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Original Article

Factors Affecting Tax Revenue Growth in Uganda

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Keywords:

Tax revenue, Tax-to-GDP, Trade Openness, Exchange Rate, Inflation.

ABSTRACT

Purpose – The study sought to identify the determinants of tax revenue growth in Uganda, utilizing time series quarterly data spanning from 2008 to 2023. **Design/methodology/approach –** An autoregressive distributive lag - Error Correction Model was employed to establish the long run and short run relationships between the variables. **Findings –** The study findings demonstrated that agriculture, industry and services sectors negatively affect the growth of tax revenue in the short run and long run. Trade openness and exchange rates positively affect tax revenue growth in the long run. Inflation exhibited an insignificant effect on tax revenue growth in the short run and long run. The study recommends directing policy towards enhancing trade openness, further economic integration and improving trade facilitation. **Originality/value –** This paper provides a deeper understanding of the determinants of tax revenue growth in Uganda.

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INTRODUCTION

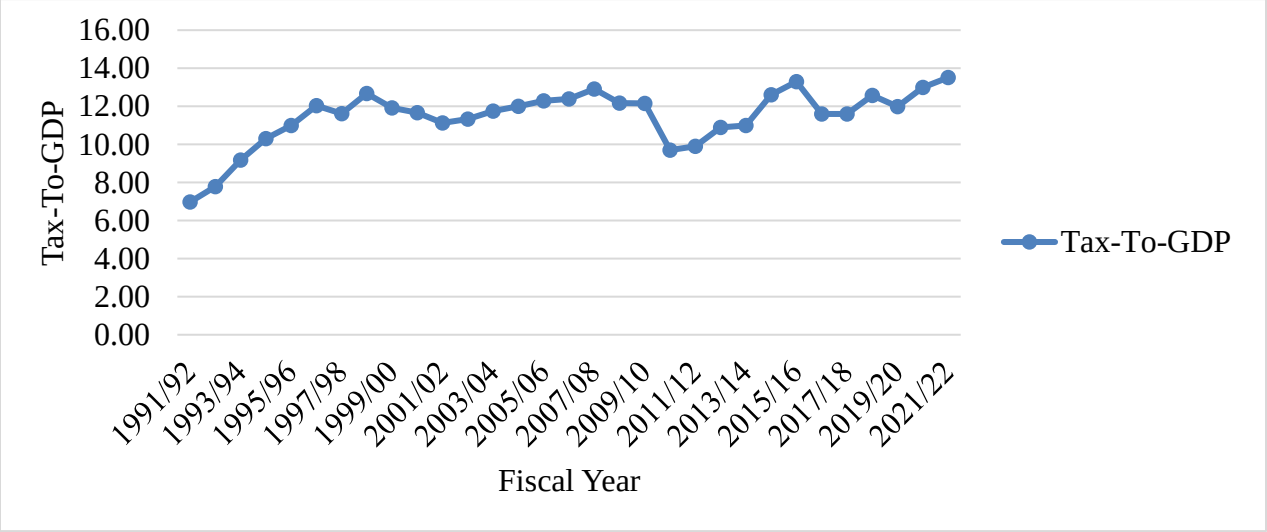
Taxation is an important economic tool employed by governments across the world to raise revenue for financing public expenditure with the aim of accelerating economic growth, reducing poverty, and improving income distribution (Gurdal et al., 2021). In many developing economies, taxation is used to support economic development and economic independence (Kalogiannidis, 2021). A higher tax-to-GDP ratio signifies the government's ability to finance its expenditures and reduce the reliance on borrowing. Therefore, many governments have initiated comprehensive fiscal reforms in order to enhance tax collection.

In 2022, the average tax-to-GDP ratio for developing countries was only 12%, compared to 34% for developed countries (World Bank, 2023). According to the World Bank (2023), the main reasons for low tax revenue to GDP ratio in many poor countries are; a large informal sector, which is often not taxed, low tax compliance, low per capita incomes, and weak tax administration. However, Rahim and Asma (2019) attribute the low tax collection in developing economies to agricultural dominance in GDP sectoral composition, limited tax base, political instability, tax evasion and poor fiscal policies.

Like other nations across the world, African countries have undertaken tax reforms with a view of increasing revenues through taxes. The major fiscal changes were the imposition of value added tax (VAT), taxes related to production, such as excise duty and presumptive taxes and the creation of revenue authorities to improve tax administration and simplify tax systems (Evnevich and Ivanova, 2020). Efforts to enhance tax revenue collection have centred on widening the tax base and narrowing the tax gap.

Uganda is among the countries that implemented tax policy and administration reforms with the aim of increasing tax revenues (Mawejje and Odhiambo, 2021). These reforms saw the formation of a statutory tax body, the Uganda Revenue Authority, in 1991 and extensive reforms in tax legislation in 1997 (Kwagala, 2016). The tax reforms yielded some success resulting in the growth of tax as a percentage of GDP from 6.8% in 1991/1992 to 12.8% in 2019/2020 (ATO, 2020). However, this growth was not sustained, and consequently, the tax-to-GDP ratio has stagnated at about 11% to 13% for the past 12 years (Uganda Revenue Authority, 2022; Eurostat, 2022).

Fig 1. 1: Trend in Tax-To-GDP Growth for Uganda 1991/92 - 2021/22



Source: *Uganda Revenue Authority (2023)*

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According to the IMF (2023), Uganda has resorted to external and domestic borrowing in order to finance expenditures, thus increasing the debt burden. Uganda's public debt is currently 52% of GDP, which is beyond the IMF's recommended threshold of 50% for the least developed countries (IMF, 2023). The growing debt and high interest charges, coupled with low tax revenues are putting Uganda in a debt crisis. Excessive debt reduces investments in economic and social infrastructure and impedes economic growth.

Reducing the debt-to-GDP ratio is very key to Uganda. However, this can only be achieved by increasing domestic tax revenue mobilization so as to fund government activities. With the existing stagnation in the mobilization of revenue from the tax, it is important to take cognizance of the drivers that can boost the growth of tax revenue in the country.

LITERATURE REVIEW

Literature on factors that affect tax-to-GDP growth in an economy has become central among both theoretical and empirical scholars but with little consensus. Gobachew, Debela and Shibiru (2018), Mawejje and Munyambonera (2016), Alabede (2018), and Kitessa and Jewaria (2018) identify GDP sectoral composition as the main determinant of tax yield. Whereas GDP sectoral composition is noted to have a significant effect on a country's tax collection, the extent to which trade openness, exchange rates and inflation affect tax collection is less explored in literature (Ihuarulam, Sanusi & Oderinde, 2021)

In a study using multiple variables regression in Ethiopia, Gobachew, Debela and Shibiru (2018) measured sectoral composition as industry sector and agricultural sector. The industrial and agricultural sectors were measured as shares of GDP. Results from the study showed that industry had a significant positive effect on tax-to-GDP, while agriculture significantly but negatively affected revenue from taxes.

Mawejje and Munyambonera (2016) using time series data and employing an autoregressive distributive lag (ARDL) bounds testing method, found that whereas agriculture and informal sectors dominate the Ugandan economy, these pose the biggest obstacles to the performance of tax revenue. Additionally, development expenditure, trade openness and industry positively impacted the growth of tax revenue. The study found that services were non-significant in determining the growth of tax-to-GDP. Alabede (2018) used a feasible generalized least squares method on data for the Sub-Saharan Africa (SSA) region and found that investment freedom positively and significantly affected tax revenue whereas agriculture negatively and significantly affected tax revenue performance.

Using multivariate panel data co-integration to analyze the determinants of tax revenue, Kitessa and Jewaria (2018) found a positive and significant impact of agricultural, industrial and service shares on tax collection across Eastern Africa. Similarly, Asma and Rahim (2022), employing Fixed Effects and Multiple Linear Regression models examined the determinants of tax yields in six Asian countries over the period of 1996-2021. The study found that agriculture, manufacturing, and service sectors as percentages of GDP, and inflation had a retrogressive consequence on tax collection in these economies.

In Tanzania, Epaphra and Kaaya (2020), while employing an ARDL model, found that agriculture share, industrial share and services share in GDP had a positive impact on tax collection in the short run and long run. Asghar and Mehmood (2017) using ARDL examined how tax revenues in Pakistan were affected by trade openness. The findings from the study showed an inverse association between trade openness and revenues generated from taxes, implying that trade openness was likely to reduce tax revenues if accompanied by a reduction in tariffs.

Gobachew, Debela and Shibiru (2018), in a study on the determinants of tax yield in Ethiopia, employed

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the OLS method. The study found that industry, trade openness, and income per capita positively and significantly affected tax collection whereas agriculture and inflation exhibited a negative significant consequence on tax collection.

METHODOLOGY

Data Sources and Variable Definitions

The study used quarterly time series data spanning from 2008 to 2023. Data on tax-to-GDP was obtained from the Ministry of Finance, Planning and Economic Development (MoFPED), data on agriculture, industry and services was obtained from the Uganda Bureau of Statistics (UBOS), and data on trade openness, exchange rates and inflation was obtained from Bank of Uganda (BoU).

Table 1: Variable Definitions

S/n	Variable	Abbreviation	Definition	Source	Anticipated sign
1	Tax-To-GDP	TRGDP	Tax as a percentage of GDP	MoFPED	
2	Agriculture share	AGRIC	Agriculture, forestry, and fishing, value added as a percentage of GDP	UBOS	-
3	Industry share	INDUS	Industry share (construction inclusive), value added as a percentage of GDP, excluding mining and quarrying.	UBOS	+
4	Services share	SERV	Services, value added as a percentage of GDP	UBOS	+
5	Trade openness	TRADE	Summation of all exports and imports as a percentage of GDP	BOU	+
6	Exchange rates	EXRATE	Exchange rates, quoted against the US Dollar ($)	BOU	+
7	Inflation	INF	Inflation, GDP deflator, annual percentage	BOU	+/-

Model Specification

Empirical literature indicates that studies on determinants of tax revenue growth across the world have adopted mixed methodologies. Epaphra and Kaaya (2020), Ali and Audi (2018), Asghar and Mehmood (2017), and Mawejje and Munyambonera (2016) adopted the ARDL model. Tsaurai (2021) and Rahim and Asma (2019) employed a mixture of models, such as the Generalized Methods of Moments, Fixed Effects, Random Effects, and Pooled Ordinary Least Squares in their analyses, while Alabede (2018), Kitessa and Jewaria (2018), Gaalya (2015), Ihuarulam, Sanusi and Oderinde (2021) used panel estimation techniques in their studies.

Given that the study used time series data with mixed orders of integration, an ARDL model was adopted to estimate short-term and long-term relationships between the variables. Pesaran, Shin and Smith (1996) suggest the use of the ARDL model while determining the long-term association among non-stationary series, as well as estimating an Error Correction Model (ECM) to ascertain the long-term relations. Therefore, the study adopted the following model;

$$Y_t = \alpha + \sum_{i=1}^{p} \beta_i Y_{t-i} + \sum_{j=0}^{q} \Upsilon_j X_{t-j} + e_t \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (i)$$

Where:

Y_t = Dependent variable

X_t = Independent variable

α= intercept

β_i and Υ_j = Short-run and long-run coefficients respectively

p and q = Lag lengths of the dependent and independent variables, respectively

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e_t = Error term

But $\text{TRGDP} = f(\text{AGRIC}, \text{INDUS}, \text{SERV}, \text{TRADE}, \text{EXRATE}, \text{INF})$. By following the study by Ali and Audi (2018); Asghar and Mehmood (2017) to find the degree of responsiveness caused by the predictor variables on the dependent variable, equation (i) then becomes;

$$TRGDP_t = \alpha + \sum_{i=1}^{p} \beta_i TRGDP_{t-i} + \sum_{j=0}^{q} \Upsilon_j AGRIC_{t-j} + \sum_{k=0}^{r} \delta_k INDUS_{t-k} + \sum_{l=0}^{s} \epsilon_l SERV_{t-l} + \sum_{m=0}^{n} \xi_m TRADE_{t-m} + \sum_{n=0}^{\vartheta} \eta_n EXRATE_{t-n} + \sum_{\rho=0}^{\upsilon} \theta_\rho INF_{t-\rho} + e_t \dots\dots (ii)$$

Where:

$TRGDP_t = \frac{TR}{GDP}$;

TR = Tax Revenue

GDP = Gross Domestic Product

TR = Tax Revenue

GDP = Gross Domestic Product

$AGRIC_t$ = Agriculture contribution to GDP (percentage share of GDP)

$INDUS_t$ = Industry contribution to GDP (percentage share of GDP)

$SERV_t$ = Services contribution to GDP (percentage share of GDP)

$TRADE_t$ = Trade openness contribution to GDP (percentage share of GDP)

$EXRATE_t$ = Exchange rates

INF_t = Inflation

β_i, Υ_j, δ_k, ϵ_l, ξ_m, η_n and θ_ρ = coefficients representing the short-run effects of the lagged variables;

p , , r , s , n , ϑ and υ = lag lengths for each variable

e_t = Stochastic disturbance term

t = time

STUDY FINDINGS

Descriptive Statistics

Table 2: Summary Statistics

Statistic	TRGDP	AGRIC	INDUS	SERV	EXRATE	INF	TRADE
Mean	11.04089	26.06913	25.17524	42.08276	3034.770	6.670329	49.07395
Median	11.21413	23.72057	26.79622	43.19212	3338.102	4.762129	35.33053
Maximum	15.65454	52.80544	40.38328	68.27623	3879.540	24.08415	169.0198
Minimum	5.965844	12.22626	7.761843	-3.765017	1670.045	1.855028	18.48999
Std. Dev.	2.567344	7.325708	5.683851	8.340824	658.5070	5.403967	40.53180
Skewness	-0.293834	1.457218	-1.511167	-2.971941	-0.345407	1.614245	2.028469
Kurtosis	2.076419	5.539577	6.808114	20.25349	1.650701	4.858541	5.960203
Jarque-Bera	2.796161	34.86790	55.15120	777.0293	5.361608	32.38042	58.85027
Probability	0.247071	0.000000	0.000000	0.000000	0.068508	0.000000	0.000000
Sum	618.2898	1459.871	1409.813	2356.635	169947.1	373.5384	2748.141
Sum Sq. Dev.	362.5189	2951.630	1776.839	3826.314	23849734	1606.157	90355.46
Count	**56**	**56**	**56**	**56**	**56**	**56**	**56**

Unit root Test

The study adopted the Phillips-Perron (PP) method and the tests were conducted at different levels.

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Table 3: Unit Root Test Results: Phillips Perron Technique

Variable Name	Levels		First Difference		Conclusion
	PP t-stat	Prob	PP t-stat	Prob	
TRGDP	-4.524169	0.0006***	-36.01343	0.0001***	I(0)
AGRIC	-4.766933	0.0003***	-11.44586	0.0000***	I(0)
INDUS	-4.807807	0.0002***	-9.724789	0.0000***	I(0)
SERV	-6.023798	0.0000***	-12.23884	0.0000***	I(0)
EXRATE	-1.911768	0.3247	-6.729327	0.0000***	I(1)
INF	-2.470079	0.1282	-3.788359	0.0053***	I(1)
TRADE	-3.203304	0.0251**	-6.995779	0.0000***	I(0)

Note: **** p<.01, ** p<.05, * p<.1. Analysis at 5%*

Results in Table 3 show that Exchange Rate (EXRATE) and Inflation (INF) are not stationary in levels but become stationary at the first difference at 5%. Tax-To-GDP (TRGDP), Agriculture (AGRIC), Industry (INDUS), Services (SERV) and Trade Openness (TRADE) were stationary in levels at 5%. These results imply that the study should adopt an ARDL model since the variables have mixed orders of integration.

ARDL Bounds Co-integration Test

Table 4: ARDL Bounds Test

Null hypothesis: No levels of relationship

Test Statistic	Value				
F-statistic	23.901324				
Bounds Critical Values					
	10%		5%		1%	
Sample Size	**I(0)**	**I(1)**	**I(0)**	**I(1)**	**I(0)**	**I(1)**
50	2.259	3.264	2.670	3.781	3.593	4.981
55	2.226	3.241	2.617	3.743	3.543	4.839
Asymptotic	2.080	3.000	2.390	3.380	3.060	4.150

* I(0) and I(1) are respectively the stationary and non-stationary bounds.

Results in Table 4 indicate that the F-statistic is greater than the critical values of the upper Bound Level at 5%. The study, therefore, rejects the null hypothesis and concludes that there exists a long run association between the predicted and predictor variables.

ARDL ECM Model

The lag order of the variables was selected by the Akaike information criterion (AIC) and obtained the ARDL (1, 1, 2, 2, 3, 3) specification.

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Table 5: ARDL ECM Regression
Dependent Variable: D(TRGDP)
Method: ARDL
Sample: 6/01/2009 6/01/2022

Variable	Coefficient	Std. Error	t-Stat	Prob.
COINTEQ*	-1.524049	0.108630	-14.02977	0.0000
		Long Run		
TRGDP(-1)*	-1.524049	0.137095	-11.11676	0.0000
AGRIC(-1)	-2.131748	0.284355	-7.496770	0.0000
INDUS(-1)	-1.800538	0.265209	-6.789138	0.0000
SERV(-1)	-1.998022	0.251864	-7.932948	0.0000
EXRATE(-1)	0.001540	0.000642	2.399918	0.0220
INF(-1)	0.050747	0.053637	0.946134	0.3508
TRADE	0.032324	0.011742	2.752954	0.0094
C	195.5013	25.16648	7.768319	0.0000
		Short Run		
D(AGRIC)	-1.093211	0.301105	-3.630662	0.0009
D(INDUS)	-0.958715	0.364181	-2.632525	0.0127
D(INDUS(-1))	-0.198690	0.092782	-2.141479	0.0395
D(SERV)	-1.032904	0.297474	-3.472255	0.0014
D(SERV(-1))	-0.087259	0.042117	-2.071839	0.0459
D(EXRATE)	1.65E-05	0.001400	0.011759	0.9907
D(EXRATE(-1))	-0.002232	0.001208	-1.847945	0.0733
D(EXRATE(-2))	-0.002658	0.001203	-2.210489	0.0339
D(INF)	0.154474	0.103900	1.486763	0.1463
D(INF(-1))	0.179910	0.112550	1.598489	0.1192
D(INF(-2))	-0.309668	0.107030	-2.893273	0.0066
R-squared	0.919035	F-statistic		21.44093
Adjusted R-squared	0.876172	Prob(F-statistic)		0.000000

*** p-values are incompatible with t-bounds distribution.**

Note: Analysis at 5% (0.05)

Table 5 results show that the variations in the predictor variables account for 91.9% of the variations in the predicted variable, as indicated by the coefficient of determination. The combined significance level for the predictor variables is 5%, and the F-Statistic (P-Value) is 21.441 (0.0000). The calculated coefficient of the error correction term, COINTEQ*, is -1.524049, the t-statistic is -14.02977, and the probability is 0.0000. These findings suggest that within the following period, approximately 152% of the movements from disequilibrium in the preceding period are corrected. The t-statistic (-14.02977) indicates that the coefficient is highly significant. These findings show that the model fits the data well.

Diagnostic and Stability Tests

Diagnostic Tests

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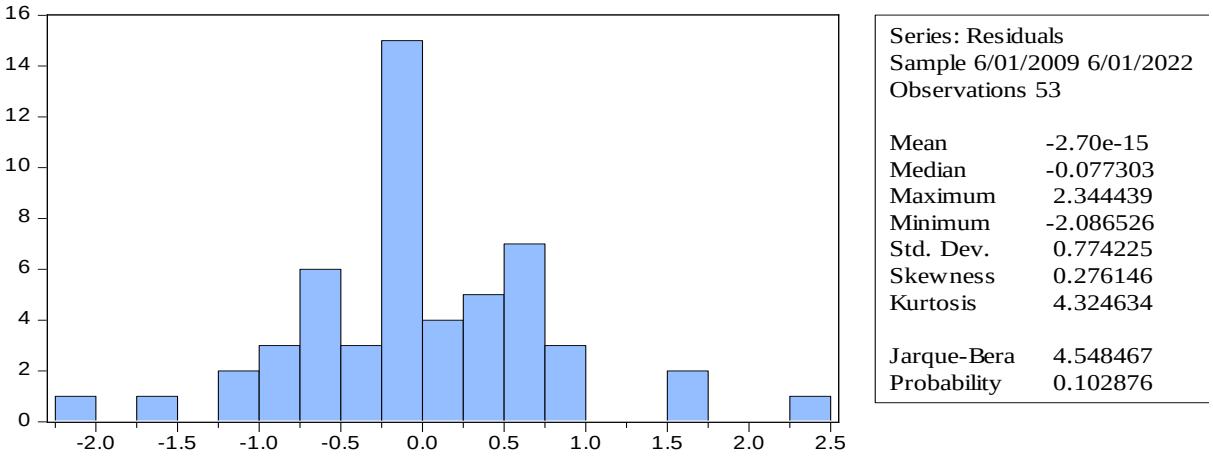
Table 6: Autocorrelation, Heteroskedasticity and Model Specification Tests

Test	Chi-Square	F-Stat	P-Value
Breusch-Godfrey Serial Correlation LM Test	2.812310	0.896574	0.2451
Heteroskedasticity Test: Breusch-Pagan-Godfrey	24.25453	1.593785	0.1469
Ramsey RESET Test	-	0.024766	0.8759

Note: *Test at 5%*

The presence of autocorrelation was examined using the Breusch-Godfrey LM test. The probability of the Chi-Square of 0.2451 indicates that there was no autocorrelation. The presence of heteroskedasticity was examined using the Breusch-Pagan-Godfrey test. Since the probability of Chi-Square of 0.1469 was insignificant at 5%, the study was unable to reject the null hypothesis and concluded that the residuals followed a constant variance. The model specification was tested using the Ramsey RESET Test. Since the probability of the F-statistic of 0.8759 was insignificant at 5%, the results imply that the model was well specified.

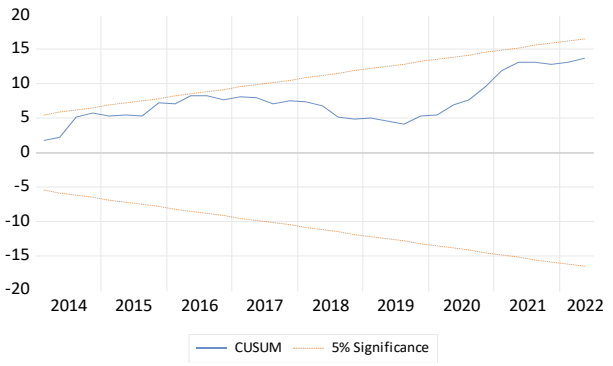
Normality Test



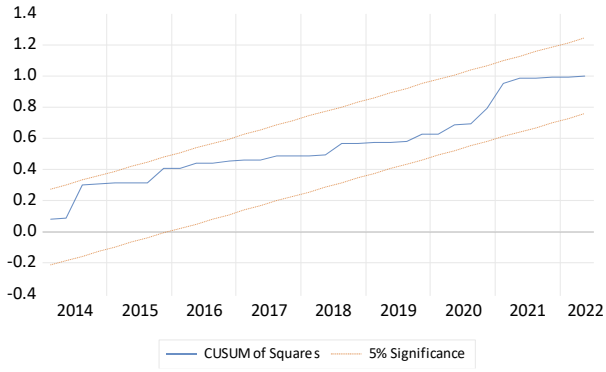
To check for normality, the Jarque-Bera test was applied. The results show a probability of 0.102876, which is higher than 0.05. These results suggest a good model because the residuals follow a normal distribution.

Model Stability Tests

Cumulative Sum



Cumulative Sum of Squares



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Model stability was tested using the cumulative sum and cumulative sum of squares. The estimations in both tests did not move outside the 5% critical bands indicating that the parameters are stable.

DISCUSSION OF RESULTS

Long Run Coefficients

The estimated model results indicate that agriculture's share of GDP has a long-term detrimental effect on tax-to-GDP growth. A 1% increase in agriculture share in GDP results in a 2.132% decline in tax-to-GDP growth. These results concur with the findings of Gobachew, Debela and Shibiru (2018) and Mawejje and Munyambonera (2016) who found a negative effect of agriculture share in GDP on tax revenue growth. The negative coefficient could be attributed to the large non-commercialized agriculture, low technology adoption and rain-fed agriculture, all of which affect the productivity of the sector. Low agricultural productivity implies low income, hence low tax revenue. The subsistence agricultural sector employs 51.9% of Uganda's working population (UNHS 2019/2020). These employees earn seasonal wages which are below the tax threshold. This hinders the expansion of the tax base and limits revenue mobilization. Besides, a large subsistence agricultural sector reduces expenditures on urban-based goods and services, thus lowering the transaction tax revenue.

The regression model reveals that industry has a significant negative effect on the growth of Uganda's tax revenue collection in the long run. An increase of 1% in industry as a share of GDP results in a 1.801% decline in tax-to-GDP growth. These findings are inconsistent with those of Kitessa and Jewaria (2018) and Gobachew, Debela and Shibiru (2018) who found the industrial sector share has a positive effect on tax collection. Uganda's industrial sector is associated with agriculture and services sectors through forward and backward linkages. The poor performance of the agricultural and services sectors can indeed affect the productivity of the industrial sector. Unlike industrialized economies, Uganda's industrial sector is dominated by primary production rather than processing. Low-value addition implies low revenue is generated. Furthermore, Uganda's industrial sector continues to be a beneficiary of tax waivers (Kasirye, 2015). Tax waivers have a detrimental effect on revenue collection.

The services sector share in GDP was found to have a detrimental effect on tax-to-GDP growth. In the long run, a 1% increase in the share of services in GDP reduces tax-to-GDP growth by about 2%. This result is inconsistent with that of Mawejje and Munyambonera (2016) who found a significant positive effect of the services sector share in GDP on tax collection. The results could be attributed to the fact that a significant portion of the services sector operates within the informal sector. In Uganda, about 72% of businesses, 78% of the labour force, and about 51% of GDP is generated from the informal economy (World Bank, 2022). Informal sector businesses have a tendency to operate outside the official regulatory frameworks, thus making tax information inaccessible. According to the World Bank (2021), informality is a challenge to tax collection and a major structural constraint to tax revenue performance.

Trade Openness exhibited a positive influence on tax-to-GDP growth. An increase in trade openness of 1% raises the tax-to-GDP growth by 0.032%. This finding corresponds with that of Epaphra and Kaaya (2020), Gobachew, Debela and Shibiru (2018), and Gaalya (2015) who found trade openness to have a positive influence on tax collection. This result may be attributed to Uganda's efforts to liberalize trade through the reduction of quantitative restrictions, automation of the import certification process, lifting of the import ban on some goods, improvements in customs procedures and the continued efforts to reduce infrastructural bottlenecks which have increased the importation of goods and services into the country, thus raising tax revenue (WTO, 2023).

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The exchange rate has a significant positive influence on tax-to-GDP growth. Results reveal that higher exchange rates lead to more tax revenue collection. The positive coefficient implies that the depreciation of the local currency makes exports cheaper in the foreign market, which increases export demand, export volume, and export tax revenue. Similarly, devaluation causes an increase in import prices. Taxing the monetary value of imported goods leads to increased tax revenues from imports, thus satisfying the Marshall-Lerner Condition. However, in the long run, inflation exhibited an insignificant effect on tax revenue growth at the 5% level.

Short Run Coefficients

The short-term impact of agriculture on tax revenue to GDP was found to be negative. An increase of 1% in agriculture's share of GDP in a given quarter reduces tax-to-GDP growth by 1.09%. The results are in line with Gobachew, Debela and Shibiru (2018); Mawejje and Munyambonera (2016); and Gaalya (2015) who also found that growth in agriculture is negatively and significantly associated with Tax-to-GDP growth.

The model indicates that the short-run impact of industry on tax revenue to GDP was negative. An increase in the industry share of GDP by 1% negatively affects tax-to-GDP growth by 0.96%. The results further indicate that a change in industry share of GDP for the previous quarter has a 0.199% negative effect on tax-to-GDP growth in the present quarter. The results are not in line with Mawejje and Munyambonera (2016) who found that growth in the industrial sector has a positive and significant effect on Tax-to-GDP growth.

The short-term effect of services share of GDP was found to be negative and statistically significant. An increase in services share of GDP of 1% in a quarter reduces tax-to-GDP growth by 1.03% in the same quarter. Furthermore, the results suggest that a 1% change in services as a share of GDP for the previous quarter has a 0.087% negative effect on tax-to-GDP growth in the present quarter. The results are not in line with Mawejje and Munyambonera (2016) who found that growth in the services sector did not have any effect on Tax-to-GDP growth in the short run.

Additionally, The model results show that the short-term effect of exchange rate and inflation on tax-to-GDP growth in Uganda is insignificant at the 5% level. The results are in agreement with Mawejje and Munyambonera (2016) and Gaalya (2015) who found that exchange rate and inflation do not have any significant effect on Tax-to-GDP growth in the short run.

The empirical findings suggest that efforts to improve Tax-to-GDP in the short run should focus on unlocking the constraints in the agricultural, industrial and services sectors. However, we place less emphasis on interpreting short-run coefficients, since they represent transitional adjustments of the model's variables towards the long-run equilibrium. Therefore, our analysis focuses on exploring the factors that affect Tax-to-GDP growth in the long run.

CONCLUSION AND POLICY RECOMMENDATIONS

Conclusion

Uganda implemented tax policy and administration reforms with the aim of increasing tax revenue. These reforms saw the formation of a statutory tax body, Uganda Revenue Authority, in 1991 and extensive reforms in tax legislation in 1997. The tax reforms yielded some success resulting in growth of the tax-to-GDP ratio from 6.8% in 1991/1992 to 12.8% in 2019/2020. However, this growth was not sustained, and consequently, the tax-to-GDP ratio has been about 11% to 13% for the past 12 years.

Due to the inadequate tax revenue collection, Uganda has resorted to external and domestic borrowing in order to finance expenditures, thus increasing the debt burden. Uganda's public debt is currently 52% of GDP, which is beyond the IMF's

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recommended threshold of 50% for the least developed countries. The growing debt and high interest charges, coupled with low tax revenues are putting Uganda in a debt crisis. Excessive debt reduces investments in economic and social infrastructure and impedes economic growth.

Reducing the debt-to-GDP ratio is very key to Uganda. However, this can only be achieved by increasing tax revenue mobilization so as to fund government activities. With the existing stagnation in the mobilization of revenue from the tax, it is important to take cognizance of the drivers that can boost the growth of tax revenue in the country.

The purpose of the study, therefore, was to examine the determinants of tax revenue growth in Uganda. An autoregressive distributive lag - Error Correction model (ARDL-ECM) was employed to test for long-run and short-run relationships between the predicted and predictor variables.

Study findings demonstrated that agriculture, industry and services sectors negatively and significantly affect the growth of tax revenue in the short run and long run. Trade openness and exchange rates positively affect tax revenue growth in the long run. Inflation exhibited an insignificant effect on tax revenue growth in the short run and long run.

Policy Recommendations

Empirical findings of the study indicate that the agriculture sector's share of GDP has a negative significant effect on tax revenue growth. The government should consider linking agriculture to value addition through agro-processing and trade in manufactured products which will result in more income and higher tax revenue. Additionally, this will contribute to the growth of the industrial sector, leading to a shift from less productive jobs in agriculture to more productive jobs in industry. A shift to more productive jobs will expand the tax base and raise tax revenue.

Empirical evidence suggests that the services sector has a negative significant effect on tax revenue growth. The negative coefficient could be explained by the majority of players in the sector operating informally making it difficult for tax administration. Therefore, there is a need to direct policy towards formalizing the service sector and expanding the tax base so as to bring the players in this sector into the tax bracket. Addressing the difficulty of taxing the service sector and strengthening tax administration capacity will enhance tax revenue collection in the country.

Trade openness has a positive significant effect on tax revenue growth. The policy recommendation is to enhance trade openness. This can be achieved through deeper economic integration, more trade facilitation, and removing trade barriers to increase the volume of goods and services crossing borders.

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APPENDICES

Appendix I: Top 20 Models: Akaike Information Criteria (AIC)