

**EVALUATING THE IMPACT OF IMF BAILOUTS ON POLICY RATE  
AND BANK CREDIT DYNAMICS IN SUB-SAHARAN AFRICA**

By

**OTOO, Kirk Kuuku**

**THESIS**

Submitted to

KDI School of Public Policy and Management

In Partial Fulfillment of the Requirements

For the Degree of

**MASTER OF DEVELOPMENT POLICY**

**2019**

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Committee in charge:

Professor LEE, Jinsoo, Supervisor



Professor HAHM, Sang-Moon



Approval as of December, 2019

## DECLARATION

I declare that except for the reference to other people's work which have been duly acknowledged, this work is the result of my own research and has neither in part nor in whole been presented elsewhere for another degree.

**Signature:** ..... **Date:** .....

**Otoo Kirk Kuuku - Student**

I declare that this research work was written under my supervision and that the candidate has been consistent in his interaction with me for guidance and direction.

I confirm that the student has my permission to present it for assessment.

**Signature:** ..... **Date:** .....

**Prof. Jinsoo, Lee – (Supervisor)**

## **DEDICATION**

This work is dedicated to my wife Mrs. Ruth Yayra Otoo and my sister Mrs. Ewurabena Appiah.

## **ACKNOWLEDGEMENT**

Besides thanking Almighty God for giving me good health and guidance throughout the programme, I take this opportunity to express thanks to all individuals who contributed in diverse ways to the success of this study.

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## **ABSTRACT**

Over the past five decades, the International Monetary Fund which was set up in 1944 in New Hampshire as part of the Bretton Woods institution has become an international lender of last resort. This portfolio allows member countries to apply for support in the event of a balance of payment deficit. These loans or support programmes come with conditionalities where there is enforced discipline in the monetary and fiscal framework of the lendeer country.

Countries in Sub-Saharan Africa over the past decades have dealt with the IMF over a number of programmes from Structural Adjustments to Extended Credit facility programmes. Many have questioned the short and long run results of such programmes due to the conditionalities attached. This study primarily focused on assessing the impact of IMF bailouts on monetary policy rates, foreign direct investment and domestic credit to the private sector.

The study in using panel data with fixed effects and random effects of African countries from 2004 to 2018 found out that IMF bailouts had a positive relationship with monetary policy rate and was negatively correlated with foreign direct investments and domestic credit to the private sector. The recommendations made were that, the independence of the central bank must be maintained such that the setting of the monetary policy rate is not influenced by IMF agreements. Again it was recommended that governments should set up special institutions that will provide affordable credit with easy access to the private sector. This special institution should not be influenced by any economic reform or condition that is imposed by the IMF so as to keep a thriving private sector.

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## ABBREVIATIONS

BoP	Balance of Payments
DC	Domestic Credit
ESAF	Enhanced Structural Adjustment Facility
FDI	Foreign Direct Investment
GDP	Gross Domestic product
HDI	Human Development Index
ICRG	International Country Risk Guide
IMF	International Monetary Fund
MPR	Monetary Policy Rate
PRGF	Poverty Reduction and Growth Facility
SAP	Structural Adjustment Programme
SA	Stand by Arrangement
SD	Standard Deviation
SME	Small and Medium Scale Enterprise

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 Background of the study**

After the second world war, the United States which had assumed the position of a world leader sought to bring stability, peace and prosperity into the world economy. To encourage international cooperation and hasten the reconstruction of the world, several international organisations were set up namely the General Agreement on Tariffs (GATT), International Monetary Fund (IMF) and the Bank for Reconstruction and Development now known as the World Bank. At the inception of the International Monetary Fund in New Hampshire- Bretton Woods in July 1944, only three countries represented Africa (Ethiopia, Union of South Africa and Egypt) as the rest of the continent were being governed by the imperialist. This goes to suggest that the IMF has had much of its dealings in programmes and policy based lending in post – independence Africa. The primary goals of the fund are to enhance cooperation in the international monetary system, bring stability into the exchange rate regime, eliminate barriers in capital flow and support the balance of payment deficits of members (Weiss, 2014).

Any member country that experiences economic challenges can apply for financial support from the IMF. The IMF provides concessional (no interest) and non-concessional (market interest rate applied referred to as the charging rate) credit facilities (Oberdabernig, 2013). The concessional loans consist of Structural Adjustment Programme (SAP), Enhanced Structural Adjustment Facility (ESAF) and Poverty Reduction and Growth Facility (PRGF). The non- concessional

facilities come with high conditions consisting of Stand by Arrangements (SBA) and the Extended Credit Facility.

Accordingly, the IMF conditionality is the result of a series of negotiations between the IMF and countries concerned. This is a string of policy guidelines attached to the facilities to inject fiscal and monetary disciplines into the economy of the lende country (Evrensel, 2002). This is primarily to ensure that the programme nations are adhering to the guidelines which is able help stabilise their Balance of Payment and fulfill their debt obligation (Bird & Willet, 2004 ). Accordingly, when these principles are effectively planned and executed, it leads to an enhancement of the macroeconomic indices and currency crises are less probable to occur (Dreher & Walter, 2009). The IMF however argues that the underlying principle of these conditionalities is to prevent the misuse of the facilities so that the very purpose for which the facility was taken could be realised.

## **1.1 The IMF and Africa**

Most African countries came into contact with the International Monetary Fund (IMF) in the 1960's. Since then, there have been a series of arrangement with IMF from Structural Adjustment Programmes (SAP's) to Extended Credit Facilities. These arrangements have come to support payment deficits and stabilize the macro-economic environment. Indeed, the bailouts from the IMF do not come as they are but with a whole lot of conditions. These attached strings to the bailouts is said to inject Fiscal discipline into government spending, control public debt and rising inflation.

Accordingly, the expectation after conditioning on IMF policies is to see inequality decline, unemployment reducing and the poverty gap closed, but these over the years have not been the

case. The pragmatic policies of the IMF get to be achieved on paper in terms of the macro-economic indices but the qualitative aspect of the economy gets worse. Certain aspects of the economy thrive well and other sensitive sectors gets to be neglected as a result of these conditions.

Moreover, the history and governance structure of the IMF have been criticised in their relations with the Third World. In African countries, the IMF creates injurious SAP's and rigid conditions and financing of balance of payments (BoP) challenges, debt bail-outs and economic recovery in post conflict areas.

## **1.2 Monetary Policy Rate and Bank Credit**

Monetary policy is a macroeconomic policy tool that is carried out by the central bank to regulate money supply and interest rates all in a bid to control inflation and maintain general thrust in the economy. It could also enhance the achievement of unemployment, growth and to maintain exchange rate stability. Monetary policy enables central banks manage liquidity to create economic growth (Kimberly, 2016). Liquidity denotes how much there is in the supply of money. This comprises of loanable funds, payment instruments, cash and money market mutual funds. The most important of these is credit. That includes loans, bonds and mortgages.

The central bank has at its disposal several tools to manage the liquidity level in the economy, depending on the tools and results achieved, the policy could be contractionary or expansionary. Contractionary monetary policy is implemented by the federal bank to fulfill its primary mandate of preventing inflation (Amadeo, 2016). In this regard, the central bank tends to increase the reserve requirements of the commercial banks, raise interest rates and use open market operations

which is the sale of government bonds. This results in the shifting of the aggregate demand curve downwards thereby decreasing price.

In the reverse case of achieving an expansionary monetary policy, the central bank lowers the reserve requirement while it purchases government bonds and reduces interest rates. According to Moffat (2016), an expansionary policy leads to an increase in the price of bonds, reduces demand for domestic currency, raises capital investment and inadvertently couples it with a rise in demand for foreign currency.

Accordingly, African countries like Ghana have been adopting the monetary policy tools mentioned above for economic stability. Evidently, the central bank of Ghana has an appreciable wider scope as two of its prime objectives are to; formulate and implement monetary policy aimed at achieving the objects of the bank and to promote by monetary measures the stabilization of the value of the currency within and outside Ghana (Bank of Ghana, 2002). Ghana has a history of monetary management which could be sectioned into two. The first can be categorized as the period with monetary controls and the other where by monetary policy saw development in a liberal economic setting. Accordingly, before 1983, the country witnessed a direct controlled system of monetary management which was a function of direct intervention instruments (Bank of Ghana, 2015). Popular amongst such interventions was the imposition of thresholds (credit control) in commercial banks' lending such that they were in line with the national macroeconomic indices of growth, inflation and external balance. This resulted in many sectors of the economy becoming ineffective and thereby was dropped by 1983 because the economy became liberalized.

Consequently, all the tools available to central banks for monetary policy management tend to affect the credit availability of the commercial banks. A tight monetary policy will reduce the

available credit for banks thereby reducing the supply of loanable funds. If tight monetary policy increases banks' external finance premium, banks may respond by reducing the total amount of credit they are willing to supply (Stein, 1998). In addition to, changes in monetary policy affect both aggregate bank loan supply and the distribution of bank loan supply.

### **1.3 Problem Statement**

The significance and key role of firms (especially private) to the economies of developing countries cannot be over looked as Africa prepares itself to drive the industrialisation agenda and increase trade. It is important to recognise that the contribution of firms to reducing unemployment, raising incomes of households cannot be over emphasized. The government and the banks have a role to play if Africa is to harness its potential.

Notwithstanding, firms access to debt financing has not been addressed as indicated by (Kwaning, Nyantakyi, & kyereh, March 2015). In an attempt to address the teething challenges of private sector, most countries have set up bodies to specifically cater for the needs of the private sector. However, as to whether these agencies have delivered above expectations leaves more empirical questions than answers.

Undoubtedly, according to Kwaning et al (2015), in reference to the world bank statistics, 90 per cent of small enterprises surveyed indicated access to credit a primary challenge to investment. This was due to the fact that financial institutions perceive SME's to be of high credit risk. In addition to the above stated issues, paramount amongst them is high asymmetry arising from improper record of accounts which makes financial institutions pressed to assess their viability request for credit (Hayford, 2012).

Besides, it is no doubt that firms rely heavily on capital injection to remain competitive, grow and expand to meet the demands of the growing populace. Hence the absence of cheap cost of credit goes a long way to pose a chain of challenges to private firm owners. Commercial banks in the last few years have started paying attention to the needs of the private sector with some banks now creating special purpose departments to oversee and lend support to the business community.

The lending rates of banks do not arise in isolation as the macro economic indices are interdependent on each other. As indicated earlier, the MPR as determined by the central bank is the rate it borrows to the commercial banks. If the IMF in arrangement with government enforces conditionalities in the macro environment, it presupposes that the MPR would be affected and hence the lending rate of commercial banks. The long run effect is that the private sector gets to be crippled due to IMF bailouts conditions.

Africa over the last few decades have considered the private sector as the engine of growth. Over the years, governments have partnered the private sector in many ways to stimulate growth and productivity. If the private sector gets to be challenged in the area of credit, then the vision of the industrialising Africa risks becoming a reality and goes to buttress the point that the IMF indeed by way of their policies do not enable countries to grow and develop.

With the aforementioned discussed issues, the questions this study seeks to answer are:

#### **1.4 Research questions**

1. What is the impact of IMF bailouts on the policy rate?
2. What is the effect of IMF bailouts on Foreign Direct Investment (FDI) and Domestic Credit (DC)?

#### **1.5 Objectives of the Study**

The objective of the study is to evaluate the impact of IMF bailouts on monetary policy rate. The specific objectives are;

2. To evaluate the impact of IMF bailouts on the policy rate.
3. To examine the effect of IMF bailouts on Foreign Direct Investment (FDI) and Domestic Credit (DC).

#### **1.6 Justification of the Study**

Most African countries have a developing economy and its capacity to create the conditions for private sector growth will contribute immensely to Gross Domestic Product (GDP), reduce unemployment, increase production and eventually reduce poverty by increasing household income levels. As indicated earlier, private sector's contribution to GDP is about 90 percent and hence its significance is undoubted leading to a study in this area.

Governments over the years have not succeeded in broadening the tax net. This has become an issue of political will as against pragmatic policies targeted at addressing the problem. Budget statements over the years have highlighted government's commitment towards mobilising enough revenue to finance the development agenda in most countries. Some strategies and programmes are highlighted in these statements but are hardly implemented to achieve the very purpose for

which they were constituted. This study brings to light the needed knowledge on being under an IMF programme and how it impacts private firm's ability to meet their tax obligations.

This paper seeks to expound on the relationship that being under an IMF bailout programme has on bank credit and consequently private firms' contribution to GDP. With this understanding, government would be guided to formulate policies that would help to make credit available to the private sector through prudent management of the policy rate and its direct dealings with the commercial banks. Government will be best positioned to look at the gains and losses of signing onto an IMF credit facility. Furthermore, as the private sector is key to development, more research in credit dynamics is very much needed to contribute significantly to the wealth of knowledge available so that stakeholders are able to keep up with the changing global economic frameworks for doing business. Ultimately, it also contributes to existing literature for reference and stimulate further research.

### **1.7 Scope and Organisation of the Study**

The study looks at the influence of being under an IMF bailout programme has on the policy rate by the Central Bank. The study mainly focused on the policy rates, commercial lending rates and the year's African countries have had an IMF arrangement. Other micro and macro economic indicators were considered in the analysis. All the parameters were drawn from the national aggregate figures. Additionally, policy papers that have been championed by past and present governments were entirely reviewed. The indices were drawn from 1980 to 2018.

Accordingly, the study consists of five main chapters. The first chapter deals with the background information of the study, statement of the problem, research objectives and research questions. Chapter two discusses the theoretical perspectives of the study and also review the conceptual framework upon which the study is grounded. This is followed by chapter three that discusses the methodology used to address the objectives of the study. Chapter four presents the analysis and discussion of results and chapter five gives a conclusion to the discussions with policy recommendations.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter discusses the various literature related to the study. The section is presented in three parts. The first part discusses the theoretical perspective of the study and the assumptions underlying the theory. The second part espouses on the conceptual frame work of the study and how the various parameters are related. Finally, the chapter highlights some empirical studies that have been carried out by previous researchers on this topic.

#### **2.1 Theoretical Framework**

##### **2.1.1 Pecking Order Theory**

The study is gounded in the Pecking Order Theory. This theory was initially coined by Donaldson in the year 1961. It was further modified and theorised by Myers & Majluf (1984). The main assumption of the theory is information assymetry which suggests that managers of a firm are fully aware of the potential and risks of their firms than external investors. This assymteric information enables them to make decisions about internal and extenal financing schemes. Accodingly, the theory outlines the capital stucture available to firms in order of peference. Firms will utilise internal funds first as a first option and when it is depleted, they will issue debt to finance the firm. The last altenative is to issue equity which in most cases result in the decline of share pice.

As stated earlier, the most pressing needs of private firms is capital injection if they are to remain competitive and grow to meet the changing demands of consumers. This empirically places the availability of internal funds into the realm of uncertainty. The next surity of financing to rely on according to the Pecking Order theory is the issuing of debt. Indeed the issuing of debt is preferred

to equity , therefore, knowledge on how government's engagement with the IMF affects the commercial lending rate is therefore critical to the survival of the private sector.

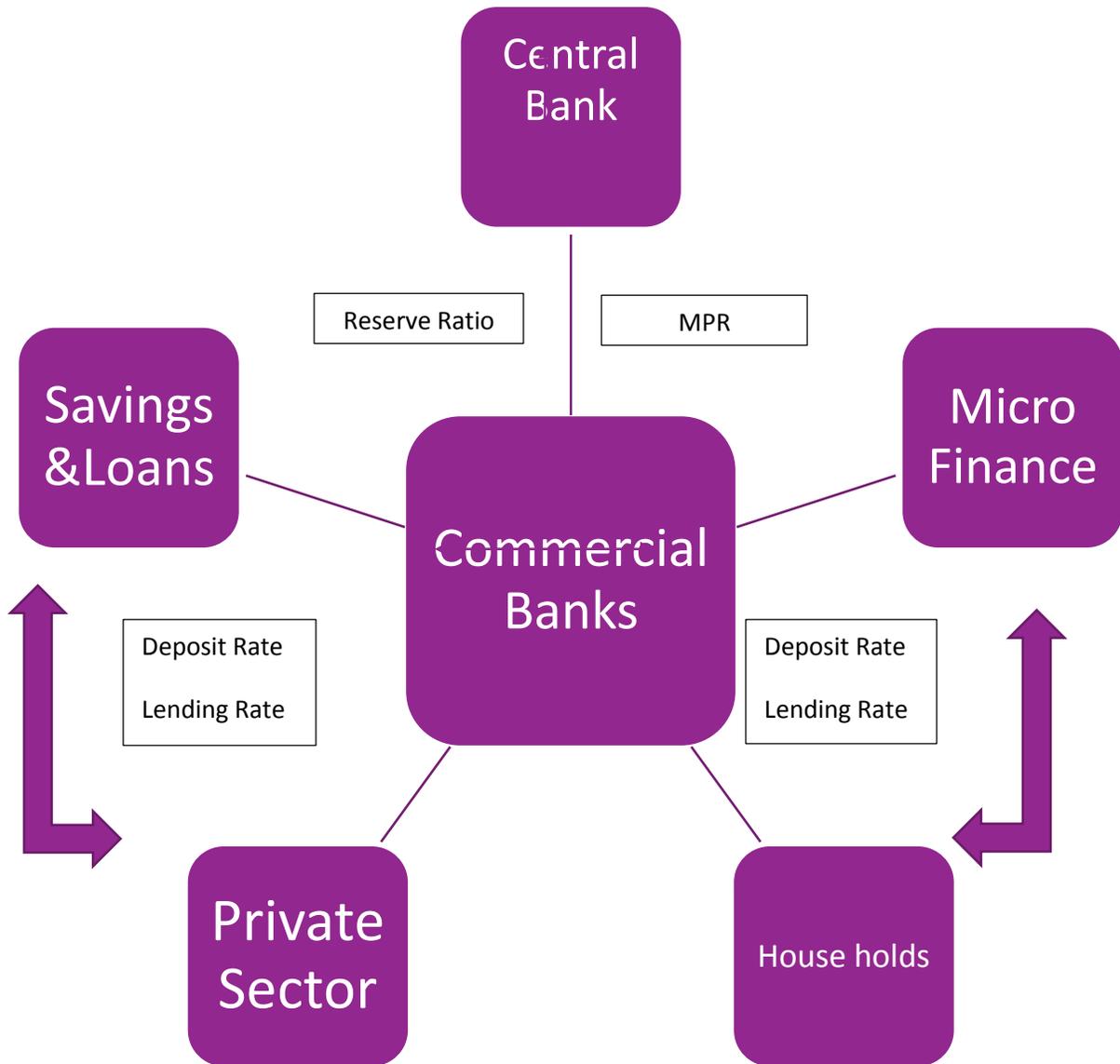
### **2.1.2 Loan Pricing Theory**

This theory stipulates that, the cost of credit could raise information asymmetry challenges in relation to moral hazard and loan acceptance dilemma (Stieglitz and Weiss, 1998). High cost of credit may warrant adverse selection problems such that those who are not risk averse may probably go for loans with a high cost. On the other hand, Clients that are adversely selected are more likely to exhibit some form of moral hazard behaviour due to the higher probability of misapplication of funds on their part in very volatile ventures which are very far from the purpose undersigned in the loan agreement process.

### **2.1.3 Loanable funds theory**

This theory argues out that, the market forces pertaining to the demand and supply of credit or excess reserves by the bank is the primary predictor of the cost of credit. Accordingly, in the money market, when demand exceeds the supply of credit, the cost of credit increases benefitting banks in the process and serving as a disincentive to the borrowing public. Again, this theory is grounded on the classical assumptions of credit by stipulating that the supply of money significantly has a determination in the rate of savings leading to investment thereby placing the market cost of credit at the point where demand and supply meet. The perspective shared by the loanable theory is that all players in the market should be equally compensated at the market equilibrium.

## 2.2 Conceptual Framework



**Figure 2.2: Conceptual framework**

Source: Authors Own Construct

The central Bank is at the Apex of this structure. The central bank sets the monetary policy rate. This is the rate at which the central bank borrows money to the commercial banks. The commercial banks are also regulated by the central banks. To declare their viability and solvency to do business, they required to meet the reserve requirement ratio. This is set by the central bank such that every commercial bank can prove to have enough liquid to be able to accept deposits from the public.

The commercial banks finance their lending transactions with the public based on the monetary policy rate. This implies that if the monetary policy rate is high, the commercial bank lending rate would also be high. The commercial banks transact business with both the private sector (firms) and households. The trickling down effect is that, the high monetary policy rate tends to be transferred to the borrowing public. This leads to crowding out of the private sector. The private sector would then remain less competitive and be unable to expand.

The public also deal with the commercial banks on the basis of deposits where those with deposit accounts earn interest income on their deposits. When the lending rate is higher than the deposit rate, it creates a negative interest rate spread. There are also smaller financial institutions (Savings and Loans & Microfinance) who deal directly with the commercial banks even though they are supervised by the central bank. They borrow from the commercial banks and lend to the public. Since they also borrow from the commercial banks to support the informal sector, they also carry the effect of high monetary policy rates and ultimately their dealings with households and firms.

## 2.3 Empirical Framework

### *What constitutes IMF Agreements?*

A strong and robust monetary institution is at the heart of the IMF's agenda. The documentation and empirical strategies to achieving this height leaves the question of how? When any member country faces a problem of deficit in its balance of payments, it can rely on the lender of last resort. This calls for a period of negotiations and agreements on the modalities of the support. This support comes in to inject some form of fiscal and monetary discipline in the economy so that the funds used to support the payment deficits can be repaid (Bird, 2001). With the string of disciplines enforced, one area that is envisaged to see improvements is the international reserves of the country and exchange rate stability. In most situations, economic growth is chalked and retrogressive economic management strategies are undone to bring the country back on track to growth and prosperity.

A few studies have been done on IMF agreements with a few focusing on developing economies. Although the concept of IMF presenting itself as a lender of last resort, its operations over the last three decades have been criticized because IMF agreements have paid insufficient attention to the social perspective of development (Heidhues, 2011). Again, questions have been raised as to the contribution of these agreements on institutional and market development in the third world.

Others such as Herbst (1990) have argued on the behalf of the IMF that strings of IMF bailouts in the third world in particular sought to prevent the misuse and misapplication of funds by politicians. One study which has empirically been cited on the operations of the IMF in the third world is that of Dollar and Svenson (2000). Based on their assessments of 200 IMF programmes on why some failed and succeeded. The issue of contextual political economy was critical in determining the outcome of such Agreements. Again, further arguments suggest that poor resource

allocation and lack of better home grown policies contributed to the many IMF bailout support in Africa (Geo-Jaja and Mangum, 2001).

Even though IMF bailouts were intended to address balance of payments deficits by injecting some economic reforms in such nations, the reforms have been noted to adversely affect the devaluing of currencies. Furthermore, these reforms encouraged trade liberalizing, elimination of government subsidies and the privatisation of state owned enterprises which may not auger well for the economy (London et al., 2012). Upon studying IMF bailouts in Sub –Saharan Africa in depth, Ismi (2004) realised that IMF bailouts led to lower growth, increased inequality, poor HDI indices and rising debt.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter discusses the type of research design used for the study. A discussion of the tools used to analyze the results is also presented. The approach of the study is presented followed by the study area. It goes further to expound on the sources of data. Discussions of the data validation process and ethical concerns are also explained. The final section discuss the analysis of data retrieved.

#### **3.1 Research Design**

The study applies a quantitative research approach. This constitutes the application of quantitative methods in addressing the objectives of the study. According to Babbie (2011), quantitative methods deal with the measurement of statistical data analysis. Quantitative data are retrieved by surveys and polls and in some cases by the manipulation of existing data through computational tools. It could also constitute the collection of numerical data for generalization purposes amongst a particular class of people and to give meaning to a given phenomenon.

A quantitative approach allows for gathering data with the use of well-structured questionnaires. Due to the nature of quantitative study, it enables a study to be repeated depending on its robustness and authenticity (Signh, 2007). With this approach, the data is mostly captured in tables, charts and figures which aide in predicting future results and helps in examining correlations amongst variables (Craig et al, 2011).

Notwithstanding, quantitative methods have limitations. Owing to its structured nature in collecting data, it becomes challenging to unearth new discoveries in the process to enrich results

discussion. Again, results obtained from this method are somehow silent on the behavior, motivations and perceptions of respondents. These properties are in most cases hidden in the results retrieved. Instances of Structural bias and error in representation can occur due to the structured manner of the instrument used (McNabb, 2008). Based on this, results may in most cases reflect the opinions of the investigator rather than the study population.

Stemming from the above, it was important to adapt a quantitative approach for the study. According to Madrigal and McClain (2012), quantitative methods most appreciated edge is producing data that has a descriptive sense. This method aided the description and analysis of the demographic properties of the respondents. This allowed for the making of inferences. In answering the first objective, a simple linear regression was adopted. This method helped to analyse the causal relationships between the dependent and explanatory variables. Upon the use of the use of this method, variables which had significant causal relationships were showcased.

Specifically, the quantitative method applied was the Panel data model. It is a kind of data also referred to as longitudinal data or cross-sectional time series data units like households, individuals, firms and countries. Again in econometrics, panel data depicts a multi-dimensional data that constitutes measurements over a period of time. In addition, panel data captures a researcher's observations of several variables that have been collated over a period for a particular group of entities. Panel data models allow for a large set of data observations thereby increasing the degrees of freedom. This decreases the collinearity that the independent variables have amongst themselves and hence reduces the biases in the estimated parameters (Wooldridge, 2002; Baltagi, 2005).

Moreover, one of the issues that econometric analysis suffers from is the issue of omitted variable bias. Panel data helps to control for omitted or unobserved factors in the error term which are time invariant. This goes to reduce the effect of unobserved time invariant factors that might be correlated with the explanatory variables thereby not biasing the estimates. Since panel data has a time dimension and a cross dimension, it also makes the computation and inference of estimates easier. However, one of the limitations of panel data models is that, it is not able to control for time variant unobserved factors that may be correlated with the explanatory variables. One of the ways to deal with such limitations is the Fixed effects or Random effects approach. The study made use of both approaches to enhance the results of the estimates.

### **3.2 Data sources and Analysis**

The study made use of secondary data of Sub- Saharan African counties. Relevant literature and data sources was reviewed to acquire the needed data for the analysis. The World Bank Data Portal and Publications, International Country Risk Guide (ICRG), International Monetary Fund (IMF) Data Portal and publications, Technical Papers and Reports of Central Banks of African countries and other relevant sources will be reviewed in the data collection process. The data was captured in Excel and exported to Statistics and Data (STATA) for the analysis. The data was scrutinized to determine their suitability, reliability, adequacy and accuracy.

### 3.2.1 Model specification

The primary model for analysing the first objective was a Panel Data with fixed /Random Effects. Balanced fixed panel data (Wooldridge, 2002) of Sub-Saharan African countries with IMF agreements from 2004 to 2018 expressed as follows:

$$Y_i = \beta_0 + \beta_1 A + \gamma X_i + z_i + \alpha_i + \mu_i$$

Where

$Y_i$  - Monetary Policy (Objective one) and

$Y_i$  - GDP growth / Foreign Direct Investment/ Domestic Credit to Private Sector for (Objective two)

$A$  - IMF participation

$X_i$  - Set of controls (Financial Risk, Investment Profile, Risk of Budget Balance, Risk of Inflation, Risk of Debt service, Risk of Exchange Rate, Risk of Current Account as percentage of GDP, Risk of GDP growth, Economic Risk, Deposit Interest Rate, Interest Rate spread and Broad Money as percent of GDP)

$Z_i$  - State fixed effects

$\alpha_i$  - Year fixed effect

<b>Variable</b>	<b>Definition</b>	<b>A-Priori Expectation</b>	<b>Supporting Literature</b>	<b>Data Source</b>
<i>IMF Bailout</i>	The event of a country signing on to an IMF programme	Positive	(Jeanne et al, 2001)	IMF
<i>Financial Risk</i>	The inability of an entity or firm to meet its financial obligation.	Positive	(Jena, 2011)	ICRG
<i>Investment Profile</i>	This profile gives a score as to the relative conduciveness in investing in an entity.	Negative	(UNCTAD, 2012)	ICRG
<i>Risk of Budget Balance</i>	The probability of a government to running into a deficit where expenditure exceed income	Positive	(Datar, 2003)	ICRG
<i>Risk of Inflation</i>	The probability that the cash flows from an investment will not have the same value in the future due to the rate of price increase.	Negative	(Halpern, 1983)	ICRG
<i>Risk of Debt service</i>	The probaility of a government not meeting its debt obligation	Positive	(Cohen, 1990)	ICRG
<i>Risk of Exchange Rate</i>	Events of losses likely to occur in international financial transactions due to ones currency fluctuations.	Positive	(Sohmen, 1965)	ICRG
<i>Risk of Current Account as % GDP</i>	Current accounts are the difference between the value of exports of commodities and the value of imports of commodities. Deficits are usually controlled by loans or grants.	Positive	(Ghose, 2013)	ICRG
<i>Risk of GDP growth</i>	which measures the growth rate of GDP that should be exceeded in all but the worst 5 per cent of expected outcomes (the 5th percentile of the year-ahead GDP growth distribution)	Negative	(Kharroubi, 2007)	ICRG
<i>Economic Risk</i>	Is the risk whereby exchange rates, inflation and other economic indicators are likely to affect an investment.	Positive	(Shiller, 2003)	ICRG
<i>Deposit Interest Rate</i>	The interest income accruing to deposit accounts holders	Positive	(Startz, 1983)	World Bank
<i>Interest Rate spread</i>	This is defined as the lending interest rate minus the deposit interest rate.	Negative	(Mujeri & Younus, 2009)	World Bank
<i>Broad Money as percent of GDP</i>	Captures assets that individuals and firms can make payments with and serve as a short-term investments.	Positive	(Nadler, 1964)	World Bank

**Table 3.2.a: Selected explanatory variables for the Panel data regression analysis**

Source: Authors own construct

### **3.2.2 Dependent variables**

#### ***Monetary Policy Rate***

The policy rate is the rate set by the central bank or federal reserve. This is the rate which the central bank borrows to the commercial banks. The expectation is that if the policy rate is high, commercial banks will increase lending rate to individuals, households and firms. With high interest rates, the private sector is very much likely to be crowded out leading low levels of growth. The conditional policies of the IMF are likely to affect the policy rate. The expectation is that, there is positive relationship such that when a country signs onto an IMF programme, the central bank will respond by increasing the policy rate. Data on this variable was retrieved from the IMF.

#### ***Foreign Direct Investment (FDI)***

FDI's are investment decisions executed by multinational and transnational corporations who set up business entities in other jurisdictions other than their domicile countries. Investors take into account economic indicators of countries they are likely to invest before any venture. A country that signs onto an IMF programme paints a picture of uncertainty for investors. The expectation is that FDI is negatively related to IMF bailouts. Data on this variable was retrieved from the World Bank.

#### ***Domestic Credit to the Private Sector***

This captures the financial packages offered to the private sector by financial institutions by way of credit, purchases of securities, letters of credit and letters of guarantee and other instruments that ensures and provides a claim for repayment. When the cost of credit is low, it enables the private to access enough credit to finance their operations. Since IMF bailouts restricts credit, the

expectation is that there is negative relationship between the two variables. Data on domestic credit to the private sector was retrieved from the World Bank.

### **3.3 Data validation and Ethical Issues**

Data cleaning and regularization was done by Checking for numerical errors. Duplication of information were checked and addressed. Typographical errors which arose during transcription and inputting were also addressed. Grammatical and punctuation errors which were detected were also addressed appropriately.

One of the critical issues in research on ethics is data misrepresentation. Data sets that represented particular variables were used as such and not renamed to fit another criterion for the study. Previous studies that were consulted and reviewed were properly and duly acknowledged.

## CHAPTER FOUR

### RESULTS AND DISCUSSIONS

#### 4.0 Introduction

This chapter presents an empirical analysis and interpretation of the Panel data regression results. The regression analysis was done with both Fixed effects and Random effects. This was to allow for a more comprehensive comparisons of the results obtained from the two. The Hausman test was also done to ascertain which of the two was suitable in each case. The format of this chapter is to first present the discussions followed by the regression tables.

#### 4.1 Impact of IMF bailout on Monetary Policy Rate

From Table 1, it could be revealed that there exists a positive relationship between IMF bailout and monetary policy rate. In column (1), if a country receives an IMF support programme, it leads to a .89 SD increase in the monetary policy rate. In column (2) for fixed effects, it leads to an increase of .96 SD from the mean. In column (4) with the year dummies, monetary policy rate increases by .87 SD from the mean and its significant at 5 percent.

On the other hand, the exchange rate was negatively related to the monetary policy rate. In column's (1) and (3), the coefficient under random effects was significant at 1 percent and led to a decline in monetary policy rate by .39 SD. However, in columns (2) and (5), IMF bailout for a country could lead to a .40 SD decrease in the monetary policy rate. This was significant at 5 percent and under the fixed effect model.

**Table 1**  
**Regression of Monetary Policy Rate**

	<b>Random Effects (1)</b>	<b>Fixed Effects (2)</b>	<b>Random Effects (3)</b>	<b>Fixed Effects (4)</b>
<b>IMF bailout</b>	0.896** (0.426)	0.962** (0.417)	0.708 (0.498)	0.871** (0.413)
<b>Financial Risk</b>	0.115* (0.065)	0.116 (0.141)	0.119** (0.056)	0.137 (0.141)
<b>Economic Risk</b>	0.116 (0.180)	0.309 (0.291)	-0.139 (0.191)	0.304 (0.302)
<b>Exchange Rate Risk</b>	-0.391*** (0.127)	-0.399** (0.183)	-0.392*** (0.130)	-0.406** (0.197)
<b>Debt Service Risk</b>	-0.471** (0.223)	-0.500 (0.399)	-0.518*** (0.211)	-0.615 (0.412)
<b>Budget balance Risk</b>	0.111 (0.190)	-0.082 (0.303)	0.404* (0.219)	-0.058 (0.301)
<b>Deposit Interest Rate</b>	0.107 (0.084)	0.087 (0.143)	0.151* (0.084)	0.111 (0.155)
<b>Inflation Risk</b>	-0.405*** (0.088)	-0.579* (0.303)	-0.356*** (0.059)	-0.569 (0.346)
<b>Broad Money % GDP</b>	-0.019 (0.015)	-0.021 (0.021)	-0.022 (0.017)	-0.030 (0.025)
<b>Investment Profile</b>	-0.286* (0.170)	-0.253 (0.224)	-0.214 (0.227)	-0.231 (0.257)
<b>GDP Growth Risk</b>	-0.300 (0.274)	-0.488 (0.366)	-0.069 (0.260)	-0.514 (0.359)
<b>Current Account Deficit Risk</b>	-0.422* (0.246)	-0.654* (0.388)	-0.065 (0.246)	-0.664* (0.372)
<b>Year dummies</b>	No	No	Yes	Yes
<b>_cons</b>	19.139 (3.647)	19.485 (4.295)	19.359 (3.433)	20.098 (4.466)
<b>N</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>
<b>R-sq</b>		<b>0.111</b>		<b>0.131</b>

Standard errors in parentheses

\* p<0.10    \*\* p<0.05    \*\*\* p<0.001

**Table 1: Results of Panel Data Regression (Effect on Monetary Policy Rate)**

*Source: Authors own computation using a secondary data September, 2019*

Accordingly, the IMF bailout variable continued to show robustness and resilience when an interaction term was introduced. As depicted in Table 2, column (1) and (2) under random effects and fixed effects respectively had coefficients significant at 10 percent. An IMF bailout programme leads to an increase in .44 SD in monetary policy rate under fixed effects having controlled for year dummies in column (4)

**Table 2**  
**Regression with interaction term**  
**Dependent Variable : Monetary Policy Rate**

	<b>Random Effect (1)</b>	<b>Fixed Effect (2)</b>	<b>Random Effect (3)</b>	<b>Fixed Effect (4)</b>
<b>IMF bailout</b>	4.352* (2.600)	3.822* (2.087)	6.355** (2.873)	4.445** (2.142)
<b>IMF bailout x Economic Risk</b>	0.103 (0.072)	0.085 (0.058)	0.168** (0.080)	0.106 (0.059)
<b>Economic Risk</b>	0.085 (0.178)	0.267 (0.287)	-0.231 (0.191)	0.255 (0.304)
<b>Controls</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>
<b>Year Dummies</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>
<b>_cons</b>	20.830 (3.742)	20.883 (4.567)	22.091 (3.578)	21.921 (4.606)
<b>N</b>	<b>321</b>	<b>321</b>	<b>321</b>	<b>321</b>
<b>R-s</b>		<b>0.116</b>		<b>0.138</b>
<b>Standard errors in parentheses</b>				

\*\*\*

\* p<0.10    \*\* p<0.05    p<0.001

**Table 2: Results of Panel Data Regression (Interaction Term)**

*Source: Authors own computation using a secondary data September, 2019*

## **4.2 Effect of IMF bailout on Foreign Direct Investment**

The lender of last resort which is the IMF has at the core of its mandate to help finance the balance of payment deficit of member countries. This goes to suggest that before any nation goes for support from the IMF, that nation's economy might not be in the best of shape. The IMF comes in to help in the restructuring of the economy by introducing reforms basically to control expenditure and the supply of money.

Every investor makes decisions based on the guarantee of future returns to invested funds. Multinational and Transnational corporations are very much interested in the economic fundamentals of any nation the intent of investment has to be made. No investor would invest in a country where there are weak economic indices and as such the economic environment might not produce the needed returns to investment.

According to Jensen (2004), after examining 68 countries and their enrollment on IMF programmes while controlling for country specific factors that led the countries to run to the IMF. It was found that signing on to an IMF programme led to a 25 percent decline in FDI inflows as compared to countries that did not sign on to IMF programmes. Again, another study of IMF support programmes in the Caribbean and Latin America found a negative relationship between FDI inflows and participating in an IMF programme (Mahate, 2018).

In looking at the regression results below, IMF bailout and FDI inflows is negatively correlated corroborating the work of the two authors above. IMF bailout with random effects led to a decline of .55 SD in FDI and was significant at 10 percent. With fixed effects and year dummies in column (4), the coefficient was still negative showing a decline of .62 SD in FDI at the 10 percent significant level

**Table 3**  
**Dependent Variable: Foreign Direct Investment**

	<b>Random Effects (1)</b>	<b>Fixed Effects (2)</b>	<b>Random Effects (3)</b>	<b>Fixed Effects (4)</b>
<b>IMF bailout</b>	-1.546* (0.820)	-1.464* (0.790)	-1.730** (0.858)	-1.622* (0.817)
<b>Financial Risk</b>	0.232* (0.127)	0.470 (0.331)	0.228* (0.139)	0.444 (0.357)
<b>Economic Risk</b>	-0.331* (0.188)	-0.211 (0.229)	-0.289 (0.212)	-0.230 (0.322)
<b>Exchange Rate Risk</b>	-0.032 (0.160)	-0.232 (0.304)	-0.212 (0.196)	-0.342 (0.419)
<b>Debt Service Risk</b>	0.920*** (0.342)	0.896* (0.478)	0.937*** (0.360)	1.025* (0.543)
<b>Budget Deficit Risk</b>	1.267*** (0.439)	0.833 (0.652)	1.209*** (0.397)	0.814 (0.618)
<b>Deposit Interest Rate</b>	-0.024 (0.125)	0.150 (0.128)	-0.143 (0.150)	0.077 (0.130)
<b>Inflation Risk</b>	-0.221*** (0.078)	-0.587 (0.442)	-0.251*** (0.088)	-0.420 (0.402)
<b>Broad Money % GDP</b>	0.020 (0.021)	0.074 (0.064)	0.026 (0.018)	0.101 (0.070)
<b>Investment Profile</b>	-0.351 (0.272)	0.287 (0.396)	-0.554 (0.420)	0.085 (0.492)
<b>GDP growth Risk</b>	1.031*** (0.335)	1.056** (0.480)	1.026*** (0.339)	1.074** (0.428)
<b>Current Account Deficit Risk</b>	-1.284** (0.570)	-1.151* (0.613)	-1.512** (0.682)	-1.265 (0.785)
<b>Year Dummies</b>	<b>No</b>	<b>No</b>	<b>Yes</b>	<b>Yes</b>
_cons	0.170 (4.568)	-13.126 (10.952)	5.079 (5.121)	-11.478 (10.167)
<b>N</b>	<b>417</b>	<b>417</b>	<b>417</b>	<b>417</b>
<b>R-sq</b>	<b>0.19</b>	<b>0.22</b>	<b>0.23</b>	<b>0.26</b>

Standard errors in parentheses

\*p<0.10    \*\* p<0.05    \*\*\* p<0.001

**Table 3: Results of Panel Data Regression (Dependent Variable: Foreign Direct Investment)**

*Source: Authors own computation using a secondary data September, 2019*

### **4.3 Effect on Domestic Credit to the Private Sector**

The private sector is trumpeted as the engine of growth. Government indeed is the biggest institution in every nation but it cannot employ everybody and produce everything. The private sector plays a key role in keeping the economy running. In signing onto an IMF programme, through the injection of monetary and fiscal discipline, monetary policy becomes contractionary and hence interest rates increase. When interest rates increase. It crowds out private investment due to the fact that private firms are unable to borrow at the high interest rates. This in the long run stifles growth in the private sector and prevents local private firms from competing with bigger and more resourced firms (multinationals).

From the analysis, it was revealed that IMF bailout had a negative effect on domestic credit to the private sector. This suggests that when a country signs onto an IMF programme, credit availability to the private sector reduces owing to contractionary monetary policies. In the first column, the coefficient is significant at 5 percent representing a decline in .15 SD. In the fourth column with fixed effect, when a country receives a bailout programme from the IMF, it leads to a .33 SD decline in the level of domestic credit to the private sector.

The results further revealed that broad money supply is positively correlated with domestic credit. This implies that when broad money supply increases by 1 percentage points, it leads to 36 percentage point increase in the supply of domestic credit to the private sector. The coefficient remained robust from column (1) through column (4). In column (1) and (3) under random effects, it was significant at 1 percent while in column (2) and (4) under fixed effects, it was significant at 5 percent. This suggests that when assets can easily be converted into payment instruments, borrowers will be willing to lend using such assets as collateral

**Table 4**  
**Effect on Domestic Credit to Private Sector**

	<b>Random Effect (1)</b>	<b>Fixed Effect (2)</b>	<b>Random Effect (3)</b>	<b>Fixed Effect (4)</b>
<b>IMF bailout</b>	-1.153** (0.586)	-1.138 (0.920)	-1.339** (0.543)	-1.331* (0.784)
<b>Deposit Interest Rate</b>	-0.194** (0.094)	-0.197 (0.205)	-0.042 (0.090)	-0.043 (0.187)
<b>Interest Rate spread</b>	-0.067*** (0.025)	-0.066 (0.048)	-0.053** (0.022)	-0.052 (0.037)
<b>Broad Money % GDP</b>	0.358*** (0.069)	0.350** (0.127)	0.296*** (0.064)	0.288** (0.124)
<b>Exchange Rate Risk</b>	0.148 (0.157)	0.154 (0.174)	0.177 (0.141)	0.184 (0.191)
<b>Investment Profile</b>	-0.064 (0.431)	-0.153 (0.636)	0.678* (0.392)	0.605 (0.494)
<b>_cons</b>	10.854 (6.121)	12.360 (8.727)	3.276 (5.416)	4.510 (6.299)
<b>N</b>	<b>337</b>	<b>337</b>	<b>337</b>	<b>337</b>
<b>R-sq</b>	<b>0.42</b>	<b>0.43</b>	<b>52</b>	<b>0.52</b>

Standard errors in parentheses

\* p<0.10    \*\* p<0.05    \*\*\* p<0.001

**Table 4: Results of Panel Data Regression (Effect on Domestic Credit to Private Sector)**

*Source: Authors own computation using a secondary data September, 2019*

## CHAPTER FIVE

### SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

This chapter presents a summary to the findings of this study, relevant recommendations and conclusions based on theoretical and empirical literature reviewed. It also presents the limitations of the study and suggestions for future research.

#### 5.1 Summary of Major Findings

The study employed a panel data model to explore the impact of IMF bailout on monetary policy rate. Monetary policy rate is the rate at which the central bank borrows to the commercial banks who in turn borrow to firms and households.

It came out of the study that, countries that signed onto IMF programmes were more likely to have higher monetary policy rates. This is due to the fact that the IMF imposes restrictions on these countries by injecting monetary and fiscal disciplines. These conditionalities actually reduces the supply of money and hence leads to higher interest rates.

The study also revealed that, an IMF supported programme leads to a decline in the net inflows of Foreign Direct Investments which supports results by several authors. The returns on investment is a critical question all investors answer before they make funds available for any venture. Any country that runs to the IMF gives a signal that indeed all is not well with the economy which might be a negative incentive for multinational and transnational corporations.

It came out of the study that, IMF bailouts reduced the level of domestic credit to the private sector.

The private sector which has been noted to be the wheels on which growth could be championed

is the life line to any economy especially those in the Small and Medium Scale Enterprise. If IMF programmes reduces domestic credit to the private sector, it presupposes that, growth and expansion of SME's would be stifled.

## **5.2 Conclusion**

The study was grounded in the, the pecking order theory, loanable funds theory and the loan pricing theory. Indeed, the monetary policy rate set by the central bank goes to affect the cost of credit by commercial banks. Private firms will indeed issue debt to finance their operations. The study showed the relationship that an IMF programme had on Domestic credit to the private sector signaling a negative incentive for both financial institutions and the private firms.

The IMF over the last decades has been heavily criticized about their injurious policies in the third world. The conditions posed on countries include cutting down on fiscal expenditure and suspending subsidies. These strings of conditions in the long run some have argued tend to affect the overall output of the economy.

From the analysis, FDI which is an important component in every economy due to technological spillovers, employment creation, differentiation of products and its ability to raise the standard of living cannot be overlooked. the study concludes that, an IMF programme is a negative incentive for investors. The opportunity to reduce poverty and inequality though FDI's are lost in seeing through the lens of an IMF support programme.

### 5.3 Policy Recommendations

From the findings above, some policy recommendations are made.

- The independence of the central bank must be critical in every IMF agreement. This is to ensure that the monetary policy rate is not affected by IMF conditionalities. This will help to effectively manage an efficient market determination of the cost of credit by the commercial banks.
- Governments who sign onto IMF programmes must negotiate keenly in the interest of their nations especially countries in the third world. Structural policies which hurt the economy in the long should be rejected. This calls for a roundtable dialogue of all Sub-Saharan African countries to have a common voice to reject aspects of IMF policies which hurt the monetary framework of countries.
- Since there is empirical evidence to show that potential investors shy away from IMF programme run countries. The IMF must as a matter of urgency incorporate the mechanisms of FDI in such agreements. This would reassure potential investors of their return on investments and boost incentives for more inflows. This should not be done in isolation but must be part of the comprehensive programme support so that the interest of the state, investor and IMF is well defined. It is recommended that, subsidies and tax reliefs that are suspended under IMF programmes be reviewed. These are incentives that attract FDI's hence their absence serves as a disincentive.
- Government must begin to look at the issues of credit availability and credit access as it pertains to the private sector. The setting up of specialized institutions to offer competitive credit to the private sector will be a step in the right direction. This will broaden the net of private firms which can access credit at an affordable rate and not be affected by the

mechanisms of an IMF programme. These specialized institutions must be given the needed resource to train, monitor and profile up and coming private firms both in the formal and informal sector. This will enable the institutions to track and manage the funds efficiently to prevent misuse. This would prevent the crowding - out effect due to the high interest rates under IMF conditonalties.

- Countries must empirically assess the long run effects of an IMF support on their economies before they sign on to such agreements. The need for financial literacy and civil society in this regard as well as academia is critical in this exercise. When outcomes are negative, it would deter governments from such agreements.

### **5.3 Limitations of the Study and Future Research**

The study is without some limitations. The data constituted 35 countries in Sub- Saharan Africa. This could have been increased to 60 countries from around the world to incorporate other continents to make the data more robust and enrich the discussions. The model had 13 explanatory variables. This again could have been increased to capture country specific variables which influenced countries decision to go to the IMF.

Moreover, effects of an IMF programme on other aspects of an economy were not assessed in the analysis which though very significant would have helped to espouse on the results more precisely. One of the limitations in using a panel data is controlling for time variant unobserved factors. Future studies could use an instrumental variable to address such a limitation. Due to time constraints more empirical studies could have been reviewed to compare and contrast the various methodologies so as to broaden the discussion on the appropriate methodology. Future studies could review such intensely.

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