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Taxation in Tanzania

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Abstract

Tanzania has during the past years made substantial progress in stabilising the economy. One of the major issues has been to cut down on government activities and there has been a remarkable contraction. Although tax reform has been an important component in Tanzania's economic reform programme the domestic revenue-GDP ratio has remained low. Some of the factors behind the decline in the tax-GDP ratio over the past years are substantial reductions in external taxes, relative large tax incentives for new investments, downsizing of the parastatal sector and sluggish private sector growth. Preliminary results on tax incidence among ten different household groups shows that poorer households paid indirectly a relative large share of import duties. With regard to income taxes the tax rate is high among the poorer households then fall and rise as households become richer. In the longer term Tanzania needs to significantly increase domestic revenue to finance its development programme. Projecting tax revenue, keeping the rates unchanged, we found that towards the end of the period (2004) the tax revenue-GDP ratio reached 17 percent. An alternative option to generate additional revenue would be to increase the tax rates. This does not seem to be a viable strategy. Compared to estimates in other countries the cost of raising an additional shilling is extremely high in Tanzania.

Keywords: fiscal policy, taxation, Tanzania, sub-Saharan Africa

JEL classification: O23, O55, H20

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1 Introduction

The economic history of four decades of post-independence Tanzania has seen dramatic swings in policy and economic outcomes. During the first years after independence in 1961 the government concentrated on the Africanisation of the public sector and measures to stimulate economic growth. This was a period of macroeconomic stability with mostly low inflation and a satisfactory balance of payments. During the period 1961-1967 per capita incomes grew by about 2 percent per year. However, the government argued that inequalities had increased and that industrial growth and inflow of external resources failed to meet expectations.

The Arusha Declaration of 1967 came to change Tanzania's policy environment dramatically. The Declaration ushered in a new policy direction for the country, a break from the fairly orthodox economic policies followed during the first years after independence. Emphasis was placed on public ownership of the means of production and on the role of Ujamaa villages in rural development. The new policy meant that, in effect, individual initiatives and the role of the private sector were sidelined. Tanzania was to be guided by a socialist ideology, the main objective of which was to build an egalitarian society with the economy being driven by a strong public sector. Major initiatives that were instituted, included widespread nationalisation of key economic sectors, relocation of the rural population through a villagisation programme launched in 1973, and administrative control of markets, including setting of pan-territorial prices at the producer level.

During the period from the Arusha Declaration until the onset of the crisis in 1979 per capita incomes still grew by 0.7 percent per year. The growth was led by the public administration sector, with sizeable contributions from agriculture and manufacturing. Tanzania's export stagnated, since the policy environment in Tanzania was hostile to both traditional and non-traditional exports. The rewards to peasant production for export were undercut during the 1970s by the government monopolisation of marketing, with inefficiencies driving down producer prices, the relocation of rural producers in the "villagisation" drive, the high effective protection of the import-substituting industrial sector, which turned relative prices in favour of urban areas, and the use of trade controls rather than exchange rate adjustment as a means of adjusting to external shocks. This policy stance implied a high and rising implicit taxation of rural cash incomes. The suppression of private business both reduced peasants' opportunities for diversification as producers and increased the prices they faced as consumers. The combination of price controls, import controls, and industrial investment led to increasingly severe shortages of non-agricultural consumer goods in rural areas. Increases in crop prices on world markets were not passed on to farmers (Bevan et al., 1988).

Government attempts to protect the living standards of the urban wage earners led to maintenance of real wages that were well above peasant incomes. As a result considerable rural-urban migration ensued, leading to rapid growth of the informal sector and a corresponding fall in incomes of the self-employed (Bevan et al., 1988). The expanded role of the state also led to higher government expenditure and fiscal deficits. The policy measures that had been introduced inhibited the participation of peasants and the urban self-employed in income generating activities. The range of income sources was narrowed, reducing the scope for rural and urban agents' for getting out of poverty. Implementation of policies that did not promote economic growth, gave insufficient support to the agricultural sector and rural industries, and disrupted local institutions.

The economic crisis became acute in 1979 with a major increase in the fiscal deficit associated with the war in Uganda. External arrears developed rapidly and after the end of the Uganda war foreign inflows fell dramatically as the government clashed with the donors over macroeconomic policy. The government broke with the IMF and implemented a few home-grown reform packages to little effect. Donors who had been attracted by the egalitarian principles set out in the Arusha Declaration, became more and more critical about the negative effects of Ujamaa on economic efficiency, and by 1983 most of the donors had begun to withdraw their support of the Tanzanian experiment. In 1984 the Government finally made its first major move towards liberalisation, adopting an own-funds scheme that allowed importers to obtain licenses without declaring the source of their funds. But Tanzania resisted the pressure to devalue.

During the crisis between 1979 and 1985 per capita income fell by 1.5 percent per year according to official estimates, but the estimates are very uncertain for this period because the price system was in a disarray and much of economic activities had moved to the parallel economy. Estimates by Bevan et al. (1988), based on household budget surveys using black market prices for goods traded in the parallel market, suggest more significant income declines. Manufacturing output collapsed due to lack of imports and agricultural growth declined. Public administration was still growing, although the growth rate had declined to less than four per cent.

The crisis period was characterised by hard internal political debates (for an extended discussion, see Bigsten, Mutalemwa, Tsikata, Wangwe, 1999). By the mid-1980s, however, the crisis was so acute and the external supports so small that the government had to change strategy. The reform period began in 1986 with a large devaluation and the initiation of a standby agreement with the IMF and a structural adjustment programme with the World Bank. The "Economic Recovery Programme" 1986-89 (ERP) presented that year included a broad range of policies aimed at liberalising internal and external trade, unifying the exchange rate, reviving exports, stimulating domestic saving, and restoring fiscal sustainability. Internal opposition was still fierce, and the thrust of the ERP was crisis management rather than a definitive move to a market-oriented economy (Mans, 1994). The programme nonetheless addressed the main immediate concerns of donors and met with substantial support, including renewal of the IMF structural adjustment facility in 1987, 1988 and 1990. In 1989, reforms entered a second phase under the government's "Economic and Social Action Programme" (ESAP). This continued earlier efforts at trade and exchange rate liberalisation and macroeconomic stabilisation, but was widened to include reforms in the banking system, agricultural marketing, the parastatal sector, government administration, and the civil service, together with a targeting of the social sectors which had deteriorated substantially during the crisis period. The foreign exchange market was reformed, and the parallel market premium declined from the peak of 800 percent in 1985 to 30 percent in early 1992. By 1994 the exchange rate became market determined. In the later stages of the reform process the downsizing of the public sector and the closing or selling of loss-making public enterprises meant that many people have lost their jobs and privileges in the government and the parastatals.

Even at the end of the 1980s the parastatal sector still contributed nearly 25 percent of non-agricultural wage employment and generated some 13 percent of total GDP (Bagachwa, 1992), but since then privatisation and liquidation has reduced this share very significantly. Around 1993-94 there was new crisis with the donors concerning the lack of fiscal control and in particular the large scale tax exemptions granted by the Ministry of Finance. Tax revenue fell again and the government reverted to borrowing from the central bank. Much of the fiscal control that had been built up since 1986 seemed to be lost.

The new Government, which took over in late 1995, improved the management of the economy and the past three years have witnessed major progress in stabilising the economy. There has also been further progress toward a market-based economy and movement away from the previous reliance on control mechanisms and government ownership of the means of production. Recent achievements have included fiscal consolidation and streamlining of the civil service, privatisation of about half of the parastatals. There has also been a remarkable change by the government in its effort to take the lead over its development programme, particularly in the sphere of macroeconomic management where the government has led the preparation of the interim Poverty Reduction Strategy Paper (PRSP). The interim PRSP is closely linked to the Medium-Term Expenditure Framework (MTEF), which is an important instrument in the new sector development approach.

The Government is under high pressure to improve the quantity and quality of social service and a shift in the composition of government expenditures can have a significant impact on the dynamic path of the economy. Two important issues need to be considered: First, improved public service delivery is crucial to promoting economic growth and reducing poverty. Second, how should tax policies be designed in order to satisfy both an increasing demand of public services and to provide an enabling environment for private sector development? The purpose of this paper is to shed some light on taxation policies in Tanzania and discuss potential avenues on how to reform the tax system.

The outline of the paper is as follows: In the next section, we present a brief overview of the macroeconomic developments in the 1990s. Section three discusses in a broad sense the current poverty reduction strategy and the Medium Terms Expenditure Framework (MTEF). Section four presents an overview of the tax structure and provides some estimates on tax incidence, marginal cost of public funds and possible future tax revenue generation. The final section concludes.

2 Macroeconomic review

The past years have witnessed progress in stabilising the economy. There has also been further progress toward a market-based economy and movement away from the previous reliance on control mechanisms and government ownership of the means of production. As a result of these changes, macroeconomic performance has since the mid-1990s shown positive results. Compared to the early 1990s real GDP has increased and the average growth rate for the 1995-1999 period was about 4 percent (Table 1). A population growth rate of approximately 2.7 percent implies, however, a modest per-capita income growth of 1.3 percent during the period.

Table 1: Growth rates in real GDP, 1992-2000

	1992	1993	1994	1995	1996	1997	1998	1999	2000
Agriculture	1.2	3.1	2.1	5.8	3.9	2.4	1.9	4.1	3.4
Mining	7.7	8.2	15.0	11.7	9.6	17.1	27.4	9.1	13.9
Manufacturing	-4.0	0.6	-0.2	1.6	4.8	5.0	8.0	3.6	4.8
Electricity and water	-1.3	0.9	2.0	6.1	11.1	2.2	5.5	3.9	5.0
Construction	5.8	-14.4	1.4	-14.7	7.6	8.2	9.9	8.7	8.4
Trade	-0.7	-0.4	1.1	3.5	3.5	5.0	4.7	6.0	6.5
Transport	14.2	0.1	0.9	5.9	1.1	4.9	6.2	5.8	6.1
Finance	-0.9	-7.1	-5.2	6.0	10.4	-15.8	-3.0	0.7	3.3
Public administration and other services	5.6	-3.9	-0.1	-2.7	1.6	3.2	2.7	3.5	3.6
GDP at factor cost	1.8	0.4	1.4	3.6	4.2	3.3	4.0	4.7	4.9

Source: IMF (2000)

Agriculture is still the most important sector and performance has improved compared to previous years. Other sectors such as mining, tourism, manufacturing, electricity and water also showed improved performance. Tourism and mining, in particular, has benefited a lot from various tax incentives such as tax holidays and investment incentives. The tourism industry has become the largest foreign exchange earner and the mining sector is booming. With over US$600 million of new investment in the mining sector likely to be realised in the next 2-3 years, the mineral sector promises to be an increasingly important contributor to GDP and export earnings.

The Government has been quite successful in its attempt to stabilise the economy. One of the major issues has been to cut down on government activities and there has been a remarkable contraction. Since the peak in 1992 when government expenditures was about 27 percent of GDP it has now been reduced to 11 percent of GDP (Table 2). While public consumption in 1999 was only 7.5 percent of GDP, public investment has been reduced quite dramatically reaching 3.3 percent of GDP in 1999. In principle investment is one of the major determinants of economic growth in developing countries. However, government interventions, which are normally considered productive could become unproductive, if there is an excessive amount of them. This seems to have been the case for Tanzania. Evidence points to a negative relationship between public investment expenditures and economic growth for the period 1965-1996 (Kweka and Morrisey, 2000). Thus, a shake out of unproductive public investments could raise the average productivity of investment. However, the tight fiscal policy has not, so far, produced the intended results, a boost in private investments. Indeed, since the peak in 1993 private investment has, as a share of GDP, seen a steady decline, reaching 12 percent of GDP in 1998. This might suggest that an excessive shake out of some public

Table 2: Use of resources and external account (% of GDP at market prices)

	1991	1992	1993	1994	1995	1996	1997	1998
Private consumption	74.6	75.1	85.0	78.9	82.0	82.7	78.1	85.4
Private investment	15.9	16.3	17.8	17.5	16.0	13.1	11.0	12.4
Government expenditures	25.5	26.3	27.3	21.7	18.3	15.0	10.9	10.8
Government consumption	17.3	17.8	19.7	16.1	15.0	11.5	8.1	7.5
Government investment	8.2	8.4	7.7	5.7	3.3	3.5	2.7	3.3
Exports of goods and services	9.0	11.1	18.2	19.5	23.5	20.3	14.4	18.2
Imports of goods and services	25.0	28.8	48.3	37.7	39.8	31.1	14.5	26.9
Resource balance	-16.0	-17.7	-30.1	-18.2	-16.4	-10.8	0.0	-8.7
Net factor income	-3.4	-4.7	-3.5	-2.8	-2.1	-1.0	-1.5	-1.8
Net transfers	15.2	18.7	17.1	15.5	6.3	5.2	3.8	4.8
Current account deficit	-4.2	-3.6	-16.5	-5.5	-12.1	-6.6	2.3	-5.7

Source: Bank of Tanzania

investment categories, such as investment in infrastructure, could have the effect of lowering the productivity of private investment.[1] As transport costs and marketing margins are quite high in Tanzania there is a case for the government to support improvements in infrastructure in order to reduce transport costs and marketing margins to support the rural areas (World Bank, 2000).

The tight fiscal policy and a low investment response have reduced the demand for foreign exchange and the external balance has been brought under control to a manageable level of 5.7 percent of GDP (Table 2). There has also been a decline in net transfers from abroad, a reflection of reduced aid-flows, which further reduced demand for imports. Export performance improved up to 1995 but has since then been erratic due to the el Nino rain in 1997 and the drought the following year. Still, improvements in terms-of-trade and increased earnings from tourism counteracted some of the decline in traditional exports, especially the sharp decline in coffee exports.

Over the past few years Tanzania has made considerable progress in restoring fiscal discipline. Excluding foreign aid there has been a surplus during the last two years at a level of 0.9 and 0.7 percent of GDP, respectively (Table 3). The drastic expenditure cuts has had a negative impact in most sectors. To some extent priority sectors such as education, health, water, roads and agriculture have been protected through additional resources made available through the Multilateral Debt Fund (MDF) facility. Still, expenditures remain low, which is a reflection of the low domestic revenue base in

1 For example, poor infrastructure and deficient public services in Uganda significantly reduced investments of private firms (Reinikka and Svensson, 2000).

Tanzania. Despite a change in the tax structure the revenue-GDP ratio has been fairly constant in the 1990s, hovering around 11-13 percent of GDP. Indeed, in terms of GDP there has been a slight decline in recent years.

In conjunction with the tight fiscal policy the authorities has followed a strict monetary policy. Since 1993 the money supply-GDP ratio has been falling (Table 4). Looking at the two components of money supply we note that the economic reform programme has had the anticipated effects; net foreign assets have increased and net domestic assets have been reduced.

Credit to the private sector, as a percentage of GDP, has been falling quite significantly over the years. Instead of supporting long-term investment projects, the financial sector still prefers lending to less risky activities such as Treasury Bills and Government securities. This is partly a result of lack of capacity to assess creditworthiness within the commercial banks and problems associated with handling commercial disputes. Another factor preventing a boost in private investment is the high real interest rates still prevailing.

Table 3: Internal balance (% of GDP at market prices)

	1991	1992	1993	1994	1995	1996	1997	1998
Total revenue including grants	15.8	18.0	20.3	16.7	15.0	16.7	15.9	16.4
Total revenue excluding grants	12.3	11.2	11.9	11.7	12.6	13.5	11.8	11.5
Private savings	21.4	21.0	8.3	17.0	7.3	4.8	8.3	1.2
Net flow of private savings into the financial market	5.5	4.7	-9.5	-0.5	-8.8	-8.2	-2.7	-11.2
Government savings	-9.7	-8.3	-7.0	-5.0	-3.4	1.6	5.1	5.5
Current account deficit	-4.2	-3.6	-16.5	-5.5	-12.1	-6.6	2.3	-5.7

Notes: Government savings defined as government expenditures (Table 2) subtracted by total revenue including grants (Table 3).

Table 4: Monetary Survey, 1992-2000 (% of GDP at market prices)

	1991	1992	1993	1994	1995	1996	1997	1998
Money supply (M3)	18.8	21.5	24.7	24.1	24.6	21.9	20.1	18.9
Net foreign assets	1.8	3.4	1.6	4.9	5.4	7.8	8.6	8.4
Net domestic assets	17	18.1	23.1	19.2	19.1	14.1	11.4	10.5
Credit to Government	3.5	5.2	10.8	7.7	9.1	7.9	5.2	5.1
Credit to private sector	17.6	13.5	14.5	11.9	8.1	3.8	4	4.6
Other	-4.1	-0.6	-2.1	-0.3	2	2.4	2.3	0.8
Lending to deposit ratio (%)	137.9	94.2	89.7	70.3	50.6	25.4	27.7	33.8
Treasury bills and securities to total lending (%)	1.7	7.0	37.7	39.2	62.1	172.8	132.7	123.1

Source: Bank of Tanzania

Table 5: Domestic Lending by Borrowing Sectors (% of GDP at market prices)

	1991	1992	1993	1994	1995	1996	1997	1998
Public administration	0.9	0.8	1.6	0.4	0.4	0.2	0.1	0.1
Agricultural production	1.7	1.1	1.1	1.0	0.7	0.5	0.3	0.3
Mining and manufacturing	3.7	2.7	3.0	3.0	1.8	1.0	0.9	1.0
Building and construction	0.2	0.3	0.4	0.1	0.1	0.1	0.1	0.1
Transportation	0.4	0.4	0.6	0.4	0.2	0.2	0.3	0.4
Tourism	0.2	0.3	0.3	0.2	0.1	0.0	0.1	0.0
Marketing of agricultural produce	6.4	3.5	4.0	3.0	1.7	0.2	0.1	0.1
Export of agricultural produce	0.2	0.5	0.4	0.4	0.2	0.1	0.1	0.0
Trade in capital goods	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0
All other trade	2.1	3.2	3.6	3.0	1.5	0.6	0.9	1.1
Specified financial institutions	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Other	1.7	1.2	0.8	-0.6	1.9	1.0	1.0	1.1
Total	17.6	14.3	16.0	11.1	8.4	3.9	3.6	4.4

Source: Bank of Tanzania

Most new banks that have been established are located in the urban areas. This put the rural sectors in a difficult position with regard to access to credit. Table 5 shows sectoral developments with regard to domestic lending. The three agricultural related sectors all show a significant decline in borrowing. Building and construction and transportation are the only sectors that have kept its share over the years. As the agricultural sector is still the most important sector in the economy a national policy framework for rural and microfinance has recently been established which might resolve the difficult situation in the sector. Still, the dramatic decline in lending raises the question if there are structural constraints that prohibit a dynamic take-off in economic growth.

3 The Poverty Reduction Strategy Paper (PRSP)[2]

The Tanzanian government has outlined a comprehensive strategy to tackle poverty and other development problems. Currently there are four important strategy papers that form the basis of an overall strategy to improve the situation for the less fortunate. Vision 2025 lays out the long-term development goals and perspectives, against which the national strategy for poverty eradication (NPES) alleviation was formulated. The Tanzania Assistance Strategy (TAS) is an attempt by the government and its international partners to co-ordinate and discuss ongoing activities in a comprehensive development framework. The Poverty Reduction Strategy Paper (PRSP) is an integral part of the Highly Indebted Poor Countries (HIPC) process, focusing mainly on strategies to alleviate poverty including broad consultations among various stakeholders. Altogether the planning process tries to improve co-ordination between the government and the donors in order to increase efficiency of government spending and donor funds in reaching the poor. There are particularly two issues that need to be addressed. First, efforts towards poverty reduction by donors are still being implemented outside the framework of the government budget. Second, a large amount of international resources is being channelled through specific donor-drive projects, sometimes entailing duplication. An effective struggle against poverty will require continued efforts to channel these resources in the context of sector-wide development strategies.

One of the key objectives of the poverty reduction strategy is to promote accelerated and equitable growth. Specifically over the three-year period 2000/2001-2002/2003 annual GDP growth is targeted to accelerate from about 5.2 percent to 6 percent.[3] Moreover, if the targets are achieved the government anticipate that poverty (rural) will be reduced from 48 (57) percent in 2000 to 42 (49.5) percent in 2003 and 24 (29) percent in 2010. In order to achieve these objectives the government intends to focus on four strategic areas (URT, 2000):

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2 For a review on the current strategy to tackle poverty see The United Republic of Tanzania (2000), Poverty Reduction Strategy Paper available at http://www.imf.org/external/np/prsp/2000/tza/02/index.htm

3 Although this is a relatively good performance compared to the past much higher growth rates would be necessary to halve poverty by 2015.

i) The government will continue to maintain sound macroeconomic policies and intensify the implementation of the reforms aimed at bolstering market efficiency, notably in agriculture and raising factor productivity.

ii) Special efforts will be made to channel the limited government resources towards the support of key programs and social services under the poverty reduction strategy.

iii) The government will increase its emphasis on reforms aimed at promoting export-oriented expansion and diversification of the pro-poor sectors.

iv) Efforts will be made to raise investment as a percent of GDP from 15 percent to approximately 17 percent, through initiatives focusing on cultivation of traditional and new crops, small and medium enterprises and informal sector activities.

A medium-term expenditure framework (MTEF) will be used to prioritise the policies contained in the PRSP and is the basis for the 2000/01 fiscal programme. A crucial element in the MTEF strategy is therefore to determine the resource envelope available during the period. Three important steps in the process are; first, projections have to be made on the likely growth pattern during the period; second, a prognosis have to be made on expected domestic revenue collected by the tax authorities; and third, projections have to be made on the amount of external aid entering into the government budget.

Estimates have been provided on resources likely to be available to the government during 2000-2002 period. It is expected that the domestic revenue-GDP ratio would increase, reaching 12 percent 2002. This is not excessively ambitious although it has to be noted that the ratio has averaged 12.4 percent over the last decade. The tax authorities are not planning any major tax reform, but are relying mainly on reduced exemptions and increased administrative efficiency to deliver the revenue gains. Still, in the longer term Tanzania needs to significantly increase domestic revenue to finance its development programme. It is important, however, not only to study the impact on expenditures, but also the how resources are extracted as distortions can induce impediments to growth. Thus, the efficiency of the tax system needs to be considered as well as the revenue potential of the different tax instruments.

4 Taxation policy in Tanzania

As in many other developing countries tax reform has been an important component in Tanzania's economic reform programme. However, tax reforms dates back to the late 1960s.[4] A sales tax was introduced in 1969 partly to offset the decline in import duty revenue caused by the import-substitution policy and to raise revenue to support a more active role of the government. In the early 1970s an attempt was made to broaden the tax base, a progressive income tax was introduced 1973 and the sales tax was widened to compensate for the abolition of the excise tax. In the early 1980s tax policies was endogenously changed as a result of the loss of macroeconomic control. Import duties and sales tax rates was raised in order to reduce the escalating fiscal deficit. Following

4 For a review on taxation in Tanzania see Osoro (1993, 1995)

the negotiations with IMF in 1986 and the economic reform programme import duties and sales tax rates were gradually reduced as well as the marginal income tax rates. In the 1990s the Investment Promotion Centre was established offering tax incentives such as tax holiday, exemption of taxes on imported inputs, in order to attract foreign investments. In 1992 most tax exemptions was reduced and import duty on imported inputs were removed. The two major objectives of the tax reform during the 1980s and the early 1990s were to simplify the tax system and to enhance revenue collection. Although the first objective has been achieved the revenue objective has not been fulfilled. Osoro (1995) argues that several factors have accounted for the failure; first, a complicated tax structure still prevailed despite the reform; second, granting of generous tax exemptions; third, the tax rates were still high encouraging tax evasion; and fourth failure to undertake reform in tax administration. With regard to the later a semi-autonomous tax administration, the Tanzania Revenue Authority (TRA), was established 1996. Although there has been some progress in revenue collection the revenue-GDP ratio has, as discussed above, been fairly constant over the years.

4.1 Tax structure

Some of the factors behind the decline in the tax-GDP ratio over the past years are substantial reductions in external taxes, relative large tax incentives for new investments, downsizing of the parastatal sector and sluggish private sector growth which has not generated enough revenue to compensate for lost revenue from the shrinking parastatal sector (World Bank 2000). The share of import duties collected has seen a declining share since the mid-1990s but is still the most important tax (Table 4.1). The current tariff structure is basically ad valorem and comprises five rates; 0, 5, 10, 20 and 30 percent. Items that carry zero tariffs are agricultural products such as fertilisers, chemicals and pesticides. Agricultural implements carries a rate of 5 percent while raw material and capital goods is set to 10 percent. Intermediate and consumer goods carry a rate of 20 and 30 percent respectively. Despite that 20 and 30 percent are the most common duty rates the effective collection of revenue was less than 10 percent during the period 1995-98. Tax evasion and exemptions are two factors explaining the poor performance. Besides the statutory exemptions Tanzania Investment Centre has also the right to exempt specific foreign investors from duties. In both cases, however, this also has an impact on the collections of excise and Value Added Tax (VAT) on imported goods.

The Value Added Tax (VAT) was introduced in July 1998 (Fiscal Year 1998/99) and replaced previous sales taxes and part of stamp duty and entertainment taxes. The sales tax was in the 1980s the most important source of income for the government but became less important in the 1990s. It is anticipated that more revenue will be generated with VAT, as the VAT base is significantly broader than the previous sales tax.[5] First, manufacturers previously excluded from sales tax are registered as taxpayers under the VAT system. Second, a number of items not liable to sales tax are subjected to VAT. Third, the number of goods excluded from VAT is limited.[6] Fourth, VAT includes services such as electricity, telephone, hotels and restaurants, which previously were subjected to lower sales tax. Two VAT rates are currently imposed in Tanzania; a zero rate and a standard rate of 20 percent. The zero rate is applied on exports and the standard rate applies on all other goods not exempted. VAT on imports is based on the value of the product including customs and excise duties and VAT on locally produced goods is based on price plus excise duty.

5 The threshold for being registered for VAT is currently set to an annual turnover of TSH 20 million. This means that most of the small outlets in the retail sector are excluded. Over time the VAT threshold are supposed to be reduced and thereby extend the coverage.

6 Certain goods and services are excluded from VAT such as; food and livestock supplies, pesticides, fertilisers, health, educational and veterinary supplies, books and newspapers, housing and land, financial and insurance services, water supply and funeral services.

Table 4.1: Tax structure 1992-1999

	1992	1993	1994	1995	1996	1997	1998	1999
Total revenue	13.2	12.6	13.5	13.6	14.6	13.9	12.8	11.9
Tax revenue	11.7	11.4	12.2	11.9	12.7	12.5	11.6	10.8
Income taxes	3.4	3.2	3.4	3.4	3.3	3.2	3.0	3.0
PAYE	0.5	0.6	0.8	0.9	0.9	1.0	1.0	1.1
Individuals	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.2
Companies	0.9	1.6	1.9	1.7	1.5	1.4	1.3	1.0
Withholding tax	0.1	0.2	0.5	0.6	0.6	0.5	0.4	0.4
Windfall Tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Others	1.6	0.6	0.0	0.0	0.0	0.1	0.1	0.0
Payroll or Manpower taxes	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Payroll tax	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2
Taxes on property	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Land rent	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Consumption taxes on goods and services (local)	4.3	3.9	3.6	3.2	3.5	3.3	3.0	3.1
Sales tax on local goods	2.3	2.2	2.2	1.8	1.7	1.5	1.6	1.9
Excise tax on local goods	1.8	1.4	1.1	1.2	1.5	1.6	1.3	1.1
Motor vehicle registration tax	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Motor vehicle Licenses	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hotel levy	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Import duties	2.8	2.5	3.3	3.8	4.1	4.0	3.9	3.6
Customs duties	1.5	1.4	1.8	1.9	2.0	1.9	1.7	1.5
Sales tax on imports	1.0	1.0	1.2	1.2	1.3	1.5	1.8	1.8
Excise tax on imports	0.2	0.1	0.4	0.7	0.8	0.6	0.5	0.4
Other taxes	1.2	1.6	1.7	1.3	1.5	1.8	1.3	0.8
Stamp duty	0.6	0.6	0.6	0.6	0.7	0.7	0.4	0.2
Road toll	0.1	0.5	0.9	0.6	0.6	0.8	0.7	0.6
Others	0.4	0.5	0.2	0.1	0.2	0.2	0.2	-0.1
Non-tax revenue	1.5	1.2	1.3	1.7	1.9	1.4	1.2	1.1
Dividends	0.7	0.4	0.3	0.4	0.5	0.3	0.2	0.2
Other	0.8	0.8	0.9	1.3	1.4	1.1	1.0	0.9

Source: Ministry of Finance

Excise duty is a consumption tax levied on specific imports and domestically manufactured products. The excise duty system has been quite complex but has since 1992/93 been reformed and are since 1999 grouped into 9 main groups including 40 items. The major excise revenues come from duties on beer, wine, spirits, cigarettes, soft drinks and petroleum. On locally produced goods the tax is based on the selling price of the goods excluding VAT. On imported goods the tax is based on the customs value (c.i.f.) plus the import duty on these goods, excluding VAT and other taxes.

Direct taxes in Tanzania are classified into four main areas; corporation tax, pay-as-you-earn-tax (PAYE), individual income tax and withholding tax. The contribution of income taxes has been quite stable over the years averaging 25 percent. The company income tax has been the biggest source of income taxes, but has seen a decline during the latter part of the 1990s. The corporation tax rates are divided into four categories: resident company (30 percent), non-resident company (30 percent), mining company (22.5 percent, increased to 30 from the fifth profit-making year) and co-operative society (25 percent). Deductions for tax purposes are training levy paid, research and development expenditures, depreciation (building 4 percent, hotel 6 percent and machinery 12-37.5 percent), investment allowance (20 percent) on specified construction and machinery. Individuals are taxed from two sources; the individual income tax and PAYE. Most income taxes are collected from PAYE. In 1999 PAYE contributed with approximately 30 percent of total income tax revenues. Non-tax revenue has been an important source of government revenue. However, as a result of privatisation there has been a steady decline in revenue.

In addition to these taxes collected by the Central government local authorities in Tanzania still levy a large number of taxes, licenses, fees and charges. Fjeldstad and Semboja (1999) surveying 50 district councils found 10 major categories of taxes, 18 major categories of licenses, 41 groups of charges and fees, and 16 items listed as "other" revenue sources. The distinction between the different items is often unclear and most of them would be treated as a tax. Despite the large number of revenue sources four items are crosscutting almost all districts. These are development levy,[7] crop and livestock cess,[8] business licences and market fees. The effective cess rate varies significantly and it can be quite substantial. In one district it was found that the cess rate represented 20 percent of the price paid to the cashew nuts producers.

4.2 Corporate taxes

Corporate tax payment, as a share of GDP, has seen a steady decline since 1994. Is there any particular sector that contributed to this decline? A small survey was undertaken in February 2001 to analyse the sectoral development of corporate taxes during 1996-2000. Although the survey does not cover all regions and cannot be representative in terms of overall taxes it reveal some issues that can explain the decline in corporate tax payments. The main finding is that corporate tax payments in the manufacturing sector have declined substantially over the period (Table 4.2). In 1996 approximately 41 percent of total corporate tax payments originated from the manufacturing sector. The share declined to 6 percent during 1998 and even if the share has increased it remain at a low level. The decline was particular strong in the Tanga region, a region located near the coast (Table 4.3).

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7 The levy is in principle levied on every person above the age of 18 and women are exempted in many councils.

8 Levied by district councils on the sale of major crops such as maize, rice, coffee, tea, cotton, cashew nuts etc.

Table 4.2: Corporate taxes by sector (% of total taxes collected)

	1996	1997	1998	1999	2000
Agriculture	29,6	27,8	40,5	35,1	34,1
Mining	3,4	9,3	9,3	8,4	5,2
Manufacturing	40,8	25,1	6,1	12,2	17,1
Electricity and water	0,0	0,0	0,0	0,0	0,0
Construction	4,4	17,8	8,9	8,5	6,3
Trade, Hotels and Restaurant	17,5	16,3	27,8	26,1	29,7
Transport and Commucation	4,1	3,5	7,1	9,4	7,5
Financial and Business Services	0,2	0,1	0,2	0,2	0,0
Public Administartion	0,1	0,1	0,1	0,2	0,1
Total	100,0	100,0	100,0	100,0	100,0

Source: Own calculations

Table 4.3: Corporate tax collected in the manufacturing sector (millions of Tsh)

	1996	1997	1998	1999	2000
Morogoro	0,0	0,0	0,6	2,1	0,6
Kilimanjaro	0,0	0,0	0,0	0,0	0,0
Shinyanga	0,0	0,0	0,0	0,0	0,0
Tanga	1851,8	1576,4	141,5	313,9	501,8
Dodoma	0,0	0,6	9,8	32,0	10,6
Coast	0,0	0,0	0,0	0,0	0,0
Iringa	35,7	42,6	45,9	62,8	44,0
Kagera	61,4	37,2	0,0	15,0	0,0
Mwanza	42,1	59,7	30,1	52,4	54,3
Total	1991,0	1716,5	227,9	478,2	611,2

Source: Own calculations

4.3 Tax incidence

The tax system is still quite complex in Tanzania and there is need to make it more transparent and efficient. Efforts to reform the tax system are continuing, focusing primarily on the revenue side. The revenue objective is of course important, but it is also important to consider the distribution of the taxation burden as well as the impact of various taxes on the efficiency of resource allocation. In the current strategy, equity is supposed to be accomplished through targeting measures on the expenditure side but given limitations there and severe difficulties of targeting, it is important that equity be considered on the revenue side as well. Thus, the difficult task when reforming the tax system is then to achieve three broad objectives; reduce disincentives for the private sector, protect poor households and improve revenue performance.

Tax incidence is a popular approach looking into the issue of who bears the burden of a change in tax policies. In general terms, a tax transfer real purchasing power from households to the government. The incidence of the tax refers to who pays the tax in real terms, that is who, whose real purchasing power falls when the government imposes the tax. The economic incidence of a tax refers to where the reduction in real purchasing power falls, while the statutory incidence refers to who is legally required to pay the tax. One of the most valuable insights that economic analysis has provided in public finance is that the person who effectively pays a tax is not necessarily the person upon whom the tax is levied (Atkinson and Stiglitz, 1980). For example a firm might shift the tax either to the owners if it is a profit tax or it might shift the tax through increased price to customers. Moreover households can avoid taxation on commodities if there are close substitutes where taxes are not imposed.

A common approach used in tax-incidence analysis is to use the observed pattern of demand for taxed goods and use the statutory tax rates (Sahn and Younger, 1999 and Younger, 1996). Table 4.4 presents some preliminary results on tax incidence among ten different household groups ranked in income deciles. Using expenditure data on a wide range of commodities we infer how much each income group would have paid under the assumption that the tax was fully included in the price of the commodity.[9]

Table 4.4 shows cumulative income (measured as expenditure per capita) and cumulative tax payments of three different tax instruments. Looking at distribution of income we note that bottom deciles receive 1.6 percent of total income while the top decile receives 38 percent of total income. Thus, the distribution of income is highly unequal. Looking at who is paying (or rather would be paying) we note that poorer households pay a relatively larger share of import duties followed by sales tax and excised duties. The two highest income groups pay relatively more on excise duties compared to sales tax and import duties. Table 4.5 displays the percentage paid among each household group on the three taxes. Again a bit surprising is that import duties are relatively a higher burden on the poorer groups. Thus, lowering import duties would, compared to other tax instruments, benefit the poorer groups.

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9 The survey includes 5000 households and 4895 were used in the expenditure and tax analysis. In the income tax analysis the number of households were substantially reduced. Number of households reported to have paid any income tax were 369. On each item consumed we inferred the amount of tax included in that item according to tax rates in 1990.

Table 4.4: Tax incidence

	Percentage of total income and tax payments				
	Expenditures Per capita	Total indirect taxes	Excise duties	Sales tax	Import duties
Group1	1,8	1,3	0,7	1,0	1,6
Group2	3,0	2,3	1,2	1,8	2,6
Group3	3,9	3,0	1,9	2,5	3,4
Group4	4,8	3,9	2,4	3,3	4,4
Group5	5,9	4,9	3,3	4,4	5,4
Group6	7,1	6,2	4,2	5,6	6,8
Group7	8,7	7,9	6,5	7,4	8,4
Group8	11,1	10,7	9,1	10,2	11,2
Group9	15,8	16,6	16,7	17,0	16,4
Group10	38,0	43,1	54,0	46,9	39,8

Table 4.5: Indirect tax payments by household group (% of indirect taxes paid)

	Excise duties	Sales tax	Import duties
Group1	5,3	20,1	74,6
Group2	5,5	22,1	72,4
Group3	6,3	22,7	71,0
Group4	6,2	23,2	70,6
Group5	6,6	24,3	69,0
Group6	6,7	24,5	68,8
Group7	8,2	25,7	66,1
Group8	8,5	26,1	65,4
Group9	10,1	28,0	61,9
Group10	12,6	29,7	57,7

Looking at direct taxes paid we see that income taxes paid are highly unequal. It needs to be emphasized again that the number of households reported to have paid income tax is rather small, 369 of 4895 number of households report that taxes have been paid. The results are shown in Figure 4.1.

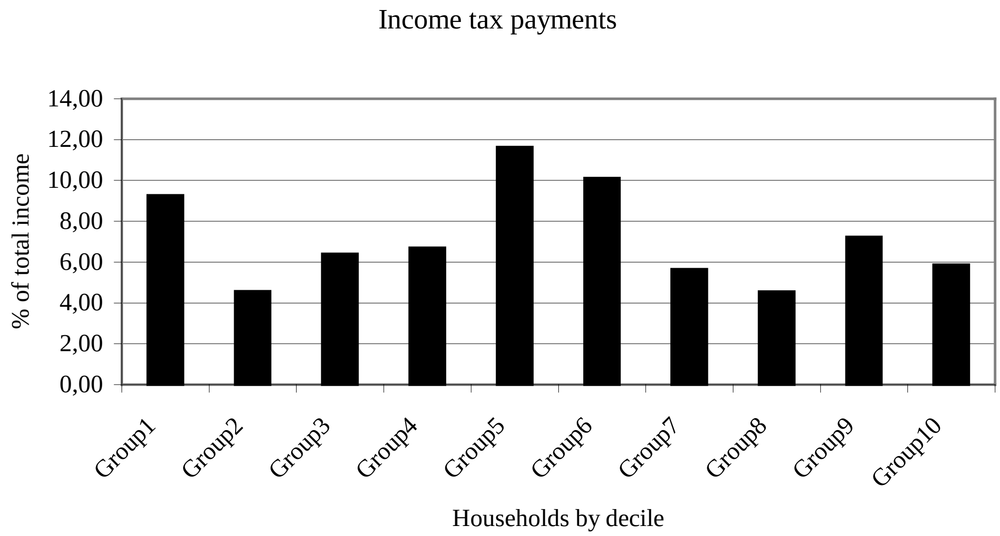

Figure 4.1

The vertical axis shows the amount of taxes paid as a percentage of total income in each household group. The tax rate is higher among the lowest income group and then fall and rise among the middle-income earners. The richest two deciles pay actually less than the poorest group. Still, the finding that the richest groups pay relatively small amount in terms of income shares is perhaps not surprising.

The approach used above is not without drawbacks. Although statutory incidence is much easier to measure it is economic incidence that has any meaningful interpretation. A critique against these partial types of analysis is that indirect effects are usually ignored.[10] As pointed out by Sahn and Younger (1999) when taxes fall on intermediate goods there is a problem with partial analysis ignoring indirect effects may lead to different conclusions derived from a partial analysis. Another concern is that most fiscal studies in developing countries either study tax incidence or the distribution of tax burden or the incidence of public expenditures. The central issue is, however, the net incidence of fiscal policy (Devarajan and Hussain, 1998). Even if a tax is regressive the overall impact may not be if the revenue is spent in a progressive manner. Ultimately this would require a combined analysis of the net impact of a change in government expenditures and changes in tax policies.

4.4 Tax revenue potential

A particular important issue noted in the text is the need to increase the revenue-GDP ratio in the Tanzanian economy. The share of domestic revenue in GDP is low in Tanzania even compared to other sub-Saharan countries. Is this a result of particular characteristics of the Tanzanian economy? Recent cross-country analyses of tax revenue performance tend to suggest that Tanzania should be capable of generating substantial

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10 Rajemison and Younger (2000) discuss an intermediate approach taking into account indirect effects. Besides using information on household expenditure patterns from a household survey they also employ an input-output table to trace the indirect impact of taxes.

higher revenue (Ghura, 1998). Bevan (2001) provides some crude estimates that in principal Tanzania could generate a revenue-GDP ratio of 18 percent (in 1999), which is quite far above the actual amount of 12 percent generated in 1999.[11] Additional evidence of the possibility of generating a higher revenue-GDP ratio is presented in Table 4.8. A recursive dynamic neoclassical general equilibrium model has been used to simulate a scenario where tax rates are unchanged over the period. The simulation shows that it is possible to raise the revenue GDP ratio. Towards the end of the period simulated the tax revenue-GDP ratio reaches 17 percent. Although GDP growth rates are not excessive, a high investment ratio would be required to generate an increasing revenue-GDP ratio. This highlights the important role of the private sector in achieving growth and an increase in the revenue-GDP ratio.

Table 4.8: Real GDP, government revenue, investment and the real exchange rate

	Gross domestic product (real)	Tax revenue-GDP ratio (nominal)	Real exchange rate	Investment-GDP ratio (nominal)
1993	4.4	10.8	0.5	21.6
1994	3.7	10.2	0.4	12.6
1995	3.8	13.2	0.5	28.6
1996	5.0	13.0	0.8	17.5
1997	4.2	12.0	0.7	14.8
1998	2.7	11.2	0.7	10.9
1999	3.3	12.7	0.6	10.7
2000	4.0	13.9	0.7	14.4
2001	4.6	15.3	0.8	17.7
2002	4.8	15.6	1.0	20.1
2003	4.8	16.5	1.1	22.6
2004	4.9	17.3	1.2	25.5

Source: Own projections

4.5 Marginal cost of public funds and donor support

Altering the tax structure could in principle improve revenue generation. However, one of the most powerful ideas in economics is that raising a dollar of taxes could cost society more than a dollar. Thus the marginal cost of public funds is then an important concept to consider. There is also a close connection between the cost and the potential benefits a dollar at the margin can generate. If the welfare loss from raising a dollar of revenue through distortionary taxation were 20 cents, for example, then a public project

[11] Estimates based on tax equations estimated for 39 sub-Saharan countries by Ghura (1998).

would need to generate marginal benefits of more than $1.20 per dollar of cost to be justified.

From a donor perspective, the current shift towards emphasizing budget support also requires some deeper analysis on taxation. While balance of payments support indirectly made additional resources available to the government the link was not obvious. However, budget support implies a direct link to the budget. In principal governments has a choice; they could use additional resources to reduce taxation or increase spending or a combination of both.

In the Tanzanian case there has been a drastic decline in government spending over the years. Thus there is certainly a need to increase government spending in the longer term. However, if the cost of taxation is excessively high then the benefits from lowering taxes could outweigh the benefits from additional spending. As discussed above this would require a combined analysis of the net impact of a change in government expenditures and changes in tax policies.

What are the marginal costs in Tanzania to raise an additional dollar of revenue? A computable general equilibrium (CGE) model is used to measure the marginal cost of funds (MCF).[12] Table 4.9 shows some preliminary sectoral estimates.[13] Compared to estimates in other countries the cost of raising an additional shilling using tariffs is extremely high in Tanzania (see Devarajan et al. 2001). The cost varies between 6-11 shillings depending on in which sector the tariff rate is increased. Using a uniform tariff across the board would induce a cost of 8 shillings for an additional shilling collected. This is indeed an extremely high cost. Using a uniform indirect tax across the board would actually increase welfare. Still, some sectors lower welfare while other sectors such as food, finance, consumption goods, mining, other services and tourism would increase welfare. It might look as a strange result that an increased tax rate in the agricultural food sub-sector would have welfare benefits. The welfare benefit occurs because the tax actually increases production and as the initial tax is rather low it does not induce any major distortions in the economy. However, the experiment has been done under the assumption of no distortions in the factor market. A final judgement on an appropriate strategy need to take this into account as marginal cost of funds is high in sectors where distortions are large. An important conclusion though is that if tax rates should be increased, it would be beneficiary to change indirect taxes compared with tariffs.

The question of whether donor funds should be used for tax reduction or increased spending is a delicate issue. Looking at taxation only, Table 4.9 shows welfare benefits when real government revenue is reduced by one shilling through adjustments of the tariff rates. Overall lowering tariffs would generate welfare benefits in the order of 5 shillings for every shilling reduced. Thus compared with the alternative use of increased spending this implies that if the latter strategy is chosen then the marginal benefit should exceed 5 shillings. The largest welfare benefits would be in the agricultural food sub-

12 The model is based on Devarajan, Thierfelder and Suthiwart-Narueput (2001). Data from a social accounting matrix developed by Wobst (1998) have been used in the simulations.

13 The tax structure in the model is at this stage highly aggregated. We consider only indirect taxes and tariffs. A more detailed tax structure and disaggregation of households would probably generate additional insights.

sector followed by other agriculture and beverages. In some sectors the response of reducing government revenue implies a negative tariff, a subsidy.

Table 4.9 Marginal costs of public funds

	Tariffs			Indirect tax		
	Old rate	New rate	MCF	Old rate	New rate	MCF
Agricultural export	0.00	0.00	0.00	0.03	0.03	19.09
Agricultural food	0.18	0.22	11.05	0.00	0.00	-30.59
Agricultural other	0.14	0.40	11.19	0.01	0.01	2.69
Building & construction	0.00	0.00	0.00	0.00	0.01	1.37
Electricity & water	0.00	0.00	0.00	0.01	0.03	1.44
Finance	0.00	0.00	0.00	0.00	0.02	-1.22
Beverages	0.08	0.17	10.74	0.09	0.09	2.93
Mfg. consumption goods	0.27	0.28	9.87	0.01	0.02	-5.73
Mfg. Food products	0.19	0.20	9.71	0.00	0.01	4.25
Mining	0.00	0.00	0.00	0.17	0.19	-2.53
Mfg. Other	0.10	0.10	6.16	0.01	0.01	2.57
Petroleum	0.03	0.05	7.28	0.01	0.16	4.36
Other services	0.00	0.01	6.55	0.00	0.01	-0.59
Tourism	0.00	0.00	0.00	0.05	0.07	-8.18
Trade	0.00	0.00	0.00	0.00	0.01	1.10
Transport	0.00	0.12	6.30	0.00	0.01	1.97
Uniform tariffs	1.00	1.01	8.00	0.00	0.00	0.00
Uniform indirect tax	0.00	0.00	0.00	1.00	1.03	-0.96

Source: Own calculation

Table 4.10 Marginal costs of public funds

	Tariffs		
	Old rate	New rate	MCF
Agricultural food	0.18	0.12	-7.86
Agricultural other	0.14	-0.07	-7.75
Beverages	0.08	-0.03	-7.47
Mfg. consumption goods	0.27	0.25	-6.71
Mfg. Food products	0.19	0.18	-6.52
Mfg. Other	0.10	0.09	-3.47
Petroleum	0.03	0.01	-4.45
Other services	0.00	-0.01	-3.82
Transport	0.00	-0.12	-3.81
Uniform tariffs	1.00	0.99	-5.02

Source: Own calculation

5 Conclusions

Tanzania has during the past years made substantial progress in stabilising the economy. One of the major issues has been to cut down on government activities and there has been a remarkable contraction. Government expenditures have been reduced from 27 percent of GDP in 1992 to 11 percent of GDP in 1998. The tight fiscal policy has not, so far, produced the intended results, a boost in private investments. Since the peak in 1993 private investment has, as a share of GDP, seen a steady decline, reaching 12 percent of GDP in 1998. This suggests that an excessive shake out of some public investment categories, such as investment in infrastructure, have derailed the investment response by the private sector. The drastic expenditure cuts has also had a negative impact in the social sectors. To some extent priority sectors such as education, health, water, roads and agriculture have been protected through additional resources made available through inflows of donor funds.

A medium-term expenditure framework (MTEF) is currently used to prioritise the policies contained in the recently completed Poverty Reduction Strategy Paper. A crucial element in the MTEF strategy is the resource envelope available during the period. Although tax reform has been an important component in Tanzania’s economic reform programme the domestic revenue-GDP ratio has remained low. The ratio has averaged 12.4 percent over the last decade and has recently seen a decline. Some of the factors behind the decline in the tax-GDP ratio over the past years are substantial reductions in external taxes, relative large tax incentives for new investments, downsizing of the parastatal sector and sluggish private sector growth. Indeed corporate tax payments, as a share of GDP, have seen a steady decline since 1994, particularly in the manufacturing sector.

Preliminary results on tax incidence among ten different household groups shows that poorer households pay indirectly a relative large share of import duties. The richest income groups pay relatively more on excise duties compared to sales tax and import duties. Thus, lowering import duties would, compared to other tax instruments, benefit the poorer groups. With regard to income taxes the tax rate is high among the poorer households then fall and rise among the middle-income earners. Perhaps surprising, the richest two decile's income tax rates are smaller than the poorest group. Further analysis using more recent household expenditure data would be extremely useful in order to compare developments over time.

In the longer term Tanzania needs to significantly increase domestic revenue to finance its development programme. The share of domestic revenue in GDP is low in Tanzania even compared to other sub-Saharan countries. Recent cross-country analyses of tax revenue performance tend to suggest that Tanzania should be capable of generating substantial higher revenue. Projecting tax revenue, keeping the rates unchanged, we found that towards the end of the period (2004) the tax revenue-GDP ratio reached 17 percent. Although GDP growth rates are not excessive, a high investment ratio would be required to generate an increasing revenue-GDP ratio. This highlights the important role of the private sector in achieving growth and an increase in the revenue-GDP ratio.

An alternative option to generate additional revenue would be to increase the tax rates. An important concept that needs to be considered is the marginal cost of public funds. What are the marginal costs in Tanzania to raise an additional shilling of revenue? Compared to estimates in other countries the cost of raising an additional shilling using tariffs is extremely high in Tanzania. The cost varies between 6-11 shillings depending on which sector is taxed. Extracting an additional shilling using a uniform tariff across the board would cost 8 shillings. This is indeed extremely high. A better alternative would be to use a uniform indirect tax across the board. Raising an additional shilling would actually increase welfare. Differentiating between sectors would in some cases lower welfare and in some cases increase welfare. Higher welfare occurs because the tax actually increases production. Moreover, as the initial tax is rather low it does not induce any major distortions in the economy. However, the experiment has been done under the assumption of no distortions in the factor market. Further analysis would be required to take this into account. Results from other countries have shown that marginal cost of funds is usually high in sectors where distortions are large. Still, if tax rates should be increased, it would be beneficiary to change indirect taxes compared with tariffs. This would also have distributional benefits.

A final issue explored in the paper was whether donor funds should be used for tax reduction or increased spending. Ultimately this would require marginal benefit analyses of both taxation and additional government spending. Still, looking at taxation only could tell us how much marginal benefits would be required to justify a spending strategy. A uniform reduction of tariffs would generate welfare benefits in the order of 5 shillings when real government revenue is reduced by one shilling. This implies that if a spending strategy is chosen the marginal benefit should exceed 5 shillings.

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