www.repoa.or.tz

No

PB 18/2022 December 2022

REPOA Brief

REPOA Knowledge is Power

The Performance of Tax Revenues in Tanzania: An attempt at explanation

By Joseph Semboja and Derick Msafiri

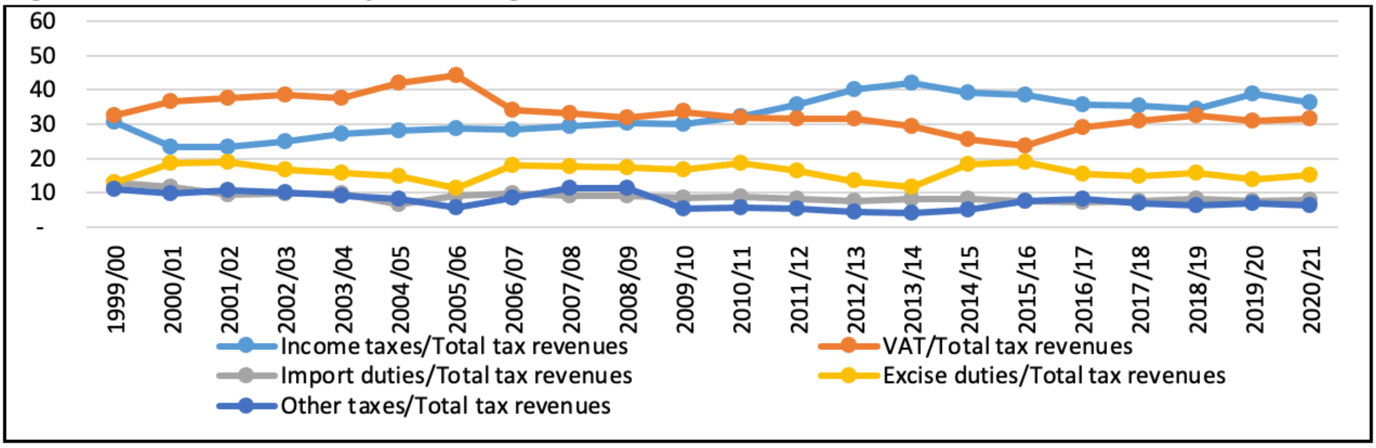
Key Messages

Tax Performance	• **The performance of Tanzania's Tax revenue collection is below the recorded averages in Sub- Saharan Africa, SADC, and East Africa.**
	• Income tax and VAT jointly contribute around two-thirds of the country's tax revenues.
Tax Buoyancy	• The tax regime in Tanzania has been marginally buoyant (1.08) in the last 20 years. However, tax buoyancy has declined over the period.
	• Tax buoyancy has varied across the tax categories, with income tax performing better, followed by excise duties. Both sources provide short-term stability, as well as long-term sustainability to the government budget.
	• The VAT suffers from regressivity and a declining tax base, and import duties also suffer from a declining tax base.

Introduction

The Tanzanian tax regime is largely driven by the revenue context, although considerations are made not to become overly distractive on the other economic and social objectives. The country's tax structure features five major categories of tax revenue, namely income tax, value-added tax (VAT), excise duties, import duties, and others. Figure 1 shows that the tax regime is dominated by income and value-added taxes which accounted for an average of 64% of the tax revenue collected during the period 1999/00- 2021. Over the period, the structure changed only slightly, with the value-added tax which ranked first in the early years followed by income tax swapping positions in 2011/12. Excise tax, fluctuating between 11 and 19 percent, did not exhibit significant dynamism, given the rising Tanzanian middle class. The contribution of import duties has been low and diminishing, due to the poor imports performance as well as regional trade protocols; especially the East African Community (EAC) and the Southern African Development Community (SADC).

Figure 1: Contribution of major tax categories to tax revenue



Source: Bank of Tanzania

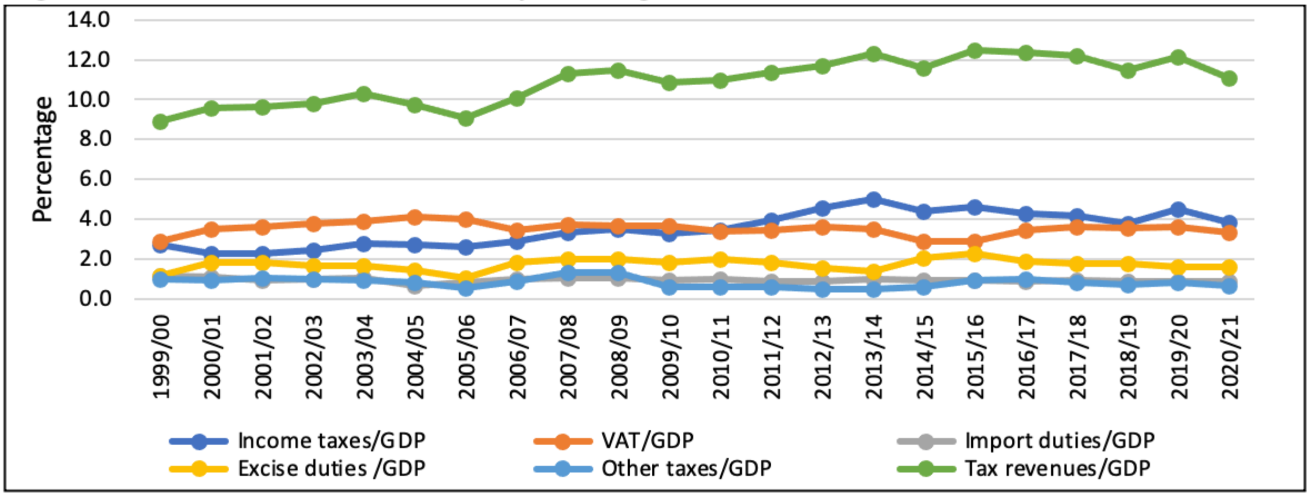
Tax Revenue Performance

From the tax revenue growth perspective, the performance during 1999/00-2020/21 is considered to be good. Tax collection rose from TZS 685billion to TZS 17,318billion, representing a 2,429 percent growth over the period. In comparison, the growth of GDP was 1,937 percent during the period. The best performer was income tax whose collection rose by 2,773 percent, followed by excise tax by 2,739 percent and VAT by 2,248 percent. Import duty collection also grew by 1,406 percent.

However, the more appropriate tax revenue performance criterion is to compare the tax revenue collected with the performance of the economy or the respective tax base. Figure 2 shows that the total tax to GDP ratio rose slowly from 8.9% in 1999/00 to 11.5% in 2008/09 but fluctuated between 10.6% and 12.5 % during 2008/09-2020/21. The best performer has been income tax, whose ratio increased from 2.2% in 2000/01 to 5.0% in 2013/14 but declined gradually to 3.8% in 2020/21. VAT, whose ratio rose gradually but consistently from 2.9% in 1999/00 to 4.1% in 2004/5, fluctuated thereafter between 2.9% and 4%. The other tax categories either showed fluctuating or declining performance.

The question is whether this is a good performance or not. From a regional comparison, the performance of Tanzania's domestic revenue mobilization falls below the average. For example, the average tax to GDP ratio for forty-four Sub-Saharan African countries from 2013 to 2018 was 16.3 percent; this being above Tanzania's performance at 11.8 percent. This conclusion remains valid for the regions of SADC with an average performance of 19.8% and the EAC (excluding South Sudan) at 14.6% from 2013 to 2018. (Semboja, et all, 2022).

Figure 2: The Trend of Tax to GDP ratios of major tax categories



Source: Bank of Tanzania

Performance implications of the results

It is expected that as the economy grows, the tax revenue also increases. Tax buoyancy explains this relationship between the changes in tax revenue growth and the changes in GDP growth. It is the responsiveness of tax revenue growth to changes in the GDP growth or base. A tax is said to be buoyant if its revenue increases more than proportionately in response to a rise in its base.

Table 1 shows the trend of average tax buoyancy[1] over the period under review. The results show that the tax regime was slightly buoyant at 1.08 during the two decades; implying that an extra percent of GDP increased tax revenue by 1.08 percent. They also show differentiated performance across tax categories, with excise tax recording the highest buoyancy at 1.34, compared to import duty with the lowest buoyancy at 0.93.

Table 1: Trend of average tax buoyancy in Tanzania

	Tax revenues	Income taxes	VAT	Import duties	Excise duties
2000/01 - 2008/9	1.25	1.19	1.27	1.02	1.91
2008/9 - 2015/16	1.09	1.30	0.75	0.92	1.29
2015/16 - 2020/21	0.88	0.89	1.22	0.85	0.59
2000/01 -2020/21	1.08	1.13	1.09	0.93	1.34

Source: Authors' computation

Results in Table 1 lead to the following conclusions. First, the tax regime in Tanzania has been marginally buoyant (1.08) over the two decades. Second, over the period, tax buoyancy has declined from 1.25 from 2000/01 to 2008/09, to 1.09 during 2008/09-2015/15, and further to 0.88 during 2015/16- 2020/21. Thus, if the economy was to grow by 10% during the last five years, tax revenue would only grow by 8.8%. Third, none of the major tax categories have displayed performance robustness over the two decades. The performance of both import duties and excise taxes has steadily declined over the three phases, while income tax and VAT fluctuated. Generally, the results show a declining capacity of tax revenues to adjust to economic growth.

1 Tax buoyancy is measured as the annual (percent) growth of tax revenue divided by the annual (percent) growth of GDP.

The econometric results[2] presented in Table 2 provide support to some of the above findings and offer more insights into their short and long-term[3] impact on the government budget. For the overall tax regime, the long-term coefficient of 0.96 suggests that the long-term tax revenues are not growing as fast as GDP, implying that tax revenues for financing the national budget are not sustainable. Furthermore, the corresponding short-term coefficient of 0.58 suggests the tax regime cannot adjust to shocks; it cannot work as a good automatic stabilizer. Thus, the overall tax regime can neither provide short-run stabilization assurance nor guarantee long-run fiscal sustainability. This may be due to a general absence of progressivity in the tax system.

Table 2: Short run and long run estimations of tax categories

		Long-run	Short run
Income taxes	Coefficient	1.03	1.03
	std. error	0.08	0.08
	t. statistic	12.63	12.63
	p.value	0.00	0.00
VAT	estimate	0.87	0.52
	std. error	0.03	0.03
	t. statistic	35.09	20.89
	p.value	0.00	0.00
Excise taxes	estimate	1.01	1.01
	std. error	0.08	0.08
	t. statistic	12.96	12.96
	p.value	0.00	0.00
Import duties[4]	estimate		3.05
	std. error		0.20
	t.statistic		15.34
	p.value		0.00
Import duties[5]	estimate	0.92	-0.50
	std. error	0.02	0.02
	t. statistic	41.68	-22.73
	p.value	0.00	0.00
Tax revenues	estimate	0.96	0.58
	std. error	0.04	0.04
	t.statistic	26.26	15.89
	p.value	0.00	0.00

Source: Authors' computation

Further, from Table 2, the findings for the tax categories show that income and excise taxes are buoyant in the long and short run. Both categories are automatic stabilizers of shocks in the short run, as well as assuring fiscal sustainability in the long run. The results reflect the progressivity of the income taxes, making the case for this as a robust source of tax revenue mobilization in the country. On the other hand, excise taxes typically levied on luxurious products and targeting the middle-class, are usually levied on products and services whose demand is price inelastic. It is therefore a robust source of tax revenue mobilization.

2 Tax buoyancy for each tax category was estimated using quarterly data spanning from 2001/2 to 2020/21 obtained from the Bank of Tanzania (BOT) and the Ministry of Finance and Planning.
3 The long-term results presented in Table 2 are different frm those in Table 1. It must be noted that the econometrics results are likely to provide better ground for policy discussions due to their robustness and ability to capture the trend.
4 Tax buoyancy of import duty has been computed using total value of imports as its tax base. However, after conducting bounds test, there was no cointegration found between import duties and total import values.
5 Tax buoyancy of import duty has been computed using GDP

The buoyancy results for VAT are less than one in both the short-run and long-run, implying that the source is neither an automatic stabilizer in the short run nor a provider of fiscal sustainability in the long run. The lack of progressivity associated with this source as well as its declining tax base may explain this result. Finally, the short-run results for import duties are significantly greater than one, implying that this source is an automatic stabilizer in the short run. However, there was no long-run relationship found between import duties and its base, namely imports. This may reflect the impact of regional protocols which discourage taxes to be imposed on regional imports as well as the declining tax base.

Concluding Remarks

The performance of Tanzania's tax revenue collection is below the recorded averages in Sub- Saharan Africa, SADC, and East Africa. Tax buoyancy analysis shows a declining capacity of tax revenues to adjust to economic growth.
The analysis shows that income and excise taxes provide short-term stability, as well as long-term sustainability to the government budget. For the income tax, the explanation lies in its progressivity, and for the excise tax, the reason falls in the taxed products and services whose demand is price inelastic. These sources are therefore more reliable sources of revenue than VAT and import taxes which generally tend to be regressive and do not target products and services whose demand is price inelastic. Therefore, the government needs to put more effort into income and excise taxes to support its budget in the short and long terms.

From the economic growth perspective, income tax is the preferred source of tax revenue because it is not distortionary in resource allocation. Similarly, excise taxes levied to discourage the production and consumption of harmful goods and services provide social benefits that may promote economic growth[6].

References

Gupta, S., Jalles, J. T., & Liu, J. (2022). Tax Buoyancy in Sub-Saharan Africa and its Determinants. International Tax and Public Finance, 29(4), 890-921.

OECD/AUC/ATAF (2020), Revenue Statistics in Africa 2020: 1990-2018, OECD Publishing, Paris, https://doi.org/10.1787/14e1edb1-en-fr.

Semboja, J. J., Kamugisha, M., Msafiri, D. & Mmassy, R. (2022). Analysis of Tax Revenue Mobilization in Tanzania. Draft Report submitted to REPOA.

6 However, the recent practice to use excise taxes as a source of revenue is more likely to produce distortive results, especially when levied on non-final products and services such as communications and financial services.

157 Migombani/REPOA streets, Regent Estate,
PO Box 33223,
Dar es Salaam, Tanzania.
Tel: +255 22 2722283 Cell: +255 75 409 1677
Fax +255 22 2705738
Website: https://www.repoa.or.tz
Email: repoa@repoa.or.tz

Branch Office
2nd Floor Kilimo Kwanza Building 41105 Makole East, Kisasa, Dodoma, Tanzania

This policy brief was produced with the financial support of the Foreign, Commonwealth & Development Office (FCDO), through the British High Commission Dar es Salaam.