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CAPITAL FLIGHT AND EXTERNAL BORROWING IN SUB-SAHARAN AFRICA: AN INVESTIGATION INTO RELATIONSHIPS AND IMPLICATIONS

Theses of th PhD Dissertation

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1. Introduction

For several decades, SSA economies continue to struggle with poverty, hunger, epidemics, child and infant mortality. Access to proper sanitation, healthcare, education, energy services and potable water still remains inadequate. Statistics from the World Bank Poverty and Equity Data portal shows that the region remains the only place in the world where the total number of people living under $3.20 a day has increased persistently over the past two decades – from 383.2 million people in 1990 to 667 million people in 2015.

Ironically, the economic growth rate of many countries in the SSA region within the same period has been very remarkable, increasing at an average growth rate of about 5 per cent. Even during the economic and financial crisis in the year 2007 and 2008, the region grew by 6.2 per cent on average, a growth rate higher than that of Latin America and the Caribbean (4.87 per cent) and Europe and Central Asia (2.35 per cent). However, this robust and sustained growth rate is yet to provide households and vulnerable groups in the region adequate opportunity to improve their living standards and reduce the inequality in income and access to social services.

What is more disturbing is the steady rise in commodity and fuel prices and the massive reductions of official development assistance and foreign direct investment in the region after the global economic and financial crises. These reasons coupled with the balance of payment difficulties of most of the countries in the region have called for more resource mobilisation either locally or abroad to achieve the Sustainable Development Goals (SDG's) the region envisages. Schmidt-Traub (2015) estimates that Africa would need an extra capital of about $614 billion–$638 billion per year to achieve the economic growth rates that are compatible with the SDG's and beyond.

At the sectoral level, Nkurunziza (2015) also added that Africa would need to invest about $93 billion a year in building new infrastructure and in the maintenance of existing infrastructure for ten years in addition to $54 billion investment in developing small-scale and large-scale irrigation. The International Energy Agency (2012) estimates that the region will also need an additional $25 billion per year on average on energy services to achieve universal access to modern energy services by 2030. UNCTAD (2014) added that the region needs to invest $210 billion extra amount in building basic infrastructure, food security, health, education and climate change mitigation whiles Chinzana et al. (2015) estimates requires the region to invest an additional $1.2 trillion investment required to meet the Goal 1 of the Sustainable Development Goals (SDGs).

The main question is if financial resources are that relevant to the growth and development of the region, why is capital from the region fleeing out, and why are countries in the region still borrowing when it is associated with an unproductive investment. More recently, the simultaneous occurrence of external debt and capital flight in the SSA region have taken centre stage in the African development and policy studies (Ndikumana – Boyce – Ndiaye (2015); Ndikumana – Boyce (2011); Fofack (2009); Boyce – Ndikumana (2008); Cerra – Rishi – Saxena (2005); Ndikumana, – Boyce (2003)). However, most of the studies are plagued with either one or several of the following issues;

- The problem of the cross-sectional dependence. All the empirical studies done to examine the incidence of external debt and capital flight in the region failed to capture the cross-sectional nature of the series used. According to Pesaran (2006), occurrences such as recessions, global financial or economic crises, as well as oil price shock, could hypothetically affect all countries, even though it might start from one or two countries. These occurrences inevitably introduce some cross-sectional interdependencies across the cross-sectional unit, their regressors and the error terms. Unfortunately, the traditional panel data estimation methods such as the Fixed Effects, Random Effects, Mean Group estimations, Pooled Mean Group, and GMM estimators erroneously ignored these possible inter-dependences among the cross-sectional unit and their regressors. Pesaran (2007), therefore noted that erroneously neglecting the cross-sectional dependence when it is present in the data, can lead to misleading inferences.

- The time frame for most of the work in the region has been short and not quite recent. The last datasets used in analysing the incidence of external debt and capital flight ended in 2010.

- Specific studies on HIPC countries in SSA countries in the region is also unavailable. Thus, this research bridges the gap among researchers in this area by examining the problem in HIPC countries in SSA.

- Again, the implications of the revolving door of external debt and capital flight on poverty reduction, inequality as well as fiscal and monetary policy have arguably been neglected at the empirical level.

It is against this background this study seeks to investigate empirically the relationship between external debt and capital flight and the extent to which the simultaneous occurrence of it affect general welfare and fiscal and monetary policies in the SSA region. By estimating these relationships, the study hopes to contribute to the literature on how external debt and capital flight affects welfare functions, fiscal and monetary policies and consequently economic development in the SSA region and also shed some light on how to move forward by offering possible solutions for dealing with the issues associated with external debt and capital flight.

The uniqueness of this dissertation is in fourfold. First, the study uses a more robust estimation technique that safeguards the regression against cross-sectional dependency, serial correlation, endogeneity and cross-sectional heteroskedasticity normally present in a panel dataset. Secondly, in estimating the impact on welfare, multidimensional measurement of welfare that employs both monetary and non-monetary measure is used, and also the study allows for linear and non-linear effects of external debts to be captured. Thirdly, in estimating the fiscal and monetary policies, the study proposes a quantitative macroeconomic model that captures the consequences of the revolving door of external debt and capital flight on the efficacy of both fiscal and monetary policies in the SSA. The structural model allows one to understand better the various channels through which continuous accumulation of external debt and capital flight may hinder fiscal and monetary policies in the recipient country and hence their growth. Finally, the time frame for the dataset used in the analysis is also recent, from 1990 to 2015.

2. Objectives of the study

The main objective of this study is to examine the relationship and the level of causality between external debt and capital flight in SSA and the possible ways by which external debt and capital flight can affect general welfare and economic policy effectiveness in the SSA countries.

Specifically, the study seeks to:

I. Investigate the relationship between external debt and capital flight for SSA countries.

II. Examine the implication of external debt and capital flight on general welfare for SSA countries and compare the results with HIPC countries within the region in general.

III. Examine the economic policy implication of external debt and capital flight with a specific focus on the effectiveness of fiscal and monetary policies within the SSA region in general.

IV. Provide policy recommendations based on the outcome of the study

3. Hypotheses of the study

In attempting to achieve the above-stated objectives, the following hypotheses (H) are formulated for testing.

3.1 Relationship between external debt and capital flight

Several empirical studies (see empirical literature in Chapter Four of the main dissertation) have presented consistent and robust evidence showing that a substantial part of capital flight from SSA is financed by external borrowing. To verify this, within the context of SSA, the following hypotheses are formulated for testing.

H_1: External borrowing is significantly affected by capital flight

H_2: There is bi-directional causality between external debt and capital flight

3.2 Implications of external debt and capital flight on welfare

The countries in SSA entered the twenty-first century on the cusp of tremendous change in infrastructure, trade, better macroeconomic management, and a more stable political and governance system. At the turn of the new millennium, the SSA region has been among the fastest-growing regions in the global economy with the average annual growth rate increasing from 1.8 per cent at the end of the last decade (1980–1989) to about 5 per cent in the period 2000–2015. With this development, it is expected that the level of poverty in the region will reduce significantly, however, statistics from the World Bank Poverty & Equity Data portal (2018) shows that the region remains the only place in the world where the total number of people living under $3.20 a day has increased persistently over the past two decades – from 383.2 million people in 1990 to 667 million people in 2015. This study, therefore, examines the impact and causal effects of external debt and capital flight. To do this, hypotheses H_3 and H_4 are formulated for testing as;

> **H_3**: External debt and capital flight do not have any significant impact on welfare in SSA.
>
> **H_4:** External debt and capital flight do not have any significant impact on welfare in HIPC countries in SSA.

3.3 Implications of external debt and capital flight on policy effectiveness

Recently, policy documents from the UN-Economic Commission for Africa (2015), Africa Development Bank (2012) and even some theoretical literature (see section 6.2.2 in Chapter 6 of the main dissertation) have documents that the simultaneous occurrence of external debt and capital flight in the SSA have not only obstructed fiscal policies from achieving its targets; it has also impeded monetary policies effectiveness too. However, there have not been any empirical studies to confirm these postulations; therefore, this study investigates the impact of the simultaneous occurrence of external debt and capital flight on economic policy effectiveness in an attempt to authenticate or refutes the postulations. In doing so, the study specifies hypothesis H_5 as:

> **H_5**: External debt and capital flight do not have any significant impact on the effectiveness of external debt and capital flight.

4. Significance of the study

The justification of this dissertation is based on its relevance to contemporary economic policy considerations. The study will provide vital information that would be of help in formulating effective and efficient policies towards minimising macroeconomic imbalances and economic distortions caused by heavy debt obligation and capital flight to sustain the economic growth and development of the countries in SSA.

The study also serves as a basis for improving researchers and policymaker's general perspective on the behaviour of capital flight and external debt in the sub-region and as well provide alternative measures for tackling issues associated with capital flight and external debt. The study will serve as a tool in revamping government policies towards loan procurement and debt servicing in the subregion.

Also, there exist few studies using panel analysis on the external debt - capital flight relationship. This study adds to the existing literature. In so doing the study addresses some of the methodological issues inherent in the literature.

Finally, this empirical study would point to several areas requiring additional research efforts aimed at the further development of capital flight and external debt models.

5. Scope of the thesis

The time frame for this dissertation is restricted to 1990-2015. This time frame is relevant for the study as it captures the long-term impacts of the 1982 global debt crisis, the impact of the Heavily Indebted Poor Countries Initiative in 1996, the improved (enhanced) HIPC initiative in 1999 and the Multilateral Debt Relief Initiative in 2006 as well as the effect of the 2008 financial crisis on external borrowing and capital flight in the SSA region.

Also, based on the consistent availability of data, this study is generally limited to only 24 SSA countries. Countries included in the broad SSA data are Angola, Botswana, Burundi, Burkina Faso, Cameroon, Côte d'Ivoire, Democratic Republic of Congo, Republic of Congo, Ethiopia, Gabon, Ghana, Kenya, Madagascar, Malawi, Mozambique, Nigeria, Rwanda, Sierra Leone, Sudan, South Africa, Tanzania, Uganda, Zambia and Zimbabwe.

The econometric technique employed to explain the relationship between the parallel occurrence of external debt and capital flight as well as its impacts on welfare and fiscal and monetary policies are all robust estimators that are used in correcting the cross-sectional dependence, the serial correlation, the endogeneity and the heteroskedasticity in the datasets.

5. Chapter summaries and scientific results

Chapter One introduces the study by presenting the background information, specifying the research problem, the research objectives and the hypotheses as well as the underlying significance informing the study. The scope, as well as the organisation of the study, was also discussed in Chapter One. The study proceeds with a discussion on the definition and how the key concepts that are used in the dissertation have been measured and they are presented in Chapter Two. Subsequently, a working definition for the major concepts appropriate for the conduct of the study is provided. Having resolved the pertinent definitional and measurement issues surrounding the main concepts in this dissertation, in Chapter Three, efforts are directed at providing a broad overview of macroeconomic performance and policy environment of SSA since independence in the 1960s. This is to provide an insight into understanding the observed trends in the macroeconomic performance as well as the composition and pattern of capital flight and external debt of SSA over the years.

Chapter four is the first of the three empirical chapters of the study. This chapter examined the relationship between capital flight and external debt in 24 countries in SSA employing the two-step system GMM and the FGLS estimators for the period 1990 to 2015. The choice of these estimators is due to the cross-sectional dependence and endogeneity nature of the datasets, and the task is executed at both the aggregated and the disaggregated levels. At the aggregated level, the causal relationship between external debt and capital flight is examined for the SSA countries as a whole, whereas at the disaggregated level, the data set is split into the four regions within the study area, and estimation is carried out for each of the sub-groups in the region. To compare whether addressing the cross-sectional dependence and the endogeneity problem has influenced the results, the pooled OLS was also used to estimate the model. The results of the FGLS estimation, which includes a correction for the cross-sectional dependence, are significantly not different from the forward orthogonal two-step system GMM results. Though all the three estimators had the same expected signs for most of the variables, the coefficient values produce by the FGLS and the forward orthogonal two-step system GMM seems to be smaller than the pooled OLS result. This means that, in the case of chapter 4, after the correction for the serial correlation, cross-sectional dependence and endogeneity, the result seems smaller.

The regression result presented in chapter 4 suggests that there is a positive relationship between external debt and capital flight in SSA region signifying that increases in external debt accumulation lead to increase in capital flight and that if the external debt remains unchecked, it will continue to cause a substantial amount of capital flight. At the regional level, external debt remains positive and have statistically significant effects on capital flight for all of the regions except East Africa, which had a positive relationship even though not statistically significant. This result implies that creditors knowingly or unknowingly financed the export of private capital rather than investing in SSA. Interesting, historical evidence from the region gives credence to many occasions where the creditors are aware (or may have been aware) of the misappropriation and mismanagement of the borrowed funds and the corrupt nature of the borrowing countries, yet the loans were advanced. In most case, such lending is often motivated by political and strategic considerations. Again, it could also imply a lack of diligence on the part of creditors before the loans were approved.

The Pairwise Dumitrescu Hurlin panel causality test also indicates that in addition to debt-fueled capital flight, the SSA region also suffers from flight-fueled external borrowing suggesting that there is bi-directional causality between external debt and capital flight. The findings from the variance decomposition analysis showed that apart from the previous value of each of variables (external debt or capital flight) that explains a significant portion of its own forecast error variance, the next important predictor is the other variable. Another significant contribution of this chapter is the influence of the annual GDP growth rate, which is used to capture the impact of the macroeconomic environment. The result also confirms the hypothesis that capital flight is higher when the growth rate of the economy is low since low growth is an indication of low profitability of domestic investment and, therefore, capital will thus tend to flee the country. The negative and statistically significant effect of annual GDP growth and capital flight is consistent with the literature.

In chapter five, the study examined the impacts of the simultaneous occurrence of external debts and capital flight on welfare in SSA employing the Driscoll and Kraay standard errors panel estimation method and datasets for the period 1990 to 2015. Before the estimation, the initial diagnosis statistics of the data was first examined in relation to the individual cross-sectional and time effects, seral correlation, GroupWise heteroskedasticity and cross-sectional dependence. The stationarity properties and cointegration analysis were also done in this chapter. The analysis presented in the chapter shows that both external borrowing and capital flight represent an essential constraint to the general welfare of people in the region using the human development index as a measure of welfare and dataset from 1990-2015. Both external debt and capital flight had a significant negative impact on inclusive in both SSA as a whole and the HIPC countries within the region. As a robustness check, the chapter also employed the Augmented Mean Group (AMG) estimator developed by Eberhardt - Teal (2012) and the Panel-Corrected Standard Error (PCSE) estimator to estimate the data for the SSA region. Both AMG and PCSE results confirmed the negative impact of external debt and capital flight result obtained with the Driscoll–Kraay standard errors for both datasets. This result is particularly challenging given the need to reduce poverty and human inequality in the region, which is a prerequisite for the achievement of the SDGs. One important evidence also from this chapter is the impact of external debt on welfare in both the SSA region and the HIPC countries within the region. From the literature, external borrowing at the early stages of economic development in any developing country is expected to enhance its welfare. Then, at the later stage, when the debt is being serviced, due to debt overhang, external debt is then expected to cripple investment and subsequently reduce welfare. For this reason, this chapter decided to test this hypothesis by including the square of the external debt into the model. The evidence from the study indicates that for SSA and HIPC countries within the SSA region, external debt does not begin by impacting positively to welfare before changing to negative after debt overhang sets in, it immediately reduces growth contrary to theoretical prediction.

Chapter six examined the incidence of the revolving door of external debts and capital flight on fiscal and monetary policy effectiveness in SSA employing the two-step system GMM regression model for the period 1990 to 2015. The results indicate that continuous upsurge in capital flight and external debt accumulation, not only, reduce government ability to generate more tax revenue since flown capital cannot be taxed, it has also been a drag on the progress of countries in the SSA region particularly by undermining their domestic investment and annual GDP growth rate. This is a matter of concern, especially given the critical importance of domestic private investment for growth and development in the region.

7. Conclusions of the study

Based on the foregoing discussion, it can be concluded that the objectives of this study have been achieved in view of the fact that:

I. the study investigated the relationship between external debt and capital flight for SSA countries

II. Examined the implication of external debt and capital flight on welfare for SSA countries and compared the results with HIPC countries within the SSA region in general.

III. Analysed the impact of external debt and capital flight on economic policy effectiveness within the SSA countries.

IV. Provide policy recommendations based on the outcome of the study

By achieving these underlying research objectives, the study, in effect, has also responded to the pertinent research hypothesis stated in section 3 as follows:

I. H_1: External borrowing is significantly influenced by capital flight in SSA countries.

With this hypothesis in mind, the empirical evidence presented in chapter four suggests that there is a positive relationship between external debt and capital flight in SSA signifying that increases in external debt accumulation lead to increase in capital flight and that if the external debt remains unchecked, it will continue to cause a substantial amount of capital flight. The results of the variance decomposition also indicate that apart from the previous values of capital flight and external debt, the most significant predictor of each of the variable is the other variables. Therefore, based on the result, this study fails to reject the null hypotheses that external borrowing is significantly affected by capital flight in SSA countries. This means that there is a direct relationship between external debt and capital flight.

II. H_2: There is bi-directional causality between external debt and capital flight

To a very large extent, the evidence from the Pairwise Dumitrescu Hurlin panel causality test indicates that there is bi-directional causality between external debt and capital flight in SSA countries. This result is similar to the result obtained by Fofack (2009), Ampah—Gabor— Kotosz (2018); Ndikumana—Boyce (2014), Ndiaye, (2011), Ndikumana— Boyce (2011), Ajilore (2005) and Ndikumana— Boyce (2011). The result from Fofack study indicates that for ten countries in SSA, there is bi-directional causality between external debt stock and capital flight. Therefore, based on the evidence from the causality test, this study fails to reject the null hypothesis and, concludes that, overall, with reference to SSA, external debt and capital flight granger causes each other.

III. H_3: External debt and capital flight do not have any significant impact on welfare in SSA.

The evidence presented in Chapter five shows that both external borrowing and capital flight represent an essential constraint to the general welfare of people in the SSA region using the human development index as a measure of welfare and dataset from 1990-2015. From the results reveal, a percentage increase in capital flight leads to about 1.4 percentage reduction in welfare in SSA countries. In relation to external debt, the evidence from the study indicates that a percentage increase in external debt reduces welfare by approximately 9.3 per cent for SSA countries. In addition to the decrease in welfare from external debt and capital flight, the coefficient of the interaction term between external debt and capital flight also had a negative and statistically significant impact on welfare. Consequently, this study rejects the null hypotheses that there is no significant impact of external debt and capital flight on welfare in SSA countries. Instead, it concludes that, with reference to SSA countries, external debt and capital flight exert a statistically significant negative impact on welfare.

IV. H_4: External debt and capital flight do not have any significant impact on welfare in SSA HIPC countries.

Just like the conclusion for hypothesis H_4, the evidence from the study in Chapter 5 indicates that external debt and capital flight are negatively related to welfare in HIPC countries in SSA. The results suggest that a percentage increase in external debt and capital flight decrease welfare in SSA HIPC countries by 8.6 and 2.2 percentage respectively. Therefore, this study also rejects the null hypotheses that there is no significant relationship between external debt and capital flight and welfare in SSA HIPC countries and conclude that, with reference to HIPC countries in SSA, external debt and capital flight exert a statistically significant negative impact on welfare.

V. H_5: There is no significant relationship between external debt and capital flight and fiscal and monetary policies effectiveness in SSA countries.

To accept or reject the above hypothesis, this study estimates economic policy objectives as a function of external debt, capital flight, economic policy instruments and other control variables, and this is presented in chapter 6. The economic policy objectives considered in this chapter is the annual GDP growth rate and domestic investment, and this is chosen based on the literature. The effectiveness of the economic policy is examined by integrating the external debt and capital flight with the economic policy variables and estimating the policy objectives as a function of these interactions and the other control variables.

The evidence from the estimation indicates that the discount rate, which is used to measure monetary policy had a negative and statistically significant effect on the annual GDP growth rate and domestic investment as expected. However, when it is integrated with external debt and capital flight, its effect changes from negative to positive. The fiscal policy, which had a positive effect on annual GDP growth and domestic investment, also changes from positive to negative when integrated with external debt and capital flight. This result means that in the event of illicit capital outflows and massive borrowing, any attempt by the government to increase annual GDP growth by increasing by adjusting fiscal policy in order to spend more or through interest rate adjustment in order to influence investment can be ineffective.

Therefore, this study rejects the null hypotheses that there is no significant relationship between external debt and capital the efficacy of economic policy, but instead, concludes that external debt and capital flight exert a statistically significant negative impact on economic policy effectiveness.

8. Contributions to the literature

The result of this dissertation contributes to the existing literature on external debt, and capital flight relationship and its implications in the SSA region, notable among these contributions are as follows:

- First and foremost, this study is currently the most up-to-date study on the relationship between external debt and capital flight in SSA, taking into account the time span of the study, from 1990-2015. The time frame for most of the work in the region has been short and not quite recent. The last datasets used in analysing the incidence of external debt and capital flight ended in 2010. Therefore, as far as SSA as a region is concerned, this is currently the most representative and up to date macro-level study on the relationship and implication of external debt and capital flight.

- Secondly, this study is the most detailed on the relationship between external debt and capital flight in SSA, considering the empirical analyses undertaken therein. For instance, unlike all the other known related studies on external debt and capital flight, this study looks at the relationship for the various regions within the SSA region. Also, both variance decomposition analysis and Granger causality test were employed in examining the relationship between external debt and capital flight. This is new in the empirical literature.

- The third ground-breaking contribution of this study to the literature is the empirical analysis of the implication of external debt and capital flight on welfare and economic policy effectiveness. This is the first known attempt at an empirical exercise in this endeavour and, more importantly, the first time that both fiscal and monetary policy effectiveness has been analysed together in relation to external debt and capital flight.

- Finally, this study is the only study in the analysis of external debt and capital flight in the SSA region that address the problem of cross-sectional dependence. All the empirical studies done to examine the incidence of external debt and capital flight in the region failed to capture the cross-sectional dependence nature of the series used.

9. Policy recommendations of the study

Taking cognisance of the empirical evidence presented in this study, the following recommendations are proposed to help reduce external debt and capital flight as well as help achieve the welfare agenda that the SSA countries seek. The recommendations are split into three sections based on the empirical chapters of the study.

9.1 Policy recommendation from Chapter four

In this section, the policy initiatives recommended includes a combination of better management of debt by African governments, how to prevent future capital flight, and how to induce repatriation of private assets now held abroad.

- First, the empirical evidence presented in chapter 4 indicates that external borrowing has failed the test of benefiting the people; it is rather increasing private assets held by individuals and government officials abroad. The positive relationship between external debt and capital flight simply means that creditors of loans to SSA economies are knowingly or unknowingly financing the export of private capital rather than investing in these countries. Therefore, the study recommends to external creditors or lenders of loans to countries in SSA to enforce rules for responsible lending or transparency in the disbursement of funds or ensure effective and results-based monitoring of development programs and projects for which loans are acquired for. This can be achieved by endorsing and adopting the practice of debt audit. The auditing of debt by both donors and recipients will minimise the risks of leakage and misallocation of foreign debt. This will go a long way in establishing a culture of responsible lending and management of external debt in the SSA. Otherwise, a policy recommendation will be to insist that creditors that engage in irresponsible or politically motivated lending be made to bear the consequences of such debt.

- Secondly, in addition to greater accountability on the creditor side, it is equally important that countries in SSA should establish mechanisms of transparency and accountability with respect to decision-making processes regarding external debt. It is important that governments in the region guarantee that any external loans acquired will be invested in productive projects that give higher returns on investment. If these loans are invested in such productive projects, it is more likely to enhance the debt-servicing capacities of most of the countries in the region, and hence more likely to reduce the incidence of falling into an additional debt crisis.

- Thirdly, countries in SSA needs to consolidate the regulatory framework and the overall business environment capable of inducing domestic investors to keep their legally acquired capital at home rather than syphoning it off abroad. This can be done by deepening the regions political and governance environment and ensuring a more stable macroeconomic environment. In addition to the regulatory framework, economic policies should be made to keep inflation as low as possible, stabilise the domestic currency and strengthen the international reserves base. These measures are key to macro-economic stability and investment, which should be at the heart of government policies. Also, governments in the region should create a wide menu of domestic financial assets in which domestic investors can invest their wealth. Additionally, domestic interest rates set above the world interest rate are sure to stimulate inflows.
- Fourthly, the study also recommends to governments in the region to take concerted effort to make the transactions costs and legal risks for moving capital abroad more costly. This can be done by strengthening and establishing a framework of collaboration among institutions responsible for preventing illicit financial outflows. These include the police service, the customs and border agencies, immigration services, revenue agencies, financial intelligence units, anti-fraud/ anti-corruption/ anti-money laundering agencies, etc. In addition, governments in the region could use their foreign embassies and official representations abroad to create mechanisms for information sharing and dissemination on financial crime coordination. In this way, the various institutions and agencies of government responsible for preventing capital flight, are better informed early and are able to commence investigation at the earliest possible time when financial crimes are detected.

- Finally, the evidence from the study in chapter 4 could also suggest an additional rationale for the annulment of debts since the continuous accumulation of external debt may signal increased risks, to which private capital owners may respond by pulling out their capital. The respective governments need to discuss the possibility of debt annulment or debt rescheduling with international financial institutions, the World Bank, and other bilateral loan providers.

9.2 Policy recommendation from Chapter five

On the basis of the empirical evidence presented in chapter 5, the following recommendations are made.

- First, one significant conclusion drawn from the outcome of the estimation is that external debt impedes welfare in SSA indicating that massive external borrowing does not produce any congenial atmosphere for factor productivity growth, but rather, worsens the financing gap problem due to the capital flight problem. This evidence suggests that borrowed funds should be invested in self-sustaining projects that would eventually generate enough returns to defray the accrued interest and the principal amount borrowed. Therefore, a policy recommendation to countries in the region will be to ensure that borrowed funds especially external loans are not converted into expenditures on consumables, payment of workers' emoluments, refinancing of previous loans, or unnecessary projects.
- Secondly, the evidence from the impact of capital flight suggests the need to put in place policies at the domestic level that will allow the retention of capital flight in the SSA countries. Therefore, in addition to the earlier suggestions in section 7.4.1, the study suggests to the international communities, especially, the United Nations and the World Bank to hold countries that are harbouring illicit funds from developing countries accountable for perpetuating illicit financial in order to prevent the rise of such havens for capital flight and other ill-gotten funds from the region.
- Thirdly, the findings of this study establish that trade openness, political stability and increase in domestic capital is important factors in the fight for welfare in the region. Therefore, in addition to maintaining political stability and better political environments that will promote investment in the region, SSA countries need to diversify their export commodities and wean their economies off heavy reliance on traditional export commodities. Also, the establishment of new industries and empowering the existing local ones through financial and technical support schemes to expand and produce commodities in which countries have a comparative advantage would help maximize export

earnings and create employment opportunities to absorb the growing labour force that would contribute meaningfully to the developmental process.

9.3 Policy recommendations from Chapter six

- In addition to the recommendation made in relation to stemming capital flight and external debt, the evidence from the study suggest the need to improve the financial sector in Africa since it is positively related to growth and investment in the SSA region. Therefore, measures to accelerate the development of domestic and regional financial markets could also help to shift African investors' preferences in favour of domestic markets. In Kenya, for instance, the domestic-currency government infrastructure bonds issued have provided individual as well as corporate entrepreneurs with a significant source of finance for public infrastructure (Brixiova—Ndikumana, 2013). This instruments inevitably have help to keep Kenyan private capital at home, offer long-term savings opportunities, and provide the government with a mode of infrastructure financing that does not expose the country to exchange rate risk.

10. Limitations and directions for future research

This research is conducted to investigate the relationship between external debt and capital flight and analyse its implications on welfare and efficacy of economic policies in SSA. As a matter of fact, the analysis presented in this study cannot exhaust all the issues pertaining to this topic, as no single study is exhaustive enough. Notwithstanding this, this study will be enough for the academic purpose for which it is being carried out.

The major limitation of this study, which is typical of most studies in developing nations, is the quality and limited availability of annual series on some of the key variables used in the study. On account of this data limitation for this study, the richness of a large cross-country data could not be fully explored since only 24 out of the 54 countries in the SSA region were considered in the analysis. Also, this study is limited by the span of data in terms of time series, thus limiting some of the dynamics that could have been gained from individual country analyses of some of the phenomena being studied. As a result, estimation models such as the Dynamic Common Correlated Effects Estimator (DCCE) by Chudik―Pesaran (2015), which could have disintegrated the results into short-run and long-run could not be used due to data quality and availability.

Based on this limitation, it will be good if future research could use the DCCE to test the relationship between external debt and capital flight and its implication on welfare and effectiveness of fiscal and monetary policies by extending the datasets and the countries. Generally, the DCCE estimator requires at least 30 annual series. Secondly, lumping all the countries in SSA together in one model may also pose a limitation to this study since there is a possibility of sub-regional heterogeneity. Therefore, it would be quite interesting to have separate models for each region, especially for Chapter five and six.

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12. List of publications

Prior to the submission, portions of this dissertation and other related studies have been published in peer-reviewed journals and conference proceedings while others are under review. This section lists these studies;

Peer-reviewed journal publications

I. Ampah I. K. – David, K. G. (2019). Economic policy implications of external debt and capital flight in sub-Saharan Africa's Heavily Indebted Poor Countries (HIPCs). *Society and Economy, 41*(4), 523–542.

II. Ampah I. K. – Kiss, G. D. (2019): Welfare implications of external debt and capital flight in sub-Saharan Africa. Evidence using heterogeneous panel data modelling. *Acta Economica*, *Accepted.*

III. Ampah I. K. (2019): Borrowing from your debtors, how capital flight from SSA are financed by their external borrowing. *Prague Economic Papers*, *Under review*

IV. Kiss, G. D. – Ampah, I. K. (2018): Macroeconomic Volatility and Capital Flights in Sub-Saharan Africa: A Dynamic Panel Estimation of some Selected HIPC Countries. *Mediterranean Journal of Social Sciences, 9*(5), 165.

V. Udvari, B. – Ampah, I. K. (2018): Impacts of Aid for Innovation on Economic Growth in the Sub-Saharan African Countries. *Mediterranean Journal of Social Sciences*, *9*(4), 99-108.

VI. Ampah, I. K. – Kotosz, B. (2016): Wagner versus Keynes: the causal nexus between Government Expenditures and Economic Growth: An empirical study of Burkina Faso. *Journal of Heterodox Economics, 3*(2), 74-101.

Conference Presentations

I. Ampah, I. K. – Kiss, G.D. – Balázs, K. (2018): Capital flight and external debt in Heavily Indebted Poor Countries in Sub-Saharan Africa: An empirical investigation. In Udvari B. – Voszka É. (Eds): *Challenges in National and International Economic Policies*. University of Szeged, Doctoral School in Economics, Szeged, pp. 135–159. http://www.eco.u-szeged.hu/english/research/scientific-publications/challenges-in-national-and-international-economic-policies.

II. Ampah, K. I. - Kiss, G. D. (2017): External debt and capital flight: Is there a revolving door hypothesis in Ghana? *In DOKBAT 2017 - 13th Annual International Bata Conference for PhD Students and Young Researchers (Vol. 13).* Zlín: Tomas Bata University in Zlín, Faculty of Management and Economics (pp. 21-34). Retrieved from http://dokbat.utb.cz/conferenceproceedings/. ISBN: 978-80-7454-654-9.

III. Ampah, K. I., - Kiss, G. D. (2017). External debt and capital flight: is there a revolving door hypothesis in Ghana? In Kemal Cebeci - Slagjana Stojanovska (Eds): MIRDEC International Conference on Social Science, Economics, Business and Education (Vol. 3). Hotel President, Budapest, Hungary. (pp. 105)

IV. Ampah, K. I., - Kiss, G. D. (2017). The impact of the "revolving door hypothesis" for fiscal and monetary policies in sub-Saharan African countries: Empirical evidence from Heavily Indebted Poor Countries. *In Kemal Cebeci - Slagjana Stojanovska (Eds): MIRDEC International Conference on Social Science, Economics, Business and Education (Vol. 7)*. Holiday Inn Piramides, Madrid, Spain. (pp. 44)

V. Ampah, K. I. (2019): Welfare in Jeopardy? *The damming effect of external debt and capital flight on general welfare in sub-Saharan Africa*. Estonian PhD Summer School (SVMJ.TK.008), Estonia.