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AN INVESTIGATION OF THE IMPACT OF DIRECT TAXES ONECONOMIC GROWTH IN ZAMBIA.

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ABSTRACT: Taxes contribute significantly to all economies. They are a major source of revenue for the government and forms part of the fiscal policies. The purpose of this study is to investigate the impact of direct taxes on economic growth in Zambia. The study used quarterly data for analysisusing E-views statistical software. The study variables were Gross Domestic Product, Company Income Tax, Personal Income Tax and Withholding tax and were tested for presence of unit root. It was found that Gross Domestic Product and Company Income Tax were integrated of order 0 whereas Personal Income Tax and Withholding Tax were integrated of order 1. Thus, the Autoregressive Distributed Lag was used for estimation. The bound test was used to check for cointegration among the variables and it was found that there was cointegration among the variables. The study found that Personal Income Tax has a positive effect on economic growth in the long run and a negative effect on economic growth in the short run. In addition, the study found that withholding tax has a negative effect on economic growth both in the long run and short run. Besides, it was found that Company Income Tax does not have a significant effect on economic growth both in the long run and short run.

Keywords: Personal income tax, company income tax, withholding tax, economic growth, Autoregressive Distributed Lag, Zambia.

I. Introduction

One of the most important macroeconomic objectives of a nation is to maintain high economic growth with lower tax rates (Pettinger, 2017). Achieving this would mean having a broad tax base from which taxes are collected at relatively low rates. This situation would be different from a situation with a narrow tax base with high tax rates. Taxes have a bearing on the level of income/fund available to economic agents. For example, higher tax rates on personal income reduce disposable incomes for consumers, thus, reducing their expenditures whereas lower tax rates on personal income increase disposable income for consumers, thus, increasing their expenditures.

Taxation

Taxes are statutory obligations imposedon citizens and businesses of every nation or state which are paid on a product, income or activity for the government to be able to provide public goods and services such as healthcare and education (De Marco, 1932). On the other hand, Cox *et al.* (2019) defines taxation as the imposition of compulsory levies on individuals or organizations by the government of a nation.

Taxation has a long history dating as far as the ancient Roman and Greek reigns which imposed taxes on consumption though it did not play a major role in the ancient world (Cox *et al.* 2019). They considered taxation on imported goods to be more important as compared to local taxes. Taxation on property, other assets and real estate transactions was introduced when there was need of raising extra funds during periods of war.Taxes are divided into two main classes namely,direct and indirect taxes (Cox *et al.* 2019). There are two sides which determine the class of a tax and these are the income and consumption side. Taxes that are levied on income are called direct taxes while the ones that are levied on the final consumption of the taxed items are called indirect taxes.

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According to Kabinga and Yambani (2017) in Zambia, the body that has been given the mandate to collect tax on behalf of the government is the Zambia Revenue Authority (ZRA). This is a body under the Ministry of Finance.According to DiJohn (2010), Zambia embarked on a tax reform program in 1992 as a solution to raise government revenues from taxes. The taxes contributed about 30 percent of the Gross Domestic Product (GDP) in the late 1970s which dropped to about thirteen percent in the early 1990s (DiJohn, 2010). Value Added Tax (VAT) together with the income tax rates and customs tariff reforms helped in the growth of tax revenue from 13 percent to about 18 percent of the growth domestic product (DiJohn 2010).

Economic Growth

Economic growth is defined by Lipsey and Chrystal (2007) as a rise in the economy's capacity to produce goods and services over one period in comparison to the other period. This capacity is exhibited in theGDP of a nation.According to Lipsey and Chrystal (2007), economic growth is the measure of the rise in production, putting into consideration the standard of living for citizens of a particular country and the country's technological improvements. The GDP reflects the capacity of an economy in relation to the production of goods and services. This study seeks to investigate the impact of direct taxes on economic growth for the Zambian economy from 2007 to 2018.

II. Research problem.

Direct taxes are the main source of revenue for a government. Taxes in any economy contribute to effective implementation of an economy's fiscal policies. Increase in revenue tend to help in overcoming budget deficit problems and provides for opportunities for governments to stimulate economic activity. This can be achieved through an increase in public service provision. Thus, revenue (from direct and indirect taxes) can lead to economic growth.

Hall (1968) emphasizes the link that exists between tax mix and economic growth.He states that temporal changes in economic growth can be experienced from tax changes.To the contrary,the Zambian economy has not recorded economic growth equivalent to many changes that have been made to direct taxes policies. This has been reflected in the economy which has shown a downward trend from the year 2016 even after the adjustments in pay as you earn threshold. For the Zambian economy, domestic revenue (as a percent of GDP) averaged 18.58 percent. In the same period, the real GDP growth averaged 3.72 percent. There hasn't been a clearly defined position on whether there is a correlation or causal relationship between direct taxes and economic growth.That is, there is no affirmative position on whether there is a positive or negative relationship between direct taxes and economic growth. Thus, this study seeks to investigate the impact of direct taxes on Zambia's economic growth.

Research Objectives.

The general objective of this study is to investigate the impact of direct taxes on the economic growth in Zambia for the period 2007 to 2018.

The general objective will be achieved with the help of the following specificobjectives.

- To establish the relationship between Company income tax and economic growth.
- To examine the impactof personal income tax on economic growth.
- To investigate the relationship between withholding tax and economic growth.

Literature Review.

Empirically, several research studies have been conducted on the impact of taxes on economic growth although not much has been done in narrowing it down to a specific class of taxes such as direct or indirect taxes.

Anyanwu (1993) in a study of the effects of taxes on Nigeria's economic growth for the period 1981-1996 revealed that in the same way as customs and excise duties positively and meaningfully affects GDP so do company income tax in Nigeria although the profit tax from petroleum has had a positive and insignificant effects on the country's GDP.

Andrašić et al (2018), find a positive relationship between taxation and economic growth using panel data from OECD countries. Using a sample of 35 OECD countries in the periodfrom 1996 to 2016 and the fixed effect model. The results show that there is a positive link between taxes and economic growth in these countries.

Moreover, Njindan and Takumah (2015) investigated the link between economic growth and tax revenue in Ghana. They found evidence of positive and unidirectionalcausal flow from tax revenue to economic growth using the Toda-Yamamoto test and a quarterly dataset in the period 1986Q1–2014Q4.

There are moderate effects in the rates of economic growth with respect to a greater tax reform. This is according to the findings by Engen and Skinner (1996) in their study of taxation and economic growth of the United States of America's economy.Therefore, there is evidence enough to prove that taxation has an impact on economic growth.

This conclusion, although derived from the USA point of view is applicable to most of the developing countries including Zambia.

Baiardi et al (2019)in their study concluded that the relationship between tax revenue and economic growth is negative and statistically significant. They study this relationship in 21 OECD countries in 1971–2004.

Nalishebo and Halwampa (2014) in their working paper on the Zambian economy concluded that economic growth in Zambia is mainly affected by tax evasion mostly through individual income tax from the informal sector. They recommend that Zambian government through ZRA should embark on doing assessments so that they are able to collect income taxes from the self-employed citizens who are eligible to pay taxes. Pay as you Earn tax, being the cheapest tax to collect in that it is collected from source, Zambia revenue Authority needs to ensure that all employed individuals are brought on board and maximize on this cheaply administered tax to broaden the revenue base to grow the economy.

2.4 Gaps in Literature.

Moststudieson taxation and economic growth have taken the tax systems for nations in discussion as one whole system. Taxes behave differently and have different effects to growth of an economy of a particular country according to their type or class. Results from empirical studies have been varying for many researchers because each country has a different style of tax administration. One tax can produce different results in various countries due to varying styles of tax administration. Therefore, there is a need to analyze the impact of various tax classes on economic growth for each economy. This will help researchers to make proper conclusions and recommendations based on each type of tax and its administration.

III. Research Methodology.

This section of the study explains the methodology and approach which was used in data collection and analyzing the data. This process ended with the presentation of the results of the research. The study applied methods and instruments to make sure that the analysis of data is done for it to be made relevant to our subject matter.

Data sources and analysis

The study made use of secondary data for analysis. The study considered quarterly data spanning from 2007 to 2017 for the Zambian Economy. In other words, the study is a time series analysis for the stated period. The data was obtained from Zambia Statistics Agency (ZamStats), ZRA and the Ministry of Finance. The analysis of the data in this study was done using E-views.

The Model

$$\boldsymbol{GDP = f(Directtaxes)}$$

Thus, the Model becomes.

$$\boldsymbol{GDP = \beta_o + \beta_1 CIT + \beta_2 PIT + \beta_3 WT + e}$$

Where:

$\beta_o to \beta_3$ are regression parameters,

GDP= Gross Domestic Product (Zambian Kwacha),

Direct taxes (% of GDP) which are, Company Income Tax (CIT), Personal Income Tax (PIT) and Withholding Tax (WT)),

e = Error Term or Stochastic term.

IV. STUDY FINDINGS

Unit root tests

Stationarity test results using ADF test.

Variable	ADF test statistic	t-statistic	Order of integration
GDP	-7.26942***	-2.92973	Level
CIT	-3.82848***	-3.50851	Level
PIT	- 10.8668***	-3.51308	1st difference
WT	-7.73437***	-3.51552	1st difference

Note: *** significant at 5 % level of significance.

Table 2 above shows Augmented Dickey-Fuller (ADF) test results for stationarity in the variables. As it can be seen from the table, GDP and CIT are stationary at level at 5 percent level of significance. Thus, these variables are integrated of order 0, I(0). On the other hand, PIT and WT are stationary at first difference at 1 percent level of significance. Thus, these variables are integrated of order 1, I(1). The mixture in the orders of integration of the variables justifies the use of the ARDL method of estimation in regressing GDP on CIT, PIT and WT.

Cointegration Test: THE BOUNDS TEST

F-statistic	12.79997		
Test critical values		I(0)	I(1)
	10%	2.538	3.398
	5%	3.048	4.002
	1%	4.188	5.328

The table above shows the test results of cointegration among the variables using the bounds test. I(0) and I(1) are the lower and upper bounds respectively. As it can be seen from the table, The F-statistic (12.79997) exceeds all the upper bounds at 10 percent, 5 percent and 1 percent levels of significance. Thus, the null hypothesis of no long run relationship (no cointegration) is rejected. This means that there exists a long run relationship among the variables.

Long run form estimates

Variable	Coefficient	Std. Error	t-statistic	Prob
CIT	-4240.582	4447.150	-0.953550	0.3463
PIT	18795.71	4371.402	4.299698	0.0001
WT	-16928.53	7219.263	-2.344912	0.0244
C	12697.95	2601.981	4.880108	0.0000

The table above shows the long run form results of regressing GDP on CIT, PIT and WT. As can be seen from the table, using the probability values in the last column and considering a 5 percent level of significance, PIT has a positive significant effect on economic growth in the long run. WT has a negative significant effect on growth in the long run. On the other hand, CIT has a negative insignificant effect on economic growth in the long run.

Short run form estimates

Variable	Coefficient	Std. Error	t-statistic	Prob
D(PIT)	-2140.508	763.5473	-2.803373	0.0079
D(PIT(-1))	-3472.427	932.5212	-3.723698	0.0006
D(WT)	-6019.207	941.0372	-6.396353	0.0000
ECT (-1)	-0.204989	0.024373	-8.410508	0.0000

The table above shows the short run form results of regressing GDP on CIT, PIT and WT. As can be seen from the table, using the probability values in the last column and considering a 5 percent level of significance, PIT and WT have negative significant effects on economic growth in the short run. This is also valid for the previous period (previous quarter in this case) PIT. On the other hand, the Error Correction Term (ECT) is negative and statistically significant. Its value of -0.204989 means that short run distortions (disequilibrium) are corrected after a quarter (since quarterly data was used) at a speed of 20.5 percent. From the ECT, it is seen that the path of convergence is monotonic to the long run equilibrium. This confirms the existence of a long run relationship between the dependent variable and the regressors in the model.

Discussion of findings

As seen from the results presented above, Company Income Tax (CIT) has a negative insignificant effect on economic growth in the long run. This means Company Income Tax does not influence economic growth in Zambia over the study period. This could be attributed to the way this tax is collected under the ZRA. Company Income Taxes applied after all expenses have been deducted from therevenue realized by the corporation. This tax is collected after all expenses have been paidand mostly from the profit made by the company. This means that, if the company does not make profitfor the period, it does not pay tax. Thus, Company Income Tax does not influence economic growth.

On the other hand, Personal Income Tax (PIT) has a positive significant effect on economic growth in the long run and a negative effect on economic growth in the short run. In other words, changes in Personal Income taxes influences economic growth positively in Zambia over the long run. These effects could also be attributed to the wayPersonal Income taxes are collected. Personal Income tax in Zambia is deductible at full Income earned from all employees in formal employment regardless of the expenses that individuals incur per month. In other words,personal tax is collected immediately after a person earns it, meaning more taxes are collected on a particular period. Besides, the Zambian economy has a bloated civil service. This presents an opportunity for collection of more Personal Income Taxes. These taxes tend to reduce disposable incomes (available for consumption for consumers). This would negatively affect economic growth in the short run. However, with the easiness of collecting these taxes, the long run effect would be positive as more revenues are available to the government to spend in productive areas.

Furthermore, the study found that Withholding Tax (WT) has a negative significant effect on economic growth both in the long run and short run. This could be attributed to the fact that Zambia Revenue Authority does not collect the withholding tax from rentals as only 3% of the total withholding income tax from rentals is collected annually making it almost negligible. This is besides, ZRA having policies and personnel tasked for withholding tax collections.

V. Conclusion

The objectives of the study were to establish the relationship between Company income tax and economic growth; to examine the impact of personal income tax on economic growth and to investigate the relationship between withholding tax and economic growth. The study found that Company Income Tax has no significant effect on economic growth. This in contrast to the effects of Personal Income and Withholding taxes. It was found that Personal Income Tax has a positive effect on economic growth and negative effect in the short run. On withholding tax, the study found that withholding taxes have a negative effect on economic growth both in the long run and short run.The study, therefore, concludes, the three types of direct taxes have varying effects on economic growth in Zambia.

The findings of this study are similar to other studies done both in Africa and beyond Africa. Like a study by Andrašić et al (2018), find a positive relationship between taxation and economic growth using panel data from OECD countries.Moreover, Njindan and Takumah (2015) investigated the link between economic growth and tax revenue in Ghana. On the other hand, Baiardi et al (2019) in their study concluded that the relationship between tax revenue and economic growth is negative and statistically significant.

Recommendations

Knowing that economic growth is one of the most important objectives for the government and policy makers.The following are the recommendations from the study:

- Government should devise effective strategies towards improving the revenue from withholding taxation which is worryingly low in Zambia.
- Government should conduct awareness campaigns to sensitize citizens on the importance of paying taxes more especially withholding tax on rentals.
- Since direct taxes contribute significantly to government revenue in Zambia, it is the duty of the government to ensure that tax revenue is prudently used to provide public goods and services for citizens such as housing, improving the agricultural sector which has raised a lot of concerns recently, improving primary health care which is still a problem, improving power generation, construction of a good road system and bridges among others.
- Government should implement policies for the Zambia revenue authority which will reduce loopholes in tax laws which companies usually exploit to evade tax such as understating profits or reporting false losses in their books of accounts.

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