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Domestic Borrowing on Capital Market Development in COMESA Member Countries

Jean-Marie Mulubwa, University of Zambia

Dr. Francis Mutohela, University of Zambia

Corresponding eamil: mulubwajm10@gmail.com

ABSTRACT

Background: In COMESA countries, governments have been using public debts (domestic and international debts) to fund their budgets and expenditures. Compared to other parts of Africa, the COMESA region is one of the developed regions in Africa.
Objective of the Study: The objective of the study was to examine the impacts of domestic public debt on the capital market development in Common Market for Eastern and Southern Africa member countries. The study variables used were domestic public debt, inflation rates and interest rate on capital markets development. Keynesian Model, David Ricardo Theory and The Debt Overhang Theory informed the study.
Methodology: This study adopted the descriptive study design. This study used 21 COMESA capital markets as its population. Data collected in this case include COMESA countries Total Debt Value, inflation rate interest rates and Gross Capital Formation.
Findings: Regression of coefficients results showed that domestic public debt and capital markets development are positive and significantly related (r=-4.518, p=0.030). The results further indicated that inflation and capital markets development are negatively and not statistically significant (r=-0.093, p=0.116). It was further established that interest rate and capital markets development were positively and significantly related (r=0.345, p=0.003).
Conclusions and Recommendations: Based on these findings, the study recommends on continued deepening of the capital markets to lengthen further the maturity profile of domestic debt and diversification of the investor base. The study further recommends on continued implementation of policies to support macroeconomic stability and faster economic growth. This includes restructuring public debt towards external borrowing which is comparably cheaper than domestic debt, and rationalization of recurrent expenditures to contain the widening deficit in the primary balance would be necessary in the medium-term to ensure that public debt remains on a sustainable path to allow for capital markets development.
Key Words: *Domestic Borrowing, Capital Market Development & COMESA*

1.1 INTRODUCTION

Government requires a lot of resources when it comes to public expenditure. When taxes are not enough to provide the bulk of revenue, governments engage in public borrowing that bridges the gap between the receipt and expenditure. Public debt whether international and domestic is one of the macroeconomic indicators of a country's economic growth. Through the public debt position, various international markets are in a position to form a country's image. As International Monetary Fund (2016) argues in its work; reasonable levels of borrowing may enhance a country's economic growth. As long as the country ensures that the borrowed funds are used for productive investments, domestic debt is a good source of country's capital. Fanta and Makina, (2017) defines domestic debt as the debt that the government owes to the holders of the government securities. This debt is divided into two that is the debt receipts and the debt disbursals. According to a study that was conducted by Babu *et al.* (2015), such economic development comes through capital accumulation and productivity growth that happens courtesy of the domestic and international public debt. Despite the many pros of domestic debt to developing governments, such debt also has severe cons on the economy especially when not well balanced with the anticipated economic growth.

Despite the fact that some COMESA countries have been in a position to control their public debt, other countries for example Kenya is going beyond the radar thus adversely affecting the economy. In COMESA countries, governments have been using public debts (domestic and international debts) to fund their budgets and expenditures. As Meensel (2012) notes, the COMESA community uses public debt and loans towards financing the infrastructure projects among many other projects. Compared to other parts of Africa, the COMESA is one of the developed regions in Africa. In this study, the effects of public debt on capital development market of the Comesa countries was assessed.

According to Babu (2015), reasonable domestic borrowing may enhance a country's economic growth that happens through capital accumulation and productivity growth. For example, countries that are at early stages of development tend to have small stocks of capital that it becomes hard to finance their projects. When such a country borrows money and uses it for productive investment, it does not suffer from macroeconomic instability and sizable adverse shocks among others. Through growth from the debt, timely repayment of debts happens (Saungweme, 2019).

Capital market development has for many years been influenced by various economic factors either negatively or positively. Examples of these factors include the inflation rate, political climate, government policies, and lending rates among many other public finance management policies. In many of the poor countries globally, public debt remains a major economic policy issues. According to a study that was conducted by Agu, Nwankwo & Onwuka (2017), the debt levels especially among the Highly Indebted Poor and Low income countries have raised major concerns on financial institutions both locally and internationally.

When these factors are in place, they end up affecting the capital market development positively or negatively. An effective allocation of financial resources is largely affected by inflation. In East Africa among many other developing nations, investments are spearheaded by governments. In most cases, the real interest rate is the one that affects the investments (Rethel & Hardie, 2017).

When the rates of the borrowing go high, many people shun off from taking loans for various development activities because the outputs may turn out to be less compared to the inputs. According to a study that Abbas and Christensen (2017) conducted that, it is evident that increase in real estate rates rarely affects the private investments. However, another study by Essers, Blommestein, Cassimon & Flores (2016) argued that debt service ratio adversely affects the private investment. In addition, economic growth of countries may also affect the interest rate levels in various ways. For example, when a country's GDP goes high, it in a way forces the central bank to raise its interest rate that works by slowing the economic growth. Reduction in the real interest rates works by increasing the economic value where the investors get in a position to get loans for investments among many other developments.

Another variable that affects the capital market development of a country is the government policies. The legal and broader institutional environments play an important role when it comes to capital market development (Saungweme, 2019). Policies and rules that protect investors define the property rights and contractual arrangements that affect the capital markets. In this case, many countries and especially the developing ones are experiencing financial crises. The governments in such countries are working hard to ensure that they restore the economy through Fiscal and Monetary policies. COMESA Countries are known to be one of the developed regions in Africa. Since 2000, the COMESA countries have been performing well when it comes to development compared to various countries in Sub-Saharan Africa. However, the COMESA countries growth has been uneven.

1.2. Research Problem

The main focus of this study is getting to understand the correlation between domestic public debt and COMESA capital market development. In many ways, the capital market is symmetrical to the country's public debt. In many developing countries, governments have given much attention to domestic debt compared to external indebtedness. According to a study that was conducted by Akram (2018), issuing of the domestic debt involves complex assessments that involve costs and benefits. Management of the public debt leads to economic growth and stability since it requires low borrowing costs and a reduced financial risk exposure. Despite the fact that domestic borrowing has many advantages; it also has negative impacts especially when it goes beyond a sustainable amount. Domestic debt affects a country's inflation rates, interest rates among many other factors. Through this study of how various concepts are affected by domestic borrowing, various governments will clearly understand the effects of domestic borrowing on their capital market development and align their domestic debts from the capital market institutions that will finally promote the development of the capital markets.

When it comes to the development of a market, instruments of debt becomes important. When a country takes large amounts of domestic debt, debt servicing costs largely increase that negatively affects the capital market development. In COMESA region, countries have been performing differently when it comes to public debt (Aladejare, 2019). Thus, this created a research problem where the impacts of domestic debt need to be understood. What are the effects of domestic debt on capital market development on COMESA member countries?

1.3. Research Objective

The core objective of this study was to examine the impacts of domestic public debt on the capital market development in COMESA member countries.

2.1 LITERATURE REVIEW

2.2. Theoretical Review

From an analysis of previous research and theories touching on the issue, it was evident most of theories on this issue touches on the effects of domestic public debt on capital market development. From an extensive research, many of the theories found touched on public debt while few others dealt with the financial intermediaries that various COMESA countries use. In this case, this part of the review explored theories that deal with general capital market development and public debt.

Some of the theories that were explored in this section include Keynesian model, David Ricardo theory on public debt and debt overhang theory

2.2.1. Keynesian Model

In his attempts to understand the great depression, John Keynes developed the Keynesian model back in 1930s. According to Keynes, the increase of the public debt through multiple effects ends up raising the National income. Keynes linked public borrowing with deficit financing that authorizes the government to borrow for all purposes that result to an increased demand in the economy that ends up increasing employment and output. This model is a macroeconomic model in that it follows the Keynesian economic principles (King, 1993).

The Keynesian model has three macroeconomic sectors that include the two sectors, three sectors and four sectors. This model has in the past been used to analyze various factors that include business cycles, monetary and fiscal policies. According to this model, public debt does not have a direct burden to the economic growth. However, an effect comes when expenditure is experienced. When it comes to the internal debt, this is the debt that the government owes to itself and may not contribute anything to the country's resources. On the other hand, external debt adds resources to the country as Saungweme (2019). notes. This model also explains what happens when a government enters a capital market to borrow. When the government goes to the banks to borrow, the banks have surplus since businesses that are regular customers are in most cases reluctant to borrow. Because of the businesses' increased capacity, they cannot borrow to create more. Lack of the private sector loan demand increases the bank's willingness to lend more finances to the government at a low interest. Through this model, one gets to understand the government's spending and the effects it has on outputs and inflation

2.2.2 David Ricardo Theory

In this theory, Ricardo and Churchman (2001) argue that the society's burden from the government spending is as a result of the wastage use of the expenditure. According to this theory, there are many allocative effects of tax burden on the economy that comes from public borrowings. In this theory, Ricardo said that the government's wastage use of the debts borrowed affects its citizen as according to the Ricardian equivalence theorem. In this case, it doesn't matter where the government gets its money either through debts or taxation but what matters is its usage.

When a country uses public debt to finance its projects, citizens tend to pay less money but future generation will have to pay more (Contessi, 2012). Through this theory, the study will examine the effects of government's public debt misappropriation and its effects on the future generations.

3.1 METHODOLOGY

This study adopted the descriptive study design. This study used 21 COMESA capital markets as its population. These countries that include Burundi, Comoros, Djibouti, D.R Congo, Egypt, Eritrea, Ethiopia, Eswatini, Kenya, Libya, Madagascar, Malawi, Mauritius, Rwanda, Seychelles, Sudan, Somalia, Tunisia, Uganda, Zambia and Zimbabwe were chosen as the population since they have similar regulations and legislatives in relation to domestic public debt. The study used secondary data obtained from various sources that include member Countries Central Banks, World Bank information, National Treasury Public and Debt Departments.

To establish the impacts of domestic debt on the capital market development, the study used the multivariate regression model. The regression model was as follows;

$$Y=A+B_1X_1+B_2X_2+B_3X_3$$

Where:

Y was the capital market development which is measured by Gross Capital Formation (% of GDP)

X_1 was public debt which is measured by log of Total Debt Value in USD

X_2 was the inflation rates

X_3 is the interest rates

P-values was used when it comes to testing the statistical significance. The study has a prior significance level of 95%. If the p-value is greater than 0.05, the null hypothesis is true. In this case, there was no statistically significant relationship between domestic debt and economic growth. If the p-value is below 0.05, it was concluded that there is a statistically significant relationship between the variables. To provide the measure of how well the observed outcomes was replicated; the coefficient of determination was used.

4.1 FINDINGS AND DISCUSSION

4.1.1 Correlation Analysis

The study conducted correlation analysis for the variables that are domestic public debt, inflation rates and interest rates on capital markets development in order to examine the nature of the statistical relationships between COMESA pair of variables. Table 1 shows the correlation matrix of all the variables.

Table 1: Correlation Matrix

Variable		Gross Capital Formation	Debt in USD	Inflation	Interest Rate
Gross Capital Formation	Pearson Correlation	1.000			
	Sig. (2-tailed)				
Domestic Public Debt	Pearson Correlation	.746**	1.000		
	Sig. (2-tailed)	0.000			
Inflation	Pearson Correlation	-.526**	.568**	1.000	
	Sig. (2-tailed)	0.000	0.000		
Interest Rate	Pearson Correlation	.494**	-.327*	-0.137	1.000
	Sig. (2-tailed)	0.000	0.021	0.342	

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

The results in Table 1 show that domestic public debt (0.746, 0.000) had a positive and significant relationship with gross capital formation while inflation (-0.526, 0.000) had a negative and significant relationship with gross capital formation. Interest rate (0.494, 0.000) revealed a positive and significant relationship with gross capital formation.

4.1.2 Regression Analysis

Regression analysis was conducted in order to examine the coefficient of determination, the statistical significance of the model used and the regression model. The results presented in Table 2 present the fitness of model used of the regression model in explaining the study phenomena. Domestic public debt, inflation and interest rate were found to be satisfactory variables in explaining capital markets development. This was supported by coefficient of determination also known as the R square of 64.6%. This means that domestic public debt, inflation and interest rate explain 64.6% of the variations in the dependent variable, which is capital markets development.

Table 2: Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.804a	0.646	0.623	2.2769971

a Predictors: (Constant), Interest Rate, Inflation, Domestic Public Debt

b Dependent Variable: Gross Capital Formation

In statistics, significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found were less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else, the model would be regarded as non-significant.

Table 3 gives the outcomes on the analysis of variance (ANOVA). The outcomes show that the general model was statistically significant. Further, the outcomes suggest that the independent variables are good indicators of capital markets development. This was supported by an F statistic of 27.982 and the reported p value (0.000) which was less than the conventional probability of 0.05 significance level.

Table 3: Analysis of Variance (ANOVA)

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	435.239	3	145.08	27.982	.000b
	Residual	238.497	46	5.185		
	Total	673.736	49			

a Dependent Variable: Gross Capital Formation

b Predictors: (Constant), Interest Rate, Inflation, Domestic Public Debt

Regression of coefficients results in Table 3 shows that domestic public debt and capital markets development are positive and significant related (r=4.518, p=0.030). The results further indicated that inflation and capital markets development are negatively and insignificantly related (r=-0.093, p=0.116). It was further established that interest rate and capital markets development were positively and significantly related (r=0.345, p=0.003). This implies that an increase in domestic public debt (r=4.518, p=0.030) and interest rate (r=0.345, p=0.003) led to an improvement in capital markets development. However an increase in inflation (r=0.093, p=0.116) led to a reduction in in capital markets development as shown in Table 4.

Table 4: Regression of Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	B	**Std. Error**	**Beta**	**t**	**Sig.**
(Constant)	41.718	3.721		11.211	0.000
Domestic Public Debt	4.518	0.913	0.554	4.947	0.000
Inflation	-0.093	0.058	-0.171	-1.601	0.116
Interest Rate	0.345	0.111	0.290	3.114	0.003
a Dependent Variable: Gross Capital Formation					

The multiple regression model was laid as below.

$Y= 41.718 + 4.518X_1 - 0.093X_2 + 0.345X_3$

Correlation results revealed that domestic public debt had a positive and significance relationship with gross capital formation. Further, regression of coefficients results revealed that domestic public debt and capital markets development are positive and significant related. Domestic debt should be encouraged since it has a positive effect on financial market development in all the East African Countries this will promote stability and financial independence in the economy, inflation should be well managed since it's increase could harm the development of financial markets this can clearly be seen in the correlation coefficients where inflation rates have a negative relationship with financial markets development this means that the higher the rate of inflation the lower the rate of financial development. The findings of the study support the Keynesian model.

Correlation results revealed that inflation (-0.526, 0.000) had a negative and significant relationship with gross capital formation. Regression results further indicated that inflation and capital markets development are negatively and insignificantly related (r=-0.093, p=0.116). This implies that an increase in inflation rates leads to a unitary reduction in capital markets development by 0.093 units other factors held constant. These results are in agreement with Ersion (2007) who examined countries that had high inflation rates and according to this study, domestic debt increases a country's inflation and thus lowers capital markets development.

Lastly, correlation results revealed that interest rate (0.494, 0.000) had a positive and significance relationship with gross capital formation. Regression results showed that interest rate and capital markets development were positively and significantly related (r=0.345, p=0.003). This implies that an increase interest rates leads to a unitary improvement in capital markets development by

0.345 units other factors held constant. These findings agree with Saungweme (2019) who did a study on gross fixed capital formation and found that an increases in real interest rates improve private investment.

5.1 CONCLUSION

The study concluded that there is a positive relationship between high domestic public debt and capital market development, an increase in domestic debt causes the capital market development to decrease. When a country borrows more domestic debt and less external debt it promotes capital markets development in the long run. The regression model used in the study was statistically significant in explaining the effect of domestic public debt on capital markets development in COMESA. The study further concluded that inflation rate has a negative impact on financial market development this implies that inflation had a negative impact on capital markets development. It also conclude that an increase in interest rate impact positively the capital markets development.

Moderate levels of domestic debt promote financial deepening and institutional and foreign participation which then drives capital markets development. The outlook on domestic issuance capacity in low middle income countries looks broadly favorable. The quality and span of domestic debt markets can have a significant impact on the optimal size of domestic debt. A higher level of domestic debt can likely be sustained without compromising growth if the domestic debt is issued in the form of marketable securities, bears positive real interest rates, and is issued to investors outside the banking system.

Domestic debt expansion had a positive significant effect on COMESA capital markets growth. The relationship between capital markets growth and domestic debt is evidenced by the fact that domestic debt markets promote financial depth and economic efficiency. This is as a result of increased expansion of capital market and financial sector liberalization in the COMESA recently which drives capital markets development.

6.1 RECOMMENDATIONS

Based on these findings, the study recommends on continued deepening of the capital markets to lengthen further the maturity profile of domestic debt and diversification of the investor base. The study further recommends on continued implementation of policies to support macroeconomic stability and faster economic growth. This includes restructuring public debt towards external borrowing which is comparably cheaper than domestic debt, and rationalization of recurrent

expenditures to contain the widening deficit in the primary balance would be necessary in the medium-term to ensure that public debt remains on a sustainable path to allow for capital markets development. A notable advantage of restructuring public debt towards external borrowing through issuance of sovereign bonds is that it will help to benchmark COMESA in credit and facilitate access to international capital markets by corporate entities in the country thereby stepping up investment activities.

To ensure the success of the domestic borrowing programme, the government should continue to implement measures to maintain confidence in the capital markets through prudent fiscal policy and adherence to the annual domestic borrowing calendar. The government should also develop a framework for capturing and monitoring non-residents investment in government securities for purposes of improving the monitoring of foreign direct investment in the country.

The governments of the COMESA member countries should promote moderate levels of domestic borrowing which can be sustained by the respective countries as it promotes economic growth if used in productive and efficient avenues. However, domestic debt is usually expensive and should be minimized since it has wider negative macroeconomic effects for instance, if interest rate on treasury bills rise, banks target treasury bills and not lending to borrowers, interest rates and inflation also goes up. The governments can privatize some of the public assets in order to cut large public expenditure and also raise revenue on a temporary basis.

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