

The Correlation of Tanzania Public Debt Agriculture Sector and Poverty : Multi Linear Regression Evidence

by

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Abstract

Tanzania economy performance is mainly depending on the Agriculture sector at a time Tanzania is experiencing very limited financial resources to transform the sector while the public debt and poverty are simultaneously increasing in Tanzania. From that attention no studies have been undertaken to investigate the correlation between the public debt agriculture sector and the poverty in Tanzania. This study is focusing on investigating the correlation between the public debt agriculture sector and poverty during the period from 2000 to 2018 in Tanzania. To fulfil the study's objective I employed the Multiple Linear Regression Methodology to evaluate the correlation between the public debt agriculture sector and poverty during the period from 2000 to 2018 in Tanzania. Time series data from the Bank Of Tanzania Annual Reports and the World Bank data indicators during the period from 2000 to 2018 for Tanzania have been used by the study. On investigating the correlation of public debt agriculture GDP and poverty the study assumes public debt to be the independent variable while agriculture GDP and poverty to be the dependent variables of the study. The findings of the study were indeed very impressive. The study findings manifested that there is a negative and insignificant correlation between the public debt and all the study's dependent macroeconomic variables (agriculture GDP and poverty) during the period from 2000 to 2018 in Tanzania. That means when the public debt is increasing all the study's macroeconomic variables (Agriculture GDP and Poverty) shifts in the opposite direction during the period from 2000 to 2018 in Tanzania.

Key Words: Tanzania Public Debt, Agriculture Sector, Poverty.

Introduction:

The Tanzania economy is still dependent largely on the agriculture sector as its contribution surpasses other sectors' contribution to the economy. In addition to that, the Tanzania agriculture sector is the leading employer for the larger population of the country depending on the agriculture. This emphasised on the Deloitte Report (2016, pg. 11) argued that, "The contribution of the agricultural sector to the economic growth and the development of Tanzanians has continued to increase. In 2015, the agricultural sector contributed 29% of the GDP, compared to 28.8% in 2014. This was the largest contribution, surpassing all other sectors. In addition, agriculture is the largest employer in the country."

Literature explores that Tanzania Public debt is still under reasonable control despite the rapid growth of the domestic borrowing by the Tanzania Government to finance the 2018/19 budget. Recently Tanzania has been using 40% of the domestic revenue to service the debt bill. The World Bank Group Report (2019, pg. 2&3) discusses the matter stating that, “Public debt is still sustainable, despite the recent jump in domestic borrowing. Though Tanzania is at low risk of debt distress, commercial debt as a share of total public debt has risen because domestic debt has risen by 2.3 percent of GDP to finance the 2018/19 budget.”

The world bank reported that from the year of 2000 Tanzania economic growth has shown positive fruitful growth and stabilization and most important the Tanzania external stock is increasing as well. However the bad side story of that economic growth prosperity is no response to poverty reduction in Tanzania, as the poverty rate is slowly increasing compared to the efforts invested on pushing the economic growth of the country. The World Bank Report (2015, pg. 1) elaborated that, “Since the early 2000s, Tanzania has seen remarkable economic growth and strong resilience to external shocks. Yet these achievements were overshadowed by the slow response of poverty to the growing economy.”

Motivation and Objective of the Study:

Tanzania economy performance is mainly depending on the Agriculture sector at a time Tanzania is experiencing very limited financial resources to transform the sector while the public debt and poverty are simultaneously increasing in Tanzania. From that attention no studies have been undertaken to investigate the correlation between the public debt agriculture sector and the poverty in Tanzania.

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Recently, different literature revealed that despite significant measures initiated to fight and reduce poverty to Tanzanians by the Tanzania government and international development stakeholders still the rate of poverty to Tanzanians is increasing from the fact that more than fifty percent of Tanzanians are living below the USD 1.90 per single individual at a day. The meaning is development actions, projects and activities are implemented while the large number of Tanzania's population is dropping into the poverty line. The World Bank Report (2019, pg. 1) reported that, “As the number of the poor is still high, and the majority of Tanzanians are vulnerable to falling back into poverty at the slightest shock. Almost half of the population lives on less than \$1.90 per person per day.”

Objective Of The Study:

This study is focusing on investigating the correlation between the Tanzania public debt agriculture sector and the poverty during the period from 2000 to 2018 in Tanzania.

Significance of the Study:

From the existing literature this study will contribute new knowledge regarding the correlation between the public debt agriculture sector and poverty during the period from 2000 to 2018 in Tanzania. In addition to the study will be most useful to the public finance field of study and Tanzania monetary policy decision makers at large.

Literature Review:

Recent Evidence on Increase of Poverty in Tanzania:

Recently, different literature revealed that despite significant measures initiated to fight and reduce poverty to Tanzanians by the Tanzania government and international development stakeholders still the rate of poverty to Tanzanians is increasing from the fact that more than fifty percent of Tanzanians are living below the USD 1.90 per single individual at a day. The meaning is development actions, projects and activities are implemented while the large number of Tanzania's population is dropping into the poverty line. The World Bank Report (2019, pg. 1), reported that, “As the number of the poor is still high, and the majority of Tanzanians are vulnerable to falling back into poverty at the slightest shock. Almost half of the population lives on less than \$1.90 per person per day.”

Literature evidence argued that Tanzania 's economic growth does not contribute to the poverty reduction of the large population of Tanzanians. This happens at a time the trend of Tanzania economic growth is growing slowly however the rate of poverty is increasing as the big number of the population back to the poverty line in Tanzania. The World Bank Report (2019, pg. 1) clarified that, “however the poverty reducing impact of economic growth has been slowing down, according to the latest World Bank ‘Tanzania Mainland Poverty Assessment.’”

The world bank reported that from the year of 2000 Tanzania economic growth has shown positive fruitful growth and stabilization and most important the Tanzania external stock is increasing as well. However the bad side story of that economic growth prosperity is no response to poverty reduction in Tanzania, as the poverty rate is slowly increasing compared to the efforts invested on pushing the economic growth of the country. (The World Bank Report, 2015, pg. 1), elaborated that, “Since the early 2000s, Tanzania has seen remarkable economic growth and strong resilience to external shocks. Yet these achievements were overshadowed by the slow response of poverty to the growing economy.”

In addition to that, Atkinson & Lugo (2010) as well contributed that Tanzania has made significant achievement on economic development as different reports manifested that The Tanzania economic growth is growing well however that achievements do not cover and reflect the fight of poverty within the country. Reports suggested that the economic growth is increasing while the poverty rate is increasing as well, meaning that the economic growth of Tanzania does not have a significant impact on the poverty reduction. Atkinson & Lugo (2010), on their contribution on that matter, stated that, “But there is evidence that real growth over the past decade in Tanzania has not been reflected in rapid reduction in poverty rates.”

Tanzania Public Debt:

Literature explores that Tanzania Public debt is still under reasonable control despite the rapid growth of the domestic borrowing by the Tanzania Government to finance the 2018/19 budget. Recently Tanzania has been using 40% of the domestic revenue to service the debt bill. The World Bank Group Report (2019, pg. 2&3) discusses the matter stating that, “Public debt is still sustainable, despite the recent jump in domestic borrowing. Though Tanzania is at low risk of debt distress, commercial debt as a share of total public debt has risen because domestic debt has risen by 2.3 percent of GDP to finance the 2018/19 budget.”

Charles (2018, pg. 5) insisted that the Tanzania public debt is still sustainable for short and medium term for the Country. He argued that, “The most recent debt sustainability analysis (DSA) by the Government (2017) and by the IMF and World Bank (2016/17) indicated that Tanzania’s public debt remains sustainable in both the short and medium term”.

Evidence still shows that the Tanzania debt is still well manageable with regard to macroeconomic indicators including growth, inflation, interest rate, primary balance and the possibility and availability of external finance. Sharer et al, (2004, pg. 30) suggested that “based on the macroeconomic assumptions made about growth, inflation, interest rate, primary balance, and the availability of external financing, the simulations indicate that Tanzania’s domestic debt position is manageable, if it continues to enjoy access to highly concessional external financing.”

Tanzania Public Debt Threat:

Recently Tanzania has been using 40% of the domestic revenue to service the debt bill. The World Bank Group Report (2019, pg. 2&3) discusses the matter stating that, “Public debt is still sustainable, despite the recent jump in domestic borrowing. Though Tanzania is at low risk of debt distress, commercial debt as a share of total public debt has risen because domestic debt has risen by 2.3 percent of GDP to finance the 2018/19 budget.”

The Tanzania Government using the 40% of the internal revenue to service the public debt resulting in the rise of the lending rates by the commercial banks to the private sector, the final implication is the private sector discouraged to make more investment and to support different economic activities including agriculture sector activities. The World Bank Group Report (2019, pg. 3) insisted that, “This adds to the debt service bill, which already consumes nearly 40 percent of domestic revenue and puts upward pressure on commercial rates for lending to the private sector.”

The Significance of the Tanzania Agriculture Sector:

The Tanzania economy is still dependent largely on the agriculture sector as its contribution surpasses other sectors' contribution to the economy. In addition to that, the Tanzania agriculture sector is the leading employer for the larger population of the country depending on the agriculture. This emphasised on the Deloitte Report (2016, pg. 11) argued that, “The contribution of the agricultural sector to the economic growth and the development of Tanzanians has continued to increase. In 2015, the agricultural sector contributed 29% of the GDP, compared to 28.8% in 2014. This was the largest contribution, surpassing all other sectors. In addition, agriculture is the largest employer in the country.”

The Tanzania Government's role to intervene and support the agriculture sector is still very important and inevitable to enhance the better performance of the agriculture sector. Meertens (2000, pg. 1) argued that, “Government involvement might be necessary to ensure a

higher consumption of agricultural inputs and thus a better performance of the agricultural sector in Tanzania.”

About 90 percent of the Tanzania population is employed by the agriculture sector and mostly in rural areas. However, this population is stagnant to develop the agriculture sector due to several reasons including the inadequate access of news and information about their agriculture products, technology and markets. Kaishozi (2019, pg. 1) explores that, “Nearly 90 percent of Tanzania's residents live in rural areas, work primarily in the agricultural sector and lack access to information, technology and markets.”

The importance of the agriculture sector to the Tanzania economy has been highlighted, particularly, the agriculture sector as a stabilising factor of the economy moderating the negative effects of the economic decline in Tanzania. Potts (2005, pg. 9) clarified that, “Agriculture has therefore not been a leading sector, rather a stabilising factor moderating the negative effects of periods of economic decline and declining in relative importance in periods of relatively faster growth.”

In addition, the significance of the Agriculture sector as the central and core engine sector towards the transformation of the Tanzania economy has well highlighted by The World Bank Report, (2019), which argued that, “The government recognises agriculture as central to realising its objectives of social economic development, which are well-articulated in the Second Agriculture Sector Development Program (ASDP II). Among the goals of ASDP II are to transform agriculture by promoting commercialisation, prioritising high-potential commodity value chains, and mobilising capital by giving the formal private sector a growing role in agriculture.”

In particular to the employment and job creation heading to the poverty reduction in Tanzania, evidence shows that the agriculture sector is the leading sector to support the employment and job creation where the large number of the Tanzania population about 80% is employed in the agriculture sector which results in the decline of poverty among Tanzania citizens. The World Bank Report (2019) insisted that, “Because agriculture and related value chains drive two-thirds of all jobs - three-quarters for the poor - the sector is central to creating more and better jobs at scale and significantly reducing poverty.”

Literature suggests that for the future growth of economic development with the rapid employment generation and sustainable poverty reduction, the agriculture sector must be considered the central and core drive sector to achieve the desired targets for the Tanzania Government. The World Bank Report (2019, pg. 24) argued that, “more Agricultural transformation in Tanzania can do much to drive future growth and employment and accelerate poverty reduction.”

The Challenges of the Tanzania Agriculture Sector:

Literature evidence manifests that the Tanzania Agriculture sector is facing the threat for the national freshwater withdrawals due to the fact that recent Tanzania freshwater withdrawal level percentage is above the limit percentage set by Africa and the Global. World Bank Report, (2019, pg. 53) reported that; “Agriculture in Tanzania accounts for an estimated 89 percent of national freshwater withdrawals - higher than the global average of about 70 percent and the Africa average of about 80 percent. Though 90 percent is used mainly for irrigation. Any serious effort to manage the general efficiency of water use requires thoughtful attention to agricultural use. As is the case in most countries, water, and water use, are unevenly distributed, and Tanzania has nine river basins. Some areas of Tanzania have experienced frequent severe

droughts for years, as has happened, e.g. in 8 of the last 20 years in the Pangani Basin. Climate change has aggravated the already high volatility in annual rainfall (up to 400 percent) in most of the country.”

The Tanzania economy mainly depends on agriculture however the recent evidence shows that the agriculture sector contribution to the economy is less than 4% which means that the sector is not productive as expected. The main challenges of the Tanzania agriculture sector include poor infrastructure, lack of storage and low productivity. The fact of the matter is that 40% of domestic revenue collected is spent to service the public debts instead with the absence of such a big amount servicing the debt means funds might be allocated to support other economic development projects including agriculture activities resulting in making the sustainable development goals achievable as planned. Charles (2018, pg. 3) argued that, “Agriculture remains the mainstay of the Tanzanian economy, employing about two-thirds of the workforce and supporting the livelihoods of three-quarters of the population. However, growth in the agriculture sector averaged less than 4% in the last five years. The reasons include poor infrastructure, lack of storage, and low productivity because of continued dependence on rain-fed agriculture, lack of irrigation, and inadequate mechanisation.”

The Tanzania Government has the history of experiencing the economic crisis during the year of 1970s due to the poor performance of the key economic indicators (Tanzania Government Report, 2001, pg. 1) argued that, “The record of economic performance was good in the 1960s and early 1970s before experiencing a crisis of unprecedented depth and breadth in the 1980s.”

Literature suggests that in order to transform the Tanzania agriculture sector, substantial efforts must be made to support the smallholders’ agriculture farmers’ particulars to overcome their necessary challenges. Elibariki (2007) suggested that, “In order to transform the agricultural sector into one with high productivity and high-quality output, effort is needed to understand and eliminate the barriers to smallholders that inhibit the growth of productivity.”

The impact of climate variability in Tanzania is predominantly rainfall-based agriculture which is also very evident. Most of the country’s agriculture is directly dependent on annual rainy seasons, and there is a close relationship between variations in the amount of rainfall and differences in the country’s annual economic growth. Agricultural production accounts for nearly half of Tanzania’s GDP, and reduction in agricultural productivity has already occurred as a result of changes in rainfall patterns (Ministry of Foreign Affairs of Denmark, 2019).

Tanzania Agriculture Food Production and its Challenges:

The Tanzania Government has made substantial efforts to enhance Agriculture food production and security including initiating different investment schemes including;- Agriculture and Food Security Investment Plan. Cooksey, (2013) argued that;- CAADP in Tanzania is enshrined in the Agriculture and Food Security Investment Plan (TAFSIP) which President Kikwete launched in November 2011. But TAFSIP has played a very secondary role in Tanzania’s agricultural policy processes compared to the earlier Kilimo Kwanza (2009) and later Big Results Now (BRN, 2013). TAFSIP is an expanded version of the Agricultural Sector Development Programme (ASDP, 2006-13), adding components (food security, climate change) and more than doubling the proposed budget.

The Tanzania Agriculture sector is witnessing the obstacle of food security declining due to the climate change impact within the country. Channing et al, (2012, pg. 1) argued that, “The authors find that, relative to a no-climate-change baseline and considering domestic agricultural

production as the principal channel of impact, food security in Tanzania appears likely to deteriorate as a consequence of climate change.”

Evidence manifests that Tanzania's high poverty level is the main challenge for the Agriculture food insecurity challenge which hinders the Agriculture sector development and the Tanzania economic development. Tanzania Ministry of Agriculture Report (2006, pg. 2) reported that, “Poverty is one of the major causes of food insecurity in Tanzania, the prevalence of income poverty is still high in Tanzania”.

Researchers identified Tanzania among the least developed countries with the low-income status while facing the food deficit challenge in its economic development journey towards making the global sustainable development goals realistic. Cleaver, Schram & Wanga (2009, pg. 23) wrote that, “Tanzania situated on the Eastern Coast of Africa, is one of the continent’s most politically stable countries. The country is categorised as a least developed and low-income food deficit country.”

Research Methodology:

This study is focusing on investigating the correlation between the public debt agriculture sector and poverty during the period from 2000 to 2018 in Tanzania. To fulfil the study’s objective I employed the Multiple Linear Regression Methodology to evaluate the correlation between the public debt agriculture sector and poverty during the period from 2000 to 2018 in Tanzania. Time series data from the Bank Of Tanzania Annual Reports and the World Bank data indicators during the period from 2000 to 2018 for Tanzania have been used by the study. On investigating the correlation of public debt agriculture GDP and poverty the study assumes public debt to be the independent variable while agriculture GDP and poverty to be the dependent variables of the study.

To investigate the correlation between the public debt agriculture GDP and the poverty the study applied the multiple regression in double log and semi log linear models.

The study applied the following equation to determine the correlation between public debt agriculture GDP and the poverty during the period from 2000 to 2018 in Tanzania:

$\ln Y_t = \alpha_0 + \beta_1 PD_t + e_{1t} + e_{2t} \dots\dots\dots(1)$ Where, $\ln Y$ is the natural log of Dependent Variable, PD is the Public Debt. The α_0 is constant, and β_1 , is a coefficient parameter.

The correlation between the Public Debt and the Agriculture GDP is determined by the following equation:

$\ln AGRgdpt = \alpha_0 + \beta_1 PD_t + e_{3t} \dots\dots\dots (2)$ Where, $\ln AGRgdpt$ is the natural log of Tanzania Agriculture GDP.

The correlation between the Public Debt and Poverty is determined by the following equation:

$\ln POV_t = \alpha_0 + \beta_1 PD_t + e_{4t} \dots\dots\dots (3)$ Where, $\ln POV$ is the natural log of Poverty.

Research Design:

On determining the correlation between the Public debt Agriculture GDP and Poverty during the period from 2000 to 2018 in Tanzania study employed Descriptive and analytical research design.

Empirical Results and Discussion:

This study is focusing on investigating the correlation between the Tanzania public debt agriculture sector and the poverty during the period from 2000 to 2018 in Tanzania.

The Correlation between the Public Debt Agriculture GDP and Poverty during the Period from 2000 to 2018 in Tanzania:

On investigating the correlation of Tanzania public debt agriculture sector and the poverty the study assumes public debt to be the independent variable while agriculture GDP and the poverty to be the dependent variables of the study.

The Correlation between the Public Debt and Agriculture GDP during the Period from 2000 to 2018 in Tanzania

The regression results showed that there is a negative and insignificant correlation between public debt and the Agriculture GDP during the period from 2000 to 2018 in Tanzania. The meaning is when the public debt is increasing the Agriculture GDP is shifting to the opposite direction (deteriorating) during the period from 2000 to 2018 in Tanzania (Table 1).

Table 1 Regression between Public Debt and Agriculture GDP during the period from 2000 to 2018 in Tanzania¹

Dependent Variable : Tanzania Agriculture GDP

VARIABLES	COEFFICIENT	STD DEVIATION	T-STATISTIC	PROBABILITY
PUBLIC DEBT	-1.0781	1.8326	0.5883	0
CONSTANT	4.1571			0
R-SQUARED	0.01923			
ADJUSTED R-SQUARE	-0.03846			
S.E.OF REGRESSION	0.5543			
INCLUDED OBSERVATION-19				

¹ Source: Appendix 2

Appendix 1

The data for the Public debt, agriculture GDP and the Poverty during the period from 2000 to 2018 in Tanzania where P/DEBT is the Public Debt and AGR/GDP is the Agriculture GDP and POV is the Poverty²

YEAR	P/DEBT	AGR/GDP	POV
2000	7595.7	4.858	35.6
2001	7702.3	4.768	35.6
2002	8032.8	4.659	35.6
2003	7606.6	4.527	35.6
2004	8088.3	4.43	35.6
2005	8345.1	4.056	35.6
2006	8638.9	3.807	35.6
2007	5212.4	3.764	34.4
2008	6776.3	3.74	34.4
2009	8120.1	3.684	34.4
2010	9548.3	3.659	34.4
2011	11336.1	3.704	28.2
2012	14098.1	3.638	28.2
2013	17087.4	3.687	28.2
2014	18804.1	3.589	28.2
2015	20718.9	3.523	28.2
2016	23118.3	3.523	28.2
2017	25692.9	3.432	28.2
2018	28063.1	5.3	26.4

² Source: Bank Of Tanzania Annual Reports & The World Bank During the period from 200 to 2018 for Tanzania.

Appendix 2

The data and the regression between the public debt and the Agriculture GDP during the period from 2000 to 2018 in Tanzania, where P/D is the Public Debt and A/GDP is the Agriculture GDP³

YEAR	P/D	A/GDP	X ²	Y ²	XY
2000	7595.7	4.858	57694658.49	23.600164	36899.9106
2001	7702.3	4.768	59325425.29	22.733824	36724.5664
2002	8032.8	4.659	64525875.84	21.706281	37424.8152
2003	7606.6	4.527	57860363.56	20.493729	34435.0782
2004	8088.3	4.43	65420596.89	19.6249	35831.169
2005	8345.1	4.056	69640694.01	16.451136	33847.7256
2006	8638.9	3.807	74630593.21	14.493249	32888.2923
2007	5212.4	3.764	27169113.76	14.167696	19619.4736
2008	6776.3	3.74	45918241.69	13.9876	25343.362
2009	8120.1	3.684	65936024.01	13.571856	29914.4484
2010	9548.3	3.659	91170032.89	13.388281	34937.2297
2011	11336.1	3.704	128507163.2	13.719616	41988.9144
2012	14098.1	3.638	198756423.6	13.235044	51288.8878
2013	17087.4	3.687	291979238.8	13.593969	63001.2438
2014	18804.1	3.589	353594176.8	12.880921	67487.9149
2015	20718.9	3.523	429272817.2	12.411529	72992.6847
2016	23118.3	3.523	534455794.9	12.411529	81445.7709
2017	25692.9	3.432	660125110.4	11.778624	88178.0328
2018	28063.1	5.3	787537581.6	28.09	148734.43
TOTAL	244585.7	76.348	4063519926	312.339948	972983.9503

Correlation between Public Debt and Poverty during the Period from 2000 to 2018 in Tanzania:

The regression results showed that there is a negative and insignificant correlation between public debt and the Poverty during the period from 2000 to 2018 in Tanzania. The meaning is when the public debt is increasing the Poverty is shifting to the opposite direction during the period from 2000 to 2018 in Tanzania (Table 2).

³ Source: Appendix 1

Table 2 Regression Between Public Debt and Poverty during the period from 2000 to 2018 in Tanzania⁴

Dependent Variable : Tanzania Poverty

VARIABLES	COEFFICIENT	STD DEVIATION	T-STATISTIC	PROBABILITY
PUBLIC DEBT	-4.5363	5.9648	-7.6051	0
CONSTANT	37.98			0
R-SQUARED	0.7659			
ADJUSTED R-SQUARE	0.7521			
S.E.OF REGRESSION	1.8043			
INCLUDED OBSERVATION-19				

Appendix 3

The data and the regression between the public debt and the Poverty during the period from 2000 to 2018 in Tanzania where P/D is the Public Debt and POV is the Poverty⁵

YEAR	P/D	POV	X ²	Y ²	XY
2000	7595.7	35.6	57694658.49	1267.36	270406.92
2001	7702.3	35.6	59325425.29	1267.36	274201.88
2002	8032.8	35.6	64525875.84	1267.36	285967.68
2003	7606.6	35.6	57860363.56	1267.36	270794.96
2004	8088.3	35.6	65420596.89	1267.36	287943.48
2005	8345.1	35.6	69640694.01	1267.36	297085.56
2006	8638.9	35.6	74630593.21	1267.36	307544.84
2007	5212.4	34.4	27169113.76	1183.36	179306.56
2008	6776.3	34.4	45918241.69	1183.36	233104.72
2009	8120.1	34.4	65936024.01	1183.36	279331.44
2010	9548.3	34.4	91170032.89	1183.36	328461.52
2011	11336.1	28.2	128507163.2	795.24	319678.02
2012	14098.1	28.2	198756423.6	795.24	397566.42
2013	17087.4	28.2	291979238.8	795.24	481864.68
2014	18804.1	28.2	353594176.8	795.24	530275.62
2015	20718.9	28.2	429272817.2	795.24	584272.98
2016	23118.3	28.2	534455794.9	795.24	651936.06
2017	25692.9	28.2	660125110.4	795.24	724539.78
2018	28063.1	26.4	787537581.6	696.96	740865.84
TOTAL	244585.7	610.6	4063519926	19868.6	7445148.96

⁴ Source: Appendix 3

⁵ Source: Appendix 1

Summary of Findings:

The findings of the study were indeed very impressive. The study findings manifested that there is a negative and insignificant correlation between the public debt and all the study's dependent macroeconomic variables (agriculture GDP and poverty) during the period from 2000 to 2018 in Tanzania. That means when the public debt is increasing all the study's macroeconomic variables (Agriculture GDP and Poverty) shifts in the opposite direction during the period from 2000 to 2018 in Tanzania.

Limitation of the Study:

This study is focusing on investigating the correlation between the Tanzania public debt agriculture sector and the poverty during the period from 2000 to 2018 in Tanzania. However the study did not mention the impact of the public debt to the agriculture sector and poverty for every marginal annual percentage change to all macroeconomic variables during the period from 2000 to 2018 in Tanzania. For further studies it is recommended to research and investigate the impact of public debt to the Agriculture sector and Poverty for every marginal annual percentage change in Tanzania.

Conclusion:

This study is focusing on investigating the correlation between the Tanzania public debt agriculture sector and the poverty during the period from 2000 to 2018 in Tanzania.

From the existing literature this study will contribute new knowledge regarding the correlation between the public debt agriculture sector and poverty during the period from 2000 to 2018 in Tanzania. In addition to the study will be most useful to the public finance field of study and Tanzania monetary policy decision makers at large.

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