufacture of chemical fertilizer	15%
Successor companies of ZCCM (former mining conglomerate)	25%

Source: *Zambian Revenue Authority*

22. The VAT is set at 17.5% and charged on both local and imported goods and services. Businesses must keep invoices for five years. Taxable value is the selling price plus excise taxes, if applicable. Certain items are either zero-rated (subject to the VAT at the zero rate with refunds previously paid) or exempt from VAT (not subject to the VAT Act's provisions)¹⁴. There are no clear published criteria for the decision whether to assign an item to zero-rating or exemption. The differentiation allows businesses to obtain refunds of VAT already paid on inputs used to produce zero-rated items, while the VAT collected on inputs used to produce goods exempt from the VAT cannot be refunded. Major zero-rated items¹⁵ are:

- Exports of goods and services from Zambia, including directly linked services; The exporter has to produce proof of exportation, e.g. commercial invoices, certified copies of the documents presented to Zambian customs and at the country of destination and proof of payment, if applicable;
- Foodstuffs and agricultural products;
- Building supplies to charitable organizations approved by the minister;
- Mosquito nets raw materials;
- Supplies to privileged persons;
- Medical supplies and drugs; and,
- Hotel accommodation in Livingstone, which has been zero-rated until December 2004. This measure was introduced on an experimental basis for a period of two years as a way of promoting tourism development in the area.

¹³ This rate has been increased from 30% to 33% in April 2003.

¹⁴ <http://www.zra.org.zm/vat/pubs/Liability%20Guide.pdf>

¹⁵ Designated in the Second Schedule of the VAT Act.

23. Goods exempted from VAT include books and newspapers, educational materials and services, health supply services, financial and insurance services, funeral services, water supply and sewerage services, transport services, conveyance of real property, metals, trade union subscriptions, goods under the investment certificate, domestic kerosene, mosquito nets, residential rents, statutory fees, road construction agreements entered into before July 1, 1995.

24. Zambia has had a VAT tax deferment scheme¹⁶ in place since 2001. Importers of goods listed¹⁷ in the deferment scheme in the Third Schedule of the General Rules are not required to pay VAT at the border. The requirements to obtain the deferment scheme are only that the business has a TPIN and is VAT registered, and it is not necessary for the importer to make a separate application at the border.

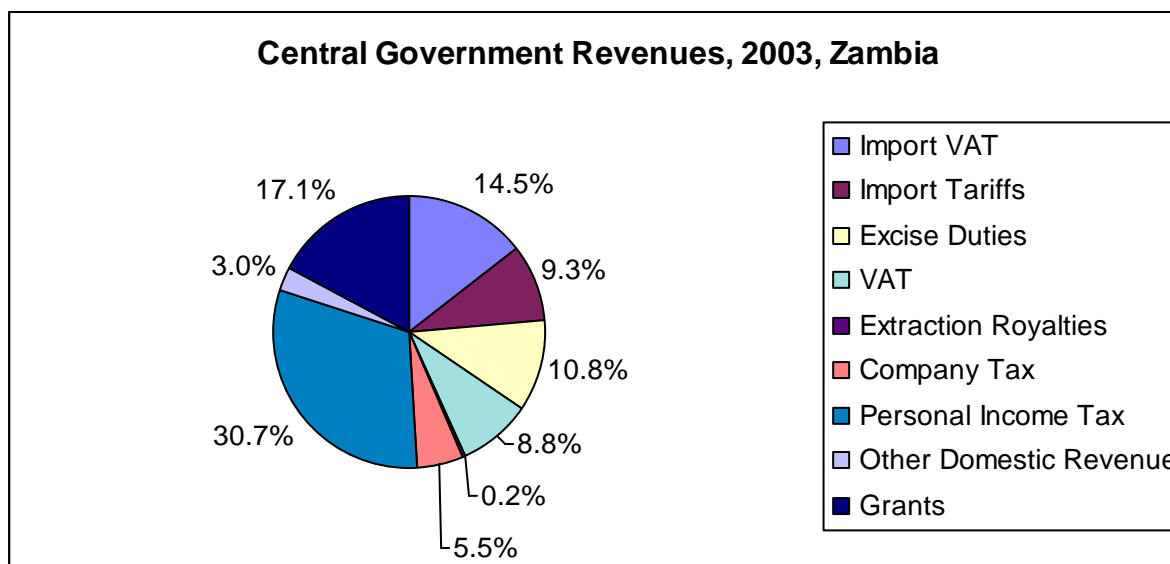
25. Businesses with a taxable turnover exceeding or likely to exceed K200 million in any 12-month period have the statutory obligation to register with the ZRA for VAT monthly payments (VAT1). A VAT registration number is issued by ZRA and must be carried on every invoice. No registration fee is applicable. VAT registration can be waived by ZRA if it is convinced that the business deals only with zero-rated goods or services. Statutory registered companies must file for VAT by the 21st day of the month for the preceding month. Companies with an annual turnover under K100 million may register for VAT payments.

E. Tax revenues performance

26. From a macroeconomic perspective, tax policy in Zambia has been effective at raising revenues, as measured by tax/GDP ratios. The 18 percent tax/GDP ratio, which has been maintained over the past 4 years, is among the highest rates in Africa. Total central government revenues in 2003 amounted to 4,440,000 M Kwacha (approximately US\$888M). 80% of which was collected through taxation, with the largest sources being personal income tax at 31% of revenues and VAT (including import VAT) at 23% (see chart 1).

¹⁶ <http://www.zra.org.zm/vat/pubs/Import-VAT-Deferment-Scheme%20.pdf>

¹⁷ http://www.zra.org.zm/customs/pubs/Import_VAT_Deferment_List.pdf



Source: ZRA

1. Corporate Income Tax Revenues by Sector

27. Company income tax revenue were available for three key sectors. These showed that despite its small share of the national economy, the financial services sector accounts for a proportionally large share of company tax. This may be due to the higher rates and fewer allowances applicable to the financial services sector.

Table 5. Corporate Tax Revenues, 2003

Sector	Kwacha (M)	Percentage
Financial Services	51,355	20.9%
Telecom	29,187	11.9%
Mining	28,612	11.6%
Other	136,460	55.6%
Total	245,614	100.0%

Source: ZRA

2. VAT Receipts by Sector

28. Although data exists on net VAT receipts by sector (see table 5. below), they are difficult to analyze, given the varying degrees of VAT reclamations available to individual sectors (agriculture, mining, and tourism).

Table 6. VAT receipts by sector

Net VAT Receipts by Sector		
Sector	Kwacha (M)	Percent of Total
Financial Services	11,764	3.0%
Telecom	44,722	11.4%
Mining	(653,838) ¹⁸	-166.5%
Manufacturing	70,067	17.8%
Tourism	(400)	-0.1%
Agriculture	(27,394)	-7.0%
Other	947,750	241.4%
Total	392,671	100.0%

29. It should be noted that in the financial sector, VAT receipts have increased markedly in the past 3 years, due to the expansion of leasing activities. A possible explanation for this is that in the case of direct lending by a bank, its “margin” is subject to tax at the rate of 45%, where as if it structures its lending activities as operating leases, the tax allowances attributable to the investment in the equipment will flow to the banking sector.

¹⁸ A negative receipt suggests that the VAT reclaimed exceeded the VAT paid out.

ANALYSIS OF THE EFFECTIVE TAX BURDEN IN ZAMBIA

A. Assessing the effective tax burden—an introduction

30. Assessment of the effective tax burden in Zambia requires a standardized, quantitative metric which takes all provisions of the tax code and incentive scheme in place to look at what a hypothetical new entrepreneur would face if he or she were to invest today in that sector. At the same time, qualitative analysis is also needed to determine how the tax/incentives scheme is applied in practice. This section presents both the qualitative and quantitative analyses of five key sectors in the economy—agriculture, manufacturing, tourism, mining, and finance—to present a comprehensive picture the absolute and relative tax burden.

B. Quantitative analysis of the effective tax burden¹⁹

31. The concept of a marginal effective tax rate (METR) was created to analyze in a single measure how investment decisions are affected by the large number of provisions of the business and individual income tax systems, as well as by features of any property and wealth taxes, sales taxes including VAT, customs duties, and special incentive regimes such as tax holidays, that affect the incentives to invest. METR analysis is based on the standard neoclassical model of investment in which the level of investment is a function of the “cost of capital” faced by a firm – the minimum or “hurdle” rate of return that an investment must earn to be profitable. Although earlier research was mixed on the issue, the most recent empirical evidence confirms the basic assumption of this model – which investment does in fact react inversely to changes in the cost of capital (Gordon and Hines, 2002). METR analysts, such as King and Fullerton (1984), Broadway, Bruce and Mintz (1984) and many others, have taken the basic neoclassical model and modified it to take into account the net effect of all the provisions of a tax system on the cost of capital to the firm.²⁰ The primary goal of an METR analysis is thus to describe this net effect of a tax system on investment incentives in a straightforward and intuitively appealing form.

32. The METR terminology naturally provides some insight into the nature of this tool. A METR is *marginal* because it is based on analysis of a prospective incremental investment – one that just breaks even, with its after-tax cost equal to its after-tax returns.²¹ It calculates the *effective* tax burden in that it captures the net effects of all the

¹⁹ See Annexes I and II for a more full description of METR theory and calculations.

²⁰ The analysis in this paper most closely follows the approach in Broadway, Bruce and Mintz (1984). For an application of the King and Fullerton (1984) approach to Burundi, see Zodrow (1993).

²¹ METR analysis is thus not well suited to analyzing tax effects on investments that generate above-normal returns.

provisions of the tax system, rather than focusing on a single characteristic such as the maximum statutory corporate tax rate. And it is a *tax rate* in that it is defined as the difference between the gross of tax and net of tax returns to an investment – the “tax wedge” between gross and net returns created by the tax system – expressed as a percentage of the gross return.

33. The calculation of a METR requires careful specification of the characteristics of an investment in a specific asset in a specific sector, including the time path of its returns, the rate of economic depreciation of the asset, how the asset is financed, the economic environment in which it occurs, including the inflation rate, interest rates, and returns to equity, and all of the features of the current or proposed tax system that affect both the after-tax returns and the after-tax costs attributable to the investment, including all tax depreciation allowances, investment credits, interest deductions, special exemptions, etc., allowed under the income tax as well as any other taxes that impinge on investment decisions. Given this information, the analysis calculates the effective tax rate on a marginal or breakeven investment under the assumptions of profit maximization by the firm, competitive markets, and perfect certainty (e.g., with respect to future returns and inflation rates).

C. Summary of METR analysis in Zambia

34. This section presents METRs for the current tax system in Zambia, and analyzes the economic effects of the existing tax system. The analysis also provides METRs under two tax changes recommended by the proposed new investment act. Results are presented for five capital assets (machinery, buildings, inventories, and land) and for five business sectors (manufacturing, tourism, agriculture, financial services and mining), as well as for small businesses that are subject to the gross receipts tax and exempt from the VAT.

Table 7. Zambia: Summary of Marginal Effective Tax Rate Analysis by Sector, 2004

	Manufacture	Tourism	Ag	Financial Services	Mining	Small Business
Machinery	-11.1%	-11.1%	11.9%	37.7%	-18.3%	36.3%
Buildings	-1.3%	-1.3%	0.9%	-0.9%	-0.6%	7.4%
Land	7.5%	7.5%	4.5%	9.7%	n.a.	5.8%
Inventories	49.2%	51.6%	24.1%	59.5%	37.5%	19.2%
Average Range	0%-10%	0%-10%	10%	25%-35%	0%	20%-25%

Source: Data from Zambia Revenue Authority

D. Sectoral Analysis

1. Agriculture

35. Agriculture is the largest sector (20 percent of total GDP) considered in the study.

a. Summary of the tax/incentive system

36. Agriculture, in common with other rural enterprises, is taxed at the preferential rate of 15% as opposed to 35% on most other enterprises. Depreciation on agricultural equipment is allowed at 50% on a straight line basis without indexing for inflation. Agricultural buildings are classified as industrial buildings and they are depreciated over 20 years on a straight line basis. The first K10 million worth of agricultural buildings can be treated as an allowable expense. Capital expenditure on farm improvements may be depreciated for tax purposes by 20% per annum over 5 years.

37. Capital expenditure on production of tea, coffee, banana plants, citrus fruit trees or other similar plants or trees, is allowable at 10% against profits in the first year of production. Some farms operations are allowable at 100%, including stumping and clearing, works for the prevention of soil erosion, boreholes, wells, aerial and geophysical surveys, and water conservation.

38. Dividends from farming are exempt from tax for the first five years.

Value Added Tax

39. In February, 2004, at the presentation of the budget the government reclassified unprocessed primary agricultural goods from the schedule of “zero rated” to “exempt”, while those that were rated as standard for VAT were not affected. The implication for producers of exempt goods is that they cannot reclaim VAT paid on inputs used to produce those goods. Produce is zero-rated if it is exported by or on behalf of a taxable supplier. The produce is subject to VAT but at 0%, which implies that VAT on inputs applied may be reclaimed.

40. Products listed as exempt include fresh edible vegetables, fruit and nuts; maize and mealie meal; soya bean, millet, cassava, sorghum and flours produced from them; wheat and other cereals; animal products including milk; and agricultural inputs. Those farmers producing exempt goods become deregistered for VAT with ZRA, while those producing standard rated goods remain registered, and those producing a mixture are VAT rated pro-rata with the relevant crop mix.

41. Those that remain subject to VAT at the standard rate include coffee, sugar, cotton²² and tobacco among others.

Import duties

42. Custom tariff incentives include 0%, 5% duty and deferred payment of VAT on raw materials and capital items, 15% duty and deferment of VAT on some listed products of intermediate goods, and 25 duty on finished luxury goods.

43. Where items are zero rated for VAT there is an incentive element in that the VAT on inputs can be claimed back by VAT registered companies. However, VAT on petrol, communications costs and entertainment may not be claimed back. VAT is also applicable to the financing element of leasing agreements on equipment.

Council levies

44. Council levies may be imposed on the movement of agricultural and other produce out of the districts in which they are produced. The rate of application is capped at 1% of their value and stakeholders are given the opportunity to object to advertised proposed rates before their implementation. Final proposed rates are submitted for approval by the Minister of Local Government but not the Minister of Agriculture and Co-operatives (MACO).

²² “Cotton”, on the list of standard VAT rated items, does not refer to seed-cotton (produced by farmers) or lint-cotton (processed seed-cotton produced by ginning companies). It is said to refer to cotton-wool, which is in reality lint-cotton although the definition is not accepted by ZRA.

b. The Tax/ Incentive Regime in Practice

Income tax

45. Large scale farmers are registered with ZRA and produce books of account on which their taxes are assessed. Tax allowances on expansion provide many opportunities for active farmers to avoid taxes, which are not therefore considered onerous by large scale active commercial farmers, particularly in the light of the reduced rate of 15%.

46. Small scale farmers would normally qualify for turnover tax alone but they generally have no records and are not taxed on income. In practice it is understood that very few small scale farmers pay the turnover tax which has a threshold of K 200 million per annum²³.

VAT

47. Because small scale farmers do not, in practice, pay income or turnover tax, they are not able to reclaim VAT and must therefore absorb the resulting higher costs of inputs and tools.

48. Zero rating of exported goods is applicable to fresh vegetables and flowers, tobacco and coffee because it is deemed that the export is done on behalf of the farmers. Cotton ginning, on the other hand, is deemed a manufacturing process divorced from production, which is unable to reclaim VAT on operating costs.

49. The VAT reclamation process imposes cash flow constraints on farming enterprises since, in practice, reclaims can take many months, although it should be accomplished within one month. In the case of disputes it can take a year or more to resolve, adding administrative work load and the need to make repeated journeys to Lusaka.

VAT exemptions

50. Under traditional VAT regimes, VAT attributable to capital investment in equipment and such like can be recovered so that the tax only bears on domestic consumption. This is the structure that has been adopted in Zambia. However, VAT recovery clearly does not apply to exempt sectors.

51. Because a large number of agricultural producers is likely to produce a mixture of taxable and exempt products, these producers will be involved in the complexity of VAT partial exemption calculations. Furthermore, when they change their crop mix, it will be necessary to adjust these calculations. Thus a considerable degree of complexity has been added into the agricultural sector's tax affairs by these changes.

²³ The K 200 million threshold for paying turnover tax includes all small scale farmers since it is equivalent to about 70 ha of maize at commercial yields (5.4 tons per ha) on a single enterprise farm. Small scale, low-input yields are less than 2.5 tons per ha and very few have more than 20 ha.

Replacement of VAT for turnover tax

52. In addition to the changes outlined above, all farmers with a turnover of K200 million (\$40,000 or less) are exempted from VAT and, instead, became subject to a 3% turnover tax. This tax is a final tax (i.e., the farmer does not face additional taxes on income). It implies that a farmer with a single-enterprise maize operation of 70 ha with average yields of 5.4 tons and farm gate price of \$110 per ton (K27,500 per 50kg bag) would pay K6 million in turnover tax. A marginal increase in scale, making the farmer liable to income tax, would imply that, if the same effective rate were payable, the net profit on maize production would have to be 20%. (K200 m x 20% profit x 15% tax = K6 million.) A 20% net profit on maize is more than would be anticipated, so the 3% on turnover is high for agriculture, particularly since it does not take account of risk of crop failure because the tax is payable even in the event of financial loss.

53. The Zambia threshold applies to operations that are much larger than small-scale farmers. This contrasts with the position in Tanzania, where a turnover tax of 1.2% is applied to enterprises with threshold of 3 million Tanzanian shillings (\$2,850) per annum. It is understood that, in practice, ZRA are not seeking to enforce the tax because, where incomes are significantly below the threshold, the costs of collection will outweigh the benefits accrued. The concern is that after a few years a revenue official visits a farmer and, with the threat of an estimated assessment for the current and past years, forces him to pay a large fee. Even if this money flows to the government, it is highly undesirable from a policy standpoint and there must be a concern that this will lead to corruption with ZRA.

Council levies

54. The rate at which levies have been applied and approved by the Minister of Local Government have been found to exceed the maximum of 1%. It is reported that Chadiza Council, an area with high dependence on cotton production, imposed a levy of K200 per kg while the price to the farmer was only K620 per kg. The result was that the out-grower scheme sponsoring production in the area was obliged to withdraw, abandoning the producers who were subject to the ruling.

55. In other districts the council has imposed a levy on seed-cotton moving to the ginnery and again on lint-cotton leaving the ginnery, using the argument, to avoid the double taxation restriction, that they were different products.

56. Export crops are essentially price takers; therefore, all taxes necessarily reflect back to depress the farmer price. Council levies, therefore, are counter to poverty alleviation unless applied with efficiency to the benefit of the same producers, which unfortunately is not the case.

c. Analysis of the tax regime

57. **METR calculations in agriculture are around 10% (Table 7), which is low compared to other sectors.** Asset METRs are higher for machinery and buildings but lower for land and inventories. This somewhat unusual pattern occurs because agriculture receives a preferential 15 percent tax rate. As a result, the benefits of accelerated depreciation for machinery and buildings and investment allowances for buildings are relatively low because these items are deducted at a relatively low tax rate. By comparison, for the non-depreciable assets (land and inventories) the low tax rate is an unambiguous benefit, and the METRs on these land and inventories are relatively low. Capital expenditure on farm improvements may be depreciated for tax purposes by 20% per annum for the first 5 years. Transfer of land is subject to property transfer tax of 3% which is not deductible against income tax. Small business turnover below K200 million is charged at 3% of turnover in lieu of income tax.

58. Slow development in agriculture is only marginally attributable to taxes, primarily increased costs of capital equipment due to un-reclaimed VAT. Instead, the current constraints to expansion derive from high interest rates or lack of access to credit, increased costs of capital equipment due to un-reclaimed VAT, risks in production due to policy induced instability and market fluctuations, management constraints due to skills shortage, barriers to functional efficiency arising from unreliable utilities and services and the inefficiencies inherent in dealing with unnecessarily bureaucratic government institutions. At the same time, the following lists “second-order” issues which if addressed could improve growth and profitability of agricultural firms.

Turnover tax

59. **The turnover tax burden appears to be heavy on small producers.** The 3% turnover tax applied to agriculture for small producers and processors assumes a profit level of 20% if it is to be equivalent to 15% tax on income. The threshold applies to operations that are much larger than small-scale farmers²⁴. In Tanzania, for example, a turnover tax of 1.2% is applied to enterprises with a much lower threshold of 3 million Tanzanian shillings (\$2,850) per annum.

Corporate Income Tax

60. **Corporate income tax rate application changes frequently.** Ginning companies invested in Zambia under an investment code that granted them 15%

²⁴ The turnover tax applicable to a threshold of K200 million (\$40,000) implies that a farmer with a single-enterprise maize operation of 70 ha with average yields of 5.4 tons and farm gate price of \$110 per ton (K27,500 per 50kg bag) would pay K6 million in turnover tax. A marginal increase in scale, making the farmer liable to income tax, would imply that, if the same effective rate were payable, his net profit on maize production would have to be 20%. (K200 m x 20% profit x 15% tax = K6 million.) A 20% net profit on maize is more than would be anticipated, so the 3% on turnover is high for agriculture, particularly since it does not take account of risk of crop failure because the tax is payable even in the event of financial loss.

concessionary company tax rates in line with farming companies and rural enterprises. The classification has been reversed so that they are now liable to 35% tax on profits. The cotton companies gain access to seed-cotton by managing the inputs and extension services in a synergistic arrangement with their outgrowers, thereby creating a conduit for the flow of cash to the rural areas. Reclassification has changed the basis of their business performance.

VAT

61. **VAT appears to be applied unequally across products as well as across the sector, both in terms of rates and status (exempt versus zero rating).** For example, cotton is standard rated for VAT, the definition does not cover the major products of the industry. Cotton lint is exempt because the ownership of the seed-cotton has been transferred from the farmer to the ginner, which is classified as a manufacturer and not an agricultural producer. The ginning companies therefore pay standard rate VAT on transport, fuel, energy and spares but not on the raw seed-cotton bought from the farmers. Since they are selling into a world market they are unable to retrieve VAT charges from the export price and are obliged to try to recover it from the farmers. The VAT charges in 2003/04 are said to have exceeded the profit from ginning. Farmers are receiving 47 to 53% of the world market price which is an improvement on the record of neighboring countries, but these will have to be curtailed to accommodate the VAT. Therefore, although ginning is not classified as an agricultural activity, the VAT applied to it will reflect directly onto the price paid to farmers.

62. **VAT exempt status hurts farmers because their effective burden rises sharply without the ability to reclaim VAT on inputs.** The Zambia National Farmers' Union (ZNFU) calculates that increases in costs of production of wheat as a result of the exemption of VAT amount to K617,380 per ha and thereby reduce profit margins from 11% to 4 % for an established farmer. Another calculation by an accountant firm engaged by ZNFU shows that a profit of K577,300 per ha is converted to a loss of K49,500 by the changes. Given the risks inherent in the production of an irrigated agricultural crop in the Zambian economic context, such a precarious margin is not attractive to new investment, and not sufficient inducement to established growers to expand.

63. **Diesel not classified as an input for agricultural producers, thus preventing VAT reclaim.** Diesel fuel bears a transport levy for the repair of roads on the assumption that it is consumed on the roads, but the bulk of diesel in agriculture is applied to production and not to transport. It is generally agreed that labeling diesel for farmers is not a feasible option for avoiding the anomaly within the Zambian context, so there remains justification for the reclamation of VAT on Diesel

d. Recommendations

- **Harmonize the application of the VAT system to eligible producers to “level the playing field” within the sector.**
- **Allow small producers currently outside the VAT net to register if they have the capacity to meet the reporting requirements.**

- In the interests of achieving competitiveness in exports to the world markets, and bearing in mind the structural disadvantages faced by Zambian producers, **exporters of agricultural produce should enjoy zero-rating VAT status for their export enterprises.** When competing in the World market, producers are price takers and cannot pass the added cost of taxes to the consumers without losing competitive edge.
- **Harmonize the corporate profit tax across the sector.** In the interests of attracting entrants to agriculture, the concessionary rate of 15% on profits should be maintained to all farming enterprises.

2. Tourism

64. Tourism generated US \$148.8 million dollars in 2003, representing a 11% growth on the previous year, but only representing less than 3 percent of total GDP.²⁵

65. Although the tax/incentive scheme in Zambia is broadly pro-growth, tax policies and rates are not being evenly and consistently applied in the tourism sector. Some sub-sectors of the tourism industry (those attracting international package tourists) and destinations (such as Livingstone and those operating in rural areas) enjoy favorable benefits.

a. Summary of the tax and incentive regime

Corporate tax

66. Corporate tax in the tourism industry is levied at the national rate of 35% with the following exceptions.

- Tourism businesses (such as lodges, and hotels) in “rural areas”²⁶ are subject to a corporate tax rate of 30%, during the first 5 years of operation²⁷;
- Small business receive a tax holiday for the first 3 years of operation in urban areas and 5 years in rural areas²⁸

²⁵ Zambia National Tourist Board annual questionnaire completed by licensed tourism operators 1995 - 2003

²⁶ According to the investment Act 1993 Cap.385 "rural area " is defined as any area which is not an area declared or deemed to have been declared as a city or municipality under the Local Government Act except for the area declared to be Kafue Township under that Act.

²⁷ Zambia Investment Act of 1993 states that income received from a rural enterprise for each of the first five charge years is reduced by such amount as is equal to one-seventh of that tax

²⁸ Needs to be registered with the Small and Medium Business Development Board (“**SMDB**”)

Value Added Tax

67. Full VAT is charged on all tourism products and services except:
- package tours, sold by licensed operators to international tourists, are zero-rated;
 - All tourism services with the exception of food and beverages are zero rated in Livingstone. This agreement was initially meant to be for two years beginning January 2001 in order to establish Livingstone as a world class tourist destination capable of competing with the Zimbabwean side of Victoria Falls. This incentive has since been extended for an additional two years and should be discontinued in December 2004.

Service charges

68. A compulsory service charge of 10% is levied on all services rendered in hotels, lodges and food and beverage establishments. This service charge is then distributed directly to the staff of the establishment.

Incentives

69. The tourism industry does receive preferential treatment with respect to accelerated depreciation allowances:
- Hotels enjoy an initial allowance of 10% and an annual 5% wear and tear allowance of the cost the hotel building;
 - Machinery in tourism enterprises is depreciable at an accelerated rate of 50% (over two years);
 - Hotel buildings are characterized as industrial buildings and therefore benefit from a 10% investment allowance (a 10 percent deduction, with no reduction in the tax accounting value or “basis” of the asset) and a 10% initial allowance (an additional 10% deduction with no basis adjustment)

Individually negotiated agreements

70. Some operators have benefited from individually negotiated agreements, which were agreed directly with government. The most significant such agreement is the Sun International Investment (Zambezi Sun and Royal Livingstone) in Livingstone which was signed with the government in September 1999.

71. The highlights of the concessions in the agreement between Sun International and the government of Zambia are as follows:

- A waiver on all import duties and VAT during the construction period of the hotels;
- A reduced corporate tax rate of 15% on profits made from non-Zambians, in effect this could apply to all profits made as revenue generated from Zambians could possibly be offset against all incurred expenses;
- Revenue generated from tourist accommodation is zero rated.

Duties and Excises

72. The tourism industry does not receive any concessions or preferential treatment with regards to customs and excise duties.

73. All duties are applied at the applicable rates of 0-5% for raw materials, 15% for intermediate goods and 25% for finished goods. In addition to customs duties, excise is charged on a number of items in the tourism sector.

74. Details of some of the most pertinent excise duties are set out below:

Table 8. Examples of Excise Applied to The Tourism Sector in Zambia

Country	Clear Beer	Wines	Spirits	Cigarettes	Petrol	Diesel
Zambia	70%	125%	125%	115%	30%	30%

Source: Tour Operators Association of Zambia

Entry and Exit Taxes

b. Visas

75. Nationals of various countries are required to have a visa prior to visiting Zambia, the application thereof varies by country. For purposes of comparison and simplicity, we have only provided details in respect of visas required by United States and United Kingdom passport holders, namely:

Table 9. USA and UK visa costs to Zambia

Country	United States		United Kingdom	
	Single Entry	Multiple Entry	Single Entry	Multiple Entry
Zambia	N/A	US\$40	£ 35	£ 45

Source: Travel Agents Association of Zambia

76. However tourist visa costs are waived if booked through a registered Zambian tour operator.

Departure Tax

77. Airport departure tax is charged at US \$ 20 for international departures.

c. Tax system in practice

Corporate Tax

78. Due to the low profitability of the sector and the infancy of the tourism industry in Zambia, corporate taxation in Zambia does not represent a large proportion of the tax burden in the tourism industry.

Value Added Tax

79. A significant proportion of the tourist sector receives VAT concessions by nature of the type and nature of international leisure tourists to Zambia. The ZRA estimates that the VAT compliance rates are high considering the frequency of the VAT return process and the severe penalties associated with non-compliance. Considering that the sector is informal, fragmented and made up of a large number of small businesses, various operators are also likely to fall under the threshold for VAT registration and will therefore not be liable to pay VAT.

80. Lodges whose business is primarily focused on the international leisure market are usually in a VAT repayment situation, having to claim back from the ZRA. In some cases, it is necessary to wait for an extended period of time before receiving this repayment.

Duties and Excise

81. Due to the fact that taxes associated with duties and excise are collected at the point of entry a high rate of compliance is likely in this area.

d. Analysis of the tax/incentive regime

82. **The METR calculation on assets in tourism are calculated to be 0%-10 percent (Table 7).** The sector benefits from highly accelerated (2-year) deductions for machinery and deductions that are moderately accelerated, given the 17 percent inflation rate, for industrial buildings (20-year), coupled with an effective 20 percent first-year allowance.

83. Although the tax/incentive scheme in Zambia is broadly pro-growth, tax policies and rates are not being evenly and consistently applied in the tourism sector.

Some sub-sectors of the tourism industry enjoy favorable benefits: those attracting international package tourists (VAT zero rated), regions such as Livingstone (no VAT on accommodation revenue) and rural areas (30% corporate taxation).

84. In addition to the inconsistencies in the application of taxes, in the past, certain taxpayers have secured preferential treatment in respect of large-scale investments, through direct negotiations with government.

Corporate Tax

85. **The tourism industry in Zambia is subjected to a higher corporate tax rates than most of its competitors (Malawi, Zimbabwe, South Africa, Tanzania, Kenya 30%²⁹ and Botswana 25%).**

Botswana has also steadily reduced its corporate taxation rate over the past 15 years, 40% in 1990 – 1993, 35% in 1994 and 25% from 1995 onwards³⁰

Consumption taxes

86. VAT and other consumption taxes levied directly on tourists (such as service charges) have a severe impact on demand, especially with regards to international leisure tourists who are highly price sensitive. A small change in price in a destination in this particular market can have a severely negative impact on the demand to that destination. This is further exaggerated in Zambia due to the highly fragmented nature and infancy of the tourism industry. nature (large number of small operators, average lodge size of 10 rooms) and the under-developed nature of the tourism industry in comparison to regional safari industry competitors such as Botswana, Zimbabwe, South Africa, Namibia and Kenya.

A Deloitte and Touche study conducted on behalf of the British Tourist Authority determined that the price elasticity of the holiday tourist market was -1.5 – that is a price cut of 10% would cause a 15% increase in the volume of tourist demand³¹. Similarly in 1969 VAT was introduced at the then 12% on Dutch Hotels. The following year was the worst year in Dutch memory where the tourism balance worsened by 12%. Since 1979 a reduced rate of 1/3 of the full rate has applied to the hotel sector.

Value Added Tax

87. VAT is inconsistently applied in the tourism sector in Zambia which is contrary to **sound taxation policies and principles and results in increased administration costs**

²⁹ Resident Companies, Foreign companies pay 37.5%

³⁰ Botswana Department of Taxes in the Ministry of Finance and Development Planning

³¹ WTTC “Tourism Taxation – Striking a Fair Deal” 1998

associated with managing multiple rates. Variable rates in the tourism sector also encourage corruption at border posts and the manipulation of the system in the form of declaration of overseas business bookings as packages, and the setting up of fictitious booking offices in international source markets. The current system does promote growth in the tourism sector by increasing demand due to the effective price reductions on pre-booked packages and tourism accommodation in Livingstone.

88. However, certain other markets enjoy a comparable price advantage through zero rating and VAT exemption:

- Tourism related services in the town of Victoria Falls in Zimbabwe are zero-rated; and
- Tourism accommodation in Botswana is VAT exempt³².

89. Some other countries in the region have an advantage of lower rates of VAT (Kenya 16%, Namibia 15%, South Africa 14% and Botswana 10%) although other countries that have the disadvantage of higher VAT rates (Tanzania and Malawi, 20%).

Incentives

90. **Although Zambia currently offers three incentives applicable to the tourism sector, the extent and positive effect on the growth of the sector is limited.** Incentives in Zambia are generally focused on the entire tourism sector and concentrate on providing accelerated rates of depreciation on buildings and equipment which results in a reduction in the taxable income of operators. Considering that the industry suffers from low profit margins (which are further reduced because of the difficult operating conditions in Zambia) the net effect of this type of incentive is negligible.

91. The level of incentives in the tourism sector in Zambia generally compare favorably to other countries with undeveloped tourism industries such as Mozambique and Malawi, but not to countries such as Kenya and Tanzania who already have established tourism industries, see table below:

³² Botswana Value Added Tax Act 2000 states that exemption applies to accommodation in any hotel, motel, inn, boarding house, hostel, or similar establishment in which lodging is regularly or normally provided to five or more persons at a daily, weekly, monthly, or other periodic charge.

Table 10. Examples of Investment Incentives of Selected Countries in the Region

Country	Description
Zambia	<ul style="list-style-type: none"> Hotels enjoy an initial allowance of 10% and an annual 5% wear and tear allowance of the cost the hotel building; Machinery in tourism enterprises is depreciable at an accelerated rate of 50% (over two years); Buildings used for manufacturing, mining, or hotels qualify for a wear and tear allowance of 10% of the cost in the year they are first used;.
Malawi	<ul style="list-style-type: none"> 40% investment allowance on qualifying new buildings and machinery; Up to 30% allowance on used buildings and machinery; Up to 15% allowance for special areas
Mozambique	<ul style="list-style-type: none"> No duty on importation of large capital equipment; Investments shall benefit from an investment tax credit of 8% of the total investment (not applicable to cost of buildings, passenger vehicles, furniture and decoration, leisure equipment) for up to 5 years and 18% in Capo Del Gado, Inhambane and Niassa Province and 13% in Gaza, Tete, Zambezia and Sofala Provinces; Accelerated depreciation on new immovable assets and other tangible fixed equipment assets.
Kenya ³³	<ul style="list-style-type: none"> Hotels can be depreciated at an accelerated rate of 4% on a straight line basis Investment allowance on hotel buildings of 100% Vehicles can be depreciated at 25% on a straight line basis
Tanzania ¹²	<ul style="list-style-type: none"> Duty of 0% on capital goods Duty of 0% on hotel furniture and equipment e.g. carpets, furniture, etc No duty on one non-utility administration vehicle No duty and VAT deferment on Tour Operator vehicles Losses carried forward for 5 years Capital allowances of 100%

Source: Malawi Investment Promotion Agency, Kenya Investment Centre, Tanzania Investment Centre, Zambia Investment Centre and Centre for Investment Promotion in Mozambique

Duties and Excise

92. **High customs and excise duties have a negative impact on the competitiveness of the destination.** These increased costs are likely to be reflected in a reduction in the amount spent by tourists at the destination or a reduction in demand and a migration to alternative destinations in the region.

³³ Designated as key or priority sectors and generally receive preferential treatment

93. Lodges in remote wildlife and rural areas operate under adverse conditions and have to import capital equipment, in order to develop substitute infrastructure (roads, water reticulation and purification systems, electricity through generators and solar panels and satellite communication structures, etc). The cost of these items and the duties, excise and VAT costs make up a large proportion of the costs associated with running lodges and negatively impacts on their profitability, especially during the initial stages of the development.

94. Tourism businesses are in some cases severely penalized for importing items which are expected by international tourists and are not available locally or through Common Markets of East and Southern Africa (“COMESA”). Such items include luxury food stuffs and alcohol (wine, spirits and beer). Obtaining these items is very costly due to high customs, excise duties and other costs associated with transport and border post layovers and delays.

95. **Excise duties which are higher than average in the region and in some cases prohibitive** especially with regards to imported wines, imported spirits, diesel and cigarettes, as indicated in the below table.

Table 11. Excise Duties of Selected Competitor Destinations

Country	Clear Beer	Wines	Spirits	Cigarettes	Petrol	Diesel
Zambia	70%	125%	125%	115%	60%	30%
Malawi	65%	65%	65%	60%	20%	20%
Kenya		45%	100%	0%	Ksh19/l	Ksh8.5/l
Tanzania	<i>ad valorem</i> 10% and 30%					

Source: Customs and Excise and government departments of Malawi, Zimbabwe, Kenya and Tanzania.

96. **In addition to having a negative effect on the competitiveness of the Zambian tourism sector, the high cumulative duties and excise costs associated with particular items are likely to result in a reduction in revenue to the ZRA.** High duties and excise costs encourages cross border smuggling and selling on the black market which is apparently evident in the informal markets in Lusaka where a bottle of wine can apparently be obtained for a third of the price of comparable supermarket products. In addition high excise costs result in a drop in the sales of these items, especially with regards to wines (wines in lodges in Zambia cost up to 3 times more than in lodges in South Africa).

97. Because Botswana, South Africa, Swaziland, Lesotho and Namibia are members of the Southern African Customs Union (“SACU”), which promotes free trade between these countries, tourism operators in these countries benefit when they import goods from the region. Although Zambia is part of COMESA, Zambian tourism operators do not benefit significantly when they import goods from the region as a significant proportion of imports to Zambia are from South Africa. Therefore tourism operators in the SACU who source a large proportion of their products from within member countries are likely to have a competitive pricing advantage over tourism operators in Zambia.

Licenses and other Fees

98. **In addition to all the above-mentioned taxes, operators have to pay a multitude of license fees to various national and regional government and quasi-governmental departments.** Operators in some cases must obtain up to 54 separate licenses in order to operate. Also, the various national, regional and local departments responsible for administering licenses operate autonomously and do not co-ordinate with each other regarding increases. Increases seem to be driven by departmental budgetary requirements and are related neither to market conditions nor to services received. In some cases licenses and other fees are high yet little or no value is received from authorities in return.

Departure Tax

99. **The departure tax for international departures is comparative to other destinations in the region and is low in relation to international destinations.**

100. Zambia requires international tourists to pay their departure tax at the airport before departure. This ensures that the cost is very visible to international travelers and is contrary to the worldwide trend, which is also adopted by various destinations in the region, and involves incorporating the departure charge in the price of the ticket.

101. **The current tax burden on the industry is not one of the major factors hampering the growth and development of the sector.** However, it does have an impact and adjustments to taxation policy can contribute to the growth of the sector, at least, in the short-term. **However, there are more serious issues that severely hamper growth in the tourism sector, such as the cost of capital, lack of infrastructure and, as mentioned previously, an excessively bureaucratic environment.** As a priority, government should focus its efforts on resolving these issues. Significant reductions in taxation are not recommended as they will negatively influence the government's ability to resolve these issues.

e. Recommendations

102. The current tax burden on the industry is not one of the major factors hampering the growth and development of the sector. There are other serious issues that severely hamper growth in the tourism sector, such as the high cost of capital, currency fluctuations, lack of infrastructure, utilities and social support structures (hospitals, schools), lack of locally produced furniture, fixtures, equipment and food stuffs, increased competition from more mature, recognized and developed regional competitors and the costs and barriers associated with multiple licenses, levies, registrations and submissions. As a priority, government should focus its efforts on resolving these issues.

Significant reductions in taxation are not recommended as they will negatively influence the government's ability to resolve these issues.

103. However, the tax system does have an impact and adjustments to taxation policy can contribute to the growth of the sector, at least, in the short-term. But at the same time, incentives offered, i.e., reductions in tax liabilities vary depending on the specific location. Differential tax rates create an un-level playing field for investment and should be avoided.

104. Our recommendations are therefore focused on stimulating the largest amount of growth in the sector with the least amount of revenue loss to the authorities. We are also aware of ensuring that there is consistent and equal application in the sector in order to reduce collection and administration costs and rates of compliance.

105. We also anticipate that the growth of the sector is most likely to come from tourism products in remote under-developed wildlife areas. As these areas are also most likely to have the greatest impact on poverty reduction and alleviation, we recommend that operators in these areas are supported.

106. Accordingly, our recommendations are focused on improving the competitiveness of the industry by reducing the price of the destination caused by VAT and customs and excise.

- **Uniform application of the Value Added Tax perhaps at a concessional rate.** The experience of other countries provides a guide:
 - Chile and Colombia allow the deduction of VAT on services provided to foreign tourists;
 - Various countries in the European Union have reduced rates of VAT on tourism related services: Belgium (Standard: 21%, Reduced: 6%), France (Standard: 19.6%, Reduced 5.5%, Spain (Standard: 16%, Reduced: 7%), Greece (Standard: 18%, Reduced: 8%, and United Kingdom (Standard: 17.5%, Reduced: 5%)³⁴.
- **As a first step, the impact of the VAT reduction in Livingstone should be studied in order to assess whether such a reduction has attracted investment.** A reduction in import duties in respect of certain essential infrastructure items, such as generators, water purification units etc.
- **The tax authority may wish to lower the CIT to 30 percent to match other competitor countries in the region.**
- **The existing incentives relating to accelerated depreciation should remain.**

³⁴ WTTC Tourism Tack Force Case Study 3: VAT in the European Union 2002

Box 1. IMF Debate on the treatment of VAT in the tourism sector

The key economic point is that the ability of tourists to substitute between services offered by different countries can quite plausibly imply highly elastic demand for services that are broadly the same in different countries. This high elasticity points to a lower tax rate. This argument applies most obviously to facilities—palm-fringed beaches, for instance—that are much the same in different countries. Where facilities are genuinely unique, however, the same consideration will point to a high rate, naturally implemented as an excise or entrance fee.

A strong case can thus be made for setting a low tax on generic tourist services, perhaps even at a zero rate. Or to discriminate between less elastic domestic demand and more elastic foreign demand, tax might be rebated to non-residents (as with hotel tax in Canada): this, of course, is potentially troublesome to administer.

At the same time, there are arguments against taxing generic tourist services at a low rate. The first is the administrative: multiple rates [within a sector or system] complicate administration and compliance, and create opportunities for abuse. The second is that there is a coordination problem: the elasticity of demand for tourist services offered by any particular country may be much greater than that for the services offered collectively (regionally). While the service offered by any particular game park is unique, for example, that offered by game parks in general is much more so. Thus, all countries could gain by collectively agreeing to raise the tax rate applied. This argument points to regional coordination. Finally, to the extent that such services are purchased by foreigners, who presumably appear in policy makers' objective function with a lower weight than do their own nationals, the social loss from raising taxes on these goods will be reduced: taxing foreigners is always attractive.

Ebrill, Keen, Bodin, and Summers, The Modern VAT, IMF, 2001, p. 120.

3. Manufacturing

107. The manufacturing sector in Zambia been strongly affected by the changes of political regimes and economic systems (including a period of nationalization in the 1970s and 1980s) over the past 30 years. As a result, it has yet to become a main driver of the economy, and it's contribution to GDP has fallen to around 10 percent during the past five years. At the same time, given the abundance of land and labor, the sector has potential to grow substantially in the right environment.

a. Summary of the tax and incentives in the manufacturing sector

108. The following are the main tax parameters available to the manufacturing sector.

Corporate Income Tax (CIT)

109. The standard rate of corporate profit tax is 35% is in effect. For manufacturing companies listed on the Lusaka Stock Exchange the rate of tax is 2% less than the standard rate in the year of listing. In addition, if the firm being listed sells at least one-

third of its shares to indigenous Zambians, the corporate tax they are liable for is reduced by 5%. A 15% rate is applied to the income earned from the manufacture of fertilizers. Under the Investment Act of 1993 an investor with an investment license has the following incentives:

Income tax allowances

110. An investor is entitled to capital allowances which shall be deducted in ascertaining the gains or profits at the following special rates:

- buildings used for manufacturing, or hotels qualify for a wear and tear allowance of five per centum per year of the cost, plus an initial allowance of ten per centum of the cost in the year in which the building is first used;
- implements, machinery and plant used exclusively for farming, manufacturing or tourism qualify for a wear and tear allowance of fifty per centum per year of the costs in each of the first two years;
- any loss incurred by an investor, in any charge year is deducted only from the income of the investor from the same source as that in which the loss was incurred; such loss is deducted from his income of the following charge year, and so on from year to year;
- any payments made for the purpose of technical education relating to a business enterprise or for the purposes of obtaining further experience, training or qualifications, relating to that business enterprise;
- any expenditure, not being expenditure of a capital nature, incurred by a business enterprise during a charge year on experiments or research relating to that business enterprise.

Value Added Tax

111. The Value Added Tax Act offers incentives by way of input tax credits and zero rating of sales.

Input Tax Credit Mechanism

112. This mechanism allows VAT registered suppliers to claim back input tax on purchases and eligible business expenses.

113. However, the law puts restrictions on some expenses. These are;

- Petrol
- Telephone and internet bills except where these are further rendered as taxable supplies by a business center, hotel or similar establishments.
- Business entertainment.

Import Deferment Scheme

114. This is a variation of the input tax credit system under which VAT registered suppliers enjoy relief from import VAT when they import goods that are listed on the import VAT deferment schedule. The relief is basically on raw materials and goods of a capital nature.

Zero Rating Relief

115. Under this relief, output tax is not charged when a taxable supply is made. The following are the zero rating supplies under the VAT:

Exports

116. Export of taxable goods by or on behalf of a taxable supplier is zero rated i.e. VAT is levied at zero percent.

VAT Threshold

117. An amendment to the VAT Act raised the threshold for VAT registration to K200 million. In addition, the discretion for voluntary registration was removed. (This is discussed in more detail on the Small Scale & Medium Enterprises (SMEs) sector report.)

VAT Exemption – the pharmaceutical sector

118. The pharmaceutical sector is exempt from VAT and must therefore bear the cost of VAT in their cost of production. This puts the products of the domestic sector at a cost disadvantage against imported products. This can be illustrated by the following example which assumes domestic production in Zambia and compares the situation with similar production undertaken in South Africa for export to Zambia.

Commercial vehicles & saloon cars

119. There is a wear and tear allowance on commercial vehicles (25%) and saloon cars of (20%)

Customs and Excise Taxes

120. There were some incentives, called "special incentives" that were being granted by Zambia Investment Centre and implemented by ZRA Customs. These were discontinued some 5 years ago and all investors now get general Incentives, which do not give them exemptions from Customs Duty and Import VAT.

121. The main objective of removing special incentives was to target sectors and products rather than companies in giving incentives. Hence, through a careful and structured reform of the Customs Tariff, incentives have been introduced as follows:

- (a) All raw materials/capital items have a duty rate of 0% or 5% and mostly VAT free or deferred;
- (b) Intermediate Products - 15% + VAT deferment on some products;
- (c) Finished/Luxury goods Duty - 25%

122. Sectors that have been specifically targeted are Agriculture and Mining. For example, the Mines and Minerals Act Section 97 gives duty exemptions for all mining equipment and machinery if imported by a licensed mining company.

Duty Drawback Scheme/Manufacturing under Bond

123. Duty drawback is a mechanism whereby duties paid on imported inputs that subsequently are used for the production of goods for export are repaid. The rationale for the arrangements is to eliminate the burden of duties from input prices of domestic production that is exported. However, the details of the scheme are not widely publicized.³⁵

b. The Tax Incentive Regime in Practice

124. Our METR and quantitative analysis of the tax system does not reveal any major problems nor is it excessively complicated in comparison to the other sectors in the economy. The main tax/incentive parameters in the manufacturing sector are comparable to those in other African countries. The real issues inhibiting growth in the manufacturing sector appear to be procedural, administrative barriers, and access to finance.

c. Analysis

125. **The METR on assets used in manufacturing are calculated to be 0%-10 percent (Table 7).** As in tourism, manufacturing benefits from highly accelerated (2-year) deductions for machinery and deductions that are moderately accelerated, given the 17 percent inflation rate, for industrial buildings (20-year), coupled with an effective 20 percent first-year allowance.

126. Although the rates of corporation tax (35%) and VAT (17.5%) in Zambia are neither excessively high (although they are probably on the high side) nor are they out of line with other countries in the region.

³⁵ A duty drawback scheme succeeds in providing imported inputs to the exporter at world prices. However, it does not succeed in eliminating the impact of tariff protection on the domestic price of non-tradable goods; only a general reduction of import tariffs can do that.

127. The main issue identified by entrepreneurs relates to tax administration: corporate tax returns take too long to agree and finalize with the ZRA. This leads in some cases to penalties (which are considered excessive) being applied by ZRA in the event of a dispute. The effort necessary, and therefore the cost burden on the company, to resolve a dispute is considered excessive due to an alleged over-zealousness by ZRA to collect what it considers to be the amounts due. The issuance of Warrants for Distress (and even the threat of their use) by ZRA in disputes over assessments was seen as an excessive use of ZRA's powers. Striking a balance between the requirement to raise revenue and dealing with disputes in a reasonable manner is always difficult for any revenue authority. It would appear from our consultations that ZRA has some way to go in achieving such a balance.

128. In addition, firms complained that there are inconsistent procedures adopted at the point of importation, and (in some cases) incompatibility of documentation for customs and excise purposes and for VAT.

d. Recommendations

- **Harmonize the rate and application of VAT across the sector for clarity, transparency, and fairness,**
- **As a second best option, review and change VAT exemption status to zero-rated for pharmaceuticals industry** as it is a disincentive for domestic manufacture to invest in the sector,
- **Review and perhaps eliminate the five percent excise tax on electricity** as it substantially raises the cost of production
- **Consider lowering CIT to 30 percent to bring the rate in line with competitor countries.**

4. Financial Sector

129. The financial sector has grown dramatically in the past 10 years, owing to the diversification of services into non-bank financial activities (leasing, for example), and the sectoral contribution to GDP is over 9 percent. Despite the growth in the financial system over time, it appears that finance bears the heaviest tax burden.

130. As at the end of 2002, the structure of the banking industry consisted of the Bank of Zambia and 14 commercial banks. Of the operating banks, 8 were foreign owned, 4 owned by local private investors, and the Zambian Government owned 1, while 1 was a joint venture between the Zambian Government and the Indian Government.

131. There is also a formal non-bank financial institution (NBFI's) sector regulated and supervised by the Bank of Zambia under the Banking and Financial Services Act of 2000. Included in this sector at the end of 2002 were 9 leasing companies, 3 building

societies, 1 development bank, 1 savings and credit bank, 37 bureaux de change and 2 micro-finance institutions³⁶.

a. Description of tax/incentive scheme in the banking sector

Corporate Income Tax

132. A rate of 45% corporation tax is applied to taxable profit over K 250 million (approximately US\$ 50,000), with the standard rate of corporation tax 35% applying to taxable profits below K 250 million.

133. A new separate tax of 15% was introduced in 2002 on interest income from government bonds³⁷. This reflects the demand by the government for domestic borrowing at high rates of interest and the desire to tax what are seen as super profits generated by banks' lending to the government.

134. Under the Investment Act of 1993 an investor with an investment license has the following incentives:

Income tax deductions

135. An investor is entitled to the following deductions in ascertaining gains or profits:

- (a) any loss incurred by an investor, in any charge year is deducted only from the income of the investor from the same source as that in which the loss was incurred; such loss is deducted from his income of the following charge year, and so on from year to year;
- (b) any payments made for the purpose of technical education relating to a business enterprise or for the purposes of obtaining further experience, training or qualifications, relating to that business enterprise;
- (c) any expenditure, not being expenditure of a capital nature, incurred by a business enterprise during a charge year on experiments or research relating to that business enterprise.

Value Added Tax

136. The core business of banks is exempt from VAT. This includes the operation of bank accounts, the making of loans and the charging of interest as well as currency

³⁶ Source: Bank of Zambia 2003 – A Snapshot

³⁷ For the purposes of this tax Government Bonds are defined as 12, 18 or 24 months bonds, and are not to be confused with Treasury Bills which issued on 91, 182 and 270 days bases.

conversion. However, leasing is subject to VAT such that the interest component of a loan will be exempt from VAT, the finance element of a lease is subject to VAT.

Import deferment scheme

137. This is a variation of the input tax credit system under which VAT registered suppliers enjoy relief from import VAT whenever they import goods that are listed on the import VAT deferment schedule. The relief is basically on raw materials and goods of a capital nature. The banking sector is mainly an importer of capital goods for the purposes of VAT.

Customs and Excise Act

138. The banking sector, by nature of its business, is not in a position to take advantage of incentives to any great degree on raw materials, intermediate goods or finished goods. However, the recent reduction in the rate of duty on computers (from 15 to 5%) would have been beneficial for the sector.

- b. The tax/incentive system in practice

Corporate Income Tax

139. The banking sector faces a relatively high rate of company tax of effectively 45%, which, in the absence of significant allowances, translates into substantial tax payments of, accounting for over 20% of total company tax revenues. High corporate income tax rates for banking services has forced banks to diversify operations into lower tax, non-bank lending operations such as leasing (which is subject to the standard 35 percent CIT rate).

Value Added Tax

140. In contrast to the CIT, basic banking services (loans) are not subject to VAT. But this also means that there is no reclaim for any vat-able inputs as well. For this reason, banks again have incentive to diversify their portfolios into non-banking services. As leasing is subject to VAT at the standard rate, as the banks' leasing activity expands they can recover a greater proportion of the input tax than would be the case if they only undertook exempt banking activity. Although the leasing activity is usually undertaken through a separate corporate entity, the VAT grouping provisions mean that this additional benefit – increased input tax recovery – is still open to the banking sector.

141. Interviews with financial sector officials complained, as did the manufacturing and mining sectors, that the administration cost of dealing with ZRA was too high. Tax returns took too long to complete and finalize with ZRA and VAT inspections were a very onerous event. The complaints seemed to rest mostly with the approach adopted by ZRA officials who seemed to regard respected organizations, including those listed on the Lusaka Stock Exchange, as potential tax evaders instead of partners in collecting taxation.

c. Analysis

142. **The METR of the financial services sector confirms that its tax burden is relatively high, ranging from 25-35 percent (Table 7).** This result obtains primarily because the financial services sector faces a 45 percent tax rate, and takes less accelerated deductions for machinery than the manufacturing, tourism and agricultural sectors, although it does benefit from the accelerated depreciation and investment allowances for industrial buildings.³⁸ In addition, since the financial services sector is largely exempt from VAT, it suffers significant irrecoverable VAT on machinery, so that the indirect tax on machinery purchases is relatively high (20 percent).

143. **The tax burden on the financial sector is relatively high compared with other countries in the region.** The top rate of tax of 45% is high by comparison, and applies at a relatively low threshold – about US \$ 50,000. The recently levied 15% tax on interest on government bonds adds to the burden. The rationale would appear to be a desire to tax what are seen as super profits, particularly when most recent bank lending was regarded as risk free as it was financing the domestic borrowing requirements of the government. The high interest rate environment, created by this demand to finance the public sector borrowing requirement, has effectively squeezed the private sector out of the domestic Kwacha market.

144. VAT exemption status of many firms especially in the agricultural sector has hurt the leasing market, as it discourages leasing because VAT on leased equipment cannot be reclaimed by these firms. **Internationally, access to credit through finance leasing has been shown to be an extremely important source of finance for investment in plant and equipment, particularly for small businesses. Effectively, the cost of leasing for VAT exempt firms is higher because that they cannot lease equipment and claim back the VAT on payable on lease rentals as an input cost.**

d. Recommendation

- **Reduce the 45 percent corporate income tax rate on the profits from banking operations as it is around 15 percentage points higher than in neighboring countries and 10 percentage points higher than in the standard rate.**

5. Mining Sector

145. The mining sector has traditionally been the backbone of the Zambian economy. The deterioration of its internationally competitive position (Zambia remains a relatively high cost producer) in the last twenty years has been well documented, and its

³⁸ Note that the METR on the financial services sector is understated to the extent that its buildings are classified as commercial rather than industrial, but overstated to the extent that some firms are subject to a 35 percent tax rate.

contribution to total GDP has declined precipitously from over 6 percent in 1998 to less than 3 percent in 2003.

146. The recent privatization of the sector has attempted to create an environment where the productive capacity of the sector, which had fallen into disrepair under nationalized ownership, can be restored. Zambia is by and large at the high end of cost of production of copper³⁹ compared with other international producers. The degree of difficulty in managing costs to maintain copper production in Zambia is not to be underestimated. A favorable tax climate is essential in order to avoid overburdening the cost structure of the new companies that invested in copper mining under the privatization program.

a. Description of tax and incentives in the mining sector

147. Since 2003, the corporate income tax rate was lowered from 25 percent, down from 35%. The importation of equipment and plant are duty free and VAT recoverable, and there are other concessions that have been negotiated separately by companies who have purchased privatized entities.

148. The main feature of the mining sector is that most of the incentives are negotiated on a case-by-case basis by companies which have purchased privatized entities from ZCCM. This feature makes it difficult to analyze the sector as a whole. However, in general, mining contributions to total tax revenues are extremely small.

b. The tax incentive regime in practice

149. The main issues arising in the taxation of the mining sector from our review of the sector are as follows:

Treatment of importation of services

150. The importation of foreign services is not being treated in line with international practice. Usually, importer of services can reclaim the VAT of these services as an input charge. The situation in Zambia (which we have not seen anywhere else) is that VAT on imported services may only be recovered if the foreign provider registers for VAT in Zambia or appoints a local tax agent. Few foreign-based providers of services register for VAT because of the possibility of being liable to taxation in Zambia. The result is that the mining companies cannot freely contract the supply of foreign expertise in Zambia without incurring a VAT charge.

151. Second, there is also an issue of a 15% Withholding Tax on payments to foreign providers of services originating in countries which do not have Double Taxation Agreements in place with Zambia. Where applied, this VAT treatment and the

³⁹ Zambia: The Challenge of Competitiveness and Diversification – World Bank, Private Sector Unit, Africa Region – 10 January 2003, page 119.

imposition of withholding tax would have the effect of increasing of delivery of these services is at an effective rate of 32.5%.

c. Analysis

152. A review of this sector suggests that the tax code is generally supportive of the mining sector. In addition, the rates of taxation and the tax incentives are not generally out of line with competitor countries in the region for these other sectors in the economy.

153. **Because of the relatively low tax rates and significant incentives, the mining sector enjoys an METR of around 0% (Table 7).** In particular, with expensing of many equipment purchases and moderately accelerated depreciation deductions for the rest, the METR on machinery reflects the largest subsidy (-18.3 percent) received in any sector for any asset. Investment in buildings is untaxed, although inventories are, as noted above, taxed relatively highly. The net result, given that mining is relatively machinery intensive, is a sectoral METR in the neighborhood of zero. Of course, the overall sectoral METR depends on the tax treatment of the acquisition of land/reserves, which, as noted above, varies from mine to mine and is not considered in this analysis.

d. Recommendation

- **The main recommendation is to review the VAT and withholding tax schemes on the procurement of services of foreign firms to bring eliminate the distortion between procurement of domestic from foreign services.**

6. Small Business Sector

154. The current definition of a small business in Zambia is a firm which has turnover less than K 200 million, per year. The range of activities in the sector includes traded goods (small retail businesses), cafes, bars and hotels, small scale manufacturing and engineering, wood and leather products, and small scale consultants and providers of services.

a. Tax system for small businesses

155. Small firms are not registered in the general tax system and therefore not liable to VAT and corporate income tax; instead small businesses are liable to pay a blanket 3% turnover tax. This scheme was designed to simplify the tax rules for small businesses in order to increase compliance and encouraging business to acquire enough scale to take advantage of the benefits of graduating to the formal sector. The ZRA's expected impact of the 3% turnover tax is that it reduces the cost of compliance burden on a sector that always finds it difficult everywhere to understand and comply with more complicated tax rules. The payment of a 3% presumptive tax is assumed to be less costly on the business than full compliance with VAT and corporation tax. In implementing the blanket

turnover tax, the authorities calculated that the tax revenue collected from taxes such as CIT would not justify the cost of preparing and processing such returns.

Box 2. Taxation of small businesses: international best practice

International best practice suggests that any special tax regime for small enterprises should offer reduced compliance costs and a reduction in the actual tax burden. This reduction in the actual tax burden is intended both to compensate, to some extent, for the particular difficulties that this sector faces in accessing capital and to act as an inducement to enter the “formal sector”.

Experience in transition countries has shown that simplified tax systems generally not only reduce compliance costs bookkeeping, and reporting standards but also considerably lower the actual small business tax burden, revenue yields mostly are minor and represent a negligible share of total tax collection. Clearly revenue collection is not the key objective of simplified systems in transition countries. They have more been designed to encourage businesses to register with the tax authorities and facilitate the operation of small businesses in the formal economy and to support the establishment of links between the small business community and government agencies. However, a too generous system risks to create a situation where collection and compliance costs exceed the amount of tax collected. In addition, the lack of coordination of the tax burden under a presumptive tax with the tax burden under the standard tax system works as a disincentive to declare business growth and migrate from the presumptive to the standard tax system.

Sources: FIAS, and adapted from Engleschalk (2004) “Creating a Favorable Tax Environment for Small Business Development in Transition Countries”, World Bank manuscript

b. The Tax/incentive Regime in Practice

156. The 3% tax on turnover is a final tax. Businesses with a turnover below K 200 million were deregistered for VAT under the scheme and the “option to tax” for businesses below the threshold was withdrawn. The purpose of the “option to tax” is to allow businesses to elect to enter the general tax system if they expected to recover sufficient input tax to outweigh the associated compliance costs. In addition, full registration sometimes confers a commercial credibility or legitimacy in dealings with third parties, which some firms may consider to be worth more than the compliance costs associated with registration.

c. Analysis

157. **The effective tax burden on small business is in the 20-25 percent range, unless the business is machinery intensive, in which case it would be somewhat higher (Table 7).** Small businesses subject to the gross receipts tax and exempt from the VAT face a relatively high METR (36.3 percent) on machinery due to the gross receipts tax, which is based on total sales rather than a measure of income and is thus relatively burdensome despite its low rate, and the indirect tax due to a lack of recovery of the VAT. The METRs on buildings and land are relatively low (7.4 and 5.8 percent), reflecting the effects of only the gross receipts tax, and the METR on inventories is

somewhat higher (19.2 percent) since the analysis assumes that some inventories are subject to the VAT, which cannot be recovered by exempt small firms.

158. Although the simplified, presumptive tax regime has the merit of simplicity, it has a number of drawbacks from a tax policy perspective:

- **Although small businesses in Zambia perceive the turnover tax system as an onerous financial burden, they also believe that there are disadvantaged by being outside of the general tax structure.** That is, the withdrawal of the option to tax is that it has the effect of “locking” businesses, which are below the threshold, out of the mainstream economy. This is because registered businesses and (it has been suggested) the government will not do business with them.
- **Small businesses complain that the level of the VAT registration threshold is that it is too high.** Pitched at K200 million (US \$40,000) when per capita income is only K 1.75 million (US \$375), provides a high threshold for firms to enter the formal sector and thus encourages even medium-sized firms to remain outside the tax net and avoid even the 3 percent turnover tax.
- **The non-registration for VAT means that producers and traders cannot reclaim VAT incurred on items for processing or onward sale, thereby increasing the cost of final production to the consumer.** In some cases, VAT recovery could be substantial enough such that the 3% presumptive tax could be operationally higher than if a small business paid VAT; in this event, the effective tax burden could be higher than with a VAT.

159. Finally, **it is difficult for small businesses to have a collective body to represent them, given the diversity of firms and thus interests.** Thus, there is no effective mechanism for small entrepreneurs to voice their tax concerns. Furthermore, the sector is invariably poorly funded and so is often not in a position to formulate policy in specialist areas, such as tax. Accordingly, this report should not be taken as a representation of the views of any of the parties interviewed during the course of this review.

d. Recommendations

- **Allow producers currently under the K 200 million threshold the option of registering for the VAT if they have the capacity to meet the reporting requirements, in order to have the ability to reclaim input VAT.** For cost and efficiency reasons, the threshold should remain at the K 200 million level.
- **The VAT reporting system could usefully be modified to require the business to submit VAT returns on a quarterly, instead of monthly, basis.** This would result in a significant compliance saving for the business (and also for ZRA) while, at the same time, costing the GOZ relatively little in terms of lost cash flow.

- **VAT penalty regime is excessive for those small businesses which are in the tax net.** At 0.05% per day, the VAT penalty for late payment is excessive. The penalty level should be set so as to encourage compliance (i.e., above commercial interest rates) but not at such a level that it causes financial hardship.
- **High rates of customs and excise taxation could usefully be reduced for small firms.** The final point that affects this sector is that some rates of customs and excise duties are regressive in that they affect small businesses more than large businesses. For example, electrical hardware – commonly traded by the small business sector—the duties may already be so high that they create distortions that may encourage smuggling. This is an important factor in reviewing the rates of import and excise duties to remove any incentive for tax evasion. This issue is not exclusive to this sector.

Box 3. An argument for small enterprises “opting-in” to a VAT regime, despite compliance costs

There are important circumstances in which it is commercially advantageous to be fully liable for VAT. This includes firms selling zero-rated items and, potentially even more important, those selling to other firms that would wish to register for VAT in order to effectively reclaim tax paid on their own inputs. For these reasons, it is normal practice to allow firms to register for VAT voluntarily. The right is subject, typically, to provisions guarding against temporary or fraudulent registration simply to obtain refunds: deregistration is commonly restricted, for instance. Indeed there is a sense in which a reduction in the threshold is self-enforcing: the more firms that are subject to VAT the greater the likelihood that a trader will find themselves selling to registered traders and so will find it advantageous to register too.

Even when it is commercially advantageous to be below the threshold, however, the extent of that advantage should not be overstated. Small traders will be unable to recover VAT on their inputs: it is only their own value added, not the full value of their sales, which escapes taxation. Nevertheless, there clearly is potentially some cause for concern. In particular, firms characterized by a high ratio of value added to sales and selling to unregistered purchasers—small traders providing services directly to final consumers being the key group here—are likely to find it worthwhile to be exempt from VAT. Thus equity considerations would tend to point toward higher thresholds than would otherwise be the case.

Source: Ebrill, Keen, Bodin, and Summers, The Modern VAT, IMF, 2001, p. 120.

E. Comparison with Neighboring Countries

160. For purposes of comparison with the marginal effective tax rates (METRs) on capital income in Zambia, this section provides extremely rough estimates of the METRs on capital income in the neighboring countries of South Africa, Malawi, Tanzania and Zimbabwe. The METRs are calculated for the general tax system in each of these countries and reflect only provisions available either to all firms or to all firms within one of the sectors analyzed in the report; that is, the report does not consider incentives granted to specific firms within a sector (such as selective tax holidays, which are prevalent in all of the comparison countries) or to other categories of firms such as exporters or firms in tax-favored regions. Since the treatment of mining appears to be relatively idiosyncratic, the comparison examines the tax treatment in the other four sectors – manufacturing, tourism, agriculture and financial services. Table 12 below presents a schematic overview of the tax and incentive schemes in each comparator country.

Table 12. Comparator Country Tax Incentive Regimes 1/

	Zambia	South Africa	Malawi	Tanzania	Zimbabwe
I. Country-wide 2/					
Tax incentives	Tax holidays available (3 years urban 5 years rural) for micro/small businesses. CIT, VAT, and tariff reductions available in some sectors or in mining, for some individual firms.	Tax holiday for firms incorporated between 1996-1999. Other incentives such as SME development program for manufacturing sector firms (up to ZAR 3 million), other SME support, and a skills support program. DTI lists 90 different types of fiscal and non-fiscal incentives	CIT tax holiday up to 10 years for investment in "priority industries", 15% thereafter (includes farming, timber). Life insurance, 21% , and mining industry has special incentives in calculation of income subject to tax. Min of Finance can grant import duty exemptions on capital good inputs. Duty drawbacks and VAT exemptions available for goods re-exported within 2 years of import	No CIT tax holidays, other tax incentives given to priority and lead sectors (see below)	Investment alliances for new investments, tax holidays for 4 years (CIT 10%) for manufacturing approved by Minister of Finance.
Corporate income tax	Basic rate: 35 %--45% for financial sector in excess of K 250 million, ad hoc reductions for some sectors	Basic rate: 30 %, concessional rates for mining	Basic 30% for domestic firms, 35 % for foreign subsidiaries.	Basic rate: 30%	Basic rate: 35%
VAT rate (general)	17.5%, deferments for specific items, VAT only applicable for firms turnover over minimum threshold	14%	17.5%	20%	15%

II. Regional					
Specific regions with incentives	Rural areas eligible subject to 15% CIT.	Foreign trade zones, export zones, industrial development zones offers new investments fiscal incentives. New eligible firms receive tax free status (in grant form) for 3 years	Export processing zones, firms enjoy 0% CIT and no duties on imports.		Export processing Zones, 0% CIT, Build Own Operate Transfer Arrangements: 0 CIT first 5 years, 15 % CIT next 5 years, 20% third 5 year
III. Sector Specific					
Specific sectors with incentives	Mining (copper, cobalt) CIT 25%, agriculture 15%, nontraditional exports, 15%. Capital allowances especially in ag, tourism, manufacturing, (50% per annum). Duty exemptions for capital equipment imported by mining company. VAT zero ratings for exports, tour packages.		Priority sectors: manufacturing, agriculture, mining, fisheries, tourism, forestry, education and welfare. No specific incentives	Investment allowances for priority and lead sectors (manufacturing, resources, financial services, transport, forestry, agriculture, high tech. Mining, tourism). All pay 30% CIT, but all receive 0 duty status for imported inputs, 100% capital allowance, VAT deferment or exemptions.	Basic rate: 35%, 25% for mining, 10% for manufacture in growth industries, 20 % other manufactures which export, 20% tourism

1/Comparator country data obtained during desk study from International Bureau of Fiscal Documentation Country Reports, various years & should be used for reference only. Zambia information is current as of September 2004 & does not include proposed incentive changes.

2/ All countries in this list have double taxation agreements.

1. South Africa

161. The standard rate under the corporate income tax is 30 percent.⁴⁰ In general, machinery is deductible straight line over a period of five years. However, for manufacturing, 40 percent of the cost of machinery is deductible in the first year, with deductions of 20 percent in each of the subsequent 3 years. Buildings in industries other than farming and mining are deductible straight line over a period of 20 years. It is not clear what deductions are available for buildings used in farming, so a METR is not calculated in this instance.⁴¹ Farming development capital expenditures are expensed, while other expenditures are deductible according to the ordinary schedule, except for farming machinery which is deducted over three years (at rates of 50, 30 and 20 percent. Accordingly, and as in the analysis for Zambia, the METR calculations assume that machinery in farming is deducted straight line over two years, reflecting a compromise between expensing and the other deduction schemes. A secondary tax on companies (STC) is also assessed on distributed dividends at a 12.5 percent rate. The METR calculations assume that this applies to half of earnings financed with equity, resulting in a 6.25 percent dividend distribution tax on investments financed with equity. A property transfer tax, generally at a rate of 10 percent for companies, is imposed on transfers of land and buildings.

2. Malawi

162. The standard corporate tax rate is 30 percent, with a 35 percent rate applied to foreign firms; the calculations for the financial services sector assume the latter rate applies. However, tax holidays are available in “priority” sectors, with a zero tax rate for up to 10 years and a 15 percent rate thereafter (20 percent for foreign firms). Priority areas include manufacturing, agriculture, and tourism.⁴² Accordingly, the calculations in these three sectors assume a ten-year tax holiday, followed by a 20 percent corporate tax rate thereafter for manufacturing and tourism and a 15 percent rate for farming. Buildings are depreciated straight line over 20 years and machinery is depreciated straight line at rates that vary from 10-33.3 percent (and some machinery purchases in the agricultural sector are expensed), which is modeled as straight line depreciation over 5 years. Investments in machinery and industrial (but not commercial) buildings also benefit from a generous 40 percent investment allowance. Note that since all of these deductions fall within the tax holiday period, they have no effect on the calculations for the three sectors subject to the holidays. Any exemptions from customs duties or VAT on capital goods appear to be selective and are not considered in the analysis; however, to

⁴⁰ Rates on the mining sector range from 38-58 percent and small farmers are taxed at an 18 percent rate.

⁴¹ A tax holiday program, available to selected projects with government approval, ended in 1999. Generous preferences are granted to firms pursuing “strategic industrial projects.”

⁴² Tax holidays can also be granted to any “productive” sector and the length of the tax holiday may depend on the size of the investment and other factors, at the discretion of the Minister of Finance.

the extent that tax holidays in Malawi include such exemptions, the calculated METRs are overstated.

3. Tanzania

163. The standard corporate tax rate is 30 percent. Industrial buildings are usually depreciated straight line over a period of 20 years. Machinery is depreciated 50 percent in the first year and then at varying rates that will be modeled as a deduction of 25 percent each in years two and three. In addition, an investment allowance of 10 percent is allowed for purchases of industrial buildings, including hotels and most agricultural buildings. Some purchases of farming machinery and machinery for mining can be expensed; this is treated as increasing the deductions for farming and mining machinery to 60, 20 and 20 percent in years one through three.

164. The most striking feature of the tax system in Tanzania is an annual land tax that is imposed at an average rate of roughly 12 percent (although agricultural land appears to be subject only to a minimal land tax). If such a tax were effectively imposed at a rate of 12 percent, it would result in METRs well over 100 percent – all land rents would effectively be confiscated (and the taxpayer would still owe a significant additional tax liability). It seems unlikely that the tax is enforced in such a draconian fashion, but it is thus unclear how it should be modeled. In the absence of further information, the calculations ignore the land tax in Tanzania, but the potential existence of very high tax rates on investments in land (in industries other than agriculture) should be noted.

4. Zimbabwe

165. The standard corporate tax rate is 30 percent.⁴³ Taxpayers may either take deductions for straight line depreciation at fairly slow rates (2.5 or 5 percent for buildings and “just and reasonable” deductions for machinery) or take an initial allowance equal to 50 percent of the cost of the asset, spread equally over two years. Given the high rate of inflation in Zimbabwe (currently slightly over 50 percent), the latter approach would appear to be preferable for the taxpayer in most instances, and the calculations assume an allowance of 25 percent each in the first two years of investments in machinery and “industrial” buildings used in manufacturing, tourism and agriculture. However, “commercial” buildings must be depreciated straight line over 40 years; this treatment is reflected in the METR calculations for investment in buildings in the financial sector.⁴⁴

a. METR Results

166. The comparison of METRs in Zambia with those in the neighboring countries of South Africa, Malawi, Tanzania and Zimbabwe are presented in Tables 13-16.

⁴³ An additional “AIDS levy” of 3 percent of tax paid is not considered in the analysis.

⁴⁴ Additional incentives are available for investment in “growth point areas” and export processing zones.

Table 13. Comparison of METR Calculations in Agriculture

	Zambia	South Africa	Malawi	Tanzania	Zimbabwe
Machinery	11.9%	22.6%	17.3%	18.2%	6.6%
Buildings	0.9%	n.a	-12.4%	10.5%	-46.5%
Land	4.5%	32.0%	-2.2%	20.7%	-39.7%
Inventories	24.1%	40.5%	18.9%	33.3%	56.4%

Table 14. Comparison of METR Calculations in Tourism

	Zambia	South Africa	Malawi	Tanzania	Zimbabwe
Machinery	-11.1%	25.1%	7.2%	9.4%	-2.4%
Buildings	-1.3%	29.8%	-12.4%	10.5%	-46.5%
Land	7.5%	32.0%	-2.2%	20.7%*	-39.7%
Inventories	51.6%	43.3%	22.7%	36.5%	58.5%

**Does not include land tax, which results in METRs well over 100 percent.*

Table 15. Comparison of METR Calculations in Manufacturing

	Zambia	South Africa	Malawi	Tanzania	Zimbabwe
Machinery	-11.1%	25.1%	7.2%	9.4%	-2.4%
Buildings	-1.3%	29.8%	-12.4%	10.5%	-46.5%
Land	7.5%	32.0%	-2.2%	20.7%*	-39.7%
Inventories	49.2%	43.3%	18.9%	33.3%	56.4%

**Does not include land tax, which results in METRs well over 100 percent.*

Table 16. Comparison of METR Calculations in the Financial Sector

	Zambia	South Africa	Malawi	Tanzania	Zimbabwe
Machinery	29.9%	44.2%	7.5%	34.0%	20.6%
Buildings	-0.9%	29.8%	16.2%	14.6%	-27.6%
Land	9.7%	32.0%	18.6%	20.7%*	-39.7%
Inventories	59.5%	40.5%	43.9%	33.3%	56.4%

**Does not include land tax, which results in METRs well over 100 percent.*

167. These results suggest that METRs in Zambia compare favorably with those in the neighboring countries of South Africa, Malawi, Tanzania and Zimbabwe. METRs in Zambia are generally lower than or roughly similar to those in the comparison countries, except for investment in inventories in countries with lower rates of inflation and some investments in Zimbabwe. However, METRs in Zimbabwe are relatively low (for assets other than inventories where the FIFO accounting results in taxation of inflationary gains) not because the tax system is more generous than in Zambia (they are roughly comparable) but because the inflation rate is so high (over 50 percent) – not an example

Zambia would want to emulate.⁴⁵ And, as noted above, METRs on investments in inventories in Zambia would be reduced dramatically if firms chose the LIFO inventory accounting system. Thus, it seems that the tax component of the investment climate in Zambia should not be a significant barrier to investment, relative to the tax systems of neighboring countries.

168. More specifically, METRs in South Africa are generally higher than in Zambia, primarily due to the secondary tax on companies, somewhat less generous depreciation deductions for machinery and no investment allowance for buildings, and the imposition of a relatively high property transfer tax. However, inventories are taxed somewhat less, solely due to a lower rate of inflation (6 percent) and thus a lower rate of effective taxation of inflationary gains on inventory.

169. Similarly, METRs in Tanzania are generally somewhat higher than in Zambia, except for investment in inventories which is effectively taxed less heavily since the inflation rate is relatively low (4.4 percent). The higher rates in Tanzania primarily reflect somewhat less generous depreciation deductions for machinery and a smaller investment allowance for investment in buildings. Note that the effects of the land tax in Tanzania are not included in the METR calculations. If the land tax were effectively enforce at a rate equal to around 12 percent of market value, the METRs in investment in land, in sectors other than agriculture, would be huge – well in excess of 100 percent. Although taxes on land have long been supported on both efficiency and equity grounds, effective tax rates in excess of 100 percent would certainly be extreme.

170. The METRs in Malawi reflect the effects of the 10-year tax holiday regime available for investments in manufacturing, tourism and agriculture. As noted above in the discussion of potential tax holidays in Zambia, the effects of such holidays are difficult to predict, since the benefit of the zero tax holiday rate and the lower future tax rate are offset by the loss of generous accelerated deductions and up-front investment allowances. The tax holidays in Malawi are, however, quite generous as they extend (at least in the case analyzed) for ten years and are then followed by a preferential income tax rate of 20 percent. The net result is that for manufacturing, tourism and agriculture, the METRs on investment in machinery and buildings are roughly similar to those for Zambia (where deductions for depreciation on machinery and the investment allowance for buildings are fairly generous) and lower for investment in land and inventories, where the depreciation deductions and investment allowances are irrelevant in determining effective tax rates and the 20 percent post-holiday income tax rate plays an important role in lowering METRs. Note that the financial services sector does not receive a tax holiday in Malawi. In this sector, relative to the effective tax rates in Zambia, the METRs for Malawi are lower for machinery, reflecting primarily the very generous 40 percent

⁴⁵ A high inflation rate results in low METRs at the firm level because interest expense, including the inflationary component, is fully deductible. Note that the low METRs in Zimbabwe are illusory to the extent that the inflationary component of interest income received by the owners of debt is also subject to tax.

investment allowance, higher for buildings, reflecting primarily the absence of an investment allowance for commercial buildings; METRs in the financial services sector are also higher for land but lower for inventories, primarily due to the differences in inflation rates between the two countries.

F. Conclusions

171. **The results of the qualitative and quantitative study of five sectors in Zambia suggest that overall, sectoral effective tax burden, both rates and application of the tax regime, is quite low on average. Comparison of these sectors in neighboring SADC countries reveal that Zambian sectors are broadly competitive in the tax/incentive areas.** Although the general assessment is that the tax/incentive system is appropriately pro-growth, there is room for second order adjustments, which include:

- ④ **The METR exercise shows that only the financial services sector is taxed at a relatively high rate**, in the neighborhood of 20-30 percent, presumably in the belief that interest rate spreads in Zambia are unusually high so that banks are enjoying above-normal returns which are an appropriate target for a differentially high effective tax rate. Investment in most assets is also generally lightly taxed; the primary exception is investment in inventories, which is highly taxed because most firms utilize the FIFO inventory accounting system and thus are taxed on inflationary gains. Thus, it is unlikely that the tax system in Zambia plays a major role in discouraging new investment in the financial sector.
- ④ **The existence of METR differentials, however, suggests that the tax system could contribute to the composition of investment, with the primary distortions being a strong tax bias against investment in inventories and a strong tax bias favoring debt finance.** The former problem could be addressed by encouraging firms to switch to the LIFO accounting system, a change that, if extended to financial statements, would in most cases also result in more accurate measurement of income for financial accounting purposes. The latter problem is a standard one under the income tax, and can be addressed only with fairly radical reforms that would tend to equalize the treatment of interest expense and dividends paid, such as increasing withholding taxes applied to interest income or introducing a deduction for dividends paid.
- ④ **Moreover, given current low METRs, the additional tax incentives contemplated under the proposed new investment act would have little simulative effect, except for reducing the effective tax rate on inventories in some cases.** Indeed, in many cases, especially for the proposed tax holidays, METRs would be roughly similar or actually higher under the proposed incentive schemes than under current law. **Thus, there is little justification for new tax incentives.**

- ⌚ **The tax burden on small businesses appears to be heavy, despite attempts to use the seemingly simply applied, blanket 3 percent turnover tax instead of bringing these small firms into the VAT net.** The effective rate appears high, in part due to the inability of firms to lower their turnover tax burden through reclamation of input VAT. Additionally, this system keeps many firms out of the formal sector (i.e., under the tax net). It is clear that for the revenue authority, compliance costs are high for small firms, relative to the taxes collected.
- ⌚ **The study found that the application of VAT was uneven between sectors, which, in combination with variable rates (even within sectors), it makes the tax system more complicated and leaves room for cheating and corruption.** Rates could usefully be harmonized, at a minimum within sectors (such as in tourism). The same holds true for customs and excise application and rates.
- ⌚ **The move to VAT exempt for some firms appears to place high financial burdens on these enterprises, given that they cannot reclaim input VAT.** These firms would be better off being zero-rated or even subject to the standard rate of VAT with reclaim ability, both for the financial benefit, but also for better accountability for VAT.
- ⌚ **A rough comparison of METRs in Zambia with those in the neighboring countries of South Africa, Malawi, Tanzania and Zimbabwe suggests that METRs in Zambia are generally lower than or roughly similar to those in the comparison countries,** except for investment in inventories in countries with lower rates of inflation and some investments in Zimbabwe. However, METRs in Zimbabwe are relatively low (for assets other than inventories where the FIFO accounting results in taxation of inflationary gains) not because the tax system is more generous than in Zambia (the two systems are roughly comparable) but because the inflation rate is so high in Zimbabwe (over 50 percent) – not an example Zambia would want to emulate. And, as noted above, METRs on investments in inventories in Zambia would be reduced dramatically if firms chose the LIFO inventory accounting system. Thus, it seems that the tax component of the investment climate in Zambia is not a significant barrier to investment, relative to the tax systems of these neighboring countries.
- ⌚ **At the same time, the standard corporate tax rate in Zambia, 35 percent, could be lowered to 30 percent to be in line with other countries in the region.** Given the low contribution of CIT to total tax revenues of around 6 percent, the loss of revenue would be small. In addition, international best practice on CITs is lower rates and a wider base.

ANNEX I

AN OVERVIEW OF THE METR METHODOLOGY

A. General Discussion

The concept of a marginal effective tax rate was created to analyze in a single measure how investment decisions are affected by the large number of provisions of the business and individual income tax systems, as well as by features of any property and wealth taxes, sales taxes including VATs, customs duties, and special incentive regimes such as tax holidays, that affect the incentives to invest. METR analysis is based on the standard neoclassical model of investment in which the level of investment is a function of the “cost of capital” faced by a firm – the minimum or “hurdle” rate of return that an investment must earn to be profitable. Although earlier research was mixed on the issue, the most recent empirical evidence confirms the basic assumption of this model – which investment does in fact react inversely to changes in the cost of capital (Gordon and Hines, 2002). METR analysts, such as King and Fullerton (1984), Broadway, Bruce and Mintz (1984) and many others, have taken the basic neoclassical model and modified it to take into account the net effect of all the provisions of a tax system on the cost of capital to the firm.⁴⁶ The primary goal of an METR analysis is thus to describe this net effect of a tax system on investment incentives in a straightforward and intuitively appealing form.

The METR terminology naturally provides some insight into the nature of this tool. A METR is *marginal* because it is based on analysis of a prospective incremental investment – one that just breaks even, with its after-tax cost equal to its after-tax returns.⁴⁷ It calculates the *effective* tax burden in that it captures the net effects of all the provisions of the tax system, rather than focusing on a single characteristic such as the maximum statutory corporate tax rate. And it is a *tax rate* in that it is defined as the difference between the gross of tax and net of tax returns to an investment – the “tax wedge” between gross and net returns created by the tax system – expressed as a percentage of the gross return.

The calculation of a METR requires careful specification of the characteristics of an investment in a specific asset in a specific sector, including the time path of its returns, the rate of economic depreciation of the asset, how the asset is financed, the economic environment in which it occurs, including the inflation rate, interest rates, and returns to equity, and all of the features of the current or proposed tax system that affect both the after-tax returns and the after-tax costs attributable to the investment, including all tax

⁴⁶ The analysis in this paper most closely follows the approach in Broadway, Bruce and Mintz (1984). For an application of the King and Fullerton (1984) approach to Burundi, see Zodrow (1993).

⁴⁷ METR analysis is thus not well suited to analyzing tax effects on investments that generate above-normal returns.

depreciation allowances, investment credits, interest deductions, special exemptions, etc., allowed under the income tax as well as any other taxes that impinge on investment decisions. Given this information, the analysis calculates the effective tax rate on a marginal or breakeven investment under the assumptions of profit maximization by the firm, competitive markets, and perfect certainty (e.g., with respect to future returns and inflation rates).

Several additional assumptions underlying the METR approach should be noted. For example, METRs assume that firms are profitable, so that if the effective tax rate on an investment is negative (it is subsidized at the margin), the resulting losses can be used currently to offset other income. METR calculations are typically static; that is, they usually assume that the tax system in place at the time of investment remains unchanged for the life of the investment, and that inflation, when included in the analysis, also remain constant. Since the analysis typically assumes that assets depreciate at a constant rate but last forever, strictly speaking this implies that the analysis assumes the tax system and inflation rate remain fixed forever. In addition, the calculation of METRs is partial equilibrium in nature. Thus, some rate of return in the economy must be taken as fixed; in the context of a small open economy such as that of Zambia, it is natural to take as fixed an interest rate that is determined in international capital markets. The return to equity, inclusive of an equity premium, can also be treated as determined in international markets.

Another implication of the partial equilibrium nature of METR analysis is that it cannot be used to analyze the shifting of business taxes to consumers or workers (that might occur with market adjustments in the context of a general equilibrium model of the economy). Instead, METRs typically implicitly reflect rather simplistic assumptions regarding tax incidence – which capital taxes on specific assets are borne by the owners of those assets, that taxes on labor are borne by labor, and that general consumption taxes are borne by consumers. Accordingly, to the extent that these incidence assumptions are incorrect, reported METRs levels and differentials may be somewhat misleading. METRs also typically do not take into account issues of tax administration, compliance and evasion, as they describe the tax system as it would operate if it were effectively administered and enforced. Again, to the extent that certain types of taxes (e.g., taxes on capital assets rather than capital income) are more easily enforced than others or are plagued with less tax evasion, the reported METRs may be misleading with respect to the effects of the tax system as it actually affects investment decisions and tax revenues.⁴⁸

Finally, as noted above, a METR is defined as the tax wedge between the gross of tax and net of tax returns earned by a marginal investment, expressed as a percentage of the gross return. (The "gross" and "net" terminology refers to returns before and after taxes; both types of returns are defined net of actual economic depreciation.) The net

⁴⁸ Note also that since METRs are calculated for marginal investments they are not a particularly good indicator of the tax revenues that are raised from taxing capital income, which depend heavily on the taxation of inframarginal and other investments that earn above-normal returns.

return can be measured at the company or "entity" level, in which case only entity level taxes (including withholding taxes) are considered. Such calculations are sometimes referred to as "open economy" METRs, since the taxation of saving at the level of the saver is ignored. Alternatively, the net return can be measured at the level of the "saver" or provider of funds; in this case, the calculation includes taxation at the individual level. Such calculations are sometimes referred to as "closed economy" METRs since the source of investment funds is assumed to be domestic savers. Since the focus of this report is on tax effects on investment, including foreign direct investment, and Zambia closely approximates a small open economy, the METRs presented are calculated solely at the business level (including, in some cases, withholding taxes on repatriations of funds from Zambian subsidiaries to their foreign parents).

The basic concept of a METR can be illustrated with the following simple example. Suppose a business makes a marginal investment in a capital asset that just breaks even taking into account all taxes in the system, and earns a return of ten percent net of depreciation but before any taxes. Suppose further that, after accounting for all taxes, the net real return received by the firm and paid to its investors is seven percent. In this case, the METR on the investment is thirty percent – $0.3 = (0.10 - 0.07)/0.10$.

- Issues Illuminated by METR Analysis

The primary applications of METR analysis are twofold. First, the results of an METR analysis show the net effect of all components of the tax system on the *level* of the taxation of capital income generated by the marginal investment analyzed. Thus, a METR provides a measure of the actual tax burden on a prospective investment attributable to the existing (or proposed) tax system. Moreover, an appropriately weighted average of the METRs on specific types of investments can be constructed to provide a measure of the overall level of taxation of capital income in the economy, showing how the tax system distorts investment decisions (and, if individual level taxes are considered, saving decisions as well) and thus introduces inefficiencies or "excess burdens" into the economy.⁴⁹

⁴⁹ It should be noted that "distortions" of investment decisions must be measured relative to some benchmark. In general, a tax system would not distort investment decisions only if the METR were zero on all types of investment; this would occur, for example, under an ideal consumption-based tax (Zodrow and McLure, 1991). In this case, METR differentials – and the associated distortions of investment decisions – would be measured relative to a benchmark tax rate of zero. However, under an income-based tax, the benchmark level of taxation of capital income is typically the statutory income tax rate. In this case, the distortion of saving/investment decisions implied by the taxation of capital income at the statutory rate is in a sense taken as given, and the distortions attributable to tax differentials are measured relative to the statutory income tax rate. In addition, note that this discussion assumes that efficiency requires a tax system that is neutral across assets. This need not be true. For example, tax differentials may be desirable to correct for negative production externalities (e.g., pollution) or to offset other inefficiencies in the economy (e.g., inefficiencies in the taxation of labor income). These complications are ignored in the analysis, as they are best addressed with specific tax policies as needed (e.g., taxes on effluents or reform of the system of labor income taxation) rather than through the ordinary income tax system applied to capital income; for further discussion, see Gugi and Zodrow (2004).

Second, by considering a wide variety of investments that differ by asset, method of finance, investor or economic circumstances, METR analysis provides an indicator of the tax differentials that arise across different types of investments, that is, it shows how taxes affect the *composition* of investment. In particular, a METR analysis shows how the tax system results in a variety of distortions of investment decisions, thus creating additional efficiency losses, beyond those associated with simply taxing capital income at a uniform effective tax rate. The most commonly cited distortion is across types of assets, as differential taxation of different types of assets induces businesses to invest too heavily in tax-advantaged assets and too little in tax-disadvantaged assets. This of course translates into distortions across business sectors, as the tax system favors sectors with production processes that use tax-favored assets intensively and penalizes businesses that use relatively heavily taxed assets intensively. The following subsections discuss these distortions and a wide variety of others, all of which can be analyzed with an appropriately designed METR analysis.

1. Distortions of the Level of Investment and Saving

METRs provide an indication of the overall level of taxation of various forms of capital income and thus indicate how the tax system affects investment and saving decisions. Because they consider many aspects of the tax system, METR analyses often give very different results regarding the effects of the tax system on investment decisions than would a simple examination of statutory tax rates (or special preferences) in isolation. Effective tax rates that are far above or below the statutory rate indicate potential areas for reform, as relatively high positive rates act as a deterrent to investment, while negative METRs suggest that the tax system stimulates investments that are socially undesirable because they earn a return lower than the opportunity cost of funds.

2. Distortions of the Allocation of Investment

METRs are also very useful in identifying the extent to which the tax system distorts investment allocation decisions by asset and by business sector (given the benchmark level of taxation of capital income in the tax system). Apart from the arguments for differential taxation noted above, most public finance economists would argue that competitive markets are generally efficient in allocating resources. The implication of this view is that tax differentials are generally undesirable because the associated distortions of investment allocation decisions result in reduced productivity of investment; that is, a disproportionate amount of capital is allocated to those sectors and assets in which tax treatment is relatively favorable rather than to those sectors and assets where investment would be most productive in the sense of generating output valued by consumers. In other words, the tax system should generally be characterized by "economic neutrality" with respect to investment allocation decisions, or METRs that do not vary according to the type of asset or business sector.

In addition, METR analysis demonstrates the extent to which certain types of preferential treatment confer an advantage to the tax-favored activity. Indeed, METR analysis can be used to determine whether the effects of "preferential" treatment of certain forms of investment are in fact consistent with the intent underlying such treatment. For example, in some cases such as certain types of tax holidays, supposedly preferential treatment results in METRs that are actually higher than those under the ordinary income tax system. Similarly, a preferentially low tax rate in a sector can have the effect of increasing METRs if depreciation deductions and other investment allowances under the regular tax system are sufficiently generous.

3. Method of Finance

MTR analysis is useful in determining whether the tax system favors one form of finance over another. Under a market-based approach to tax reform, such distortions are also undesirable as they imply a tax-induced alteration of the allocation of risk-bearing in the economy. For example, a tax bias toward debt finance may increase the overall indebtedness of firms and thus increase the likelihood that costly bankruptcies – or perhaps even more costly government bailouts – will be incurred during an economic downturn.

In addition, tax differentials across methods of finance may discriminate against certain types of firms. For example, a tax system that results in an unusually high METR on new share issues will discourage investments by firms that tend to use new issue finance to a disproportionate extent, including new enterprises that have little retained earnings and limited access to debt finance. Again, most public finance economists would argue that neutrality with respect to firm financing decisions is a desirable property of tax system.

4. Choice of Organizational Form

METR analysis identifies the extent to which the tax system distorts decisions regarding the choice of organizational form. Typically, firms may be organized as corporations subject to the corporate income tax or non-corporate entities that are taxed on a "pass through" basis, with business income attributed to the individual owners and taxed under the personal income tax. Economic neutrality with respect to decisions regarding organizational form is also generally desirable, so that firms may select the form of business organization that best meets their needs without worrying about differential tax consequences.⁵⁰

⁵⁰ As in the case of resource allocation, there may be externalities associated with the choice of organizational form; for example, tax enforcement may be less costly for firms that are publicly held corporations.

5. Effects of Inflation

An important benefit of METR calculations is that they can be used to demonstrate how tax rate differentials, as well as the level of capital income taxation, vary with the rate of inflation. Unless a tax system is completely indexed for inflation, the pattern of METRs will be different for each expected steady state rate of inflation. The fluctuations of METRs with inflation can be considerable, especially for large differences in the expected inflation rate. Note that such variation in METR levels and differentials with inflation adds an element of complexity to investment decisions, as it makes it more difficult to interpret the effects of the tax system on alternative investments. Such uncertainty is likely to reduce the overall level of investment at any given inflation rate.

ANNEX II

CALCULATION OF MARGINAL EFFECTIVE TAX RATES

The calculation of METRs is outlined in this appendix. For further details, consult Boadway, Bruce and Mintz (1984) or King and Fullerton (1984). Consider an investment in an asset that costs q , has a marginal revenue product of c , and lasts forever but depreciates exponentially at a constant rate of economic depreciation δ . Suppose further that the corporate income tax rate is u , the net indirect tax rate on the purchase of the asset (due to non-creditable VATs, customs duties, sales taxes, excise taxes, transaction taxes, etc.) is t (which is included in the tax basis of the asset), and an initial investment allowance of n is granted (with no adjustment of basis). Let z be the present value of the depreciation deductions allowed under the income tax, per dollar of investment, over the life of the asset. For example, if the tax code allows exponential (declining balance) deductions at rate α , with no adjustment for inflation,

$$z = \int_0^{\infty} \alpha q e^{-\alpha t} e^{-(r^f + \pi)t} dt = \frac{\alpha q}{\alpha + r^f + \pi},$$

where r^f is the firm's real discount rate and $r^f + \pi$ is the firm's nominal discount rate where π is the expected steady state rate of inflation. To calculate r^f , assume that the debt-asset ratio is fixed at β , the nominal interest rate is i and the return required by equity holders (which reflects dividends and capital gains) is ρ in which case

$$r^f = \beta(1-u)i + (1-\beta)\rho,$$

reflecting the deductibility of interest payments coupled with the lack of deductibility of payments to shareholders. The calculation of a marginal effective tax rate (METR) assumes that a marginal investment in an asset just breaks even, that is, that the net benefits generated by the investment, taking into account all tax factors, just equals the after-tax net cost of the investment. For a depreciable asset this requires

$$\begin{aligned} (1-un)(1+t)q &= (1-u) \int_0^{\infty} c e^{-\delta t} e^{\pi t} e^{-(r^f + \pi)t} dt + u(1+t)qz \\ (1-un)(1+t) &= \frac{(1-u)(c/q)}{\delta + r^f} + u(1+t)z \\ c/q &= \frac{(1-un)(1+t)(\delta + r^f)}{1-u} - \frac{u(1+t)z(\delta + r^f)}{1-u} \end{aligned}$$

The gross return to the asset, net of depreciation, is thus

$$r_g = c/q - \delta = \frac{(1+t)(\delta + r^f)}{1-u} [1 - u(n+z)] - \delta.$$

For land, the gross return is obtained by setting the depreciation rate in this expression equal to zero. For inventories, the gross return is obtained by setting the depreciation rate in this expression equal to zero and, in the case of FIFO inventory accounting, adding a term to r^f equal to the product of the corporate tax rate and the inflation rate to the numerator.⁵¹ Finally, letting r_n denote the net return to investment, the marginal effective tax rate on the investment is

$$METR = \frac{r_g - r_n}{r_g} .$$

⁵¹ See Broadway, Bruce and Mintz (1982).

ANNEX III

DESCRIPTION OF THE TAX SYSTEM IN ZAMBIA USED IN THE METR CALCULATIONS

The following is a description of the features of the taxation of capital income under the tax system of Zambia. The description is not meant to be comprehensive; rather, the focus is on the tax provisions that are relevant to the calculation of METRs at the business level on four capital assets (machinery⁵², buildings, inventories, and land) and on five business sectors (manufacturing, tourism, agriculture, financial services and mining⁵³), as well as small businesses subject to the gross receipts tax and exempt from the VAT. In particular, provisions that presumably affect only a small minority of businesses are ignored.⁵⁴

TAX RATES

The standard rate under the corporate income tax is 35 percent. A rate preference is given to agriculture (15 percent). By comparison, banks face a 45 percent tax rate on income in excess of K250 million (about \$50,000 US).⁵⁵ For the financial sector, the METR calculations consider the case of a company facing the 45 percent rate. Rates in the mining sector vary from 25-35 percent with most newer mines subject to the lower rate; the METR calculations assume a 25 percent rate.

DEPRECIABLE ASSETS

In general, deductions for depreciation on machinery are allowed on a straight line basis over a period of four years.⁵⁶ However, for the agriculture, tourism and manufacturing sectors, deductions are allowed on a straight line basis over a period of

⁵² The term “machinery” will refer to the category “equipment, plant and machinery” in the Zambian income tax law.

⁵³ The mining industry also pays government royalties. However, these are appropriately viewed as compensation for the use of the nation’s natural resources – that is, as payment for a production input – and are not included in the METR calculations.

⁵⁴ Examples of such provisions are the one-time 2 percentage point reduction in the corporate tax rate for firms that get listed on the Lusaka Stock Exchange, and the additional one-time 5 percentage point corporate rate reduction available to such newly-listed firms if they sell at least one third of their shares to indigenous Zambians. In general, tax provisions that are described in footnotes are included for completeness, but are not considered in the METR calculations.

⁵⁵ In addition, a 15 percent rate is applied to the income earned by exporters of “non-traditional” exports and to the income of manufacturers of fertilizer (apparently one company), and the tax rate on income earned by enterprises locating in rural areas is reduced by 1/7 for the first five years of operation.

⁵⁶ Motor vehicles that are not classified as being in commercial use receive deductions on a straight line basis over five years.

only two years, and expensing is allowed for mining. In no case are deductions for depreciation indexed for inflation. Expenditures related to prospecting and development in the mining sector are also expensed.

Deductions for buildings depend on whether the building is characterized as a “commercial” building or an “industrial” building. Commercial buildings are depreciated on a straight line basis over 50 years. Industrial buildings are depreciated on a straight line basis over twenty years.⁵⁷ In addition, when first brought into use, industrial buildings (which includes hotels) receive a 10 percent investment allowance (a 10 percent deduction, with no reduction in the tax accounting value or “basis” of the asset) and a 10 percent initial allowance (an additional 10 percent deduction with no basis adjustment). Buildings with a cost in excess of K2 million (about \$400,000 US) are automatically treated as industrial buildings. Thus, the buildings used by the manufacturing, agriculture, mining and tourism sectors are treated as industrial buildings. In addition, the METR analysis assumes that the buildings used by the financial sector are also industrial buildings, on the grounds that the K2 million ceiling is sufficiently low that such a classification will be appropriate in most cases.

The tax treatment of capital expenditures in the mining industry is difficult to model, as the current treatment varies considerably across enterprises, primarily because differing treatment were negotiated when the mines were privatized. For example, some mines qualify for a preferential 25 percent corporate tax rate, and some categories of capital expenditures, including those associated with prospecting and mine operation are expensed, while others are depreciated straight line over four years. The METR calculations arbitrarily assume that the appropriate corporate tax rate is 25 percent, that machinery is depreciated over two years (as a compromise between expensing and the straight line deductions taken over four years) and those buildings are classified as industrial buildings. No attempt is made to model the taxation of land/reserves, which varies according to the estimated reserves of the mine and apparently is at the discretion of the Commissioner General of the Zambian Revenue Authority.⁵⁸ Capital equipment purchased by the mining industry is exempt from customs duties. The METRs for mining are thus highly tentative.⁵⁹

INVENTORY ACCOUNTING

The cost of inventories can be calculated using the “First-In, First-Out” or FIFO method, the “Last-In, First-Out” or LIFO method, or any other method consistent with

⁵⁷ The calculations follow the standard approach of using exponential depreciation at twice the straight line rate to approximate the value of these straight line deductions.

⁵⁸ The costs of acquiring a mining concession are apparently expensed, but carried forward without interest until the mine is earning income. If recovered immediately, this would imply hugely negative METRs; however, these would decline with the time needed to recover the expenses, especially in an inflationary environment.

⁵⁹ In addition, it should be noted that METR analysis is not particularly well suited to analyzing the mining industry, which may earn economic rents.

generally accepted accounting practices. Although LIFO is generally the approach that minimizes tax liability (since inflationary increases in the value of inventory are not taxed), most firms in Zambia apparently use FIFO instead. Accordingly, the METR calculations assume the use of FIFO inventory accounting, which results in high effective tax rates on inventories, given the assumption of a 17 percent inflation rate.

TAXES ON TRANSFER OF PROPERTY

Sales of buildings and sales of land are subject to a property transfer tax of 3 percent. Property transfer taxes are not deductible against income tax liability.

VALUE ADDED TAX (VAT) AND IMPORT DUTIES

In general, purchasers of capital goods are allowed full credit for any VAT paid (although in some cases the VAT on imported goods is deferred (not collected upon import) so that no credit is necessary. The primary exception to this rule is the standard problem that any VAT on capital goods cannot be credited by businesses that are exempt from the VAT, including most small businesses, the producers of exempt goods (primarily agricultural producers of exempt products), and the financial sector (although certain activities of this sector, such as leasing, are subject to VAT). In addition, although import duties are assessed at rates that range up to 15 percent, most capital goods are either exempt from such duties (e.g., those imported by the mining sector) or are taxed at a 5 percent rate. On the other hand, some capital goods, such as motor vehicles and certain hotel supplies, apparently are taxed as finished goods and thus subject to a 25 percent excise tax rate. It is obviously very difficult to translate this treatment into an effective indirect tax rate that should be applied to capital goods. The METR calculations simply assume that for the sectors analyzed indirect taxes are important primarily for investment in machinery, and that the effective indirect tax rates are 20 percent for the financial sector, 10 percent for the agricultural sector, and 5 percent for the tourism sector.⁶⁰ In addition, excise taxes are likely to be important for the tourism industry, especially if some inputs for the tourism industry are treated as final consumption goods; the calculations arbitrarily assume that the indirect tax rate on inventories in the tourism sector is 5 percent.

WITHHOLDING TAXES

Since this analysis is focusing on business-level METRs, the only withholding taxes of potential interest are those applied to foreigners. In general, withholding taxes are assessed on interest repatriated to the foreign parents of Zambian subsidiaries at a 15 percent rate, although this rate is reduced by treaty in many cases to rates of zero or ten percent. Most of the METR calculations ignore withholding taxes on interest; those

⁶⁰ We are awaiting data from the Zambian Revenue Authority that may clarify the extent to which purchases of machinery are subject to indirect taxes.

calculations that include withholding taxes on interest consider the case of a withholding rate of 15 percent.

For dividends, withholding typically occurs at a 15 percent rate unless reduced by treaty to zero, five or ten percent, and some types of dividends, such as those paid by a former ZCCM company or those paid by a farming company during its first five years of operation are tax exempt. Thus, the effective annual withholding rate on these income streams is quite low, since the taxes are deferred until funds are repatriated to the parent company. Moreover, under certain circumstances, economic theory suggests that withholding taxes have no effect on the incentives for investments financed with retained earnings, the major source of equity finance. Accordingly, the METR calculations do not consider the effects of withholding taxes on dividends.

SPECIAL PROVISIONS APPLICABLE TO SMALL BUSINESSES

Small businesses whose annual turnover does not exceed K200,000,000 (\$40,000 US) are assessed a 3 percent turnover or gross receipts tax in lieu of an income tax.⁶¹ They would also be exempt from the VAT and would thus not receive credits for VAT paid on inputs. The METR calculations for small firms assume that the combined indirect tax rate on purchases of machinery and inventories by small businesses is 20 percent.⁶²

INFLATION

Zambia has made significant progress in recent years in reducing inflation. The current rate is 17 percent, down from nearly 200 percent in 1990. Accordingly, in general, the METR calculations assume an inflation rate of 17 percent.

⁶¹ A lump sum tax of K50,000 (\$10 US) is assessed on firms whose tax liability is difficult to estimate.

⁶² In addition, the first K10 million (about \$2,000 US) of buildings used in the agriculture sector can be expensed, as can purchases of equipment related to certain activities, such as stumping and clearing and hole boring.

OTHER PARAMETERS

The calculations assume that the real rate of interest is fixed which, given the domestic inflation rate associated with a major world currency such as the US dollar or the euro, can be used to calculate the nominal interest rate as determined in international markets. This real rate of return is set at 4 percent, and the fixed real return to equity assumes an equity premium of 5 percent.⁶³ Economic depreciation is assumed to be exponential, using fairly standard if somewhat conservative rates of 14 percent for machinery and 3 percent for buildings.⁶⁴ The fraction of investment financed with debt in the base set of calculations is assumed to be 30 percent.

⁶³ To determine the nominal interest rate in Zambia, the real interest rate is adjusted for the inflation rate (π) in Zambia (equal to 17 percent ($\pi=0.17$) in the base case simulations) by a factor equal to $\pi/(1-u)$, where u is the corporate tax rate, to reflect the deductibility of interest under the corporate income tax. This yields a nominal interest rate of 30 percent, roughly consistent with, although generally somewhat lower than, recent nominal interest rates in Zambia, which have ranged from 30-40 percent over the last year or two.

⁶⁴ Although these figures are plausible, they are nevertheless quite tentative since there are no data on actual depreciation rates in Zambia.

ANNEX IV

Assumptions used in cross-country analysis

The data for this analysis are taken entirely from country studies prepared by the International Bureau of Fiscal Documentation for Malawi (2003), South Africa (2003), Tanzania (2002) and Zimbabwe (2004). Since these data are incomplete and may be dated and because not all features of the tax system in each country are considered, the METRs calculated below should be regarded as tentative and used for rough comparison purposes only.⁶⁵ As in the base case for Zambia, the calculated METRs reflect business level taxes only and do not consider any withholding taxes on interest or dividends. In addition, all of the countries considered have broadly similar indirect taxes, with creditable VATs with rates that range from 14-20 percent (recall that the standard rate for the VAT in Zambia is 17.5 percent) and have customs duties that typically range from zero to 25 percent (although specific data on how the customs duties apply to capital goods are not available).

Accordingly, the METR calculations simply assume that the same effective indirect tax structure applies in all of the comparison countries as that assumed in Zambia, with machinery subject to an effective indirect tax rate of 20 percent in the financial sector, 10 percent in the agricultural sector, and 5 percent in the tourism and manufacturing sectors, coupled with a 5 percent indirect tax rate on inventories in the tourism sector. These assumptions also help focus the analysis on a comparison of the differences in income taxes across the various countries. The analysis also assumes that FIFO accounting is used in all of the comparison countries – this is explicit in the description of the tax code for South Africa (which bans the use of LIFO), and assumed for the other comparison countries. Finally, all other parameters, such as real after-tax rates of return and debt-equity ratios are assumed to be the same in all countries, with the exception of inflation rates, which reflect 2003 values of 6.0 percent in South Africa, 9.6 percent in Malawi, 4.4 percent in Tanzania and 51.4 percent in Zimbabwe.

⁶⁵ As above, various provisions noted in footnotes are listed for completeness only and are not reflected in the comparison country METR calculations.

REFERENCES

- Bannock, Graham (2001), *VAT and Small Business Revisited*. London: Bannock Partners, LTD.
- Boadway, Robin, Neil Bruce and Jack Mintz (1984). "Taxation, Inflation, and the Effective Marginal Tax Rate on Capital in Canada," *Canadian Journal of Economics* 17: 62-79.
- Boadway, Robin, Neil Bruce and Jack Mintz (1982). "Corporate Taxation and the Cost of Holding Inventories," *Canadian Journal of Economics* 15: 278-293.
- Ebrill, Liam, Michael Keen, Jean-Paul Bodin, and Victoria Summers (2001), *The Modern VAT*. Washington DC, International Monetary Fund.
- Gordon, Roger H. and James R. Hines, Jr. (2002). "International Taxation," in Alan J. Auerbach and Martin Feldstein (eds.), *Handbook of Public Economics Volume IV*. New York: Elsevier.
- Gugl, Elisabeth and George R. Zodrow (2004). "International Tax Competition and Tax Incentives in Developing Countries." Paper presented at a conference on "Challenges of Tax Reform in a Global Economy," Andrew Young School of Policy Studies, Georgia State University, May 24-25, 2004.
- King, Mervyn and Don Fullerton (1984). *The Taxation of Income From Capital*. Chicago: University of Chicago Press.
- Mintz, Jack M. (1995). "Tax Holidays and Investment," in Anwar Shah (ed.), *Fiscal Incentives for Investment and Innovation*. Oxford: Oxford University Press, for the World Bank.
- Zodrow, George R. (1993). "Capital Income Taxation in Burundi," *Journal of African Economies* 2: 348-380.
- Zodrow, George R. (2003). "Reflections on the Economic Theory of Local Tax incentives," *State Tax Notes* 28, No. 10 (June 9), pp. 891-900.
- Zodrow, George R. (2003a). "Tax Competition and Tax Coordination in the European Union," *International Tax and Public Finance*, 10, pp. 651-671.
- Zodrow, George R. and Charles E. McLure, Jr., 1991. "Implementing Direct Consumption Taxes in Developing Countries," *Tax Law Review* 46: 405-487.