



Tax Reform and Tax Revenue Collection Performance in Ethiopia (From 2005 to 2013 EFY)

Moges Mengstu Kassaw

Department of Development Economics, Ethiopian Civil Service University, Addis Ababa, Ethiopia

Email address:

mogmen25@gmail.com

To cite this article:

Moges Mengstu Kassaw. Tax Reform and Tax Revenue Collection Performance in Ethiopia (From 2005 to 2013 EFY). *Science Development*. Vol. 4, No. 1, 2023, pp. 12-19. doi: 10.11648/j.scidev.20230401.12

Received: November 10, 2022; **Accepted:** January 31, 2023; **Published:** February 21, 2023

Abstract: The objective of this study was to evaluate the effects of tax policy reforms on revenue generation in Ethiopia, using different tax revenue sources as a proxy for the federally collected tax revenue. To carry out this exercise, quarterly time-series data for the years (2005 - 2013 EFY) was employed. Data were gathered from both primary and secondary sources. Primary data was collected through interviews with relevant Ministry officials and experts from selected departments, and secondary data was gathered from performance reports of the Ministry. The analysis showed that the reform of the tax policy since the 2009 fiscal year has not had a positive impact on tax revenue. The tax authority's eight-year tax collection efficiency was assessed by the tax buoyancy, which was 0.76 percent between 2005 and 2012, the tax buoyancy rate was 0.9 before the tax policy reform, and 0.6 after the reform. This shows that tax collection is low after the policy reform and that the tax policy reform has an impact on revenue collection. The regression result showed that reform in Value Added Tax and Excise tax has a significant positive effect on revenue collection within the period under review; while reform in non-tax recorded a negative and insignificant effect on revenue collection. The Johansen cointegration test showed that a long-run meaningful relationship exists between tax reform and revenue collection (TR) in Ethiopia. To encourage taxpayers to comply with the law, the study suggests that the tax system should be reviewed on a regular basis, and that tax policy formulation should be carried out after proper consultation with all executives and relevant stakeholders.

Keywords: Tax Policy, Tax Reform, Buoyancy, Cointegration, Ethiopia

1. Introduction

Fiscal policy is one of the key policy tools to implement the Growth and Transformation Plan. The policy will be implemented to cover government revenues, expenditures, and budget deficits. Thus, the objectives of economic policy are to extend government revenues, support economic processes, promote socio-economic development through poverty alleviation, and ensure sustainable, equitable, and inclusive economic processes, and macroeconomic stability.

Over the past decade, some tax policy reforms have been made to increase domestic revenue. Apart from generating revenue, the tax policy has been implemented to reduce the income gap of citizens by collecting more tax from the better income earners, as well as to encourage foreign and domestic investment.

This study seeks to examine the relationship between tax reforms and revenue collection. Previous studies such as [4],

observes that tax policies reform, although from the study period, there are a lot of policies were implemented. So forth this study investigates the revenue performance of the country before and after the evacuation of EPRDF.

The objective of this study is to evaluate the impact of tax reform on revenue collection over the past few years and to come up with solutions to improve revenue collection productivity. The study is from 2005-2013 EFY (Ethiopian Fiscal Year), It revisits the tax collection and the changes in tax policy by comparing the changes that have taken place in the tax system.

2. Literature Review

Acute fiscal imbalance forces developing countries to make a series of tax reforms. In light of this fact, fiscal reforms have been made in Ethiopia at various times, and the fiscal reforms that have taken place have highlighted the importance of the reforms in terms of increased tax revenue.

Tax reform consistent with [2], is an ongoing process that tax policymakers and tax administrators in consonance with the economic and socio-political realities continued to adopt to restructure the tax system for efficient revenue generation in the country. According to [11], "tax reforms improve the revenue-generating machinery of government to undertake socially desirable expenditure that will translate to economic growth in real output and per capita basis".

The concept of income tax was introduced in Ethiopia during the reign of Emperor Haile Selassie in 1936, but the basic income tax was introduced in 1874 by Emperor Menelik the second; when all farmers were required to pay one-tenth of their agricultural income to the government. Accordingly, from time to time the tax authorities would attend to the farmer's land and collect the maximum amount as they might from the land. The king's decree stated that a tax was levied on the individual [12].

Although the proclamation initially related to agricultural income, in several cases the proclamation was amended to change its source of income, one of which is considered to be a major change in the income tax.

In the empire and the revolutionary state, resources are allocated differently in different sectors of the economy. During the reign of the emperor, the government paid 36 percent of the annual budget was used for national defense and the internal order, by the end of the imperial period the tax income was low (because most of the population lived in poverty) and therefore the budgets of varied ministries were constantly increasing, with little or no opportunity to raise taxes on personal or agricultural income. Therefore, the emperor's government enacted a legal system that supported indirect taxes (customs, excise, and sales tax) [3].

In 1968, the revolutionary government changed its tax structure and partially alleviated the emperor's collection problems by giving farmers' unions the responsibility of collecting taxes from agricultural land and rural land, as well as the new income from agriculture.

Following the end of the 'Socialist' regime in Ethiopia in 1983, the EPRDF government took several policy measures following the country's transition from central planning to market-based, with declining export earnings, rising debt, and declining economic growth. Among them is a comprehensive overhaul of the tax system, including exchange rates, interest rates, the trading system, and domestic production and distribution. Since 2008, the government has undergone various tax policies and administrative reforms to enhance revenue performance, rationalize the legal system, expand tax bases and improve fairness and consistency in administration and tax laws.

2.1. Recent Tax Reforms

1) VAT

VAT Proclamation has been in force in Ethiopia for over nineteen years; however, adapting the proclamation to the current level of economic growth is not conducive to efficient trade and management. Therefore, the VAT Proclamation No. 1157/2019, [8] has been amended to

replace the existing proclamation with a new one to collect the revenue that the economy can generate, to revise the provisions of the VAT Proclamation that are said to have caused serious problems for the revenue collection, and to amend the existing proclamations and directives.

2) VAT Withholding Amendment

Withholding tax, as explicitly stated in Article 2 (44) of Tax Administration Proclamation No. 983/2017, [6]. Federal Income Tax Proclamation No. 979/2017 Part Ten, Articles 88-98 it states that a tax must be "deducted from the accounts payable". There were VAT registrars who provide services and goods to selected government and public enterprises registered at the federal and state levels. At the time of the transaction, the buyer was authorized to pay 100% VAT to the tax collector the next month. In this case, the purchaser pays the goods or services to the taxpayer who provided the goods or services but deducts all VAT for the goods or services and instead gives the seller or the taxpayer a reasonable receipt of the value-added tax. The taxpayer presented the receipt to the tax authority and was compensated by the taxpayer. As a result, taxpayers' demand for refunds and refunds has increased, and their work capital has been hampered by a scarcity of mobility. Thus, it is a proclamation that allows the tax authority to pay half (7.5%) to the taxpayer and half to the tax authority. This will ensure that the suppliers of goods or services to the above-mentioned institutions do not face a shortage of capital. The main purpose of this type of tax is to ensure that government coffers do not lose money during the fiscal year (every 12 months) and that public infrastructure is not disrupted.

3) Excise Tax

Excise tax is a tax on goods and services tax known as indirect tax. Excise taxes have become a luxury item; it is a tax levied on goods that do not reduce their market demand, as well as to reduce the use of goods that are harmful to public health and social problems because they are basic.

The main purpose of the excise tax is to generate more revenue for the government, reduce the consumption of products that are harmful to public health, collect revenue from the luxury goods used by the rich, improve the lives of the poor and reduce the use of products that harm the environment. It is known that the existing Proclamation No. 307/2002 (as amended) [7], regarding the Excise Tax in Ethiopia has been repealed and replaced by Excise Proclamation No. 1186/2020 [9], According to Article 5 of the repealed excise Proclamation, the excise tax on locally produced goods is calculated at the cost of production; According to Article 9 (3) of the new Proclamation 1186, the tax levied on Ethiopia produced goods and services by the factory selling price.

2.2. Measuring the Effectiveness of Tax Policy Reforms

Each country makes different revenue forecasts in the process of budget planning and budgeting. When revenues are lower than planned expenditures, countries are prone to deficit financing. As a result, less developed countries use a variety of options to fill their budget deficits, and some

countries cover their budget deficits with foreign aid and loans without disturbing the country's macroeconomics. However, in most underdeveloped countries, it's recommended that every country focuses on increasing its domestic tax income to satisfy its expenditure needs, as prolonged aid and loans increase the debt burden and budget deficit.

In Ethiopia, the tax system is mainly dependent on personal income (employment income), business profit (corporate income), and rental income as it is not yet developed due to administrative and political, and economic reasons.

One way for countries to generate more revenue is through tax reform. Following the actual tax policy amendments, there are various measuring instruments to measure tax revenue. Of these, the performance of different types of taxes is calculated by their contribution to the gross domestic product (GDP).

2.3. Tax Elasticity and Buoyancy

There is a fundamental difference between tax buoyancy and elasticity estimates, and we consider assuming that no policy and legal amendments have been made to the tax, including the tax base, the tax rate, and the tax administration.

Tax elasticity is defined only under the condition that no changes in legislative regulation of the tax have been made, i.e., that the tax rate remains the same. It is only calculated as a relative change in tax revenue as compared to the relative change of the tax base (GDP). A tax is considered elastic; if the elasticity coefficient exceeds 1. This means that the revenue from this tax increases faster than the growth of the GDP. The bigger the elasticity coefficient is, the bigger collectability is. There exists a negative effect, too. The higher coefficient means that upon a decline in the GDP, the tax revenue shall decrease faster. The negative effect lies in the fact that the deficit is to be increased in order to meet the expenditure part of the budget. Tax elasticity shows what of proportion tax income was collected last year without changing the tax laws and practices and which sort of tax income is best earned (gross domestic product or GDP growth in the same tax code). Tax buoyancy is calculated based on actual tax revenue and base (GDP) taking into account the changes in tax laws (tax base, rate, law, and administration). Tax buoyancy is the general response of taxpayers to changes in tax policy over time. Tax buoyancy is used to measure the effectiveness of tax policy reform in terms of increasing public resources, as it measures the relative correlation between tax revenue and tax base. [15]

2.4. Empirical Review

The impact of tax reforms on the economic process in Nigeria was assessed by [5]. Time-series data were extracted from the Central Bank of Nigeria statistical bulletin, Federal Inland Revenue Service, and Federal Ministry of Finance from the period 1985 to 2011. Gross Domestic Product was employed as the dependent variable while Petroleum Profit

Tax (PPT), Companies' Income Tax, Value Added Tax (VAT), Education Tax, Income Tax (PIT), Custom and Excise duties, and Tax Reform be represented by Dummy variable and Total non-oil tax revenue was employed as the explanatory variables. Multiple regressions were adopted to research the info. The study found that the adjusted R-square of 0.99 implies that 99% of the total variation in the gross domestic product, that is economic growth, is a result of variation in Petroleum Profit Tax (PPT), Company tax (CIT), customs, and excise duties, Value Added Tax (VAT), Personal Income Tax (PIT), and education tax and tax reforms in Nigeria. Customs and excise duties, Value Added Tax (VAT), Personal Income Tax (PIT), and education tax have no statistically significant impact on economic growth at a 5% level of significance. However, Petroleum Profit Tax (PPT) and Company Income Tax (CIT) each have a positive significant impact on economic growth at 0.35% and 2.87% levels of significance respectively.

In Kenya Kotut and Menjo, finds tax system in Kenya was less buoyant and inelastic which means a decreasing proportion of incremental income transferred to the government in terms of tax revenue. [10]

In Ethiopia Alemayehu and Abebe had studied tax and tax reform in Ethiopia from 1990 to 2003. Their analysis is based on the distributional of tax incidence using the concept of concentration curve, on the bases of the 1999/2000 central statistical authority's household income and consumption survey. Finally, the distributional impact indicates some commodities subject to some kind of tax turned out to be progressive whereas some of them tend to be regressive. And their examination of freely provided services like education suggested that the non-poor benefited disproportionately from free secondary education whereas in the case of primary education more or less uniformly distributed. [1]

Another study in Ethiopia by Daba & Mishra, they studied Ethiopia's domestic revenue and buoyancies during the period 1974/75 to 2012/13. The analysis was performed using a double-log regression model and was divided into three categories: the first category included the total study period (from 1974/75 - 2012/13) and the second category was the total study period during the Derg era (1974/75 - 1991/92). It covers the need for tax revenue (floating) and tax demand from the EPRDF era (1992/93 - 2012/13). According to the results of the study, the GDP during the EPRDF regime was relatively stable compared to the Derg era, and the total tax revenue during the pre-reform period was lower than after the general tax policy reform. Each category of tax is lower than the gross domestic product (GDP), and most tax revenues are indirectly taxed. The study concludes that the overall tax system in the two systems of government has not been able to improve domestic tax collection in general, and tax revenue in particular. [4]

3. Research Methodology

Data were collected from primary and secondary sources for the study. Primary data was collected by interviewing

relevant officials and experts from selected departments of the Ministry and secondary data was taken from the Ministry's performance reports, all data for analysis was employed by the Ethiopian financial year. The specification of the study model to measure tax efficiency is based on the variability of tax revenue from gross domestic product based on tax flexibility and tax viability. The study is based on the following study model to measure tax efficiency before and after-tax policy reforms.

$$TE \text{ or } (TB) = (\% \Delta \text{Tax Revenue}) / (\% \Delta \text{Base})$$

TE is tax elasticity, TB means tax buoyance and GDP is the basis for measuring tax elasticity, and for measuring tax buoyancy of VAT, Excise, and nontax revenue final consumption has been used as the basis.

3.1. Data Analysis Method

The study analyzed data collected from various sources using Qualitative and Quantitative data. Excel, Tableau, and E-views 10 software packages were used for the analysis. Based on the analysis results, the results are presented in a graph and table. Tax elasticity, tax buoyancy as well as Error Correction Model was used to measure the effectiveness of revenue collection.

4. Data Analysis

4.1. Ethiopia's Tax Revenue Collection (%GDP)

Table 1. Tax to GDP.

	Domestic tax	Direct tax	Indirect tax	VAT	Excise	VAT withhold
Before amendment (2005-2008 EFY)	6.57%	3.03%	3.50%	2.74%	0.40%	0.88%
After amendment (2009-2013 EFY)	5.23%	2.79%	2.41%	1.93%	0.51%	0.45%

Considering the tax year performance of the fiscal year 2009/2009, when the tax proclamation was amended and implemented, the gross domestic product (GDP) share GDP was 6.57% before the policy reform (2005-2008) and after the reform period (2009-2013). The tax rate fell from 1.34 percent to 5.23 percent. Looking at the performance of direct

3.2. Model Specification

To examine the relationship between tax revenue (TR) and tax reform indicators we use various tax types as a proxy for tax reform; The study model is based on the assumption that the relationship between tax revenue (TR) and different tax types: is direct tax (DT), value-added tax (VAT), Excise, and Nontax. Since tax income is inherently dependent on different income taxes, so such a relationship can be measured by the formula below. The study used a log regression model to assess the impact of tax program reforms on tax income performance.

$$T = F(DT, VAT, Excise, Non)$$

$$TR = e^{\alpha} T_i^{\beta_i} e^{\epsilon}$$

$$\text{Log}(TR) = \alpha + \beta_i \cdot \text{Log}(T_i) + \epsilon, \text{ where } TR = \text{Tax Revenue}, T_i = \text{Tax type}$$

Natural logarithms (ln) are used in this study to bridge if there are two variables whose values are too large. [14]

Different types of tax have been used as proxies to determine the impact of the tax reforms on the model.

taxes and indirect taxes during the same period of policy reform, the share of tax revenue in GDP indicates a decline after policy reform. In the two years from the year of excise tax (2012-2013), the tax and gross domestic product (GDP) grew by 0.1 percent.

Table 2. Tax Elasticity.

Tax Elasticity						
year	Tax income	Direct tax	Indirect tax	VAT	VAT Withhold	Excise
2005 - 2012 EFY	0.84	0.95	0.74	0.73	0.68	1.08
2005 - 2008 EFY	1.10	1.12	1.07	0.75	1.87	0.86
2009 - 2012 EFY	0.59	0.78	0.41	0.72	-0.46	1.28

Table 3. Tax Buoyancy.

Tax Buoyancy						
year	Tax income	Direct tax	Indirect tax	VAT	VAT Withhold	Excise
2005 - 2012	0.76	0.86	0.75	0.74	0.69	1.09
2005 - 2008	0.89	0.91	1.14	0.80	1.98	0.91
2009 - 20012	0.60	0.79	0.40	0.70	-0.45	1.25

Average tax elasticity and buoyancy between 2005 and 2012 were 0.84 and 0.76, respectively, and tax elasticity and buoyancy between 2005 and 2008 were 1.10 and 0.89

respectively. On the other hand, the tax elasticity and buoyancy since the 2009 fiscal year, when implemented, are 0.59 and 0.6.

It is clear that despite the economic downturn, the reform of the tax policy since the 2009 fiscal year has not had a positive impact on tax revenue. The tax authority's eight-year tax collection efficiency was assessed by the tax buoyancy, which was 0.76 percent between 2005 and 2012, and before the policy amendment, the tax buoyancy rate was 0.9 before the tax policy reform, and 0.6 after the reform. Searching the tax rate of direct tax was less than 1 before and after the policy amendment. The excise tax buoyancy rate was 1.09 before the policy amendment and 1.25% after the amendment, which means that after the tax administration policy change, the country's gross domestic product (GDP) grew by 1%, while tax revenues increased by 1.25%. From 2005 to 2008,

the average economy grew by 0.9 percent on average, while the economy grew by 1 percent after the tax reform. This shows that tax collection is low after the policy reform and that the tax policy reform has an impact on revenue collection.

4.2. Analysis of Regression Results

4.2.1. Lag Length

To ascertain the stationary state of time series variables, we employ the unit root test. The Augmented Dickey-Fuller test was employed and the results are shown in the table below.

Table 4. Lag length Selection Criteria.

VAR Lag Order Selection Criteria						
Endogenous variables: LDT LEXC LNONTAX LTR LVAT						
Exogenous variables: C						
Sample: 2005Q1 2013Q4						
Lag	LogL	LR	FPE	AIC	SC	HQ
0	40.60784	NA	2.70e-10	-2.168247	-1.844444	-2.062696
1	143.1554	152.1673	9.27e-12	-5.622926	-3.032497 *	-4.778511
2	208.6179	67.57425 *	5.47e-12 *	-6.685026 *	-1.827973	-5.101748 *
* indicates lag order selected by the criterion						
LR: sequential modified LR statistic (each test at 5% level)						
FPE: Final prediction error						
AIC: Akaike information criterion						
SC: Schwarz information criterion						
HQ: Hannan-Quinn information criterion						

The study used the Akaike Information Criterion (AIC) to select the optimum lag length to be used in the Error Correction Model. The AIC selects lag length 2.

4.2.2. Unit Root Test Results

Null Hypothesis: has a root unit

Table 5. Unit root (Automatic - based on AIC, maxlag = 2).

Variables	Level	Test critical values:			Prob. *	Order
		t-Statistic	1% level	5% level		
LTR	Intercept	-11.72821	-3.653730	-2.957110	0.0000	I (1)
	Trend & Intercept	-11.69408	-4.273277	-3.557759	0.0000	I (1)
LDT	Intercept	-17.97192	-3.653730	-2.957110	0.0001	I (1)
	Trend & Intercept	-17.78764	-4.273277	-3.557759	0.0000	I (1)
LExcise	Intercept	-6.159948	-3.653730	-2.957110	0.0000	I (1)
	Trend & Intercept	-3.973048	-4.243644	-3.544284	0.0191	I (0)
LVAT	Intercept	-5.735759	-3.653730	-2.957110	0.0000	I (1)
	Trend & Intercept	-7.498152	-4.243644	-3.544284	0.0000	I (0)
LNontax	Intercept	-8.577991	-3.661661	-2.960411	0.0000	I (1)
	Trend & Intercept	-8.472821	-4.284580	-3.562882	0.0000	I (1)

Source: Authors' Computation

The results of the unit root test using Augmented Dickey-Fuller at 1 and 5 percent level shows that some of the time series variables are non-stationary at levels, and some of them became stationary only after the first differencing, hence the variables have an order of integration of I (0) and I (1). This conclusion is based on a comparison of the augmented Dickey fuller statistics and the critical values, the appropriate cointegration test is the Bound test proposed by

[1, 13].

4.2.3. Cointegration Test

The cointegration analysis was done by estimating Engle-Granger co-integration relationships better known as the residual-based approach. The first step required an estimation of a long-run model from which the residual was derived.

Table 6. Unit Root Test for the Residuals.

Null Hypothesis: RESIDARDL has a root unit		
Lag Length: 0 (Automatic - based on AIC, maxlag = 2)		
	t-Statistic	Prob. *
Augmented Dickey-Fuller test statistic	-6.303353	0.0000
Test critical values:		
1% level	-3.679322	
5% level	-2.967767	
10% level	-2.622989	

The results revealed that the residual is stationary in levels at 1%, 5%, and 10% levels of significance. This implies that the null hypothesis of no cointegration among the variables

was rejected. Thus, there is evidence of the existence of cointegration. This suggests that an error correction model can be estimated.

Table 7. Bounds Cointegration test.

F-Bounds Test		Null Hypothesis: No levels relationship		
Statistic Test	Value	Signif.	I (0)	I (1)
			Asymptotic: n = 1000	
F-statistic	175.7122	10%	2.26	3.35
k	5	5%	2.62	3.79
		1%	3.41	4.68

The Computed F-statistic of 175.712 is greater than the critical values at 1%, 5%, and 10% respectively. It implies that there is a long-run relationship between tax reform (as proxies by the various tax type) and federal tax revenues in Ethiopia. Then we estimate the long-run model which is the error correction model (ECM).

4.2.4. Error Correction Model

An Error Correction Model (ECM) is the standard way to model time series equations. The ECM makes it possible to deal with non-stationary data series and separates the long and short run.

Table 8. Short-run model specification.

Dependent Variable: D (LTR)				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.003738	0.010329	-0.361866	0.7204
D (LDT)	0.497503	0.024564	20.25366	0.0000
D (LVAT)	0.322151	0.040784	7.898888	0.0000
D (LEXC)	0.144126	0.054708	2.634443	0.0140
D (LNONTAX)	-0.000524	0.024487	-0.021380	0.9831
ECT1 (-1)	-0.424841	0.166689	-2.548708	0.0171
R-squared	0.951538	Mean dependent var		0.039262
Adjusted R-squared	0.940354	SD dependent var		0.227568
SE of regression	0.055578	Akaike info criterion		-2.756233
Sum squared resid	0.080311	Schwarz criterion		-2.438792
Log likelihood	52.47784	Hannan-Quinn criter.		-2.649424
F-statistic	85.08356	Durbin-Watson stat		2.442550
Prob (F-statistic)	0.000000			

The coefficient of the error correction model (ECT) is both negative and statistically significant, showing that an established long-run relationship can be attained. The speed of adjustment was put at -0.424841, showing that 42.5 percent of the deviation of tax revenue (TR) from its long-run equilibrium value can be reconciled per quarter.

The adjusted for the model adopted in this study is 0.94, meaning that about 94% of the variation in tax revenue is explained by the model.

The F statistics which test the overall significance of the model strongly reject the null hypothesis that the regression coefficients are jointly equal to zero. This implies that all the explanatory variables in the model are important determinants of tax revenue productivity in Ethiopia. The Durbin-Watson (DW) statistic of 2.44 indicates that the regression model does not suffer from the problem of

autocorrelation.

Short run model:

$$TR = -0.00374 + 0.497Dt + 0.144excise + 0.322VAT + -0.0005Lnontax - 0.425ECT (-1)$$

The coefficient of ECT (-1) is -0.425, suggesting that almost 42.5% of the discrepancy between the long run and the short run is corrected within a quarter (since its quarterly data from 2005 to 2013 EFY).

The direct tax has a positive and statistically significant effect on tax revenue generation in Ethiopia which implies that a direct relationship exists between direct tax reform and tax revenue generation. Similarly, value-added tax and Excise tax reforms have a positive and statistically significant effect on tax revenue generation. Thus, as value-added tax

increases, revenue generation increases and vice versa.

The study went to examine the relationship between different revenue sources i.e. direct tax, VAT, Excise, and nontax revenue on generated tax revenue proxy by the federally collected tax revenue. To carry out this exercise, quarterly time-series data from the Ministry of Revenue Strategic plan Directorate for the years (2005 - 2013 EFY) was employed. The Engle-Granger co-integration test showed that a long-run meaningful relationship exists between tax reform (proxies by different tax types) and federally collected tax revenue (TR).

5. Summary and Conclusion

The revenue collection of the federal government of Ethiopia is showing a slight increase every year, but in the 2013 fiscal year it was 8.3% of the gross domestic product (GDP) and the tax revenue was 4.9% of the gross domestic product (GDP).

Tax buoyancy grew at a slower pace than the economy, with 0.51, 0.92, 0.32 in the three consecutive years from 2010 to 2012, and an average tax rate of 0.76 between 2005 and 2012.

Considering the effectiveness of the revenue collected from indirect taxes. In 2010, 2011, and 2012, they had fluctuations of 0.24, 0.76, and 0.05, respectively. From 2005 to 2012, the average tax rate was 0.75, which means that when the economy grew by 1 percent in the previous years, tax revenue grew by an average of 0.75 percent.

A prolonged VAT notification period puts a tax burden on the taxpayer and is a form of tax evasion that creates pressure on the taxpayer to use the public money that taxpayers can afford to pay. The fact that VAT revenue is only 50% has prevented the taxpayer from investing in capital and disrupting business activities.

The regression result showed that reform in Value Added Tax (VAT), Excise Tax (Excise), and Direct Tax (DT) has a significant positive effect on revenue collection within the period under review. Reform in non-tax recorded a negative and insignificant effect on revenue collection. The Johansen cointegration test showed that a long-run meaningful relationship exists between tax reform and revenue collection (TR).

6. Recommendation

The extension of the tax filing period has its pros and cons, the tax collection agency will need to assess the damage caused by the extension and fill in the gaps. Therefore, the study recommends that, adjust the tax filing time based on risk level, sector, annual income, and taxpayer consent;

If large transactions are supported by a bank, VAT deductions may be used in accordance with the purchase order approved by the tax authority rather than vouchers, and if it is technologically assisted, it will be possible to avoid improper repayment of government funds;

With the financial sector (banks, insurance companies, and

the like) constantly purchasing goods and services, it would be easier to control any taxable transactions with these institutions if they were selected as VAT agents.

There should be continuous review and reforms in the tax system since the tax reform of various tax types was found to have a positive significant effect on revenue collection in Ethiopia.

The gap between policy enforcement and policymakers is so wide that policies have been drafted without proper consultation with relevant taxpayers and employees of the tax authority. As a result, the government loses much of its tax revenue. Before the issuance of proclamations and directives by the concerned bodies, it is possible to consult with the taxpayer and the employees of the tax authority directly involved in the work. Tax policy formulation should be done after proper consultation with all executives and relevant stakeholders to encourage taxpayers to comply with the law.

References

- [1] Alemayehu G. & Abebe S. (2005). Tax and Tax reform in Ethiopia, 1990-2003. World institute for development economic research. United Nation University.
- [2] Azubike, J. U. (2009). Challenges of Tax Authorities, Tax Payers in the Management of Tax Reform Processes. Nigeria Account, 36-42.
- [3] Chole, E. (1987). Income Taxation in Pre - and Post-Revolutionary Ethiopia: A Comparative Review. Ethiopian Journal of Developmental Research, Vol. 9, Number 1.
- [4] Daba, D., & Mishra, DK. (2014). Tax reforms and tax revenues performance in Ethiopia. Journal of Economics and Sustainable Development, 11-19.
- [5] Ebieri, J. &. (2016). Assessment of the impact of tax reforms on economic growth in Nigeria.
- [6] FDRE. (2016). Federal Tax Administration Proclamation No. 983. Addis Ababa: Federal Negarit Gazette.
- [7] FDRE-HPR. (2002). *Excise Tax Proclamation No. 307*. Addis Ababa: Federal Negarit Gazette.
- [8] FDRE-HPR. (2019). *VAT Proclamation No. 1157*. Addis Ababa: Federal Negarit Gazette.
- [9] FDRE-HPR. (2020). *Excise Tax Proclamation No. 1186*. Addis Abeba: Federal Negarit Gazette.
- [10] Kotut, C. S., and Menjo, K. I., (2012). Elasticity and Buoyancy of Tax Components and Tax Systems in Kenya. *Research Journal of Finance and Accounting*, Vol. 3 (5), 118 - 123.
- [11] Ogbonna, G. N., & Ebimbowei, A. (2012). Impact of tax reforms and economic growth of Nigeria: A time series analysis. *Journal of Accounting and Financial Management*, 15 - 28.
- [12] Pankhurst, R. (1966). *State and Land in Ethiopian History*. Addis Ababa: The Institute of Ethiopian Studies and the Faculty of Law, HSIU, pp. 176-179.

- [13] Pesaran, et. al. (2001). Bounds testing approaches to the analysis of level relationships. *Journal of applied econometrics*, 291–322.
- [14] Sjafri, Rika S. 2006. Analysis of tax revenues As a Function from Product Domestic GrossRelation to Tax Buoyancy and ElasticityTaxes in Indonesia. Thesis.
- [15] Tanchev, Stoyan & Filipova, Milena (2021). TAX BUOYANCY AND TAX ELASTICITY OF THE PROPORTIONAL INCOME TAX IN BULGARIA.