INTEGRATION OF THE NEW DEVELOPMENT BANK INTO THE INTERNATIONAL FINANCIAL ARCHITECTURE

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In accordance with Rule G5.6.3, I hereby declare that the above-mentioned thesis is my own work and that it has not previously been submitted for assessment to another University or for another qualification.

SIGNATURE

30 OCTOBER 2018

DATE

DEDICATION

To my husband, Tafadzwa Marambire and son, Ethaniel Thabo Marambire.

Your encouragement, emotional, physical, financial, spiritual and social support throughout this journey will never be forgotten. I would not have made it had God not used you to support me the way you did. I am forever grateful!

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ABSTRACT

The study looked at the integration of the BRICS New Development Bank into the international financial architecture. In doing so, it made use of an econometric evaluation of the impact of the loans received from the current dominant financial institutions, namely International Monetary Fund (IMF) and the World Bank, on economic growth of ten self-selected African countries. Given the challenges and the failures of the Western dominated funding to African countries, it is important to ensure that the funding approach of the New Development Bank does not resemble that of the current international finance system. Using panel data and quantile regression econometric models on annual data from ten self-selected African countries that are recipients of World Bank and IMF loans from 1994 to 2014, this thesis presents a framework for the integration of the BRICS' New Development Bank into the global financial architecture. The results obtained shows a negative and statistically significant impact of World Bank loans on Gross Domestic Product of the country under analysis and a positive statistically insignificant impact of IMF loans. Given the existing global financial institutions and the wealth of expertise at their disposal, this thesis concludes that the existing global financial structure cannot be done away with completely but the New Development Bank should rather perform a complementary role in the global finance space. Accordingly, the New Development Bank should champion a '*post ideological rhetoric*' in the global financial architecture.

Key words: World Bank, International Monetary Fund, BRICS New Development Bank, Global Financial Architecture.

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LIST OF ACRONYMS AND ABBREVIATIONS

ADB	Asian Development Bank
AIDS	Acquired Immune Deficiency Syndrome
BRICS	Brazil, Russia, India, China and South Africa
BNDES	Brazilian National Development Bank
BOP	Balance of Payments
CAF	Corporacion Andina de Fomento
CDB	China Development Bank
CPF	Country Partnership Framework
DBSA	Development Bank of Southern Africa
EAP	East Asia and Pacific
ECA	Europe and Central Asia
ECF	Extended Credit Facility
EXIMINDIA	Export-Import Bank of India
GPRS	Growth and Poverty Reduction Strategy
HIPC	Heavily Indebted Poor Countries
IBRD	International Bank Reconstruction and Development
ICSID	International Centre for Settlement of Investment Disputes.
IDA	International Development Association
IDBI	Industrial Development Bank of India
IFC	International Finance Corporation
IFIs	International Financial Institutions
IMF	International Monetary Fund
MENA	Middle East and North Africa
MDB	Multilateral Development Bank
MDGs	Millennium Development Goals

MDRI	Multilateral Debt Relief Initiative
MIGA	Multilateral Investment Guarantee
NAB	New Arrangements to Borrow
NDB	New Development Bank
NDP	National Development Plan
PPP	Public Private Partnership
PIN	Public Information Notices
PSI	Policy Support Instrument
PRGF	Poverty Reduction Growth Facility
PRSP	Poverty Reduction Strategy Paper
SADC	Southern African Development Committee
SAP	Structural Adjustment Programs
SAR	South Asia
SCD	Systematic Country Diagnostic
SSS	Sub-Saharan Africa
TFP	Total Factor Productivity
TOT	Terms of Trade
UN	United Nations
VEB	Vnesheconombank
WBG	World Bank Group
WDI	World Development Indicators
WHO	World Health Organisation
WJP	World Justice Project

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION AND BACKGROUND

An international financial system can be defined as a system of international monetary relations containing general settings of international financial activities (Todaro & Smith, 2012). The international monetary system has become a significant part of the global economy and is a major source of funds for development. Due to its importance, several attempts have been made to develop policies and schemes to ensure its stability but the world economy in general has never been particularly stable. The international financial system is a crucial part of development, especially in African economies where most are either still developing or are under-developed. The BRICS' (Brazil, Russia, India, China, and South Africa) New Development Bank was recently introduced and numerous African economies are awaiting the benefits that this development will to their economies. The main goal of most financial institutions is to bring about economic growth and development. Economic development is vital, especially in Africa where most economies are either still developing or are under-developed. Development is important as it can drive poverty alleviation and improve welfare, as well as bring about an end to most social, emotional and economic problems faced by the majority of people in developing and under-developed countries. The international financial system has a pivotal role in the promotion of economic growth, especially through development aids and issuing loans to finance development projects. Although African countries have received vast sums of money in the form of loans and financial assistance from international financial institutions, poverty is increasing in Africa (Sala-i, 1997: a, b).

The international financial system is dominated by the Bretton Wood Institutions, namely the International Monetary Fund (IMF) and the World Bank (WB). The Bretton Woods System was established at a conference that was held in Bretton Woods, New Hampshire, United States of America in 1944. This was the genesis of the IMF and the International Bank for Reconstruction and Development (IBRD), which is a part of the World Bank (Todaro & Smith, 2012). These two are the most influential international financial institutions in the world, being the main sources of funds for most African countries. However, it is argued that some of these institutions have been tempted to use the loans as leverage to prescribe policies and order major changes to the economy of these countries and this has arguably led to fruitless development efforts (Ngwane & Dan, 2000). The initial objective of this international monetary system was to avoid rigidity, create better cooperation among economies and enhance economic growth. Each member country had to adapt to a monetary policy of maintaining its exchange rate by tying its currency to gold. According to Todaro & Smith (2012), the United States (US) bargained for the US dollar to be used with the gold. What this meant was that the US dollar was to be used as a benchmark upon which all member countries' exchange rates would be based. The IMF issued loans to assist member economies to fix perceived balance of payment (BOP) problems in an attempt to avoid a crisis. Since the 1970s the IMF has aimed at responding to the BOP problems that were occurring in most developing economies by providing finance via their trust fund. In line with this aim, it created the Structural Adjustment Facility around 1986 that was later replaced by the Enhanced Structural Adjustment Facility in 1987. The IMF had to approve all exchange rate changes, lend to those that had a balance of payment (BOP) debt, analyse and forecast markets and offer advice concerning monetary policies (Stiglitz, 2002). In other words, the IMF's role was to facilitate financial stability. The World Bank's mandate, on the other hand, was to finance development and provide finance for projects that the private sector would not finance. It is vital that these institutions are able to achieve and maintain their objectives, as this will bring about much needed growth and development. Very little development has been achieved with the excessive loans issued for development purposes, especially on the African continent (Stiglitz, 2002; Tseggai, 2006; Addo et al., 2010; Naiman & Watkins, 1999; Ajayi & Oke, 2012).

Both the World Bank and the IMF have their headquarters in Washington DC and voting power in these institutions is carried by the country that contributes the most financially. It is evident that the IMF and World Bank are typically controlled by the wealthiest economies, in particular the United States of America (US or USA). According to Ngwane & Dan (2000), the US alone holds approximately seventeen percent of the votes whereas about forty eight sub-Saharan African countries together hold approximately nine percent. The G-7 group has forty five percent of the votes. This system gives power to the wealthy economies to control the World Bank and the IMF, thereby promoting an economic growth model known as neo-liberal that benefits the wealthiest countries (Stiglitz, 2002).

Over the past decades the poor economies were forced, due to their economic circumstances, to borrow from the IMF and the World Bank. These loans were however, subject to the IMF and World Bank neo-liberal conditions. African countries were forced to adopt neo-liberal economies, which in some instances were unsuitable for those countries. Because of their extreme poverty, the poor countries where forced to accept the loans regardless of the conditions attached. In 2015 the IMF had about 187 nations as members but now adopts a more active command, especially given the unstable financial economies of most nations (World Bank, 2015). According to Triffin (2012), the global economic crisis, currency problems in Brazil and Argentina and Russian default are all attributed to the IMF adopting a more vigorous mandate.

Approximately half a century after its formation, the IMF has failed in achieving its goal, which is to provide funds for economies facing a downturn, in fact, most of its policies have contributed to global instability (Stiglitz, 2002). In view of the failure of the Bretton Woods system in addressing the needs and challenges of the Third World countries, BRICS proposed the establishment of the New Development Bank (NDB) (NDB, 2017). This was introduced at the cooperation's annual summit held in Brazil in July, 2014. At this summit the BRICS countries agreed to launch a bank with a reserve fund of 100 billion US dollars aimed at helping developing nations to avoid short-term liquidity pressures, promote further BRICS cooperation, strengthen the global financial safety net and complement existing international arrangements (Desai & Vreeland, 2014). The NDB aims at directing its focus on the African region, which has suffered increasing poverty and an inability to meet the requirements of the current financial institutions in the international market. Most African countries are failing to pay their current loan obligations to the IMF and the World Bank. According to Saidi (2014), the BRICS bank will provide loans and long-term credits and make equity investments with the focus on infrastructure for emerging economies. Saidi (2014) holds that the objectives of the BRICS bank are ironically similar to the initial objectives of the Bank of Reconstruction and Development, which went awry. However, according to the NDB (2017), the BRICS bank is working on an equal voting basis in contrast to the Bretton Wood system. Given the reasons for their resolution to launch a BRICS development bank, the leaders noted that developing countries face challenges with regard to infrastructure development due to insufficient long-term financing and foreign direct investment, especially investment in capital stock, which constrains global aggregate demand. These leaders also claim that it will supplement the existing efforts of multilateral and regional financial institutions for global growth (Saidi, 2014). In this sense, the bank will complement the existing international financial institutions and provide the much-needed financial assistance to mostly African developing countries.

According to Desai & Vreeland (2014), the international financial system experienced similar developments in the late 1960s, when Andean nations formed the *Corporación Andina de Fomento* (CAF), also known as the Development Bank of Latin America, as a way of bypassing the rigorous rules imposed on infrastructure loans by the World Bank. Also in the early 2000s, somewhat as a response to a widely perceived failure of the IMF to curb currency speculation during the Asian crisis, ten Asian nations together with China, South Korea and Japan, established a network of bilateral currency swap agreements that would become the Chiang Mai Initiative. These were formed as a reaction to Bretton Woods's enforcement of strict conditions on countries seeking emergency loans. Developing nations hope that the BRICS bank may in due course challenge World Bank-IMF supremacy over matters such as finding for basic services, emergency assistance, policy lending and funding to conflict-affected states.

1.2 RESEARCH PROBLEM

As economies grow, their financial needs also grow, particularly developing and emerging economies. The vast gap between development finance requirements and available funds is a cause for concern. Since their creation, international financial institutions have played a crucial role in providing development finance, but their aggregate lending is still not meeting the demand. Coupled with conditionality, the loans from the IMF and the World Bank have been criticized and labelled as not bringing the needed development, particularly in African countries. The strict policies of the World Bank and the IMF have resulted in most, especially African countries', average income falling continuously and poverty increasing as a result (Ngwane & Dan, 2000). On the other hand, African debt has increased and these economies have become more reliant on new loans with no choice but to accept the strict conditions of these financial institutions. A forced reduction in health services as conditions for loans has also left countries vulnerable to poverty-related diseases (Ngwane & Dan, 2000).

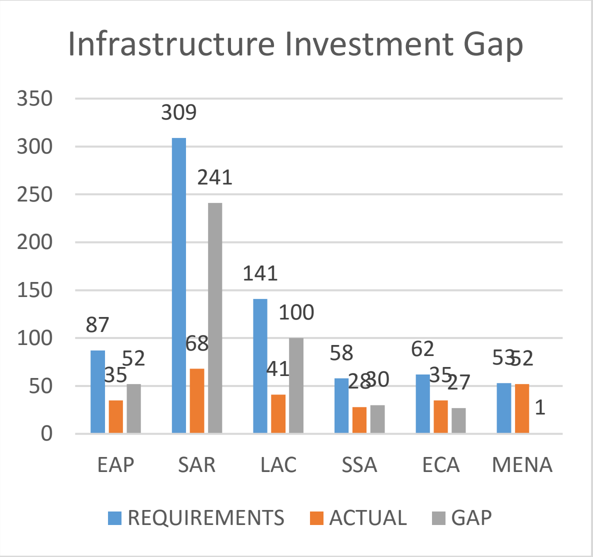
The ideas and intentions behind the initial formation of international economic institutions were good but they evolved into something different over the years (Stiglitz, 2002). The recent development of the BRICS bank brought with it great expectations. As vast sums of money have been lent to developing countries with no discernible improvement in those countries' economic growth and development, one tends to question whether the fault lies with the recipient economy or the policies and interventions of the financial institutions.

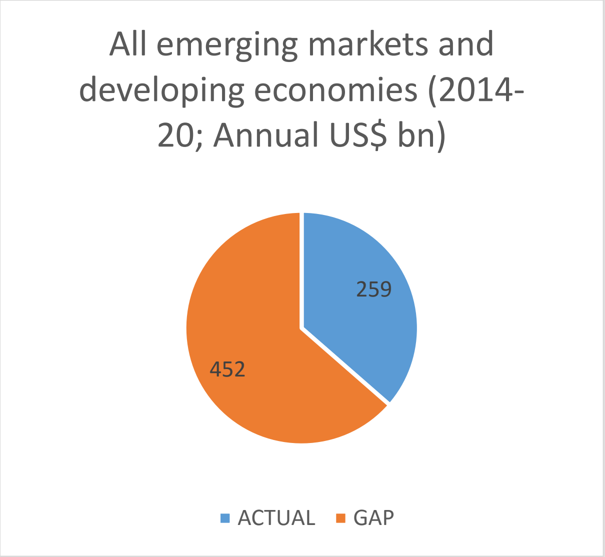
The roles of the IMF and the World Bank are different yet complementary. The IMF is responsible for monitoring and stabilizing the international financial system through the short-term financing of BOP deficits for member countries but with special emphasis on developing economies and the surveillance of macroeconomic policies. This has led to the IMF's increasing involvement in the development policies of recipient economies, which may be attributed to the greater ineffectiveness of the loans issued as aid for development. On the other hand, the World Bank's complementary task was to fund the reconstruction of national infrastructures but this role has evolved over time (Todaro & Smith, 2012). With such objectives, it becomes a cause for concern that there is still only limited infrastructural development in most developing economies. For example, the World Bank's own estimates indicated a US$1 trillion infrastructure investment "gap" in developing countries (World Bank, 2014). The existing development banks may only be able to fill approximately 40 percent of that gap. There remains a gap that needs additional institutions such as the NDB. What makes matters worse is that loans issued by the IMF are conditional in the sense that the recipient economy must meet certain criteria based on the purpose of the loan. The terms of the loan impose hardship on the recipient country (Todaro & Smith, 2012). It can be said that the IMF's focus on strictness has caused needless recession in numerous economies, particularly in Africa. The IMF's policies are being imposed by an arm of the wealthy industrialised nations and stabilisation policies are simply measures intended primarily to retain the dependency of developing economies (Payer, 1974). The IMF has been accused of encouraging developing countries to incur additional debt from international financial institutions, thus adding to the burden of the borrowing country and creating a future BOP problem (Stiglitz, 2002).

Although foreign debt is mostly beneficial, it can bring about adverse effects for the debtor, especially if it carries with it high interest rates and strict adherence to policies. According to Todaro and Smith (2012), the benefits gained from foreign borrowing has of late brought about detrimental effects and the costs have vastly outweighed the benefits for many developing countries.

It is argued that unlike the G7 members, BRICS members are mostly still developing countries and will focus on developing their own economies and improving living standards for their own citizens. Despite this criticism, the new BRICS bank aims to help reduce the financial gap in developing economies (NDB, n.d.).

Figure 1.1 below depicts the current and estimated financial gaps in developing and emerging economies. East Asia and the Pacific (EAP) excluding China has an estimated financial gap of US$52bn per year during the period 2014 to 2020, whilst South Asia (SAR) has a gap of US$241, Latin America and the Caribbean (LAC) has 100, sub-Saharan Africa (SSA), Europe and Central Asia (ECA) and the Middle East and North Africa (MENA) have 30, 27 and 1US$billion respectively. The pie chart illustrates that all emerging markets and developing economies for the period 2014-2020 have an annual financial gap of US$452billion. This annual gap requires almost doubling the current spending to finance both maintaining and servicing current infrastructure as well as building new infrastructure.





Source: Author's computation using data from slideshare.net (2015).

Figure 1.1: Financing Gap in Investment for Infrastructure between 2014 and 2020 in Developing and Emerging Economies (Annual Us$ Billion)

To meet the growing financial needs there is not only a need for more sources of funds but also for an improvement in the current financial systems. It is important therefore, that the NDB and other emerging development financial institutions become well integrated into the system and ensure that as they add to the pool of sources of funding they are able to conduct themselves in a way that brings not only funds but development to borrowing economies.

1.3 OBJECTIVES

The primary objective of this thesis was to advice the New Development Bank on how to integrate into the international financial institution by explore the impact of the World Bank and IMF loans on the Gross Domestic Product (GDP) of the selected African countries and use the results to formulate proposals or advice that the NDB can use in its operations of offering development finance to developing economies. The secondary objectives are:

- to review existing literature regarding the historical development of the Bretton Woods system;
- to analyse the trends of loans received from the IMF and the World Bank, (as well as debt accumulation), by selected African countries[1] during the period 1994 to 2014;
- to present the rationale leading to the formation of the BRICS's New Development Bank;
- to make use of a panel data analysis to determine the impact of the World Bank and the IMF loans amongst other selected variables affecting the economic growth of the selected African countries and
- to provide recommendations for the newly established BRICS Development Bank.

1.4 HYPOTHESES

The hypotheses formulated for this thesis are the following.

1. H_0 Total external debt in selected African countries has a negative impact on the economic growth of the nation.

   H_1 Total external debt in selected African countries has a positive impact on the economic growth of the nation.

2. H_0 Total Investment in selected African countries has a negative impact on the economic growth of the nation.

   H_1 Total Investment in selected African countries has a positive impact on the economic growth of the nation.

[1] Angola, Ethiopia, South Africa, Nigeria, Ghana, Tanzania, Uganda, Zambia, Malawi and Sudan.

3. H_0 IMF loans[2] received by a respective country have a negative impact on the economic growth of the nation.

H_1 IMF loans received by a respective country have a positive impact on the economic growth of the nation.

4. H_0 World Bank loans[3] received by a respective country have a negative impact on the economic growth of the nation.

H_1 World Bank loans received by a respective country have a positive impact on the economic growth of the nation.

5. H_0 A respective country's inflation has a negative impact on the economic growth of the nation.

H_1 A respective country's inflation has a positive impact on the economic growth of the nation.

6. H_0 A respective country's Rule of Law Index has a negative impact on the economic growth of the nation.

H_1 A respective country's Rule of Law Index has a positive impact on the economic growth of the nation.

7. H_0 A respective country's Corruption Perception Index has a negative impact on the economic growth of the nation.

H_1 A respective country's Corruption Perception Index has a positive impact on the economic growth of the nation.

8. H_0 A respective country's exports[4] have a negative impact on the economic growth of the nation.

[2] IMF loans include the use of IMF (DOD, Current US$) for a respective country and denotes members' drawings on IMF.
[3] World Bank loans (DOD, Current US$) are loans extended by the World Bank group and include the International Bank of Reconstruction and Development (IBRD) loans and the International Development Association (IDA).
[4] Exports of goods and services from a respective country, as a percentage of its GDP.

H_1 A respective country's exports has a positive impact on the economic growth of the nation.

9. H_0 A respective country's imports[5] has a positive impact on the economic growth of the nation.

H_1 A respective country's imports has a negative impact on the economic growth of the nation.

10. H_0 The Debt Service to Export Ratio of a country has a negative impact on the economic growth of the nation.

H_1 The Debt Service to Export Ratio of a country has a positive impact on the economic growth of the nation.

11. H_0 A respective country's population size has a negative impact on the economic growth of the nation.

H_1 A respective country's population size has a positive impact on the economic growth of the nation.

12. H_0 A respective country's exchange rate has a negative impact on the economic growth of the nation.

H_1 A respective country's exchange rate has a positive impact on the economic growth of the nation.

1.5 SIGNIFICANCE OF THE STUDY

It is increasingly recognised that the financial system has a crucial role in the process of economic development, and that finance can be a substantially limiting factor to development. International finance in particular, is a significant tool in development in most, if not all, developing or under-developed economies. According to Todaro and Smith (2012:641), by 1982 imminent default in a number of heavily indebted developing countries experiencing high inflation, a weak export market, failing terms of trade (TOT) and large government deficits,

[5] Imports of goods and services to a respective country as a percentage of its GDP.

threatened to weaken international financial markets. Crises in developing economies intensify day by day and private sources of funds keep shrinking, thereby reducing the liquidity necessary to service debt (Todaro & Smith, 2012).

The breaking out and spread of financial crises has led to concern in the international financial community with regard to the reforms that are necessary in the international financial system. This is because the crises are a reflection of the defects and deficiencies of the system itself (Stiglitz, 2002). According to the Shanghai Institutes and international studies working group, the main concerns as far as the international financial system is concerned, are the future of the US dollar in the international monetary system, reforms within the IMF and problems in the international financial regulatory system. More importantly, concerns with regard to the IMF and the World Bank in terms of their effectiveness have been raised. This is due to their ineffectiveness being reflected by the gap between the limited resources at their disposal and the excessive funds needed by many countries experiencing a BOP crisis.

The aim of this thesis is to analyse the reasons of such ineffectiveness as well as the reasons for the countries that have received aid from these institutions still facing under-development problems and use the information to advice the NDB. With most current financial institutions, emerging economies are not seen as significant when it comes to making decisions and many cannot even cast a vote in matters that concern their own economies. It can be argued that the BRICS bank marks the much anticipated shift of power from the west to emerging economies. This thesis aims at suggesting policies or ways of operation that differ from the practices of the current institutions. With such high expectations being placed on the BRICS bank, it is significant to establish the way in which it can effectively act as a catalyst to bring about changes in the financial system, as well as the way in which it can integrate into the system so as to complement the efforts to bring development to under-developed and developing economies.

The BRICS bank may be a direct challenge to the international financial system, pushing the IMF and WB and all other financial institutions, including the BRICS bank itself, to be more open and transparent, thus benefiting the global economy as a whole. Competition in this financial system must be in terms of efficiency rather than a struggle between liberal and alternative economic philosophies (Chen, 2014). This study therefore aims to establish the way in which the BRICS bank can learn from the activities of the IMF and the World Bank, complement their efforts and jointly bring about an effective turn around in the financial system to enable development. It is appreciated that there is a substantial demand for development finance and new institutions should enter into the system, not to replace older institutions but to complement them and to be able to do so they need to integrate into the system effectively. In order to integrate, there is a need to see the impacts that the issued loans have had on the development of recipient economies and also ascertain what lessons can be learnt from the past activities so as to direct their activities in a way that will not result in a repeat of the past, where vast loans were issued but no development was realised. This study therefore aims to ascertain the effects the loans have had on the development of African economies and use the results as recommendations for the new institution.

1.6 ORGANISATION OF THE STUDY

This thesis is organised into nine chapters, each of which comprises an introduction, relevant sections and a conclusion. This first chapter provides an introduction to international finance and presents the problem statement, the objectives and hypotheses of the study. The rest of the study is organised in the following way.

Chapter two: Background literature with regards to the international financial system.

Chapter three: Theoretical and empirical literature review.

Chapter four: Overview of debt from international financial institutions and economic growth and development in developing economies.

Chapter five: Towards the New Development Bank and its role in the BRICS' and other countries.

Chapter six: Research methodology.

Chapter seven: Empirical findings: Presentation and analysis.

Chapter eight: Implications of the findings.

Chapter nine: Summary, conclusions, recommendations, and limitations of the study.

1.7 CONCLUSION

The international financial system is dominated by the IMF and the World Bank. These institutions have provided vast sums of money in the form of loans particularly to African countries for development purposes. It is estimated that there is a US$1 trillion infrastructure investment "gap" in developing countries (World Bank, 2014), and the existing development banks may only be able to fill approximately 40 percent of that gap. In 2015 BRICS established the New Development Bank to provide funds for infrastructure and other development projects. The research is aimed at evaluating the impacts of the loans that African countries have received from the IMF and the World Bank on the development of those countries. The research also aims to make recommendations that the NDB can use to integrate into the system and bring about development in complement with the current international financial institutions.

CHAPTER TWO

BACKGROUND LITERATURE WITH REGARD TO THE INTERNATIONAL FINANCIAL SYSTEM

2.1 INTRODUCTION

The international financial system, also referred to as the global financial system, is the worldwide framework of legal agreements and both formal and informal economic actors that together facilitate the international flow of financial capital (WHO, 2016). The International Monetary Fund (IMF) is at the centre of the system and has a mandate to ensure its effective operation. A new international financial system was established at the Bretton Woods Conference, which resulted in the formation of the IMF and the World Bank just after the great depression and the Second World War (Ghizoni, 2013). The Bretton Woods Conference, officially known as the United Nations Monetary and Financial Conference, was held towards the end of the Second World War in July, 1944 at a remote village in New Hampshire, USA. Representatives from the United States, Great Britain, France, Russia and forty other countries met at Bretton Woods to lay a foundation for post-war international financial order. These participants hoped to come up with a system that would prevent another worldwide economic disaster similar to the Great Depression of the 1930s (US Department of State Archive, 2009). At the time of this conference, there were serious concerns about the stability of worldwide economic markets (Ismi, 2004). The global depression of the 1930s had been deepened by the volatility of international currency markets and the reduction of international trade and as a result, stabilization of those markets and the promotion of trade were considered crucial to avoid a similar crisis. As a result, the Bretton Woods Conference gathered some of the world's most influential people in economic policy and some of its most powerful policy makers to plan a new way forward. At this conference, certain agreements were reached and this was the genesis of the International Monetary Fund (IMF) and the International Bank for Reconstruction and Development (IBRD), which is part of the World Bank (Bernstein, 1984). The initial objectives of this international monetary system were, among other objectives, to avoid rigidity, create better cooperation among economies and enable economic growth. Each member country had to adopt a monetary policy of maintaining its exchange rate by tying its currency to gold. According to Todaro and Smith (2012), the United States (US) bargained for the use of the US dollar with the gold, meaning all currencies were to be tied to the US dollar. The implication was that the US dollar was to be used as a benchmark against which all member countries' exchange rates were based and this became known as the Bretton Woods system of exchange. The IMF had to approve all exchange rate changes, lend to those that had a balance of payment (BOP) deficit, analyse and forecast markets, as well as give advice concerning monetary policies (IMF, 2015). In other words, the IMF's role at its inception was to facilitate financial stability. The World Bank's mandate was to finance development and provide finance for projects that the private sector would usually not finance.

The Bretton Woods system adopted the US dollar as the benchmark for exchange rates. In order to meet the demands for international reserves, the Bretton Woods System had to depend on US deficit against other countries' surpluses and the other countries' purchase of the dollar to prevent appreciation of their currencies. Due to the demand and supply effects, the stock of US liabilities in dollars increased more than the annual addition to US gold reserves, causing disparities to the agreed ratio of US$35 per ounce of gold (Bordo, 2008). Economies began anticipating the devaluation of the US dollar and converting their reserves into gold as well as ceasing to peg their currencies to the dollar. This situation led to an inevitable breakdown of the system due to shortages in the world reserves (Krueger, 1993). After the collapse of the Bretton Woods System, the IMF and the World Bank continued their operations. The IMF, together with the World Bank, are referred to as the International Financial Institutions (IFIs).

2.2 THE INTERNATIONAL FINANCIAL INSTITUTIONS (IFIS)

The goal of the Bretton Woods Conference was to set up a framework for international cooperation and development. The initial goals of the Bretton Woods Conference remain central, although the works of the institutions constantly evolved in response to new economic developments and challenges. The IMF and the World Bank share the same goal of increasing the standards of living in the member countries and therefore have complementary approaches to reaching this goal. They are twin, inter-governmental pillars supporting the structure of the world's economic and financial order (IMF, 1979). The IMF focuses on macroeconomic issues while the World Bank concentrates on long-term economic development and poverty reduction. They both have their head offices in Washington DC in the USA. However, the two remain distinct, apart from these similarities. The World Bank is primarily a development institution that seeks to maintain an orderly system of payment and receipt between nations (World Bank, 2015).

2.2.1 International Monetary Fund (IMF)

The International Monetary Fund (IMF) is an organisation that was initiated at the Bretton Woods Conference in 1944. It was formally established in 1945 by 29 member countries (IMF, 2016). The IMF is an international organisation of 189 countries working together to aid or push for global monetary cooperation, secure financial stability, facilitate international trade, promote high employment rates and sustainable economic growth and the reduction of poverty globally (IMF, 2016). To become a member, a country must apply and the application will be successful only once the majority of the current members vote in favour.

The IMF’s mandate is to promote international cooperation and offer advice in terms of policies and technical assistance, assisting economies to build and maintain strong economies. It also issues short and medium-term loans and helps design policies that solve balance of payment (BOP) problems (IMF, 2016). It is not primarily a lending institution as is the World Bank, but it is primarily an overseer of its members’ monetary and exchange rate policies and a guardian of the code of conduct. Countries contribute funds through a quota system and it is from this pool of funds that countries experiencing BOP deficits can borrow. At Bretton Woods, the IMF was charged with preventing another global depression by exerting international pressure on countries to maintain global aggregate demand (Stiglitz, 2002).

2.2.1.1 Governance of the IMF

The IMF is guided by its member countries, each of which appoints a representative to the IMF's Board of Governors, which normally meets once a year. The Board of Governors, most of whom are the finance ministers or heads of the central banks of the member states, meets once per year to discuss, and possibly achieve consensus on issues of global importance (IMF, 1979). This board makes important decisions that include whether or not to admit new applicants, general quota reviews and amendments to the IMF’s founding document, the Articles of Agreement. The Board of Governors has all the power in the running of the fund but delegates most of its powers to the resident Board of Directors that handles the day-to-day issues of the fund (IMF, 2015).

The Executive Board comprises twenty-four individuals, each representing either a single country or a group of countries. The world's major economic and political powers, the United States (the IMF's largest shareholder), Great Britain, Japan, Germany, France, China, Russia, and Saudi Arabia each have permanent seats on the executive board, while the other 16 directors are elected for two year terms by groups of countries divided roughly by geography (or "constituencies") (IMF, 2016). The managing director is elected for a renewable five-year term, runs the executive board, and is the head of all staff. This board meets more often to oversee and supervise the IMF's activities, including the approval of lending programs. The IMF also has an International Monetary and Financial Committee of twenty-four representatives of the member countries that meets twice a year and provides suggestions on the international monetary and financial system to the IMF's staff (IMF, 2015). A first deputy-managing director and three secondary deputy-managing directors assist this director. The director of the IMF has historically been from among the European members and this has always been questioned (IMF, 2016). In 2011, the BRICS nations stipulated that this tradition of always having the managing director from Europe undermines the IMF's legitimacy and suggested that such appointments should be made based on merit (IMF, 2016). Table 2.1 presents a brief summary of the previous IMF directors.

Table 2.1: Summary of IMF Directors

PERIOD	NAME	NATIONALITY
5 July 2011-Present date (January 2017)	Christine Lagarde	France
18 May 2011 – 4 July 2011	John Lipsky	United States
1 Nov 2007-17 May 2011	Dominique Strauss-Kahn	France
7 June 2004-31 October 2007	Rodrigo Rato	Spain
1 May 2000-4 March 2004	Horst Kohler	Germany
16 Jan 1987-14 Feb 2000	Michel Camdessus	France
18 Jun 1978-15 Jan 1987	Jacques de Larosiere	France
1 Sept 1973-31 Aug 1978	Johan Witteveen	Netherlands

Source: IMF (2017).

The fund does not rely on a one country one vote governance system; voting power is weighted based on the size of the economy and therefore the quota allocation of each country. The voting arrangement was based largely on the economic power of the countries at the end of World War II. The United States has the largest voting power of 16.73% and as a result, although decisions are usually taken by consensus, the United States, as the IMF's largest shareholder, has the most influence in the institution's policy-making decisions (IMF, 2015). Each member of the executive board runs a particular department of the IMF. There are offices devoted to certain regions of the world, for example Europe, Africa, Middle East, and Western Hemisphere functions (finance, technical assistance, fiscal planning, capital markets, research and statistics) and administrative functions of the IMF itself (IMF, 2016). Of late, there has been strong avocation for reforming the representation of developing economies within the IMF. The arguments being raised in this regard are that these developing and emerging economies represent a large portion of the world's economic system but they are not well represented in the IMF through the quota system (Stiglitz, 2002).

The IMF has been accused of being biased towards developed economies and the BRICS nationals have been at the forefront of pushing for reforms in the IMF. The lack of reforms in the IMF has been discussed at most of the heads of states summits, as the emerging economies are seeking improved representation. In 2010, about 188 members of the IMF agreed to these reforms but the US Congress took about six years to grant approval and they only became effective in 2016 (Das, 2016). Under the new IMF governance structure, China has the third largest IMF quota and voting share with US and Japan being the first and second respectively and India, Russia and Brazil are among the top ten members (The BRICS Post, 2016). These reforms allowed an increase in the role of emerging economies, particularly China, in the IMF. China's voting share increased from 3.8% to 6%, India's share increased from 2.3% to 2.6%, Brazil now has 2.22% and Russia 2.59%. US's share decreased slightly from 16.7% to 16.5% (IMF, 2016). Following the entry into force of the Board Reform Amendment on January 26th 2016, the voting powers of a number of countries changed and Table 2.2 presents a list of selected member countries' quota and voting share (IMF, 2018).

Table 2.2: Selected Member Countries' Quota and Voting Share in the IMF

COUNTRY	QUOTA % OF TOTAL	VOTES % OF TOTAL
Selected African countries		
Angola	0.16	0.18
Ethiopia	0.06	0.09
Ghana	0.16	0.18
Malawi	0.03	0.06
Nigeria	0.52	0.52
Sudan	0.04	0.06
Tanzania	0.08	0.11
Uganda	0.08	0.10
Zambia	0.12	0.22
BRICS countries		
Brazil	2.32	2.22
Russia	2.71	2.59
India	2.76	2.64
China	6.41	6.09
South Africa	0.64	0.64
Other selected countries		
USA	17.46	16.52
Japan	6.48	6.15
Canada	2.32	2.22
Italy	3.17	3.02
Spain	2.01	1.92
Switzerland	1.21	1.18
United Kingdom	4.24	4.03

Source: IMF (2018).

The managing director of the IMF, Christine Lagarde, claimed that the reforms ensure that the IMF is better able to meet and represent the needs of member countries in the ever changing global environment. She further stipulated that the changes are crucial and definitely not the end of reforms aimed at strengthening the IMF's governance (IMF, 2016).

2.2.1.2 Objectives and activities of the IMF

The Bretton Woods Conference set six goals for the IMF in its Articles of Agreement and these remain as the guiding principles of the IMF today. The goals are:

1. to promote international monetary cooperation through a permanent institution that provides the machinery for consultation and collaboration with regard to international monetary problems;
2. to facilitate the expansion and balanced growth of international trade, to contribute to the promotion and maintenance of high levels of employment and real income and to develop the productive resources of all members as primary objectives of economic policy;
3. to promote exchange stability, to maintain orderly exchange arrangements among members and to avoid competitive exchange depreciation;
4. to assist in the establishment of a multilateral system of payments in respect of current transactions between members and the elimination of foreign exchange restrictions that hamper the growth of world trade;
5. to encourage the confidence of members by making the general resources of the IMF temporarily available to them under adequate safeguards, thus providing them with opportunities to correct adjustments in their balance of payments without resorting to measures that are destructive to national or international prosperity and
6. to shorten the duration and lessen the degree of disequilibria in the international balances of payments of member countries.

In simpler terms, the goals are to:

1. facilitate the cooperation of countries with regard to monetary policy, including providing the necessary resources for both consultation and the establishment of monetary policy in order to minimize the effects of international financial crises;
2. assist the liberalization of international trade by helping countries increase their real incomes while lowering unemployment;
3. help stabilize exchange rates between countries, especially after the global depression of the 1930's, when it was considered vital to establish currencies that could hold their value, serve as media of international exchange and resist any speculative attacks;
4. maintain a multilateral system of payments that eliminates foreign exchange restrictions so that countries are free to trade with one another without worrying about the effects of interest rates and currency depreciation on their payments;
5. provide a safeguard to members of the IMF against balance of payments crises, i.e., when governments cannot balance the money they have with the money they owe to other countries. IMF members can have the confidence to adjust the imbalances in their national accounts without resorting to painful measures that would hamper their prosperity, such as devaluing their currency in relation to that of other countries and
6. attempt to reduce the effects of volatility in countries' balance of payments accounts; the IMF helps to ensure that global trade and financial relationships can continue at a steady rate without the risk of global depressions.

When the IMF was established, it also operated the system of international exchange based on the gold reserves that its member countries pledged. In 1971 the US Government under President Nixon eliminated the link between the US dollar and gold as a means to resolve a domestic monetary crisis (Bernstein, 1984). By allowing the dollar's value to float as opposed to having it pegged to gold, the US Government was able to adjust its monetary policy to deal with changes in its economy. Subsequently, the IMF eliminated its use of gold and all members were allowed to "float" their currencies, meaning that they could use a floating system to determine the exchange rate.

The IMF has three main activities, namely surveillance, financial assistance and technical assistance. With regard to surveillance, every year the IMF sends economists to each of its member countries to analyse those countries' economic situations in terms of fiscal and monetary policy, exchange rate, general macroeconomic stability and any related policies, such as labour policy, trade policy and social policy, such as the pension system (Stiglitz, 2002). The purpose of such consultation is to provide an outside check on national decisions that could have an effect on the international economic system. After the team completes its analysis, the IMF executive board discusses the report and presents it to the leaders of the country in question as the official opinion of the IMF. A version of the report is also published and made available on an IMF public forum (IMF, 2015; World Bank, 2015).

The central activity undertaken by the IMF is financial assistance to national treasury departments. Member countries with BOP problems can receive credits and loans to pay off their obligations and readjust their economic policies to reduce the chances of facing another crisis. However, to qualify for such assistance, the member country must agree to implement changes in its fiscal and monetary policies that IMF experts have determined to be necessary (Stiglitz, 2002). These conditions are the cause of some of the most strident resentment toward the IMF, as they often involve detailed changes to national policies. Regardless of the strong reservations, countries generally agree to whatever policy change is suggested, as IMF assistance is considered essential to national economic health. The loans are paid in phases to ensure that the receiving country moves forward with the reforms required of it (IMF, 2015). These loans are generally granted for relatively short periods, from just a few months to as long as ten years, depending on the type of loan. The receiving country must pay loans back on time, according to a rigorous schedule, as the loans are intended to be temporary assistance. Countries are discouraged from becoming dependent on IMF loans and may face additional charges if too much of their government funding comes from the IMF (IMF, 2012). The IMF hopes to play a role as a catalyst for private banks to lend to governments, because the extension of an IMF loan is intended to express confidence that the receiving country is getting its financial house in order.

The IMF also provides technical assistance on fiscal and monetary policy, regulatory procedures, tax policy and collection of statistics, among other issues. These programs are aimed at strengthening developing countries' abilities to reform and properly manage their macroeconomic policies. According to the IMF (2015), the organisation dispatches its own experts and private consultants on training missions to educate government officials and runs the IMF Institute in Washington, DC to provide courses for officials. In addition to these three main activities, the IMF has instituted various programs to ensure the stability of financial system management on a global scale. For example, the IMF, along with the World Bank and other institutions, has drafted voluntary standards and codes for countries and financial institutions to adopt in order to increase accountability and transparency and to limit corruption. The IMF has also developed two systems of collection and dissemination of statistical information to help assess the economic viability of the domestic and international financial systems. The use of IMF resources and/or facilities is based on certain conditions to control the use of funds. These conditions include those listed below (IMF, 1980).

- A member country intending to make use of the funds must present specific economic justifications to acquire those funds. Reasons for the deficit or imbalances and the BOP position of the country must be presented.
- The member country needing to make use of the facilities should not have previously defaulted on any IMF condition.
- The acquired facilities should be strictly directed towards correcting the BOP deficit and nothing else.

The roles and activities of the IMF are summarised below.

The IMF work area -

- promotes international monetary cooperation;
- promotes exchange rate stability;
- facilitates balanced growth of international trade;
- provides resources to assist members with balance of payments (BOP) difficulties and
- assists with poverty reduction.

Devices of IMF's assistance -

- keeps track of the economic health of member countries and alerts them to imminent risks;
- provides policy advice;
- lends to countries in difficulty;
- provides technical assistance and
- training to assist countries to improve economic management.

2.2.1.3 Source of IMF funds

The primary source of IMF funds for lending is the quota subscription assigned to each member upon joining (IMF, 2016). The quota, (the amount that must be contributed to the IMF), is determined according to the specific country's relative weight in the global economy. This quota also determines the strength of a member's voting power as well as the amount of funds to which it has access. A country's quota is calculated using a formula that includes the country's GDP, openness to trade, level of official reserves and volume of current account transactions. The quota contribution of the IMF members totals approximately $328 billion, which constitutes about 25% of the funds available to the IMF (IMF, 2010). In addition to the funds from the quota payments, the IMF maintains multilateral borrowing arrangements as a temporary supplement to borrowing. The fund has a borrowing arrangement known as the New Arrangement to Borrow (NAB) with 38 member countries. This is a set of credit arrangements stipulating that the countries provide about $510 billion as supplementary resources to the IMF. In addition, 32 countries have bilateral loan or note purchasing agreements with the IMF that provide an additional $418 billion (IMF, 2010).The IMF's financial resources total approximately $1.28 trillion. The IMF's quota is supposed to be reviewed every five years to ensure that the total financial resources remain adequate and that the quota keeps providing an adequate reflection of each country's relative share in the global economy. However, this quota has not significantly increased since 1998 and as a result, the quota may not be a true representation of the current economic situation of the respective member countries.

2.2.2 The World Bank

At Bretton Woods the World Bank was assigned the tasks implied in its formal name, the International Bank of Reconstruction and Development (IBRD), giving it primary responsibility for financing economic development (World Bank, 2015). The World Bank provides technical and financial support, usually in the form of long-term loans, to aid countries reform particular sectors of their economy or for specific projects.

The International Bank for Reconstruction and Development (IBRD) that was founded at Bretton Woods has come to be known as the World Bank. This bank has expanded beyond its initial scope and purpose of rebuilding Europe after the Second World War through the creation of four additional organizations. The World Bank is a component of the World Bank Group

(WBG), which is a family of five international organizations that make leveraged loans to poor countries (World Bank, 2015). These five organizations are:

1. the International Bank for Reconstruction and Development (IBRD), which lends to governments of middle-income and credit-worthy low-income countries;
2. the International Development Association (IDA), which provides interest-free loans referred to as credits and grants to the governments of the poorest countries;
3. the International Finance Corporation (IFC), which is the largest development institution and focuses on non-government borrowers;
4. the Multilateral Investment Guarantee Agency (MIGA), which promotes foreign direct investment into developing countries in support of economic growth, reduction of poverty and improvement of people's lives and offers political risk insurance (guarantees) to investors and lenders and
5. the International Centre for Settlement of Investment Disputes (ICSID) that provides international facilities for conciliation and arbitration of investment disputes.

The IBRD and IDA together make up the World Bank and all five together constitute the World Bank Group. As explained above, the IBRD and the IDA focus mainly on public sector monetary policy and provide low interest loans, interest free credit and grants to developing countries. They work to shape the policies of governments by providing macroeconomic policy advice, research and technical advice. The remaining three institutions that make up the World Bank Group focus more on private market interactions by providing funding, insurance and dispute resolution for private sector projects (World Bank, 1994). The IDA of the World Bank was established in 1960 and assists poor countries by issuing them loans referred to as credits and grants for projects aimed at boosting economic growth and reducing poverty. This is one of the largest sources of funds for numerous impoverished countries, mostly in Africa.

2.2.2.1 Governance of the World Bank

Control of the World Bank is similar to that of the IMF. It has a board of governors composed of one representative from each member country and they direct the IBRD based on weighted voting rights that are determined by their country's annual contributions to the World Bank. The United States, as with the IMF, is the largest contributor and has the most weighted voting power, although in practice, decisions are made by consensus. Twenty-four executive directors oversee the daily operations of the World Bank, including five permanent seats given to the

United States, Japan, Great Britain, Germany and France. The remaining 19 directors are elected by the member nations and a president is at the head (World Bank, 2015). The World Bank also operates a World Bank Institute for training officials in development related topics. In total, the World Bank has more than 10,000 employees spread over 100 offices around the world with headquarters in Washington, DC.

2.2.2.2 Objectives and activities of the World Bank

The mission statement of the IBRD states that it "aims to reduce poverty in middle income and credit worthy poorer countries by promoting sustainable development, through loans, guarantees, and non-lending services including analytical and advisory services" (World Bank, 2015). The World Bank concerns itself with issues such as building infrastructure, (roads, dams and power plants), natural disaster relief, humanitarian emergencies, poverty reduction, infant mortality, gender equality, education and long-term development issues. It also assists with social reforms that promote economic development, such as female empowerment, building schools and health centres, provision of clean water and electricity, fighting disease and protecting the environment.

Generally, the World Bank operates by providing loans in two different ways. Firstly, investment loans granted for projects that will produce goods or services or public works to promote economic development. Secondly, adjustment loans granted for programs to support reforms to government policies. These loans, like the IMF's loans, are conditional on the World Bank's authorization of the investment plans, the project plans and repayment of the loans (Stiglitz, 2002). The World Bank funds its loans by raising money on the international bond market, issuing bonds in its name to large international institutional investors, such as banks and pension funds. Only about half of the World Bank's funding comes from grants by members and the rest is from the World Bank's own operations (World Bank, 2015).

The World Bank has participated in numerous activities around the globe. Since 2000, for example, the World Bank has been devoted to helping implement the Millennium Development Goals (MDGs) that were drafted by the United Nations at the Millennium World Summit. According to the World Bank (2015), these goals are to:

1. eradicate extreme poverty and hunger;
2. achieve universal primary education;

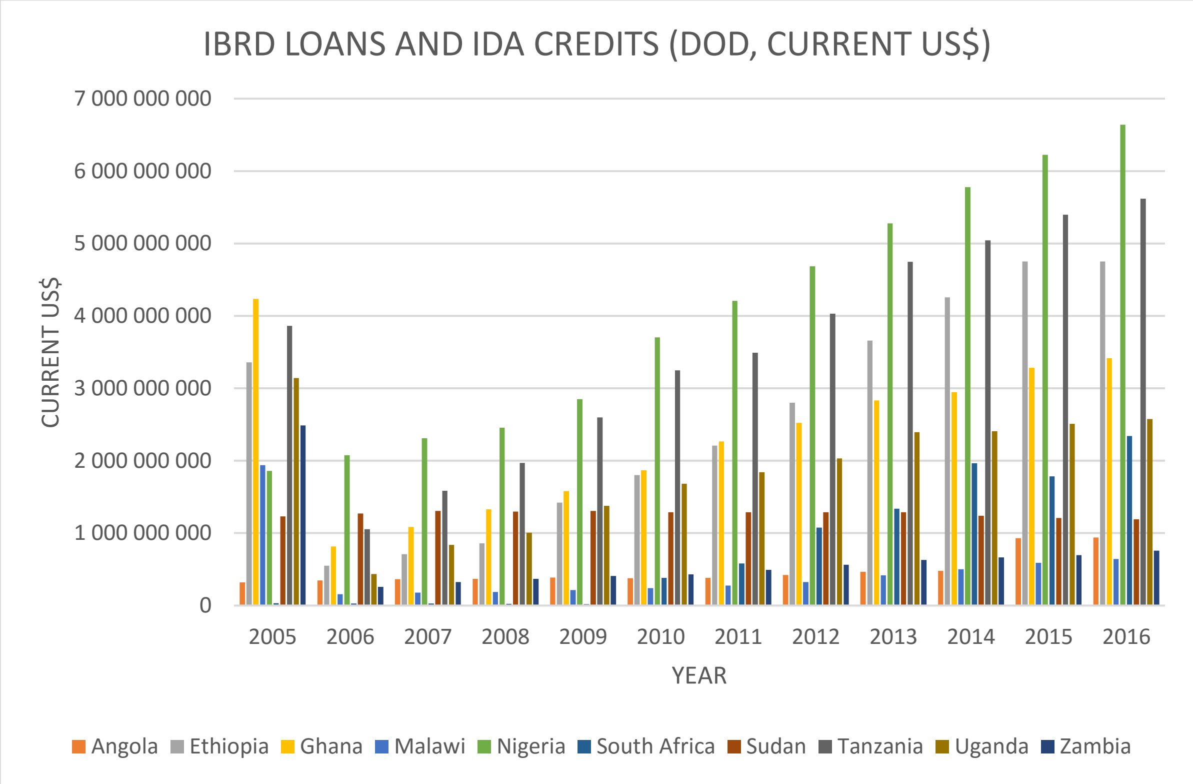
3. promote gender equality and empower women;
4. reduce child mortality;
5. improve maternal health;
6. combat HIV/AIDS, malaria and other diseases;
7. ensure environmental sustainability and
8. develop a global partnership for development.

2.2.2.3 Sources of funds for the World Bank

While IMF loans are mainly funded from the pool of funds contributed by member countries, those from the World Bank are funded by member country contributions and bond insurance. The international financial institutions mainly finance their operations from their lending operations and from income generated by investing in financial markets. The International Development Association (IDA) also receives subscriptions from its member countries (Bretton Woods Projects, 2009). In 2008 the IBRD for example, realised an equity of about $41 billion. It issues bonds and other financial instruments on financial markets to raise money. Costs such as administrative expenses are mainly charged to those countries that borrow from it (Bretton Woods Projects, 2009).

2.3 IMF AND WORLD BANK IN AFRICA

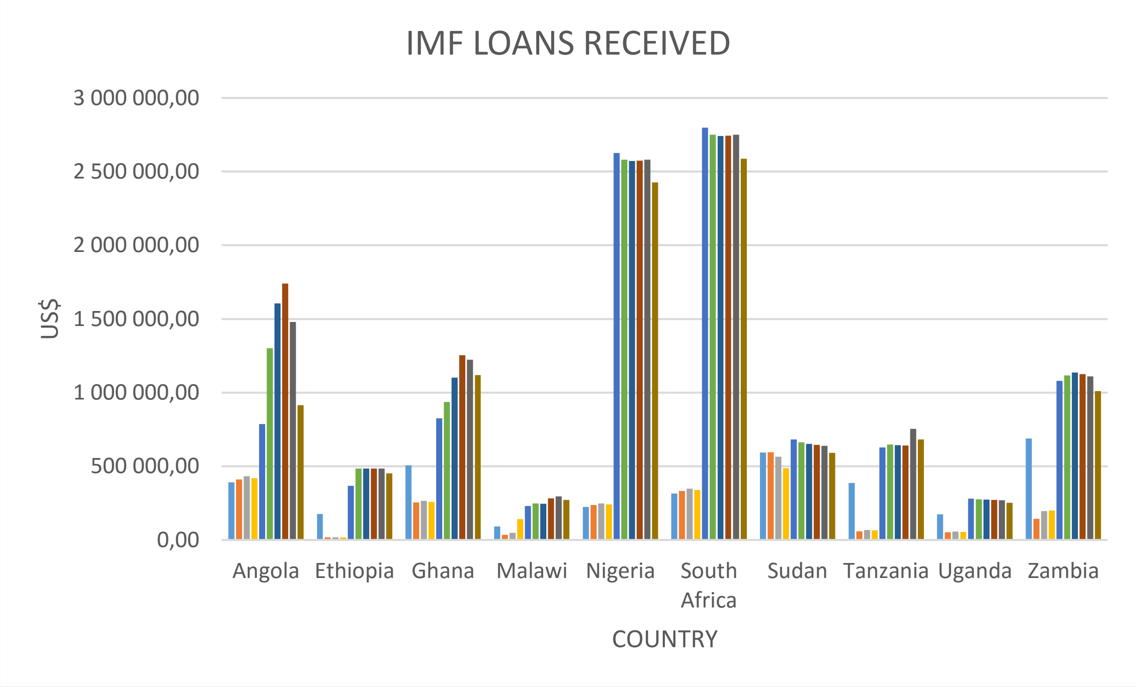
The World Bank, together with the IMF, are known as the International Financial Institutions (IFIs) and are the pillars that were designed to assist in controlling the international financial system. Their role is to drive closer economic integration in the world. They provide funds and advice to assist countries with their economic development and policy-making. They are, however, criticized on many levels; for intrusiveness into the economic and political sovereignty of nations dependent on their aid, lack of transparency and for the impact their policies have on societies and the environment. The IFIs have responded to these criticisms with new programs. The IMF, for example, has begun publishing Public Information Notices (PINs) concerning their Article IV consultations with various governments (IMF, 2012). The IMF has also emphasized "ownership" by client countries of the policies it recommends. The World Bank and the IMF are cooperating in the Heavily Indebted Poor Countries (HIPC) initiative to provide debt relief. The World Bank and the IMF are the most powerful international financial institutions in the world and are the main sources of funds or lending to African countries (Ngwane & Dan, 2000). In 2007 for example, the World Bank issued approximately $24 billion in loans and $5 billion, approximately 22% of this, went to Africa. Numerous countries in sub-Saharan Africa have received substantial financial loans over the years from both the IMF and the World Bank. In addition to financial support, the financial institutions have also offered advice on policy-making to most African countries.



Source: Author's computation using data from the World Bank Group (2018).

Figure 2.1: World Bank Loans Issued to Selected African Countries

As depicted in the figure above, the World Bank has issued vast amounts of money to African economies for development purposes. The World Bank's IBRD loans and IDA credits are loans issued by the World Bank for development purposes. The IMF has also issued loans referred to as Use of IMF Credit to countries (DOD, Current US$). Figure 2.2 below depicts these loans issued during the period 2005 to 2016.



Source: Author's computation using Data from World Bank Group (2018).

Figure 2.2: IMF Loans Issued to Selected African Countries 1994-2014

For example, Uganda, a country that was shattered by years of divergence and economic mismanagement, was assisted by the World Bank both financially and with advice regarding fiscal adjustments, exchange rate reforms and trade liberalization (World Bank, 2007). The international financial institutions have been working with the Ugandan Government providing financial support for the country's development programmes. In 2016 however, the World Bank decided to withhold new lending to Uganda while they continued to monitor the country's portfolio. The areas of concern included delays in project effectiveness, weakness in safeguards, monitoring and enforcement, to name just a few (World Bank, 2016). Uganda's debt kept rising, primarily due to the substantial need to finance infrastructure projects, as it was facing an infrastructure deficit (Oketch, 2016).

In Zambia, the World Bank has lent assistance on numerous occasions. The bank has collaborated with Zambia since 1955 in support of the country's development and mining projects. Infrastructure development is a primary concern of the Zambian Government, as highlighted in the country's fifth and sixth National Development Plans, as well as in the country's Vision 2030 (Zambia Development Agent, 2016). Around 1991 a new government privatised key parts of the economy and the IMF imposed strict borrowing limits on Zambia, which in turn constrained infrastructure development (IMF, 2016). Zambia has vast infrastructural development needs but the availability of funds remains problematic. Infrastructure development funds required by Zambia are in the region of $1.6 billion to be able to develop it to a developed country's standard. In April 2013 the World Bank Board of Executive Directors approved a US$50 million International Development Association (IDA) credit to support Zambia in the implementation of an integrated framework for the development and management of water resources in Zambia. The project supported the development of infrastructure in the water resources department (World Bank, 2015). Zambia is one of the fastest growing nations in sub-Saharan Africa but the lack of water infrastructure presents a significant challenge to the country's economic expansion. The IDA has been assisting the world's poorest nations by providing loans known as credits for projects to boost economic growth, reduce poverty and improve the standards of living of the people, and Zambia is one of the countries that has benefited.

The international financial institutions have also assisted Sudan, a country that is located in the northern part of Africa at the crossroads of sub-Saharan Africa and the Middle East, with fertile lands, abundant livestock and manufacturing. The country has been experiencing conflict for most of its independent history and as a result, the 2005 Comprehensive Peace Agreement was formed, under which the southern states formed the Republic of South Sudan in July 2011 (World Bank, 2014). The division resulted in it being 'cut off' from the modern world and a number of villages were isolated in the process. The instabilities occurring in South Sudan continue to exert pressure on Sudan and more than 10 000 people sought safety in Sudan in mid-October of 2014. An additional 7000 South Sudanese fled to Sudan when fighting broke out in July 2016. Sudan is a highly indebted country, the same as many African countries that accumulated substantial external arrears and has been in non-accrual status with the World Bank Group (WBG) since 1994. At the end of 2014, Sudan's external debt stock stood at $43.6 billion in nominal terms, approximately 85% of which was in arrears (World Bank, 2014). A team from the IMF, led by Eric Mottu, visited the country mid-2016 and encouraged Sudan to accelerate policy reforms for restoring macroeconomic stability to ensure growth. They discussed options for the country to ensure growth in public infrastructure and social spending and create jobs, among other things (IMF, 2016). Sudan is a heavily indebted, impoverished country and the arrears hinder access to external finances, and hence derail development.

In 1993 Sudan became the world's largest debtor to the World Bank and International Monetary Fund and its relationship with the international financial institutions soured in the mid-1990s. The government fell out of compliance with an IMF standby program and accumulated substantial arrears on repurchase obligations. In 1993 the IMF suspended Sudan's voting rights and the World Bank also suspended Sudan's right to make withdrawals under effective and fully disbursed loans and credits. As part of the World Bank's engagement with Sudan, it manages Sudan's Multi-Partner Fund (SMPF) and maintains a portfolio worth approximately $130 million (World Bank, 2016).

The World Bank and the IMF have also assisted the South African Government in financing a number of projects. The World Bank Group's lending activities in South Africa (SA) encompass mainly three operations funded by the International Bank of Reconstruction and Development and the Global Environment Facility grants. The projects are the Eskom Investment Support Project, the Isimangaliso Wetland Park Project and the Renewable Energy Market Transformation Project. The World Bank is also financing the Clean Technology Fund, which is for the building of renewable solar and wind energy sources (World Bank, 2016). The World Bank claims that this is the first chief lending arrangement it has had with SA since the fall of apartheid. The World Bank's vice president claimed that this project would help South Africa realise economic growth and help the poor, as access to energy is vital.

The IFIs have also issued loans to Nigeria, which is one of the richest countries in terms of GDP ranking in Africa and also has the largest population (World Bank, 2014). The country received financial support from the World Bank to assist in the fight against poverty and to improve living standards for the people, with more than 130 IBRD loans and IDA credits since 1958 (World Bank, 2014). In 2014 the World Bank approved an IDA credit of more than US$140 million in support of the country's ongoing efforts to make social services and community development activities work for the poor majority (World Bank, 2014). This funding was to be directed towards helping the most vulnerable households in the country. To date, completed micro-projects have benefited approximately 5600 communities and more than 2 million people (World Bank, 2014). These micro projects include community infrastructure built for education purposes, rural electrification, transport, water and rural market development. In 2016 the World Bank Board approved additional finance in IDA credit for the rebuilding of livelihoods in the north-east region (World Bank, 2016). This project focused on improving people's lives though investing in infrastructure that will aid agriculture, education, health and social protection. Boko Haram has remained a threat in this region, resulting in the destruction of infrastructure, loss of lives and the displacement of millions of people that need assistance.

The IMF and World Bank have also assisted Ghana, which is a country well-known for its political and social steadiness since its transition to a multi-party democracy in 1992 (World Bank, 2015). Ghana is one of the few countries that has kept on track with the Millennium Development Goals for income poverty, hunger, primary school completion, gender parity and access to other public goods such as water (World Bank, 2015). In a study carried out by the World Bank team it was found that Ghana requires sustained spending of at least $1.5bn per annum over the next several years to cap the infrastructure gap that currently exists (Apenteng, 2013). The World Bank Group aims at assisting Ghana to uphold economic growth, maintain middle-income status and halve poverty (World Bank, 2016). The World Bank has been providing financial support to Ghana as it has for many other countries. For example, in 2012 it approved an International Development Association (IDA) interest free credit of US$30 million to initiate a new project, the Public Private Partnership (PPP) for infrastructure development in Ghana (World Bank, 2016). The IMF also supported Ghana in 2015 by providing a $918 million loan to support government policies aimed at boosting national infrastructure projects (IMF, 2015).

The hand of the international financial institutions is also seen in Tanzania. In 2014 the World Bank approved funds of US$300 million in support of the country's project of building a railway infrastructure on the Dar es Salaam-Isaka section of the East African Central Corridor by the International Development Association (IDA), which is the largest provider of funds to Tanzania (World Bank, 2014). The World Bank task team leader for this project, Henry des Longchamps, posited that this project would help in improving Tanzania's rail network, thereby improving competition as well as economic integration at regional and global levels. Locally, this project will also help improve the transport network for the population that is living in the western parts of the country where agriculture is the dominant activity.

Over the years, impoverished African countries have increasingly had to turn to the World Bank and the IMF for financial assistance due to their impoverishment, which has made it impossible for them to borrow elsewhere. These two institutions have attached strict conditions to the loans, giving them greater control over the governments of the borrowing countries (Stiglitz, 2002). The conditions were accepted by the desperate countries as they had no choice. Some of the conditions include the Structural Adjustment Programs (SAP) and other measures that reduce government spending on basic services. Reduced government spending on health care for example, has left the majority of the people vulnerable to AIDS and other poverty related diseases. In addition, African countries have had to reduce trade barriers and open their markets. The debt crisis has worsened over the past years, as most beneficiary countries have become more reliant on new loans, at times to repay old loans.

In response to the various criticisms, the World Bank and the IMF have constantly edited their structural adjustment programs and in 1999 they initiated the Poverty Reduction Strategy Paper (PRSP), which is a document that outlines a country's program for the promotion of growth and poverty reduction. The PRSP is financed by the World Bank and IMF's Poverty Reduction Growth Facility (PRGF).

In addressing the external debt crisis faced by most poor economies, the World Bank and IMF came up with the Heavily Indebted Poor Countries (HIPC) initiative in 1996. However, the strict eligibility conditions have prevented many poor and highly indebted countries from benefitting from the initiative. Around 2005 the Multilateral Debt Relief Initiative (MDRI) was introduced, which grants debt cancellation to all countries that are eligible and that adhere to the economic policies and programs deemed necessary by the World Bank and the IMF. By December 2007 nineteen countries in Africa had benefited from this initiative. In 2003 Zambia's partial debt cancellation allowed its government to grant free basic healthcare to its population in 2006, and in Tanzania, the funds were used to eradicate primary school fees, thereby increasing attendance by two-thirds (Ngwane & Dan, 2000). Uganda is currently using the $57.9 million in savings it gained from debt relief in 2006 to improve primary education, energy and water infrastructure, malaria control and healthcare.

2.3.1 Debt accumulation in Africa

External debt crisis was one of the main economic problems that faced the international community shortly after the Second World War (Mohamed, 2005). A number of the world's poorest countries accumulated debt in the 1970s and 1980s after suffering from the tremendous worldwide oil shocks, high interest rates, weak commodity prices and recessions that marked this phase of history (Krumm,1985). On gaining independence most African countries initiated public projects in attempts to strengthen their economies and financed these projects with foreign loans. During that period, development experts suggested that governments of poor countries should borrow money from the World Bank and the IMF, among others, to industrialize their economies by investing in industry and infrastructure and by replacing goods and services from abroad with goods and services produced within their own countries. The assumption in accepting these loans was that economies would grow over time and export production would increase, thus allowing them to meet debt-servicing obligations (McDonald, 1982). Regrettably, the value of poor countries' exports was decreased by weak commodity prices and high oil prices increased the price of imports, both leading to increasing debt. Numerous low and middle-income countries were living beyond their means, with high trade and budget deficits and low savings rates. Weak public sector management and corruption contributed to inappropriate or inefficient use of loans, further decreasing the ability of these countries to pay back the borrowed money. Droughts, civil war and weak economic policies all worsened the situation. All these events led to poor countries inevitably requesting new loans in order to pay back old loans (Todaro & Smith, 2012).

The World Bank and IMF were the chief lenders to these impoverished countries because for private lenders these countries were too risky. As early as 1988 the World Bank began to write off some debt and in the 1990s a number of key industrial countries cancelled bilateral debt repayments. By 1994 more than $15 billion of African debt was cancelled but the region still owed about $235 billion to donor countries, regional banks and multilateral institutions (World Bank, 2015). From the early 2000s until 2008 developing countries' external debt indicators measured in terms of GNI and export earnings showed marked improvement. During this period the combined stock of developing countries' external debt, measured in relation to export earnings, fell to 63.9 percent, less than half its 2000 level of 129 percent (Todaro & Smith, 2012). Numerous factors could have contributed to this trend, which include strong growth performance, a sharp increase in export earnings resulting from increased export volumes, high international prices for primary commodities and a shift in external financing from debt to equity in a number of developing countries. Large-scale forgiveness of external debt obligations through the Highly Indebted Poor Countries (HIPC) initiative and Multilateral Debt Relief Initiative (MDRI) also accounted for the fall in external debt in the case of the few low-income countries that qualified for debt relief (World Bank, 2015). In 2007/8 the trend was interrupted by the global financial crisis. The years that followed were characterised by contractions in export earnings for most African economies, coupled with increased external borrowing in order to finance BOP deficits. All this pushed the outstanding external debt to export ratio to 85 percent, which was the highest since 2005 (World Bank, 2015).

There is a wide range of causes for the debt crisis in the Third World, some of which are external while others are direct results of economic policies that have been adopted. Were (2001) stipulates that the world interest rates increased sharply in the early 1980s as a result of anti-inflationary measures adopted in developed countries. Concurrently, there was a fall in the terms of trade for the debtor world, as prices of raw materials fell. It is also argued that increased protectionism policies that developed countries adopted tended to discriminate against less developed countries' (LDC) exports, thereby lowering their earnings from exports. Reduced earnings from exports led to these countries failing to service their debts (Mohamed, 2005). In addition to the external factors, external indebtedness of less developed countries can be, to some extent, attributed to internal factors, which include internal conflicts and civil wars, expansionary fiscal policies, public sector deficits and distorted trade policies, especially policies that created a heavy bias against exports (World Bank, 2016). Countries in sub-Saharan Africa, for example, have generally adopted a development strategy that relies heavily on foreign financing from both official and private sources. Unfortunately for many countries in the region, the stock of external debt has built up over recent decades and reached a level that is viewed as unsustainable. In 1975, for example, the external debt of sub-Saharan Africa was about US$18 billion and by 1995, the stock of debt had risen to over US$220 billion (World Bank, 2015). Similarly, the debt to GNP ratio for sub–Saharan Africa was 14% in 1975 but by 1995 it had shot up to more than 74%. Although debt to service ratios have remained relatively low because of the highly concessional nature of external financing provided to Africa, many countries in the region have been unable to service their debts without accumulating more debt or falling into arrears (Ajayi and Khan, 2000).

Sudan for example, like most sub-Saharan African countries, has failed to raise adequate development funds and in order to cover the shortfall, its government resorted to expansionary monetary policy and excessive foreign borrowing, thus reducing the BOP position (Mohamed, 2005). This was the genesis of serious indebtedness, which resulted in debt service obligations of over 20% of GNP in 1983 and 1984 respectively (Farzin, 1988). Given these economic hardships, Sudan was unable to meet the required payments and this resulted in the build-up of debt service arrears. From as early as 1978 the IMF has tried to help Sudan conclude agreements as well as introducing the Structural Adjustment Programmes (SAPs) with conditions attached (The Navis Island Government Report, 1997). In 1990 however, the IMF declared Sudan as non-cooperative, as it had failed to meet scheduled repayments and threatened expulsion, which was avoided by the government agreeing to meet the arrears, liberalize exchange rates and reduce subsidies (Mohamed, 2005).

In Zimbabwe, the sources of the current debt crisis can be attributed to mainly three things. Upon independence from colonial rule, the then government inherited a debt of about US$700 million that was accumulated by the colonial government. In the years that followed, the Zimbabwe Government was forced to borrow to finance projects that would provide access to social services, such as health and education, in a bid to correct imbalances that had been created during colonialism. However, these funds were not used as intended, (and so did not generate returns), but rather to finance payment for government workers or to pay debt obligations at that time and the loans were therefore not invested in capital projects. The country also suffered from poor policies that further drained it financially, for example the involvement in the expensive war in the Democratic Republic of Congo in that late 1990s. Zimbabwe ended up in debt to the IMF and according to the IMF (2017), the country is in a debt distress with external debt at unsustainable levels. In 2016 the total outstanding debt was 9,348 million US Dollar, which was 58% of the GDP (IMF, 2017).

The examples of Sudan and Zimbabwe presented above are more or less the same in most developing African countries. Many countries find themselves in a situation where they have increased their borrowing and such loans were not invested in projects that would bring returns. As a result, debt servicing has become a problem and debt keeps accumulating but no longer has any positive effects on growth. The level of indebtedness in Africa is growing day by day as the need for financial assistance is increasing. According to its original mandate, the IMF was supposed to focus on crises but developing economies have always been in need of financial assistance and the IMF has become a permanent part of life in most developing economies (Stiglitz, 2002).

2.3.2 Debt Relief Initiatives

Ajayi and Khan (2000) argue that the international financial community has a significant role in lowering the debt burden of sub-Saharan and other African economies. Regardless of the positive developments made in the debt situation of most middle-income debtor countries since the beginning of the debt crisis in 1982, a group of low-income countries classified as Heavily Indebted Poor Countries (HIPCs) has continued to experience problems in managing to service their relatively high stocks of external debt. Of the 41 countries classified as HIPCs, 33 (80%)

are in sub-Saharan Africa (SSA) and the majority of these countries are characterized by low human development (Were, 2001).

The IMF and the World Bank implemented the HIPC Initiative in late 1996 to help remove the debt overhang and restore the sustainability of the debt for eligible countries (IMF, 2014). The principle motivation for the debt relief initiatives stems from the negative impacts of heavy debt burdens on per capita income growth (Clements, et al., 2003). The IMF and the World Bank have worked together to lessen the external debt burdens of the heavily indebted poor African countries under the HIPC Initiative and the Multilateral Debt Relief Initiative (MDRI). Under these initiatives, qualified countries are required to introduce specific economic reforms, such as restructuring and privatization of state-run enterprises and creating a sound legal system, for them to receive the debt relief. The HIPC Initiative stipulates that, after a three-year track record of effective economic reform under the IMF, the World Bank and official creditors will provide sufficient debt relief to reduce the external debt to sustainable levels, subject to the recipient country's completing a further three year period of strong policy performance (IMF, 2014). Figure 2.3 below indicates Africa's Highly Indebted Poor Countries and the distribution of the debt relief program when the initiative was launched.

Source: Adopted from BBC News (2018)

Figure 2.3: Highly Indebted Poor Countries

Critics of the HIPC debt initiative argued that the terms and conditions that HIPCs are expected to meet are too stringent. According to Jubilee (2000), ratios for measuring debt unsustainability need to be lowered and made more realistic or rational and brought in line with historical precedents. Initially, debt sustainability was measured exclusively in terms of debt to export ratios rather than in terms of budgetary burden. This reflects the IMFs insistence on prioritizing monetary targets over human development goals, contributing to a reduction of spending on health and education, creating unemployment and increased levels of household poverty in the process (Mohamed, 2005). In order to provide a measure of protection for poor countries' development needs, John (2014), in an Oxfam policy brief paper, argued for the introduction of a fiscal cap into the debt relief framework, limiting debt repayments to 10% of government revenues.

The initiative's requirements were stringent and by 1998 only two of the 40 eligible countries were granted actual debt cancellation. In 1999 the World Bank revised the program to include more countries and take into account other ongoing efforts for poverty reduction in eligible countries (World Bank, 1994). Sudan for example, is a heavily indebted poor country and arrears of about US$1.6 billion are payable to the IMF. Total debt in net present value is 2448% of exports, which is way above or higher than the upper limit of HIPC's "sustainability" (The African Debt Report, 2000). Regardless of the IMF conducting frequent visits to the country, no IMF or World Bank adjustment programme has been in place since 1995 in this country (Mohamed, 2005). According to the IMF (2016), Sudan was eligible for debt relief in 2014 after a debt sustainability analysis that was completed in that year. However, it was still to meet all qualifications, such as the normalization of relations with external creditors, including the IMF and others, which is a key pillar for debt relief. Other countries do not even qualify or are not even eligible for debt relief. For example, Zimbabwe's eligibility to receive assistance under the HIPC Initiative remains unclear. The indebtedness assessments carried out on Zimbabwe-based reconciled loan-by-loan debt data indicates that it has met the criteria for eligibility but to be eligible for assistance it must clear its arrears with the PRGT (IMF, 2016). On the World Bank side, the assessment based on the end of 2013 debt-to-exports ratio indicated that Zimbabwe would not qualify for the HIPC debt relief initiative. Qualification depends largely on the level of debt-to-exports based on fiscal year data and policy performance (IMF, 2016). In 2015 the authorities presented strategies to creditors outside the HIPC framework with the aim of clearing Zimbabwe's arrears to multilateral institutions using both its own resources and external borrowing. The objective was that of making Zimbabwe's external position stronger as a prerequisite for arrears clearance and resumption of debt service and to show that the country has the capacity to implement policy reforms that could be used to justify a financial arrangement with the fund (IMF, 2016).

In 1999 the IMF and the World Bank launched the Poverty Reduction Strategy Paper (PRSP) approach as a key component in the process leading to debt relief under the HIPC Initiative and as an anchor in concessional lending by the Fund and the Bank (IMF, 2014). While the PRSP continues to underpin the HIPC Initiative, the World Bank and the IMF adopted new approaches to country engagement in July 2014 and July 2015 respectively that no longer require the PRSP. As at October 2017, according to the IMF (2017), the following list of countries have either qualified for (post-completion point), or are on the pre-decision-point of the HIPC Initiative.

Table 2.3: HIPC Initiative Qualification

Post-Completion-Point Countries (36)		
Afghanistan	Ethiopia	Mauritania
Benin	The Gambia	Mozambique
Bolivia	Ghana	Nicaragua
Burkina Faso	Guinea	Niger
Burundi	Guinea-Bissau	Rwanda
Cameroon	Guyana	Sao Tome & Principe
Central Africa Republic	Haiti	Senegal
Chad	Honduras	Sierra Leone
Comoros	Liberia	Tanzania
Republic of Congo	Madagascar	Togo
Democratic Republic of Congo	Malawi	Uganda
Cote d’lvoire	Mali	Zambia
Pre-Decision-Point Countries (3)		
Eritrea	Somalia	Sudan

Source: IMF (2017)

The IMF streamlined its requirements for poverty reduction documentation for programs supported under the Extended Credit Facility (ECF) or the Policy Support Instrument (PSI). The international financial institutions have been setting the stage for the 2030 development agenda. Since 2004 the IMF and the World Bank have jointly published the annual Global Monitoring Report (GMR), which has assessed the progress towards the Millennium Development Goals (MDGs) so far. The IMF and the World Bank have also been actively engaged in the global effort to implement the 2030 development agenda. Each institution has committed to new initiatives, within their respective remits, to support member countries in reaching their sustainable development goals. They are also working together to better assist the joint membership, including an improved support of stronger tax systems in developing countries (IMF, 2014).

2.4 A CRITIQUE OF THE IMF AND WORLD BANK

A major criticism levelled against the IFIs concerns the conditions attached to the loans they issue. Critics claim that these conditions are too intrusive and compromise the economic and political sovereignty of the recipient countries (Stiglitz, 2002). When the IMF or the World Bank lends money, strings are attached (Stiglitz, 2002). Joseph Stiglitz, a winner of the Nobel Prize in economics and former chief economist of the World Bank, writes that those conditions, often referred to as "conditionality", are not just the typical requirements that anyone lending money might expect the borrower to fulfil in order to ensure the money will be paid back. Rather, says Stiglitz, "'Conditionality' refers to more forceful conditions, ones that often turn the loan into a policy tool." He argues that the IMF has been using this “conditionality” to bring about major changes, referred to as "structural adjustments", in borrowing countries' fiscal and monetary policies, including such issues as banking regulations, government deficits and pension policy. Stiglitz (2002) cites the example of the IMF's insistence that the Korean Central Bank focus on fighting inflation during the 1997 Asian Financial Crisis, not because monetary policy was a cause of the crisis, but because the IMF believed that fighting inflation should be the primary purpose of any central bank. The BRICS members have often criticised conditions enforced by the IMF, drawing from the failures of structural adjustment programmes imposed on African countries, they have urged a relook at the stringent conditions that accompany IMF and World Bank loans to developing countries.

The IFIs are also criticised for the policies they impose, that they simply impose policies on countries without taking time to understand the different characteristics of the countries. This has made most of the policies difficult to carry out, unnecessary, or even counterproductive. The IFIs had a one size fits all policy, which is unrealistic given the differences between one country and another, especially different political circumstances under which governments operate (Stiglitz, 2002). Stiglitz (2002) holds that when a crisis hits, the IMF often prescribes outmoded and inappropriate solutions without regarding the effects such policies might have on the people of that country in following those policies and countries are expected to follow the policies without debate. It is also argued that the IMF was not open to criticism or public oversight when working on the policies imposed, leading to arrogance and no insight into the reality on the ground in the affected countries. For example, Stiglitz points out that the agreements between the IMF and borrower countries were always kept secret from the public in those countries. Sometimes, he says, the agreements were even kept from staff members, (him and his colleagues), at the World Bank when working on joint projects with the IMF (Stiglitz, 2002). The policies were often questioned by the people in the developing countries but due to of fear of losing IMF funding, no-one would question them openly. The governments of these borrowing countries often felt powerless or afraid to question the policies, fearing that any questions asked would jeopardize the offering of the loans. This may have resulted in a lack of trust and transparency between the IMF and the borrower. The borrowers therefore felt uninvolved and hence out of the loop regarding decisions that affected their economic future. The IMF usually provides funds only if a country engages in policies such as cutting deficits, raising taxes or raising the interest rate, which often leads to the contraction of the economy (Stiglitz, 2002). If a country does not follow the policies or does not come up with certain minimum standards, then the IMF will suspend assistance. When this occurs, other donors usually follow suit. The debt relief initiatives currently underway have also been criticised because unless the IMF approves the country's economic policy, there will be no debt relief.

Opponents of the IMF claim that the entire international financial system is corrupt and unfair. They criticize not only the implementation of the Washington Consensus, but its existence. One group, for example, known as 50 Years Is Enough, argues that the IMF, the World Bank and the World Trade Organization (WTO) are anti-democratic institutions, responsible for the impoverishment of the developing world and benefiting only rich countries and multinational corporations (Danaher, 1999). Most developing nations are in substantial debt and therefore poor due to the policies that the international financial institutions enforce, particularly the IMF and the World Bank (Shah, 2013). Increased dependency on the IMF and the World Bank has also been highlighted as a matter of concern. Some conditions given upon the issuing of loans force recipient countries to reduce spending on a number of crucial services, such as health and education. Stiglitz (2002), on the unfairness of the IMF, argues that the Western countries have often told developing countries to open up their economies to trade eliminating trade barriers but at the same time the Western countries maintain their trade barriers. This has prevented the poor countries from exporting their agricultural products, which has deprived them of much-needed income from exports. The IMF also feels that countries receiving money from them must report everything happening in their economies to them. This may be standard procedure to the IMF but may be viewed as colonialism by the recipient countries (Stiglitz, 2002). Stiglitz cites the example of Ethiopia when it had repaid a loan from American Bank early by using some of its reserves. The IMF objected, not to the logic of the early repayment but to the fact that Ethiopia had not sought approval from the IMF.

The IMF and the World Bank are also criticised for lack of adequate representation of developing countries and emerging economies. Critics often argue for a transition from a western dominated system to a more just distribution of power, with developing countries having more say in the fund management. In 2009 a new group, BRIC, (later BRICS when South Africa joined), emerged with developing international financial architecture and IMF restructuring as their fundamental issues (RISSI Report, 2016). BRICS and other critics admit that the IMF has a leading role as the key IFI but they point out discrepancies between their share of the world population and their IMF quota, (which was 22.9% and 10% respectively as of 2008). This has been viewed as an underestimation of developing countries' role in decision-making in the IMF. At the G20 meeting in 2010, the member countries put forward an action-oriented plan referred to as the Seoul Action Plan with the following suggested reforms for the IMF.

- Shifts in quota shares of over 6% for the benefit of emerging markets, developing and under-represented countries.
- Doubling the quotas while preserving existing member-countries' shares.
- Transition to a completely elective IMF Executive Board.
- Greater representation for emerging countries on the Executive Board through two fewer advanced European chairs and the possibility of a second alternate for all multi-country constituencies.

- Further increase in representation of emerging market and developing countries through a comprehensive review of the quota formula by January, 2013 and the next quota review by January, 2014.

2.5 REFORMS AND DEVELOPMENTS IN THE FINANCIAL SYSTEM

A number of economists argue that failures in the international monetary system are the very causes of global crises (Farhi, Gourinchas & Rey, 2011). Some people feel that the international financial system is no longer effective and needs to reform to ensure that it remains effective. Various reforms have been suggested by interested parties in various areas over the years. At the end of 2010, the board of governors of the IMF agreed to reform the IMF in mainly two areas, which are:

1. to keep the size of the IMF's resources in line with the increase in economic activities in the global economy and
2. to attempt to match the representation of developing countries and emerging economies with their growing importance in the global economy (IMF, 2010).

The argument in favour of such reforms is that they will help to keep the IMF effective as a central institution for international macroeconomic stability. The main concern when it comes to reforms of the international financial institutions is that they cannot be put into effect until a certain percentage of votes are reached. This may delay the implementation of reforms, especially when the largest shareholder is not in favour of the reform. Implementation of the agreement in 2010 could not be entered into force without the approval of the member with blocking shareholding, i.e. the USA with an IMF share exceeding 15% (RISSI Report, 2016). The following sections discuss the areas in which reforms have been suggested over the years.

2.5.1 Governance reforms

The main criticism and point of concern for most economies is the dominance of the institutions by the US, which results in decisions being guided by political and economic benefit. The United States, being the most powerful in the institution, influences most decisions and even individual loan agreements (Stiglitz, 2002). Most of the IMF and World Bank activities are carried out in developing countries but these institutions are led by representatives from developed nations with little representation from developing nations. Reforms to allow more power to the emerging economies were agreed upon by the G20 in 2010 at a summit in Seoul.

However, no reform can be passed without the approval of the USA, (given that it holds more than 16% of the votes), as it 85% of the votes must be cast in favour before any reform can be passed (RISS Report, 2016).

In November 2010 the IMF agreed to a number of governance reforms to incorporate the increasing importance of emerging markets/countries (IMF, 2010). These reforms were to ensure that the smaller developing countries would retain their influence in the IMF. This was necessary because of arguments that the IMF was supposed to effectively represent the interests of all 189 member countries. The reforms were to produce a combined shift of approximately six percent of the quota share, (IMF's principle source of finance), to dynamic emerging markets and developing countries. This would also change voting power. Once these reforms have been put into effect, the top ten shareholders in the IMF will reflect the top ten countries in the world, namely the US, Japan, the four largest European economies and BRICS. The IMF also agreed to reform its executive board; the board members have to be elected and reviewed every eight years starting as soon as the quota reforms take effect. Such changes in the board last took place in 1992 to accommodate the influx of new members following the fall of the Soviet Union (IMF, 2010). The board also agreed to a new formula for calculating the quotas that was supposed to be finalised by January, 2013.

In summary, the reforms agreed upon in 2010, referred to as the Seoul Action Plan, are listed below.

- Fast-growing emerging market countries will have more say in the way in which the institution is run and interacts with its members. The combined voting power of the US and European Union members will, for the first time, fall to 50%.
- Shifts in quota shares of over 6 percent will benefit emerging economies and developing countries.
- The quota formula would be reviewed by January 2013 to allow increased representation of developing and emerging economies.
- There would be a switch to an elective IMF executive board. Instead of maintaining the tradition of the five largest shareholders in the IMF appointing Executive Directors to the Board, the proposed reform would be to elect all Executive Directors to the Executive Board.

- Reforms would be made to the way in which the institution lends money. The institution has become more flexible in the way it lends money. When initially lending money in 1947, the IMF had only one technique, that of an immediate swap, (the borrower's domestic currency exchanged for a convertible currency, usually the US dollar). This rapidly expanded to include stand-by and extended arrangements, to name but a few. By the end of the 1990s the institute had about ten lending facilities but all of them required the borrower to undertake detailed reforms in its macroeconomic tools, as well as some structural reforms. Reforms in this area were to improve the fund's ability to avert financial crises and respond more flexibly to borrower's needs (Boughton, 2010).
- The general financial resources of the IMF were to be doubled. This is because the available funds often fell short of the member countries' financial demands.

The under-representation of developing and emerging countries in the IMF's decision-making processes have been of great concern for quite a long time. Major developing economies have become creditors of the IMF and developing economies have been the recipients of the IMF's financial aid (RISS Report, 2016). It was on the side-lines of the 2008 G20 summit that the leaders of the most dynamic developing economies (Brazil, Russia, India and China) agreed to match up their positions. This saw the beginning of the BRIC international group in 2009, with South Africa later joining, making it the BRICS. According to the RISS policy report of 2016, the BRICS' main concern from its beginning has been to develop an international financial architecture and to restructure the IMF. There is incongruity between the BRICS' share of the global production and their IMF quota, which was 22.9 percent and 10 percent respectively as at 2008. Such a mismatch means that developing economies do not have any opportunities to influence or contribute to the decisions made by the IMF (RISS Policy Report, 2016).

The reforms that were agreed upon could not be put into force because the USA had not agreed to the changes and so the world community was at a stalemate (RISSI Report, 2016). In October 2014, IMF member countries decided that if by the end of 2014, the 2010 reform package had not been completed, other options for enforcing quota and governance reform ought to be considered. Following the absence of any IMF authorizations or appropriations in the FY2015 omnibus legislation, the IMF Managing Director, Christine Lagarde, requested that IMF staff prepare alternative reform options that could be enacted without US authorization or appropriations (IMF, 2014). To date, only a few attempts have been made to implement these reforms with limited success, for instance, the joint developing countries' quota only increased by approximately 2.8 percent, (from 39.6% to 42.4%), instead of the 6 percent agreed upon in the Seoul Action Plan. There is no hope for further reforms anytime soon, as the IMF managing director, Christine Lagarde, in 2016 spoke of ‘breathing space’ and a slowdown between the 14^{th} and 15^{th} quota reviews. This was in response to a speech made by the Indian Prime Minister stipulating that the current quotas still do not reflect the actual role of developing countries in world issues (RISSI Report, 2016). According to the 2016 RISS report, BRICS have begun a campaign for the full implementation of the Seoul Action Plan. BRICS’ economies have shown dissatisfaction with the lack of progress in the IMF reforms and they expect to take a more active part in furthering the IMF reforms.

2.5.2 Conditionality

Reforms regarding the main criticism levelled against the IMF, conditionality, have not been undertaken. When issuing loans, the IMF and the World Bank attach conditions to the loans. It has been argued that these conditions undermine domestic political institutions, as recipient economies are found to be sacrificing policy autonomy in exchange for the much-needed funds (Stiglitz, 2002). IMF conditions are often criticised for reducing government services and hence increasing unemployment and retarding growth and social stability. Usually the IMF is concerned with correcting BOP and reducing budget deficits by cutting public expenditure. Regardless of numerous critics of the conditionality of loans, no reforms in this regard have been undertaken.

2.5.3 Developments in the Financial System

Africa’s development is limited mainly by the lack of infrastructure, and funding infrastructure is difficult due to poverty. A study conducted by the World Bank estimated the financial need for sub-Saharan Africa infrastructure development to be approximately $93 billion annually and the IMF’s estimated spending for this area is about $51.4 billion, resulting in a deficit of about $41.6 billion (IMF, 2014). There is a substantial gap between the funds available for development and the need for long-term funding for infrastructure and sustainable development. Clearly, the existing financial institutions alone cannot adequately provide the funds that are needed. Although the IMF, the World Bank and other financial institutions provide such funding, it is often insufficient and tied to conditions. There is a need for additional funds, and in this regard the BRICS New Development Bank is a much-needed new addition to the international financial institutions. The BRICS Bank is a southern-led monetary fund that will assist not only with financing but will also build on the experience of, and complement, the existing regional southern hemisphere institutions. This novice bank has much to learn from the successes and failures of the current international financial institutions before it can be of much help in addressing the shortfall of development funds in African economies. Helping African countries to be able to raise more of the funds needed domestically should be a priority for African policymakers and the international community. The NDB can be a catalyst for the much-needed reforms in the financial system but it must become well-integrated into the current system and act as a partner rather than a replacement for the current IFIs.

2.6 CONCLUSION

The IMF and the World Bank both had their origins at the UN Monetary and Financial Conference at Bretton Woods, New Hampshire in July, 1945. The mission of these two institutions was to rebuild the world economy and save it from future economic depressions after the devastating Second World War. The original goals of the World Bank can be better understood by referring to its original name, the International Bank for Reconstruction and Development. The World Bank's mandate is to finance development worldwide, stepping in to provide funds for projects that the private sector would not provide. The IMF's mandate is to facilitate financial stability through providing funds to fill current account deficits that may have been experienced through trade or the payment of international transactions between countries. Although intended to benefit the global economy and contribute to world peace, the World Bank and the IMF, collectively referred to as International Financial Institutions (IFIs), have become targets of the anti-globalization movement (Stiglitz, 2002). Regardless of the fact that they have provided financial assistance and advice to assist countries in their development and policy-making, they are often criticized for intruding into the economic and political affairs of the nations that make use of their aid, lack of transparency and the impact of their policies on recipient nations. The policies imposed have contributed to global instability. It can be argued that the original intentions at the inception of the IFIs were good but as the years went by, the IFIs have gradually diverged from them, resulting in the failure attributed to them. The IFIs have responded to these criticisms by introducing new programmes and the success of these new policies is still to be assessed. Criticism against these institutions continues and a number of these critics are believed to be catalysts for the emergence of new institutions. The structure and operations of the IFIs have at times led to the neglect of the needs of developing countries, whilst pressing the agenda of the United States as the country with vetoing power and this has led to the international community reaching consensus on the urgent need to reform the international financial system (Munqgi, 2009). The BRICS New Development Bank that was established in 2014 is being welcomed enthusiastically and there are already high expectations, particularly from developing economies. For the NDB to be able to address the urgent needs of developing economies, there is a need for it to become integrated into the international financial system and assist with additional finances to aid the development of under-developed, especially African, countries. The IMF and the World Bank have done a lot and are still doing a lot to assist developing economies but more finances are always desirable, especially given the gap that currently exists. The NDB has to learn from the existing institutions so as to better meet the expectations of the nations in need. Given the substantial gap between the financial needs of countries and the available funds, the NDB comes in to complement rather than replace the current IFIs. On the other hand, the NDB can be a catalyst to force the current IFIs to address some of the criticism that has been levelled against them. Forcing the current dominant IFIs to return to their original mission can make them more effective, which will be beneficial to developing economies.

CHAPTER THREE

THEORETICAL AND EMPIRICAL LITERATURE REVIEW

3.1 INTRODUCTION

This chapter provides the theoretical underpinnings of the study as well as the empirical literature review. The theoretical literature is presented to provide a conceptual framework that underpins the study. The empirical literature review section explores studies, applications and observations that have been conducted by various scholars in different countries regarding the extent to which developing economies benefit from loans given to them to aid development. International financial institutions exists to, amongst other things, provide funds to help develop and grow recipient countries. The literature presented in this study thus centres on the theories of economic growth and development. The chapter begins with a discussion of the debt overhang theory, followed by a discussion of the various classical and neoclassical theories of economic growth and development. The chapter ends with a discussion of empirical theory and an analysis of the empirical literature.

3.2 THEORETICAL LITERATURE

International financial institutions issue loans to countries that require loans. These loans are to aid the development and growth of the recipient economies. There are theories that explain the effects that loans may have on the development of a country and these will be discussed in this section. Countries that receive loans are exposed to the risk of being highly indebted and this is often the case in Africa.

3.2.1 Debt Overhang theory

The effect of external debt on investment and economic growth can best be studied by gaining a better understanding of debt overhang, a term that is directly related to investment and economic growth. This theory can also help in understanding why some countries may have received substantial amounts of financing through debt but fail to attain growth and development. The debt overhang hypothesis was first proposed by Stewart C. Myers in 1977 with his theory of company valuation in corporate finance and the effects of debt-financing. He examined why companies do not finance activities with highest debt, given that there is clearly a tax advantage in the deductibility of interest rates. Debt, (let alone huge amounts of debts), distorts the possibilities for companies to make the best possible future investment decisions (Sundell & Lemdal, 2011). Debt induces a behaviour where positive net present value projects do not get undertaken due to part of future earnings from projects going to creditors in the form of promised payments (Myers, 1977). Different economists define debt overhang in different ways. According to Krugman (1988), debt overhang is:-

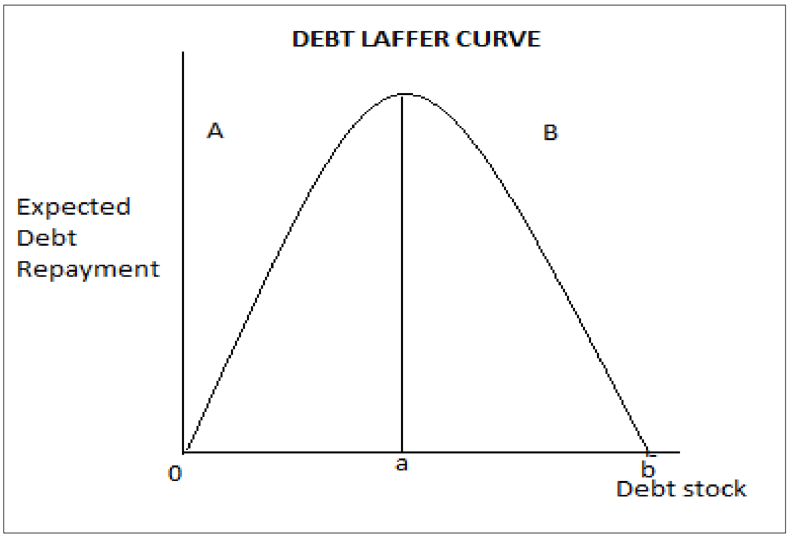
> *"A situation in which the expected repayment on foreign debt falls short of the contractual value of the debt".*

Eduardo Borensztein (1990) defines debt overhang as:-

> *"A situation in which the debtor country benefits very little from the return to any additional investment because of the debt service obligations".*

The IMF's definition of debt overhang is as follows: "the debt overhang hypothesis does not describe a situation where foreign debt is merely large, but one in which the existence of foreign debt distorts the relevant margins considered for production and investment decisions" (IMF, 1989). Debt overhang is therefore a situation in which a debtor country fails to fully service/pay its foreign debt obligation with existing resources. In line with the issue of debt overhang, policy makers that focused on debt crisis tried to ascertain whether the problem is one of solvency or liquidity (Agénor & Montiel, 1996). According to Ajayi (1991), a liquidity problem is a short-term problem faced by countries to service the forthcoming debt based on the initial contract, which is when countries fail to service current obligations. On the other hand, a solvency problem is a long-run problem faced by countries when their total liabilities are beyond their ability to repay at any time. According to Kletzer (1988), most developing countries were solvent and the present value of their respective resources, (calculated based on discounted value of their real outflows), are much lower than their total debt obligations. Debt overhang results in part of the increase in output being used to pay the forthcoming debt, creating disincentives to private investment and presenting a hindrance to the government to pursue the correct policies (Borenstein, 1990). Not pursuing the correct policies may further derail development.

The concept of debt overhang has been noticed predominantly in developing countries (Krugman, 1988), where most economies find their debt exceeding their capacity to repay it in the future. External debt has some advantages to an economy if properly managed, as it provides funds that can enable the country to invest in substantial developmental projects. As stipulated by Tchereni, Sekhampu and Ndovi (2013), foreign debt serves as a way of breaking bottlenecks or holdups in the economy, paving the way for full utilization of resources and hence bringing development to the economy. Amidst all the advantages of foreign debt, there are also disadvantages, particularly the fact that servicing debt crowds out public investment, as the money will be used to service debt. Fosu (2010) holds that servicing debt shifts public expenditure away from important services such as health and education. In numerous cases the government will be forced to increase borrowing so as to meet debt obligation, which is the case for most African countries that are currently heavily indebted. There are reasonable levels of external debt that are expected to enhance growth but beyond certain levels additional indebtedness may reduce growth. It can thus be said that debt can have both positive and negative impacts on economic growth. The hope of countries that borrow is that the additional finances will enhance or speed up their growth and development but it is clear that, particularly in Africa where large sums of money have been received, development remains problematic. Excessive debt leads to lower growth due to the debt overhang problem. The debt Laffer curve can be used to illustrate the argument (Krugman, 1988) that as a country increases its debt stock, chances of it being able to repay are high at first up to a certain point where the country is in the debt overhang problem. In such a case, foreign debt will likely have a positive impact on economic growth when the country's debt stock is still falling on the left side of the debt Laffer curve. According to the Debt Laffer curve, larger debt stock tends to be associated with lower probabilities of repayment.



Source: Adapted from the IMF (2002).

Figure 3.1: Debt Laffer Curve

On the first part of Figure 3.1, from 0 to a, labelled A, an increase in the face value of debt is associated with an increase in the value of debt as well as an increase in returns, making it highly likely that the debt repayment will be made. In other words, on this side of the curve a country receives debt and is highly able to repay it, so expected debt repayment is high. On the right side hand of the curve, from a to b, labelled B, large debt stocks are associated with lower debt value and hence lower probabilities of debt repayment. Side B represents debt overhang. According to the debt Laffer curve and the debt overhang theory, debt has a certain point up to which it can bring value or development, after which it becomes a burden to the borrowing economy. Put differently, the debt Laffer curve explains the debt overhang hypothesis in that the net present value (NPV) of the debt repayments increases with the stock of debt up to a certain point. Beyond that point, a higher face value of debt will result in investment disincentives, which results in low economic growth and hence a lower NPV of expected debt service (Freytag, 2008). In a nutshell, what debt overhang theory stipulates is that debt has a negative effect on investment and rising debt levels leads to disincentives to invest. Debt therefore becomes an unfavourable tool for development as it affects investment negatively. This can occur in various ways, firstly through debt servicing or payment and secondly, the level of debt. However, the effects that debt can have on an economy can be a result of the way in which citizens, governments, debtors and creditors view uncertainty and risk in their investment decisions. The existence of a debt overhang problem in any economy means that external debts are exceeding that country’s repayment ability.

The theory emphasises the adverse effects of external debt on investment in physical capital and also stresses the fact that higher external debt can reduce government incentives to carry out structural reforms (Clements, Bhattacharya & Nguyen, 2003). Debt overhang also depresses growth and investment as it increases uncertainty about the actions of the government in terms of policies that may be put in place to meet its debt-servicing obligations. According to Agénor and Montiel (1996), when debt is high, there will be expectations that the government will carry out distortionary measures in order to service their debts. The private sector may fear imminent devaluation or an increase in taxes when public debt is too high and this may result in capital flight.

3.2.2 Theories of Economic Growth and Development

Economic growth and development is vital to every economy and every economy strives for growth and development. Theorists of the 1960s viewed the process of development as a series of successive stages of economic growth through which all countries must pass. According to Todaro and Smith (2012:110), an economic theory with the right mix of savings investments and foreign loans was all that was needed to enable developing economies to proceed along an economic growth path that had historically been followed by the more developed economies. This view was replaced in the 1970s by two competing schools of thought, namely theories and patterns of structural change and the international dependence revolution. There are thus four main schools of thought, which are the linear-stages-of-growth model, the structural-change model, the international-dependence revolution and the neoclassical counterrevolution. The international-dependence revolution is a more political and radical school of thought, which views development in terms of international and domestic power relationships, institutional and structural economic rigidities and the resulting proliferation of dual economies and dual societies, both within and amongst the nations of the world (Todaro and Smith, 2012). A discussion of the classical and neoclassical theories of economic growth and development is presented in this section.

3.2.2.1 Classical theories of economic growth and development

The classical theories of economic growth and development are dominated by four schools of thought, which are the linear-stage-of-growth model, theories and patterns of structural change, the international-dependence revolution and the neoclassical, free-market counterrevolution.

3.2.2.1.1 Linear-stage-of growth Theories

These models stipulate that a country's economy must go through a series of stages as it grows. There are two theories that fall under the linear-stages theory, namely Rostow's stages of growth theory and the Harrod-Domar growth model.

- Rostow's stages of growth theory

Rostow's stages of growth argues that all countries must pass through sequential stages to develop and these stages are listed below.

1. Traditional society.
2. Pre-conditions for a take-off.
3. The take-off.
4. Drive to maturity.

5. Age of high mass consumption.

According to the model, a country must pass through all these stages to achieve development and all countries that have developed have passed through these stages. According to this model, advanced economies have passed through the first stages whilst developing economies are either on stage 1 or 2. Developing and under-developed economies must ensure that they have the necessary tools to enable them to reach the take-off stage by mobilizing domestic and foreign savings to generate sufficient investment and accelerate growth.

- Harrod-Domar Growth model

The other linear stage of growth theory is the Harrod-Domar Growth model, which agrees with the fact that countries pass through sequential stages but emphasizes the need to save so as to kick start growth. It is based on a linear production function that stipulates an economic relationship in which GDP depends directly on the net savings rate (s) and inversely on the national capital-output ratio (c). Countries should therefore ensure that they save a portion of the national income (Y) because savings are important for growth. Therefore S = s(Y).

Net Investment is defined as the change in capital stock, K, and given that I = Δ K, change in capital is capital output ratio (c) multiplied by change in Y (ΔK=cΔY) and national savings, S, must equal net investment, I. The following formulae can then be presented:

$$S = I \quad \text{(1)}$$
$$S = sY = k\,\Delta Y = \Delta K = I \quad \text{(2)}$$
$$sY = k\Delta Y \quad \text{(3)}$$
$$\frac{\Delta Y}{Y} = \frac{s}{k} \quad \text{(4)}$$

The Harrod-Domar theory states that the ratio of growth of GDP $\frac{\Delta Y}{Y}$ is determined jointly by the national savings ratio (s) and the national capital output model (c). Simply put, in order to grow and increase GDP, a country must save some of its national income or GDP. Growth therefore depends directly on the national net savings rate and inversely on the national capital-output ratio.

The two linear growth models presented above represent one of the most fundamental strategies for economic development by increasing the proportion of national income saved and these saving may be used to increase capital formation. The concern then becomes that of countries that cannot manage to save from their national income because it is too meagre to allow savings. This can bring one to the conclusion that countries that cannot save rely on aid and loans with implications such as those discussed in the debt overhang theory.

3.2.2.1.2 Structural-change Model

To ascertain what needs to be done to enable development in African countries, there is a need to review the theories that explain the changes needed in such countries. In economics, structural change is a change or shift in the basic way a market or economy functions (Todaro & Smith, 2012). Structural change stipulates that developing economies need to transform their economic structures from emphasis on traditional subsistence agriculture to a more modern urbanized and more industrial manufacturing and service economy (Todaro & Smith, 2012). According to this theory, development requires more than just an increase in capital formation but also a change in structural or institutional factors, because under-development is viewed as a result of under-utilization of resources that arise from structural factors. There are two theories under structural change models, which are Lewis Theory of Development, (two-sector surplus labour model), formulated by Lewis and the Structural Change and Patterns of Development Theory formulated by Chenery.

- Lewis two sector model

The Lewis two sector model argued that under-developed economies are comprised of two sectors, one that is traditional and agricultural in nature and characterised by high population resulting in there being surplus labour. The other sector being modern with fewer people. The structure of under-developed economies therefore constrains development. The theory then argues that the surplus labour in the traditional sector must be transferred to the urban sector, which had a deficit in that regard. The model further stipulates that the process of transferring the surplus labour from the traditional economy into the urban/modern economy will lead to growth of output and employment in the modern sector, translating to development of the economy. Workers have to be attracted to migrate from the traditional to the urban sector through an increase in urban wages (Todaro & Smith, 2012). One would wonder how wages can be increased first so as to attract these workers. Most under-developed African countries cannot increase wages as they simply do not have the money and resort to borrowing if they have to subsidize firms to allow for the increase in wages. In addition, most economies have surplus labour in rural areas and full employment in the urban areas. Migrating labour from the rural areas may only be feasible, in such a case, if new jobs are created in the urban areas. With the technological advances being made, more labour-saving technologies are being used reducing the number of people employed in the urban areas. Additionally, capital flight is a common problem in most African countries as they have more foreign-owned firms and hence these firms take proceeds back to their countries.

- Structural change and patterns of development

Structural change and patterns of development theory argues that there is a need to change structures and there are a set of interrelated changes that are needed in the economy of for a successful transition from traditional economies to a modern system (Chenery, 1960). The changes that are needed include changing production processes, consumer demand patterns, more international trade and changes to socio-economic factors (distribution and growth of population). According to this theory, there is a need for a move away from agriculture to industrial production, build-up of physical and human capital, a change in consumer demands from an emphasis on food and basic necessities to manufactured goods and services (Todaro & Smith, 2012). These changes will result in the growth of the urban sector as people migrate to urban areas resulting in a decline in the overall family size and the population growth rate.

In a nutshell, the structural change model hinges its argument on the assumption that development is a visible process with similar attributes or components for all countries. Following this view, in order for a country to develop, it should follow structural adjustments and changes that developed countries followed or went through. This may be the basis that international financial institutions work from when they issue development loans and attach conditions pertaining to structure adjustments to the loans issued. These conditions (conditionality), are tied to the loans issued and recipient countries, mainly poor under-developed African economies, have no choice but to comply with the conditions (Chambers, 1997). However, such models and lenders fail to consider the differences from one country to another and one continent to another, in terms of pace and even the pattern of development itself. These differences may be attributed to differences in factor endowment, political environment and socio-economic factors, to name but a few. The theory also emphasises the need for under-developed economies to open up more to international trade to gain from having more markets for their goods and services. Trade can be beneficial for all if executed in a fair manner, however most African economies are producers of raw materials and will suffer more when they have to import processed goods, which will be more expensive than the materials they exported. There is also a need for available funds to allow the transformation of economies and countries have been receiving vast sums of finance but no development is evident.

3.2.2.1.3 International-Dependence Revolution (IDR)

Dependence theories tend to emphasise external and internal institutional and political constraints to economic development. Developing economies are usually faced with political and economic rigidities and they are caught in a dependent and dominant relationship with their lenders, which are usually wealthy developed countries. There are three main streams of thought under the international dependence revolution, namely the neo-colonial dependence model, the false paradigm model and dualistic development thesis. IDR models argue that developing countries are tied up in dominance and dependence relationship with wealthy countries. The proponents of the neo-colonial dependence, false-paradigm and dualism models refuse the exclusive stress on traditional neoclassical economic theories designed to accelerate the growth of GDP as the principal index of development. They also reject claims made by others that there are well-defined empirical patterns of development that should be pursued by most impoverished countries. The three theories place more emphasis on the international power imbalances and the political, economic and institutional reforms needed to attain development.

- Neo-colonial Dependence Model

The neo-colonial dependence model is an outgrowth of Marxist thinking and attributes the presence and continuance of under-development mainly to the historical evolution of a highly unequal international capitalist system of a rich country-poor country relationship. Poor economies both directly and indirectly serve, or are dominated by, and are rewarded, dependent on, international special interest groups, including the IMF and the World Bank (Todaro & Smith, 2012). Wealthy countries are intentionally exploitative, making it difficult for poor nations to develop. This dependence may actually act to derail whatever development occurs in a country. The elites' opinions and choice of activities often take precedence and this could derail any genuine development or reform efforts. This leads to low standards of living and under-development. With this theory, under-development is thus seen as an externally induced problem rather than a result of low savings and investment or low education levels. With this in mind, major restructuring of the world’s capitalist system is vital to free dependent developing economies from the direct or indirect economic control of developed economies. Control by developed economies can occur after the issuing of financial assistance or loans, after which the lender would wish to monitor the economic activities of the recipient economy so as to guide its finances and ensure that the chances of defaulting in paying back are reduced. According to the neo-colonial dependence model, underdevelopment is seen as an externally induced phenomenon and in order to enhance development, financial institutes must not exert power over borrowing economies. The NDB and other institutions need to understand this in order to enable the much needed development in Africa.

- False-paradigm theory

The false-paradigm theory proposes that the developed nations have failed to bring about development in under-developed nations because their strategies for development, which they impose on the under-developed nations, have been based on an incorrect (false) model of development. This incorrect model focuses on, for example, overstressed capital accumulation or market liberalization, without giving due consideration to necessary social and institutional changes (Todaro & Smith, 2012). The absence of development is blamed on the inappropriate advice provided by uninformed, biased and ethnocentric international expert advisors from developed economies and multinational donor organizations. The international experts from developed economies may mean well in giving advice but they are often uninformed about a country’s specific needs or rather their advice may not be applicable to that particular country.

- Dualist-development Thesis

This theory argues that there is a dual society of the rich and the poor within a nation. Dualism is a concept that represents the existence and persistence of substantial and even increasing divergences between rich and poor people on various levels. There can be different sets of conditions, some superior and others inferior, which can coexist. This coexistence is continual, meaning that the international coexistence of wealth and poverty is not a simple historical phenomenon that will rectify itself over time. In other words, the issue of superiority and inferiority fails to show any signs of diminishing and in reality they have an inherent tendency to increase (Todaro & Smith, 2012). The theory has four key arguments, which are:

- superior and inferior conditions can coexist in a given space at a given time;

- the coexistence is chronic and not transitional;
- the degree of the conditions has an inherent tendency to increase and
- superior conditions serve to ‘develop under-development’.

The dualistic development thesis, together with the neo-colonial dependence and the false-paradigm, reject the idea of accelerated growth of GDP by the traditional neoclassical economic theories.

3.2.2.1.4 Neoclassical Counterrevolution

This counterrevolution stipulated different policies for developed and developing economies. For developing economies it favours the supply side of macroeconomic policies, rational expectations theory and the privatization of public corporations, whereas for developing economies it calls for freer markets and the dismantling of public ownership, statist planning and government regulation of economic activities (Todaro & Smith, 2012). The main argument of this revolution is that markets should be allowed to act freely. According to this theory, under-development is a result of poor resource allocation caused by too much state intervention, which slows economic growth. The neoclassical counterrevolution can be divided into three component approaches.

Free market approach argues that markets, if left alone, result in efficient allocation of resources and provide signals for investments in new activities. Any government intervention results in distortions and is counterproductive.

Public choice theory goes even further in promoting zero intervention by government, as governments, according to this theory, do nothing good. Public choice theory argues that governments and politicians act in their own best interests and not those of the general public. The market-friendly approach differs slightly from the free market and the public choice theory. It borrows its ideas from the World Bank’s writings of the 1990s and stipulates that development requires the government to create an environment in which markets can operate efficiently. Whenever there are inefficiencies, it is the duty of the government to intervene and correct such inefficiencies. The theory argues that developing economies have product and factor markets that have many imperfections because the government does not have a key role to play in facilitating the operation of markets through market-friendly interventions (Todaro & Smith, 2012). The greatest contribution of this approach is the acceptance that markets do fail and there is a need for government intervention but this intervention must be undertaken in a friendly manner, for example investing in physical and social infrastructure, health care facilities and education institutions.

The three phenomena of the neoclassical counterrevolution give rise to the neoclassical growth theory, which argues for an open economy that draws additional domestic and foreign investment to increase the rate of capital accumulation. The Solow neoclassical growth model was developed by adding a second factor to the Harrod-Domar formulation, labour, and introducing a third independent variable, technology, to the growth equation. Technological progress explains long-term growth as that labour and capital exhibit diminishing returns separately but jointly exhibit constant returns. The Solow model uses the following production function:

$$Y = K^{\propto}(AL)^{1-\propto}$$

Where Y is GDP, K is stock of capital, L is labour and A represents productivity of labour, which grows at an exogenous rate. According to Todaro and Smith (2012), for developing countries this rate has been estimated at about 2% per year. In a nutshell, according to the neoclassical growth model, output growth is as a result of one or more of three factors: increase in quantity and quality of labour (through population growth, education and training), increase in capital (through saving and investment), and improvement in technology.

3.3 EMPIRICAL LITERATURE

Following the above theoretical literature, empirical literature is discussed to analyse what has already been done and what is missing from the literature.

3.3.1 Empirical literature from developed countries

Cohen (1993) estimated an investment equation for a sample of 81 countries over three sub-periods using the ordinary least square method. The author found that the level of debt does not explain the slowdown of investment in highly rescheduling developing countries.

Geiger (1990) used the lag distributional model to assess the impact of external debt on economic growth for 9 South American countries over a period of 12 years (1974-1986), and found a statistically significant inverse relationship between the debt burden and economic growth.

Panizza and Presbitero (2014) used the GMM approach to study whether public debt has a causal effect on economic growth in a sample of OECD countries. However, the link between debt and growth disappears once we correct for endogeneity. These findings that there is no evidence that public debt has a causal effect on economic growth is important in light of the fact that the negative correlation between debt and growth is sometimes used to justify policies that assume that debt has a negative causal effect on economic growth.

Afonso and Alves (2014) made use of panel data techniques to study the effect of public debt on economic growth for annual and 5-year average growth rates, as well as the existence of non-linearity effects of debt on growth for 14 European countries from 1970 until 2012. Results obtained indicate a negative impact of -0.01% for each 1% increment of public debt, although debt service has a 10 times worse effect on growth.

Using the Autoregressive Distributed Lag (ARDL) model, Gomez-Puing and Sosvilla-Rivero (2017) investigated the short and long-term impact of public debt on economic growth. They made use of annual data from both central and peripheral countries of the euro area (EA) for the 1961-2013 period and estimated a production function augmented with a debt stock term. The results obtained suggest different patterns across EA countries and tend to support the view that public debt always has a negative impact on the long-term performance of EA member states, whilst its short-term effect may be positive, depending on the country.

Korkmaz (2015) investigated the relationship between external debt and economic growth in Turkey, a country that had a high rate of external debt because of insufficient capital and low saving rates. This researcher applied the VAR method for the period 2003:1-2014:03. In the analysis, results indicated a unidirectional causality from economic growth to external debt.

3.3.2 Empirical literature from developing countries

Using a linear panel data model of Fixed Effects and Random Effects, Shabbir (2013) explored the long-term relationship between external debt and economic growth in developing economies. By using a sample of 70 developing countries from 1976 to 2011, the study found that an increase in external debt stock reduces the fiscal space to service external debt liabilities and thus dampens economic growth. It also reduces the level of private fixed capital formation in the country. Exploring the role of investment in economic growth, the study found that both the foreign direct investment and the fixed capital formation help these economies to grow, while openness contributes to the welfare of the developing economies.

Ali and Mustafa (2012) investigated the relationship between debt accumulation and economic growth in Pakistan during the period 1970-2010 and found that external debt exerts a negative impact on economic growth. Two cointegration techniques were used, namely the Engle and Granger technique (1987) and the Johansen approach (1988).

Employing data from 59 developing and 24 industrial countries over the period from 1970 to 2002, Schclarek (2004) could not find any evidence that external debt may affect total factor productivity. However, he found that in the case of developing countries, a higher growth rate is associated with relatively lower external debt levels and this negative relationship is mainly driven by public external debt rather than private external debt. In case of industrial countries, he could not find any evidence of a relationship between public external debt and economic growth.

Villanueva and Mariano (2006) used a standard neoclassical growth model to explore the dynamics of capital accumulation, external debt and economic growth for the Philippines from 2000 to 2003. The goal seek technique was used to estimate the steady state ratio of external debt to GDP, associated with doubling the per capita income. These researchers also attempted to estimate the optimal savings rate that is "consistent with maximum real consumption per unit of effective labour in the long run". The conclusion was that a higher ratio of change in interest rate spread to change in debt-to-GDP lowers welfare in the long run.

Akram (2016) used panel data techniques to examine the consequences of public debt for economic growth and poverty in selected South Asian countries, i.e. Bangladesh, India, Pakistan and Sri Lanka for the period 1975 to 2010. The study developed an empirical model that incorporates the role of public debt into growth equations and the model was extended to incorporate the effects of debt on poverty. The results obtained disclosed that although public debt has a negative impact on economic growth, neither public external debt nor external debt servicing has a significant relationship with income inequality, suggesting that public external debt is as good/bad for the poor as it is for the wealthy. Nevertheless, domestic debt has a positive relationship with economic growth and a negative relationship with the GINI coefficient, signifying that domestic debt is pro-poor.

Ekanayake and Chatrna (2008) investigated the effect of foreign aid on the economic growth of developing countries in Asia, Africa and Latin America for the period 1980-2007. The hypothesis was tested using panel data series for foreign aid. The results indicated that foreign aid had mixed effects on economic growth in developing countries.

Pattillo and others (2002) used a large panel data of 93 developing countries over the period 1969 to 1998 and found that the average impact of external debt on per capita GDP growth is negative for net present value of debt levels above 160-170 percent of exports and 35-40 percent of GDP. These results are robust across different estimation methodologies and specifications and suggest that doubling debt levels slows down annual per capita growth by about half to a full percentage point.

Clements, Bhattacharya and Nguyen (2003) examined the channel through which external debt affects growth in low income countries using panel data techniques for 55 countries for the period 1970 to 1999. Their results suggest that the substantial reduction in the stock of external debt projected for highly indebted poor countries (HIPCs) would directly increase per capita income growth by approximately one percentage point per annum. They also suggest that reduction in external debt service could provide an indirect boost to growth through their effect on public investment. These researchers also commented that if half of all debt service relief was channelled for that purpose without increasing, the budget deficit will led to the acceleration of some HIPC growth by, and in addition to, 0.5 percentage point per annum.

3.3.3 Empirical literature from African countries

Fosu (1999) attempted to explain the effect of external debt on economic growth in sub-Saharan African countries by applying an augmented production function using the debt crisis period of 1980-1990. According to the findings, the debt variables that are included in the model took a negative coefficient during that period. Focusing on one of the HIPC countries, Were (2001) analysed the debt overhang problem in Kenya and sought evidence for its impact on economic growth. Using time series data from 1970-1995, this study did not find any adverse impact of debt servicing on economic growth but it confirmed some crowding-out effects on private investment and a possibility of a debt overhang problem in Kenya.

To investigate the impact of external indebtedness on economic growth for Sudan, Mohamed (2005) used time series data from 1978–2002. He used the growth rate of real export earnings to capture the impact of the export promotion strategy and inflation to capture the impact of macroeconomic policy. He concluded that external debt and inflation deter economic growth, while real exports have a positive and significant impact on economic growth.

Morsheda, Abdalla and Mahmound (2005) conducted a study to investigate the impact of foreign loans on the economic growth of 82 severely-indebted, underdeveloped countries (the majority being African countries), over a ten-year period (1991-2001). Their findings revealed that foreign debt had a significantly negative impact on the economic growth of the countries in question.

Ugochukwu, Okafor and Azino (2016) conducted research to examine the effect of external borrowing and foreign financial aid (foreign grants), in the form of official development assistance (ODA) on the growth of the Nigerian economy over a period of 34 years from 1980 to 2013. Annual time series data was used and the study employed an Ordinary Least Square technique (OLS) multiple regression model in determining the causal effect between the variables under study. The results indicated that external debt has a positive and significant effect on economic growth and foreign aid is positively related to GDP but it is statistically insignificant. This implies that foreign aid is beneficial to Nigeria but has not really been felt. A separate study conducted by Ajayi and Oke (2012) on the effect of external debt on economic growth and development in Nigeria using the ordinary least square regression technique, revealed that external debt impacted positively on the growth and development in Nigeria within the period under review. A similar study by Ishola, Olaleye, Ajayi and Giwa (2013) for the period 1980 to 2010 using an OLS regression technique indicated that external debt did not in any way assist the Nigerian economy during that period. Egbetunde (2012), using the granger causality test on public debt and economic growth in Nigeria for the period 1970 to 2010, suggested that improvement in economic activities call for borrowing to enhance on-going development processes in the economy. This is due to the fact that his results revealed that there is a bi-directional causality between external debt and economic growth, as well as between domestic debt and economic growth. On the other hand, the results from a similar study carried out by Amassoma (2011) for the period 1970 – 2009 using the same Granger causality test, indicated that there was a bi-directional causality between domestic debt and economic growth, which implies that both domestic debt and economic growth lead to one another. However, the result of the causality between external debt and economic growth indicate a uni-directional causality from economic growth to external debt. This implies that it is economic growth that leads to external debt and not the other way round.

In a study conducted by Munzara in 2015 to investigate the impact of foreign debt on economic growth in Zimbabwe, results indicated that external debt and trade openness negatively affect economic growth. He used time series data covering the period 1980 - 2013 and the ordinary least square regression method. Labour force, capital investment and trade openness were used as control variables. The study recommended that the country should not rely too heavily on foreign borrowing to finance economic growth but should rather create a conducive environment for alternative sources of foreign funds, such as project finance and foreign direct investment.

A study was undertaken on the impact of foreign debt on economic growth in Malawi by Tchereni, Sekhampu and Ndovi in 2013 using time series analysis on data from 1975 to 2003. The dependent variable was economic growth and independent variables included the level of foreign debt as the main variable. Inflation rate, exchange rate, private and public investment were also used. Results indicated that a statistically insignificant and negative relationship existed between foreign debt and economic growth in Malawi during that period.

Ayadi and Ayadi (2008) investigated the impact of excessive external debt with its servicing requirements on the growth of the Nigerian and South African economies. They employed both OLS and GLS and found a negative impact of debt and its servicing requirements on economic growth. South Africa however, was found to perform better that Nigeria in the application of external loans to promote growth.

Upendo (2015) examined the effect of external debt on economic growth in Tanzania during the period of 1990-2013 using the Ordinary Least Square multiple regression analytical method used to capture the effect of external debt on economic growth, with the annual GDP growth rate used as the dependent variable and external debt and debt service as the independent variables. The study also employed a Johansen co-integration test to determine the long-term relationships between variables. The empirical results indicated that external debt and debt service significantly positively and negatively affect economic growth with a long-term association.

Fosu (1996) examined the relationship between economic growth and external debt in sub-Saharan African countries over the period 1970-1986 using the ordinary least square method. The study revealed that GDP is negatively influenced via a diminishing marginal productivity of capital. The study also found that on average, a high debt country faces approximately a one percent reduction in GDP growth annually. Cunningham (1993) examined the relationship between debt burden and economic growth for 16 heavily indebted nations during the period 1971-1987. The study concluded that the growth of a nation's debt burden had a negative effect on economic growth during that period.

3.4 ANALYSIS OF LITERATURE REVIEW

The theoretical literature reviewed in this chapter covers various theories and/or models that explain the way in which economic growth and development can be triggered in any economy. The classical theories discussed indicated that there is a need for a country to follow stages of development and to save, as savings increase growth. As much as savings and investments are important or necessary, most developing economies do not have sufficient national income to save and to invest. Circumstances in countries differ and just because some countries have developed through following a sequence of steps, this may not be the same for other countries. Both the linear-stage-of-growth and the structural change models discussed under the theoretical literature review have the drawback of assuming that development is an identifiable process of growth and change with similar features in all countries. Placing emphasis on patterns may lead to untrue conclusions about causality (Todaro & Smith, 2012). The international dependence revolution models focus on international power imbalances and on necessary and fundamental economic, political and institutional reforms. They offer interesting insight into the reasons for most poor countries remaining underdeveloped, one of which being that they are forced into dependent relationships with lenders, but they do not provide insight into the way in which these countries can initiate and sustain development (Todaro & Smith, 2012). Although all the theories contribute significantly to understanding development, the emphasis is on the fact that economies need finance (in terms of savings and investments), to grow their economies. It remains problematic that most developing economies cannot save and hence lack the necessary finances to boost their economies. They rely on aid and loans, which may lead to over-dependence on the lenders, as explained by the international-dependence revolution.

The much-needed development by under-developed or developing economies is expected to be gained by borrowing funds from the international financial institutions. This has led to this thesis being interested in the international dependence theories. The international dependence revolution theories do not shed any light on what needs to be done for development to be realised and so the neoclassical counterrevolution theory is also of significance to this thesis. Moreover the neoclassical model developed by the neoclassical counterrevolution model, (Solow's growth model), is also of particular interest in this study as it posits that growth is as a result of the exogenous factor (technology), an increase in labour quantity and an increase in capital. The debt overhang theory resonates with this study, as debt can be said to be beneficial to the borrowing countries up to a certain point, after which it becomes detrimental and servicing the debt becomes a burden. This is the situation with most economies, particularly developing economies that find themselves with excessive debt and lagging behind in servicing their debts. The debt overhang theory does not inform us at which that point the debt becomes a burden and this thesis will contribute to the literature by examining the point at which debt becomes unbearable and begins to impact negatively on the economic growth of the country. The theoretical literature does not provide an explanation of the way in which the currently developing and under-developed economies can best address the problems of under-development. This study aims to address this gap, particularly the fact that economies have become heavily reliant on international financial institutions and received huge sums of development finance but no development is evident. The study will thus add to the existing literature through a review of the way in which various factors affect growth in developing economies.

The empirical literature review that was summarized in Table 3.1 indicates that most studies have focused on the impact of debt, (that is total external debt, or government debt in some instances), on economic growth, mainly using either per capita GNI or per capita GDP. This total debt is debt from all financial providers from whom the country has borrowed. Different lenders form different agreements and loans will therefore have different conditions attached. Loans are also issued for various uses. It would therefore be unfair to judge the impact of loans or debt on growth using total debt, as the various debts may have different impacts on growth, depending on the use of the loan as well as the conditions attached to the loans. This study contributed to the existing literature by testing the impact of loans received from the IMF and the World Bank as the dominant international financial institutions, as well as the institutions that issue loans aimed at developing economies, particularly loans issued by the World Bank's

IBRD, the largest development bank. These loans from the IMF and the World Bank were included in this study's model as explanatory variables. This study tested the impact of the loans received from the IMF and the World Bank as these institutions have been criticized for the conditions they attach to their loans, as explained in the previous chapters. The study added to the literature by including variables that highlight the management side, namely Rule of Law, the Corruption Perception Index and Inflation, as these may also affect to what extent the finances a country has from loans positively affects economic growth. In other words, this thesis added to the existing literature by using various explanatory variables that help in determining if it is the countries or the policies they put in place that are derailing growth. Variables such as Rule of Law will also help analyse internal or recipient country impacts in terms of its law and order as well as policies on growth. Loans are beneficial to an economy up to a certain point, according to the debt overhang theory as well as the debt Laffer curve, and it is the aim of this study to ascertain the way in which financial institutions can assist borrowing economies to maintain debt at levels that enable development. In addition, this thesis will make a contribution to the existing literature by looking at the BRICS development bank and lessons it can learn from the current financial institutions in providing an additional source of finance for developing economies. Most previous studies made use of time series analysis and a limited number also used panel data but this study employed panel data econometric techniques.

Table 3.1: Summary of Empirical Literature Review

Study	Methodology	Period and variables used	Results obtained
Cohen (1993)	OLS	1980-1990	Debt does not slow investment or growth.
Afonso and Alves (2014)	Panel data technique	1970-2012 real per capita GDP growth rate (dependent variable), real per capita income of 1970, and government debt.	Negative impact of -0.01% for each 1% increase in debt.

Study	Methodology	Period and variables used	Results obtained
Gomez-Puing and Sosvilla-Rivero (2017)	ARDL	Euro Area (EA) data 1961-2013. Level of productivity (dependent variable), stock of physical capital, labour employed, human capital and stock of public debt.	Found various patterns across EA countries but generally results tend to support a negative impact of debt on long run performance. However, in the short run, debt has a positive effect depending on the country in question.
Shabbir (2013)	Panel data techniques	70 developing countries 1976-2011. Growth rate of per capita GNI (dependent variable), external debt as a % of GNI, external debt stock as % of exports, inflation, exchange rate and openness.	Increase in debt reduces fiscal space to service debt, thus dampening economic growth.
Ali and Mustafa (2012)	Cointegration techniques: Engle & Granger (1987) and Johansen (1988) approach	Pakistan 1970-2010. GNP (dependent variable), human capital, capital stock, total labour force and external debt as a % of GDP.	External debt exerts a negative impact on economic growth.
Ayadi and Ayadi (2008)	OLS and GLS	1994-2007. Annual growth rate of GDP (dependent variable), annual growth rate of exports, growth in fixed capital and size of external debt relative to annual growth rate of GDP.	Found a negative impact of debt and its servicing requirements on economic growth. South Africa however, was found to perform better that Nigeria in the application of external loans to promote growth.

Study	Methodology	Period and variables used	Results obtained
Clements, Bhattacharya, and Nguyen (2003)	Panel data technique	Growth of real per capita income, population growth rate, gross domestic investment as percentage of GDP, openness indicator (exports plus imports as a share of GDP), total debt service as percentage of exports of goods and services and external debt stock.	Negative relationship between debt and growth.
Schlarek (2004)	Panel data techniques	1970-2002. Real per capita GDP growth rate (dependent variable), total factor productivity, capital stock growth rate and savings.	Results indicated that higher growth rate is associated with lower external debt.

In a nutshell, this research adds to the existing literature by looking at an unrevealed angle of why the current international financial system is not improving the economies to which they issue loans. There is also a lack of econometric analyses with the aim of advising emerging development banks, as well as developing countries, on the way in which they can effectively integrate into international systems and provide development finance that actually brings about development and also the manner in which to use the loans to develop economies. With the introduction of the New Development Bank by BRICS, this research aims at looking at ways in which it can integrate into the system, learning from the IMF and the World Bank's activities (both what they have done right to copy and enhance and what they have done wrong so as to amend), in a bid to bring about the much awaited turnaround of sustainable development.

3.5 CONCLUSIONS

The main objective of this chapter was to review literature regarding the effect of debt on economic growth and development. The chapter began with a discussion of the debt overhang theory, which stipulates that debt can have positive effects on the economy and high levels of debt are associated with a high probability of debt servicing or debt repayment. However, continually increasing debt stock will eventually lead to the country reaching a point where there is a low possibility of repaying the debt and the debt becomes a burden to the country. It is after this point that debt may affect economic growth negatively. The debt overhang theory is best explained by the Debt Laffer Curve, which relates the magnitude of a country's debt with the value of repayment. The chapter also discussed various economic growth theories followed by a discussion of the linear growth stages of growth theories, structural change models, international dependence revolution models and the neoclassical counterrevolution market fundamentalism models. These theories of economic growth and development presented an overview of the way in which growth can be triggered in economies.

The classical theories stipulate that development follows a series of steps that every country must pass through to develop and that a country must be able to save part of its national income and invest if development and growth is to be realized. Saving and investment are necessary but not sufficient conditions for development. In most developing economies, the national income is not high enough to allow saving, moreover circumstances in countries differ and as a result development may not follow the same sequence of steps, as countries differ in many respects. African economies cannot finance the growth process themselves, as their savings are generally low. This is the greatest weakness of the linear growth models and the reason that they do not identify with this study. The structural change models have the weakness of assuming that structural changes can be achieved easily in all countries and that countries have the finances needed to change the structure of their economies. Most developing economies lack the finance to adopt these changes, even if the changes can work for them. Both the linear-stage-of-growth and the structural change models have a problem of assuming that development follows the same path and with identical features in all countries.

The chapter also discusses the International-Dependence Revolution theories that stipulate that growth has been delayed or suppressed by the international power imbalances and the dominance of developing economies by wealthy countries. According to these theories, the only way to bring about development is to ensure fundamental economic, political and institutional reforms. They offer a fascinating viewpoint of why most poor countries remain under-developed, as that they are forced into dependent relationships with the lenders but they do not provide insight into the way in which these countries can initiate and sustain development.

Although all the theories contribute significantly to understanding development, the emphasis is on the fact that economies need finance, (in terms of savings and investments), to grow. It remains problematic that most developing countries cannot save and therefore lack the necessary finances to boost their economies. They end up relying on aid and loans, which may lead to over dependence on the lenders, as explained by the international-dependence revolution. In that sense this study identifies well with the international dependence revolution models, the neoclassical counterrevolution model and the debt overhang theory.

The international dependence revolution theories do not shed light on what needs to be done for development to be realised and so in addition to the neoclassical counterrevolution theory, the neoclassical growth theory is also of significance to this study. The neoclassical model developed by the neoclassical counterrevolution model (Solow's growth model) is of particular interest to this study as it presents that growth is a result of the exogenous factor, technology, an increase in the quantity of labour and an increase in capital. The debt overhang theory also identifies well with this study as debt can be said to be beneficial to the borrowing countries to a certain point, after which it becomes detrimental and servicing that debt becomes a burden. This is the situation with most economies, particularly developing economies that find themselves with substantial debts and lagging behind in servicing their debts. The debt overhang theory does not specify the level of debt stock point at which that debt becomes a burden and this thesis will contribute to the literature by examining the point at which debt becomes unbearable and begins to impact negatively on the economic growth of the country. The theoretical literature does not provide an explanation of the way in which the current developing and under-developed economies can best address the problems of under-development. This study aimed to address this gap, particularly the fact that economies have become heavily reliant on international financial institutions and have received vast sums of development finance but there is still no development. The study will thus add to the existing literature through a review of the way in which various factors affect growth in developing economies. In a nutshell, it can be concluded that there is a need for developing countries to grow their economies but the main constraint is the lack of finance to do so. Even if they could follow the suggestions of all the theories above they would still require finances to adjust their economies.

In addition to theoretical literature, the chapter discussed empirical literature. Numerous studies have been conducted on the relationship between debt and growth with mixed results. The empirical literature focused mainly on the impact of debt on economic growth, notwithstanding the fact that these loans are issued under various conditions and for different uses. As a result, the overall impact of debt is evaluated without differentiating between the type of loans and the issuers of the loans. It is important to make this distinction because at times finance from lenders may not even be used for development expenditure and yet it is included in total debt data. This gap will be explored by this study as it looks at loans issued by the dominant international financial institutions, the IMF and the World Bank, for development. The study will add to existing literature in terms of identifying the level for each country at which debt initially became a burden to the country.

Development in most economies that have borrowed from the IFIs is derailed by policies that ensure over-dependence on the lending economies. It would be beneficial for existing and new institutions learn from past experiences in order to make better-informed decisions concerning the issuing of loans to developing economies to foster sustainable development. The IMF and World Bank may also look into their policies whilst the NDB for example, learns from the past experiences of these in drafting its conditions attached to loans.

CHAPTER FOUR

OVERVIEW OF DEBT FROM INTERNATIONAL FINANCIAL INSTITUTIONS AND ECONOMIC GROWTH AND DEVELOPMENT IN DEVELOPING ECONOMIES

4.1 INTRODUCTION

This chapter presents an overview of the indebtedness of developing countries and economic growth using a trend analysis of selected developing African countries that have received loans from the IMF and the World Bank (the dominant international financial institutions). This chapter begins by highlighting the debt crisis of African economies through a presentation of an applied approach indicating trends for the debt of African countries and their indebtedness.

With the growing need for development in under-developed or developing economies and the lack of funds to aid development, it has been proposed that the principal mechanism will be foreign loans as far as possible. Although there are various factors that affect growth and development, as revealed in the previous chapter, foreign finance remains a chief ingredient. According to Villami & Asiedu (2001), even though debt can have negative effects on growth, the benefits outweigh these negative effects and policy strategies that maximize the positive effects must be undertaken. Roll and Talbott (2002) stipulate that foreign loans do not contribute to sustained economic growth over the long term. Through trends analysis this chapter will provide an overview of funds received and the growth and development of selected, heavily indebted, African countries.

4.2 INDEBTEDNESS OF AFRICAN ECONOMIES

As early as the 1960s, the seeds for debt crisis were sown in many underdeveloped economies that were forced to borrow in pursuit of industrialization policies and creditors lending only for political reasons escalated the problems in a number of countries (IMF, 2002). Given this situation, countries have been forced to turn to lenders of last resort for new loans to meet the financial burden of their accumulated debts and to cover up trade deficits, giving considerable power to the IMF and the World Bank in many poor countries (Joyner, 1998). Over the years, the external financing options available to developing countries have evolved and expanded. Repeated debt crises caused by unpleasant global economic conditions or poor economic management have demanded solutions, including debt reforms and, in the case of the poorest and most highly indebted countries, absolute debt pardon. Around 2009, with foreign debt of around US$300 billion, African countries used up approximately 16 percent of the continent's export earnings on servicing external debt (IMF, 2009). This is considerably less than during the height of the African debt crisis in the 1990s, when debt service at times exceeded 40 percent of export earnings (HIPC and MDRI status of implementation, IDA and IMF, 2009). According to the World Bank (2012), the total stock of developing countries' external debt increased from $437 billion to $4 trillion by the end of 2010, indicating an inflow of debt of $495 billion. It also reported that short-term loans rose faster. In late 2000, the global financial crisis forced a number of developing countries to draw down international reserves. By 2010, debt flows from private creditors were close to five times their 2009 level and were driven by a massive jump in short-term debt and a strong rebound in bond insurance by public and private sector borrowers (Todaro & Smith, 2012). As a result of high debt and the debt service burden, economic growth has been impeded in various countries. Khor (1999) highlighted that almost 80 underdeveloped countries, (mostly African countries), fell into a debt trap with the World Bank and the IMF. African economies have borrowed more from multilateral financial institutions and official bilateral creditors, particularly from the IMF and the World Bank, because of their low income nature (United Nations, 2004). Debt in Africa increased ominously between 1970 and 1999 from about US$11 billion to over US$120 billion in the early 1980s (IMF, 2014). The total external debt has, during the structural adjustment period (1980s to 1990s), exacerbated and reached about $340 billion in 1995 preceding the HIPC launch (United Nations, 2004). The situation could have been made worse by the inability of most countries to service their debt obligations. Initially in the 1980s, external debt for most African economies rose due to over borrowing and reckless lending by international commercial banks, the collapse of world commodity prices and sharp increases in the international interest (lending) rates in 1982 (World Bank, 2012). Since then there have been sharp increases in the debt stock, especially of developing economies, but in terms of economic growth there has not been as much growth compared to the debts incurred. There have been problems in paying off the required amount at a particular time and debt servicing remains a problem in Africa.

Regardless of the international community's efforts towards debt relief for poor economies, reducing the debt and achieving sustainable development is still a problem in most African economies (United Nations, 2010). The global financial crisis triggered the Bretton Woods Institutions to introduce the Structural Adjustment Programmes (SAPs), which required drastic macroeconomic policy reforms aimed at stabilizing the recipient country's economy as a condition for access to new loans. In 1996 the IMF and the World Bank introduced the Highly Indebted Poor Countries (HIPC) initiative, which aimed at lowered debt and offered earlier relief to indebted countries that were classified as being poor countries. In reality, many African countries, even those benefitting from the HIPC and the Multi Debt Relief Initiative (MDRI) are still in debt distress or at high risk of becoming so, according to the IMF and World Bank's debt sustainability analysis (United Nations, 2010). This analysis considers debt indicators and prospects for new borrowing to assess a country's ability to service future debt and has confirmed that many countries are in danger of assuming even more unsustainable debt (United Nations, 2010). Any effort aimed at increasing the availability of finance in African economies should not undermine debt sustainability in Africa.

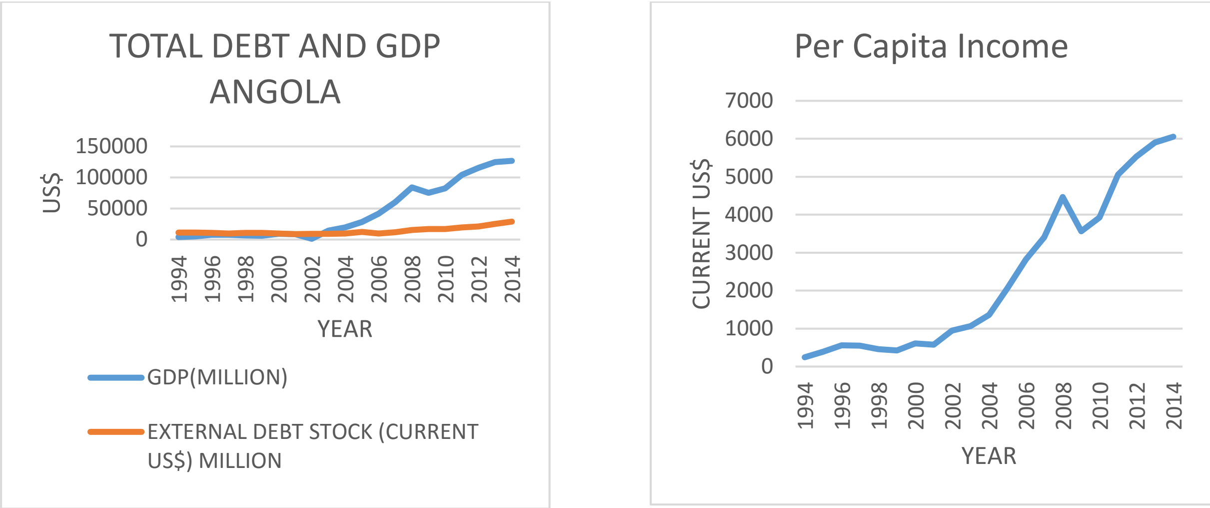
African economies are highly indebted to the World Bank and the IMF. The World Bank (2017) estimated Angola's public debt to be at 59.2% of GDP at the end of 2016. Over the past decade, Angola has been one of the fastest growing economies in the world, as it was aiming at rebuilding its economy after a devastating civil war that ended in 2002. Until 2014, the government had been spending about $15bn annually on infrastructure development (World Bank, 2014). Despite business booming in its capital city, most Angolans still live in poverty (Hanson, 2008). Angola attained independence from Portugal in 1975 but conflicts arose amongst various parties in the nation resulting in a civil war that lasted for about twenty-seven years destroying roads, railways and bridges as well as agricultural infrastructure that had been built under the rule of the Portuguese. Currently, like many African countries, Angola faces the steepest development challenges but unlike most countries, it does not depend entirely on foreign financial institutions such as the IMF and the World Bank (Hanson, 2008). According to the World Bank, about two thirds of the economy relies on agriculture but the government allocates less than one percent of the budget to this sector, making it difficult to improve the lives of the people. The sector that is believed to have suffered more from the war is the transport sector, with roads, railways and bridges having been severely damaged. The government estimates that they need from ten to fifteen years to fully repair the damage and they also need substantial amounts of money to rebuild the infrastructure (World Bank, 2014). This sector is essential for almost all other sectors of the economy to grow and therefore important for economic growth.

4.3 OVERVIEW OF DEBT AND DEVELOPMENT IN SELECTED AFRICAN ECONOMIES

The problem of foreign debt has been a major and persistent setback for numerous African economies. This may be because most of these African economies are still under-developed and depend on loans to sustain their economies. Countries resort to borrowing because domestic resources are insufficient to meet the social needs, let alone the development needs of these economies. Countries have had to borrow and continuously accumulate their debt beyond the point of sustainability. Most economies in such situations face economic deficits given their high level of indebtedness. Below is an overview of ten selected African countries' economies in terms of the debt they have accumulated over the years, and the way in which their economies have been progressing in terms of economic growth, development and welfare, using selected macroeconomic variables.

4.3.1 Angola

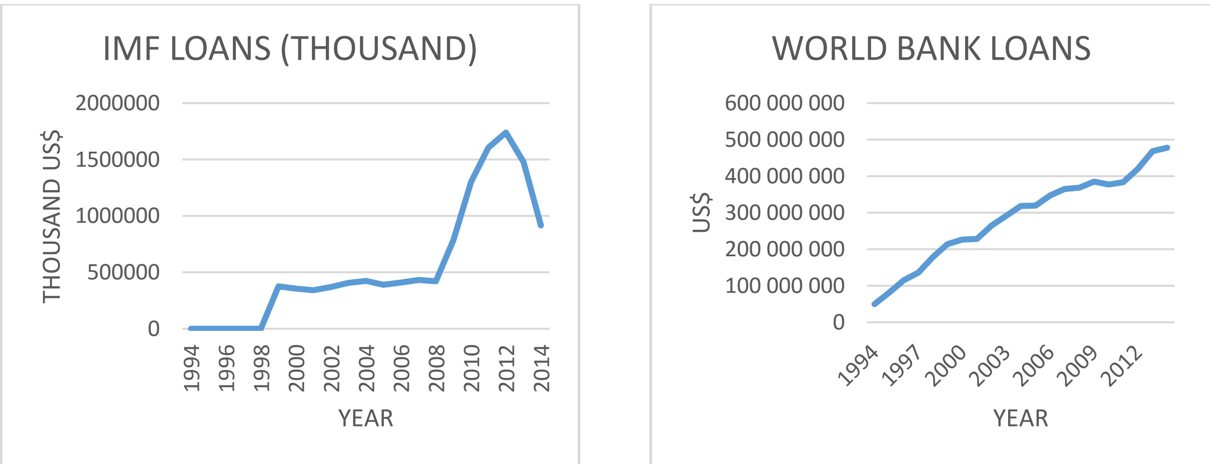
The Republic of Angola is a country in the southern part of Africa that suffered from a civil war between the ruling party People's Movement for the Liberation of Angola (MPLA) and the National Union for the Total Independence of Angola (UNITA) that lasted from independence in 1975 until 2002 (27 years). Its economy is amongst the fastest growing economies, averaging GDP growth of about 11.1 percent from 2001 to 2010 (World Bank, 2017) and the country has abundant mineral and petroleum reserves. The standards of living in the country are however low with high infant mortality and low life expectancy (Mills, 2011). Since the end of the civil war, the country has had to work to repair the damaged infrastructure. According to England (2015), Angola has been seeking to raise up to $10 billion from foreign creditors in a bid to push a key infrastructure project following a fall in the crude oil price, which is the nation's largest export. The government aims to raise a total of about 1,654bn kwanza through domestic finance and about 1,105bn kwanza via external financing (Financial Times, 2016). Officials at the World Bank told reporters that Angola still needs to repair infrastructure and expand other sectors of its economy and that it will assist the nation, through the International Bank of Reconstruction and Development, with $1 billion, specifically to finance infrastructure and agriculture (World Bank, 2014). Other financial assistance has been received from the African Development Bank to help Angola develop the country's electricity network. The Angolan economy, as depicted in Figure 4.1 below has realised a steady increase in its GDP and per capita income. There was a sharp increase in GDP between 2003 and 2008 as shown in the figure. The country's total debt has increased steadily over the years, as depicted in the Figure 4.1.



Source: Author's computation using data from the World Bank (2017).

Figure 4.1: Total Debt and GDP and Per Capita Income Trends of Angola

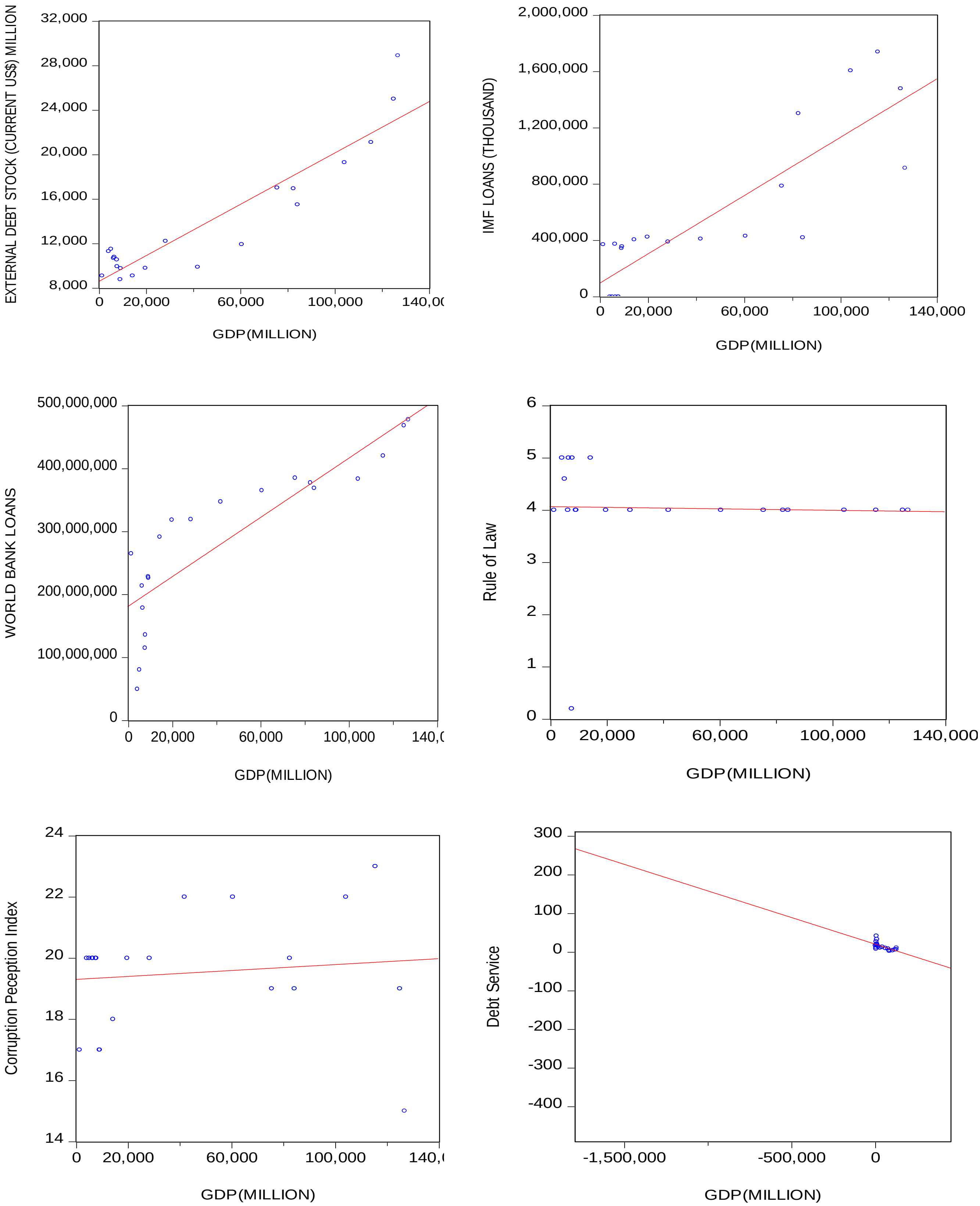
Angola has received loans from the IMF and the World Bank and these loans have increased over the years, as shown in Figure 4.2. IMF loans in Angola sharply increased from around 2008 to 2012, sharply declining thereafter. During the period under review, loans from the World Bank steadily increased, as shown in Figure 4.2.



Source: Author's computation using data from the World Bank (2017).

Figure 4.2: IMF and World Bank Loans Received by Angola

The scatter diagrams presented as Figure 4.3 indicate a relationship between selected variables and GDP in Angola. External debt during the period under review in Angola indicates a positive relationship between GDP and loans from the IMF and World Bank and a positive relationship with GDP. The debt service to exports ratio indicates an inverse relationship with GDP, indicating that as the country was paying off the debt plus interest, this had a negative effect on the GDP. The rule of law (ROL) index indicates a constant relationship with GDP. ROL measures the perceptions of people in that country in terms of how clear and transparent its laws are and the way in which governments and the people in general are held accountable and treated equally before the law. A higher score, (normally ranked from zero to ten), means people perceive that country's laws to be clear and applied equally to everyone. During the period under review, in Angola the population's perception of the ROL remained constant, despite the fact that the country had been suffering from a civil war. Law and order was restored in 2002. The corruption perception index (CPI), which measure how corrupt the country is perceived to be, from between 0 to 100 with 0 indicating high corruption and 100 indicating an absence of corruption as according to the perceptions of the population. For the period under review, Angola's CPI indicated a slightly positive relationship with GDP, meaning that perceptions with respect to corruption improved during the period under review.

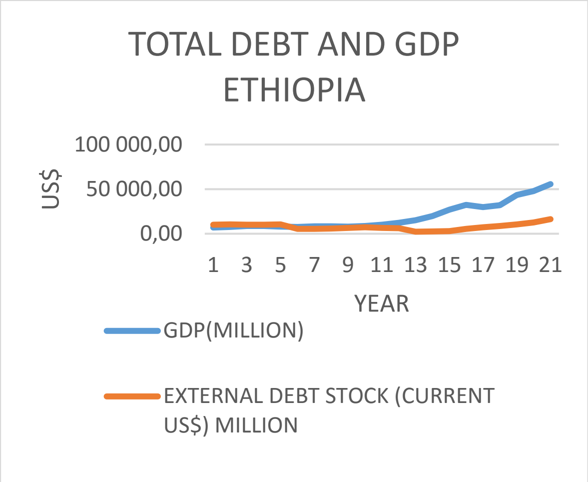


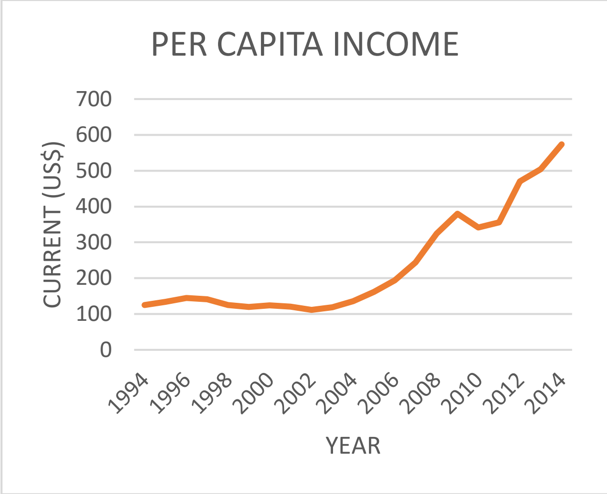
Source: Author’s computation using data from the World Bank (2017).

Figure 4.3: Scatter Diagrams using data from Angola

4.3.2 Ethiopia

The World Bank and the IMF have also supported the Ethiopian economy. This is a highly populated country with approximately 91 million people and has realised economic growth averaging about 7.8 percent since 2009 but the economy remains unstable due to over-dependence on agriculture, inflation and increasing foreign debt (World Bank, 2016). Other severe problems include lack of adequate infrastructure, food shortages, poverty and inadequate social services such as education and health (JICA, 2016). In 2000, Ethiopia had one of the highest rates of poverty in the world and since then the government has been working to reduce poverty (World Bank, 2015). A reduction in poverty has been realised and can be attributed to the growth in agriculture, continuous economic growth and to the fact that Ethiopia is a country with one of the lowest levels of inequality in the word (World Bank, 2016). However, poverty remains extensive, especially due to inflation and the fact that the majority of the people live in rural areas. Ethiopia implemented the Productive Safety Net Program (PSNP) that works to end food insecurities and encourages those that are able-bodied to participate in activities (building community structures) that assist them to have more flexible livelihoods. To date, the PSNP has assisted approximately 1.5 million poverty stricken people to lift themselves out of poverty (World Bank, 2015). In order for the nation to continue reducing poverty, the World Bank has suggested that ongoing efforts of promoting self-employment and sustenance continue and urban migration has to be encouraged. With assistance from the IMF and the World Bank, the Ethiopian Government has been implementing reforms directed at increasing the real GDP and reducing poverty, maintaining macroeconomic stability in the process (IMF, 2004). The nation has been assisted by the Heavily Indebted Poor Countries (HIPC) Initiative. The IMF and World Bank's International Development Association (IDA) agreed that Ethiopia has taken steps and made sufficient progress to qualify for the initiative (World Bank, 2016). The country has also implemented the second phase of its Growth and Transformation Plan (GTP 11), which will run from 2015/16 to 2019/20 and aims to improve infrastructure. Like many other countries, Ethiopia derived much of its revenue from foreign loans, including from the IMF and the World Bank. As shown in Figure 4.4, Ethiopia's GDP slowly increased over the years under review and total external debt also increased steadily. Per capita income also indicated a steady increase with a slight decline around 2010 and an increase around 2012.

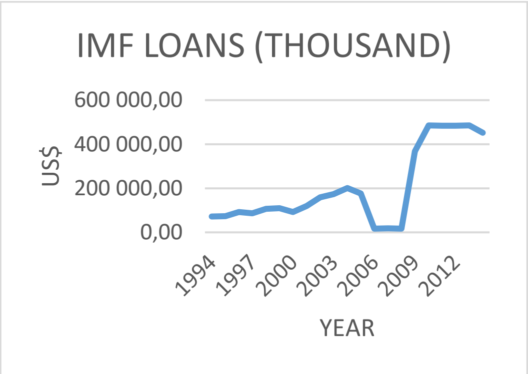


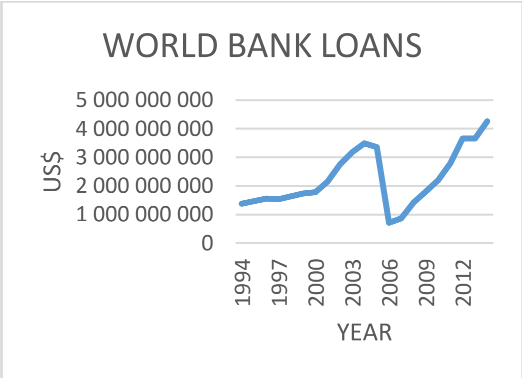


Source: Author’s computation using data from the World Bank (2017).

Figure 4.4: Total Debt, GDP and Population Growth Rate Trends of Ethiopia

The country has received loans from both the IMF and the World Bank, as indicated in Figure 4.5. IMF loans steadily increased from 1994 until 2004 and declined sharply thereafter. In 2008 the loans from the IMF rapidly increased until 2010 and thereafter more of a constant amount prevailed with a slight decline in 2014.

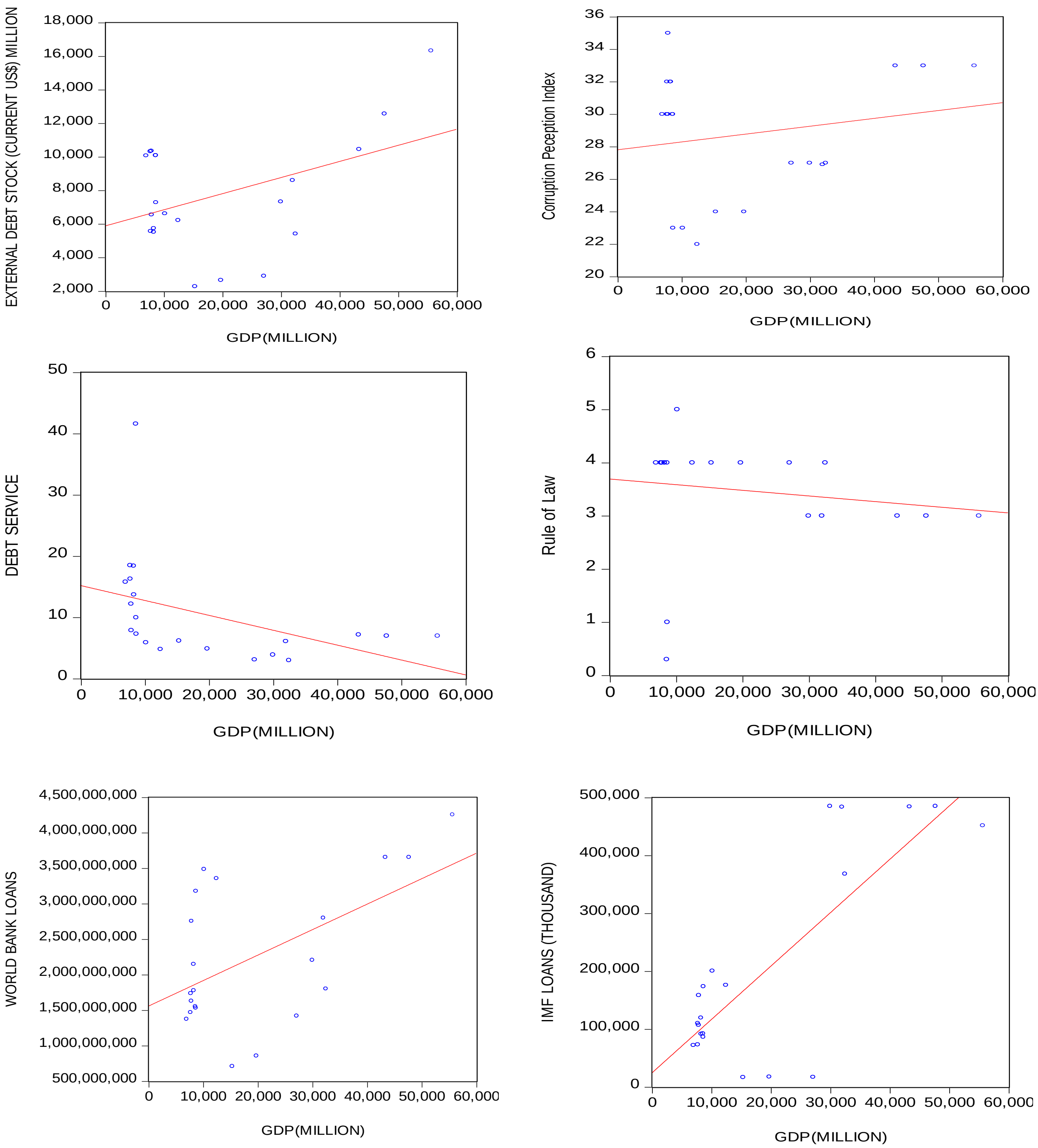




Source: Source: Author’s computation using data from the World Bank (2017).

Figure 4.5: IMF and World Bank Loans Received by Ethiopia

Figure 4.6 is a scatter diagram using data from Ethiopia. Total external debt and loans from the IMF and the World Bank indicate a positive relationship with GDP over the period under review. Debt service indicates a negative relationship with GDP, meaning that during this period, while Ethiopia serviced its debt, GDP declined. ROL indicates a negative relationship with GDP indicating that people perceived that the country did not adhere to laws, CPI indicates a positive relationship with GDP, implying that people perceived corruption to be improving towards the clear mark as GDP increased in Ethiopia during the period under review.



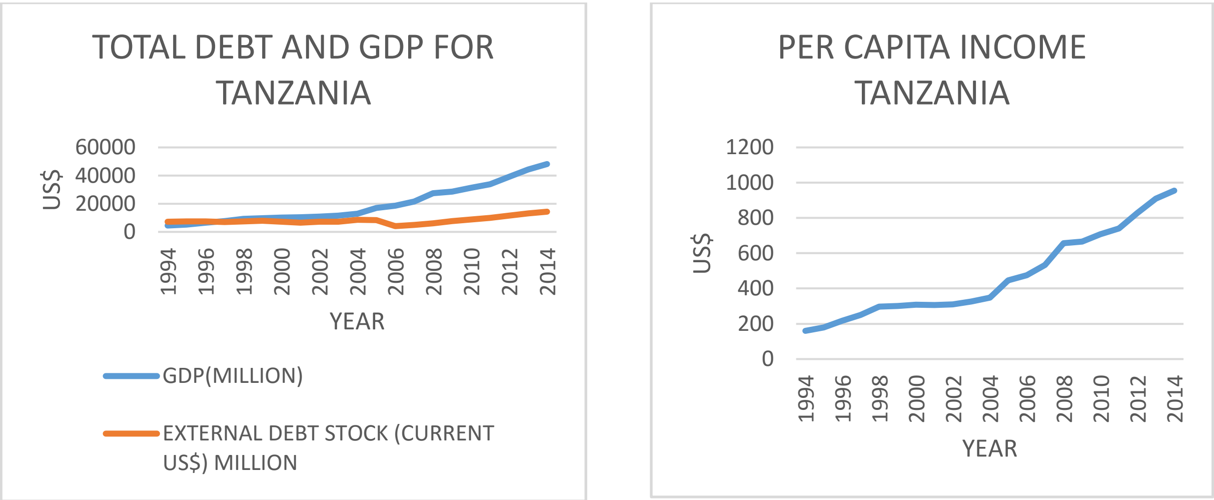
Source: Author’s computation using data from the World Bank (2017).

Figure 4.6: Scatter Diagram Using Data from Ethiopia

4.3.3 Tanzania

The United Republic of Tanzania is the second largest economy in the East African Community and the twelfth largest in Africa but it is one of the world's poorest countries with a GNI per capita of about 500 US dollars in the year 2010 and a poverty rate of 34 percent (JICA, 2016). In 2014 the World Bank approved a loan of US$300 million from the International Development Association (IDA), which is the largest financer in Tanzania, in support of the country's project of building a railway infrastructure on the Dar es Salaam-Isaka section of the East African Central Corridor (World Bank, 2014). The World Bank task team leader for this project, Henry des Longchamps, claimed that this project would assist in improving Tanzania's regional rail network thereby improving competition as well as economic integration at regional and global levels. Locally, this project will also help to improve the transport network for the population living in the western parts of the country where agriculture is the dominant activity.

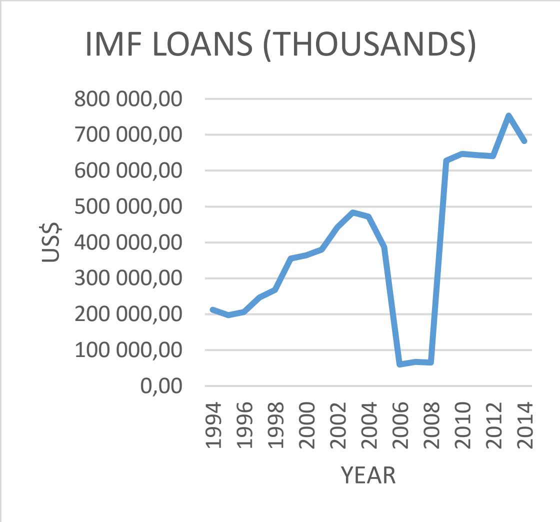
GDP as well as total external debt and per capita income has increased over the years, as depicted in Figure 4.7. Inequality and poverty remain as problems in Tanzania.

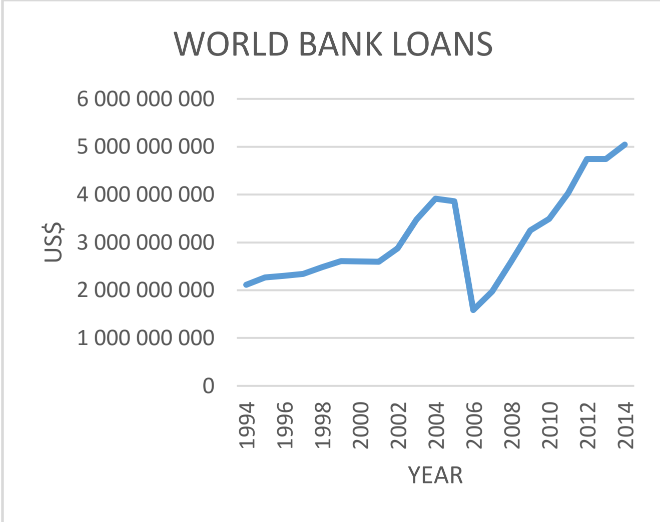


Source: Author's computation using data from the World Bank (2017).

Figure 4.7: Total Debt, GDP and Per Capita Income Trends for Tanzania

The country received loans from the IMF and the World Bank (Figure 4.8) and during the period 2004 until 2008 there was a sharp decline in both IMF and World Bank loans. This is the period during which Tanzania experienced political unrest and corruption within the cabinet, reportedly leading to the prime minister and two other ministers resigning and the president eventually dissolving the cabinet in February 2008. IMF loans sharply increased in 2009, steadily increased thereafter until around 2012, when there was a sharp increase in 2013 followed by a sharp declined in 2014.

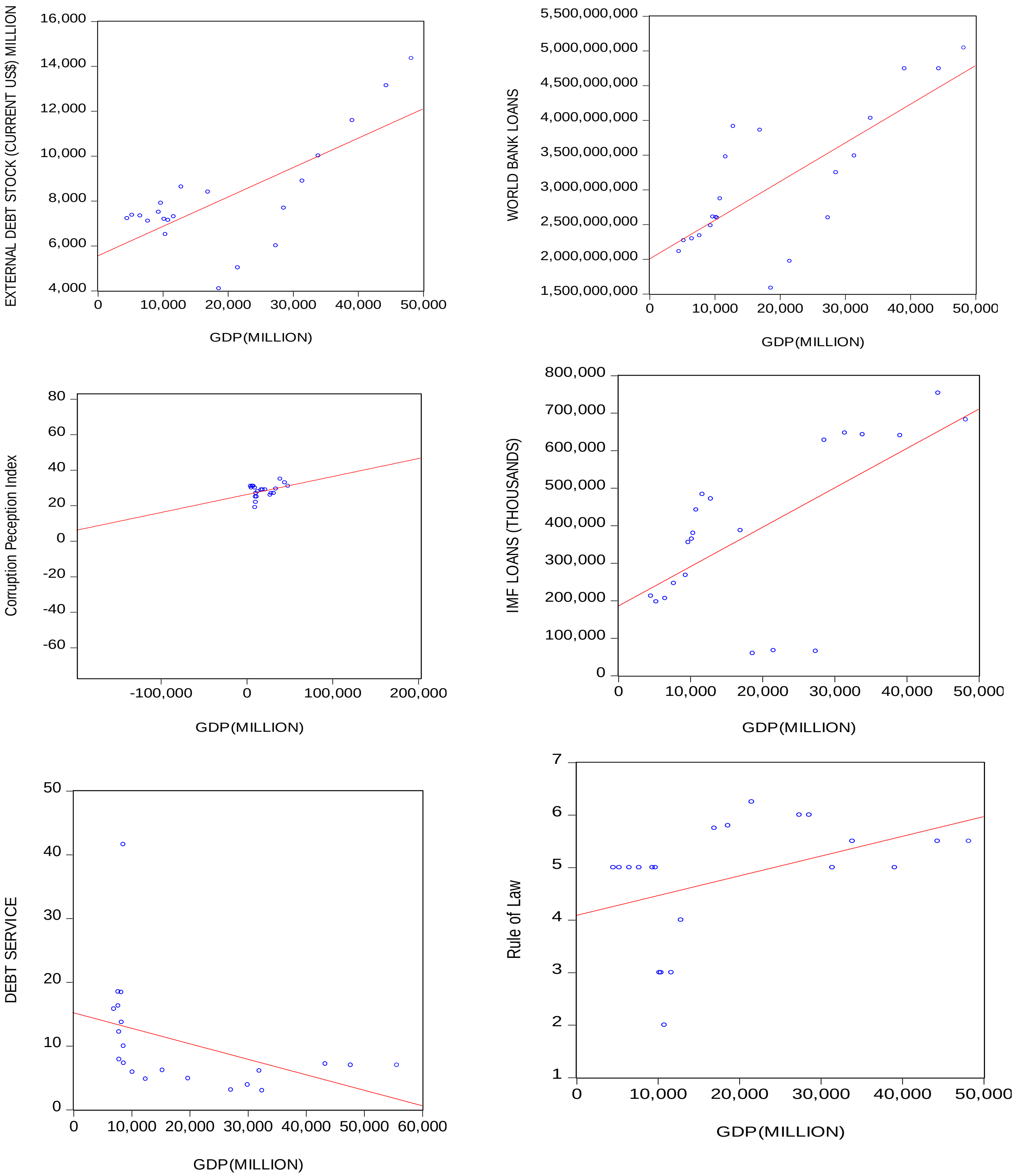




Source: Author's computation using data from the World Bank (2017).

Figure 4.8: IMF and World Bank Loans for Tanzania

As indicated in Figure 4.6 below, loans have had a positive impact on the country's GDP. Loans from both the IMF and the World Bank, as well as total external debts, indicate a positive regression line in relation to the GDP level during the period under review. Debt service shows a negative impact on GDP levels. The debt service to export ratio was low, indicating that Tanzania's exports could not generate enough revenue to service its debts and this placed strain on the economy, as debt had to be serviced using funds from national income. ROL showed a positive relationship with GDP during this period, indicating that the perceptions of the people with regard to Tanzania's laws improved as GDP increased. CPI also indicated a positive relationship with GDP, meaning that people's perceptions of corruption in this country improved and moved towards the clear mark (100), as GDP increased during the period under study.



Source: Author's computation using data from the World Bank (2017).

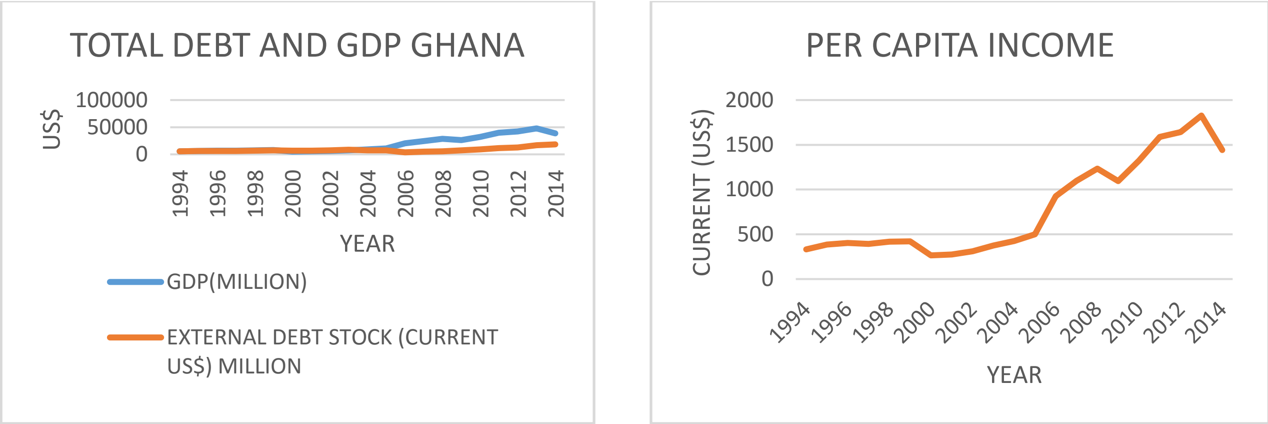
Figure 4.9: Scatter Diagram Using Data from Tanzania

4.3.4 Ghana

The IMF and World Bank have also assisted Ghana, a country that is well- known for its political and social stability since its transition to multi-party democracy in 1992 (World Bank, 2015). In recent years the country has experienced growth in oil production resulting in increased foreign investment and increasing economic activities and growth. There remain problems of high regional disparities as well as insufficient infrastructure and public services (JICA, 2016). Ghana ranks among the United States' top trading partners in sub-Saharan Africa and its growth rate is amongst the fastest, yet most of the population still lives in poverty and unemployment is high. There has been progress in cutting the poverty rate, as it fell from 52.6 percent to 21.4 percent between 1991 and 2012 (World Bank, 2014). There is a need to ensure that prosperity is shared equally across the entire population. Ghana is one of the few countries that has kept track of the Millennium Development Goals for income poverty, hunger, primary school completion, gender parity and access to public goods such as water (World Bank, 2015). Regardless of these developments, rural farmers are still the poorest socio-economic group in Ghana.

In a study carried out by the World Bank team, Ghana requires sustained spending of at least $1.5bn per annum over the next years to cap the infrastructure gap that currently exists (Apenteng, 2013). The World Bank Group aims to assist Ghana to uphold economic growth, maintain middle-income status and halve poverty (World Bank, 2016). The World Bank has been providing financial support to Ghana as it has to many other countries, for example in 2012 it approved an International Development Association (IDA) interest free credit of US$30 million to initiate a new project, namely a Public Private Partnership (PPP) for infrastructure development in Ghana (World Bank, 2016). The IMF also supported Ghana in 2015 by granting a $918 million loan to support government policies aimed at boosting national infrastructure projects (IMF, 2015).

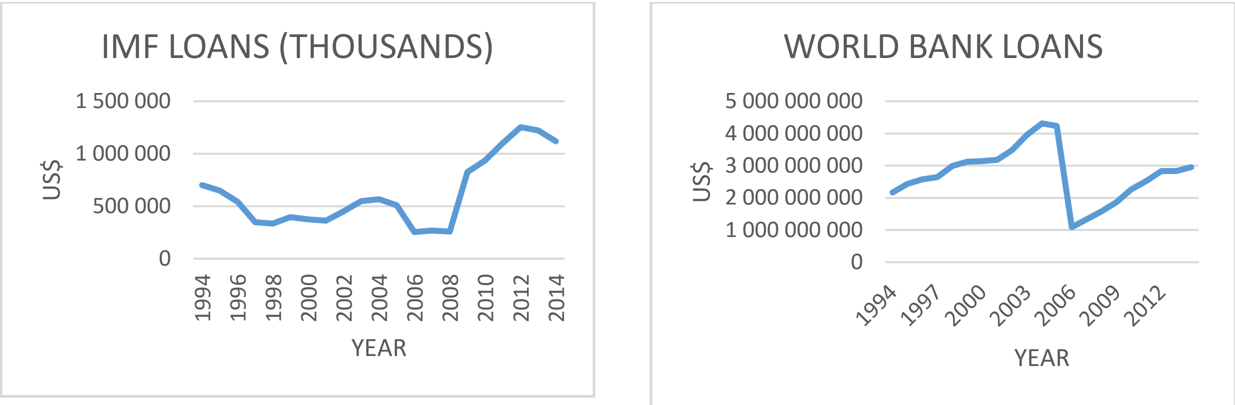
GDP grew at a slow pace, as depicted in Figure 4.10, between 1994 and 2005 and from 2006 until 2013 it increased steadily with a slight decline around 2009. During that period total external debt also increased at a slow pace. There have been fluctuations in the per capita income as depicted in Figure 4.10.



Source: Source: Author's computation using data from the World Bank (2017).

Figure 4.10: Total Debt, GDP and Per Capita Income Trends of Ghana

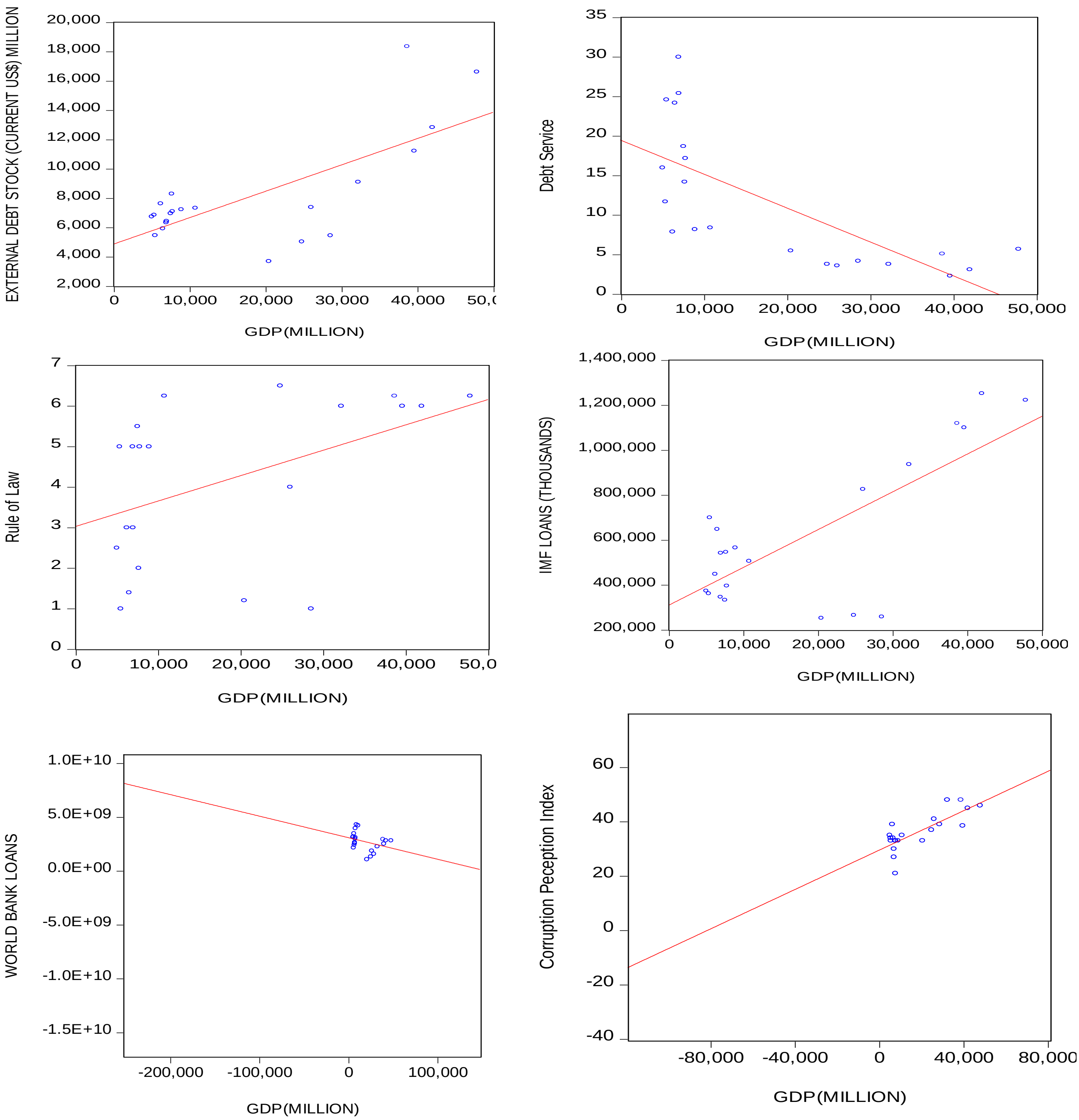
As illustrated in Figure 4.11, Ghana has had a substantial decline in the loans owed to the World Bank from around 2005 to 2007, the period during which debt relief was provided to the country. IMF loans fluctuated from the beginning of the period under review up until around 2006. There was a sharp increase in the loans owed to the IMF from 2009 to 2012.



Source: Source: Author's computation using data from the World Bank (2017).

Figure 4.11: Ghana's IMF and World Bank Loans

In the scatter diagrams in Figure 4.12, Ghana's total external debt and loans from the IMF can be seen to have had a positive relationship with GDP during the period under review. World Bank loans however, had a negative relationship with GDP. The debt service to export ratio (DSER) also indicates a negative relationship with GDP. A higher DSER may have detrimental effects on GDP, whereas a lower ratio indicates that the country is able to service its debt using money generated from exports and debt service is therefore still manageable. ROL and CPI both showed a positive relationship with GDP during the period under review in Ghana. This means that during that period people perceived Ghana's ROL and CPI as having improved.



Source: Author's computation using World Bank data (2017).

Figure 4.12: Scatter Diagrams using Data from Ghana

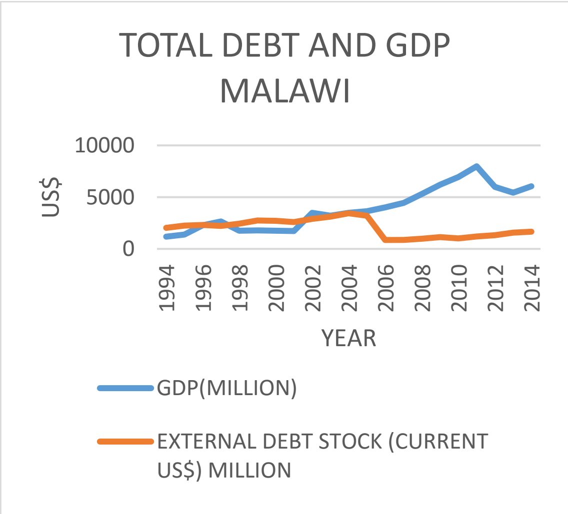
4.3.5 Malawi

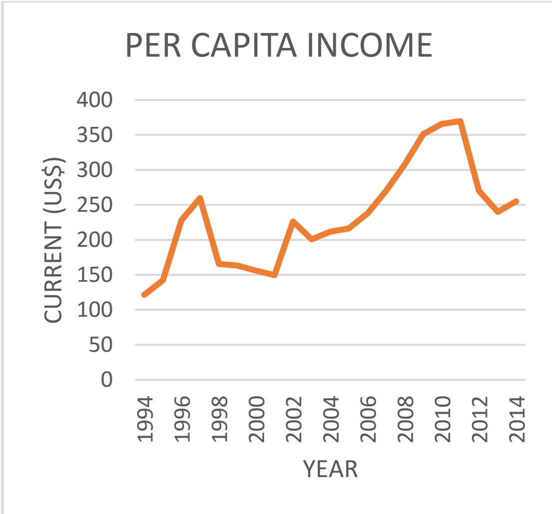
Malawi joined the IMF in July 1965 and since then the country has been receiving support from the fund (IMF, 2014). With considerable support from the IMF and the World Bank, Malawi has been making important structural reforms and considerably sustained its growth, poverty however, remains widespread. The country's GDP grew by about 5.7 percent in 2014 but the adverse conditions in weather slowed this growth and the country faced macroeconomic instability. Malawi's main challenges are to improve the energy and water delivery infrastructure and reform the public financial management system (PFM). The reformation of the PFM is of paramount importance for the restoration of both public and donor confidence (World Bank, 2016).

Malawi is one of the poorest countries in the world with a GNI per capita at about 340 US Dollars in 2012 and more than half of its population lives below the poverty datum line (World Bank, 2012). The larger portion of its population is concentrated in the rural areas with no access to electricity and the people therefore rely on traditional ways of energy production that causes deforestation and the slowing down of social and economic development (FINCA, 2016). Agriculture is the main source of income for most Malawians, however, irrigation facilities are undeveloped and this makes the country's industry and economy more vulnerable. Agriculture exports constitute 80% of the total GDP but this sector faces challenges caused by a lack of adequate infrastructure and inadequate policy support. There is a need to address basic human needs such as access to clean water, basic education and health care services (JICA, 2016). In order to address the problem of poverty, Malawi has introduced the Malawi Growth and Development Strategy II (MGDS II), which lasted from 2011 to 2016. The MGDS II aimed at continuously reducing poverty through the sustainable growth of the economy and developing infrastructure. To achieve this, the government prioritised six key areas, namely agriculture and food security, irrigation and water development, transport infrastructure development, energy generation and supply, integrated rural development and prevention and management of HIV/AIDS and nutrition disorders. Like any other developing country, Malawi lacks the financial resources to finance its development plans. The World Bank, through its fourth Country Assistance Strategy (CAS) for 2007-2010, intended to assist Malawi in building these foundations so that the country could reduce poverty (World Bank, 2007). The CAS initiative aimed at financing the projects that the Malawian Government identified as crucial for meeting their development goals and non-financial assistance in the form of policy dialogue and analysis was part of the package offered by the World Bank. As early as 1966, the World

Bank has been supporting the Malawian Government, mainly through the International Development Association (IDA), in more than 120 projects amounting to approximately US$3 billion (World Bank, 2000). As illustrated in the scatter graphs presented below, the loans received by Malawi from the World Bank indicate a negative relationship or impact on PKI, a measure of wealth and development.

Figure 4.13 illustrates the total external debt and GDP of Malawi during the period under review. Generally, total debt declined drastically around 2005 to 2006 and slightly increased thereafter. GDP was seen to be increasing with a sharp decline around 2011/2012. Per capita income fluctuated during the years under review.

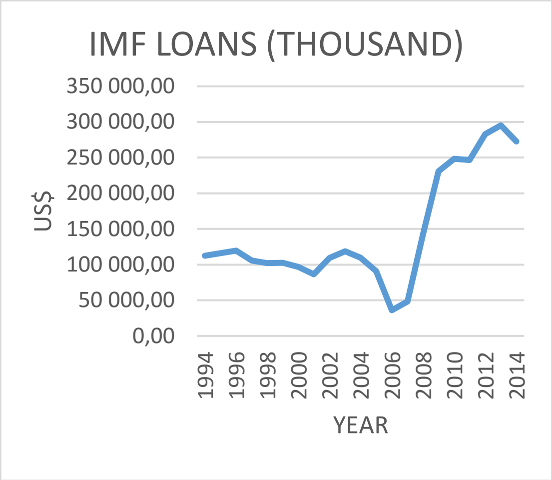


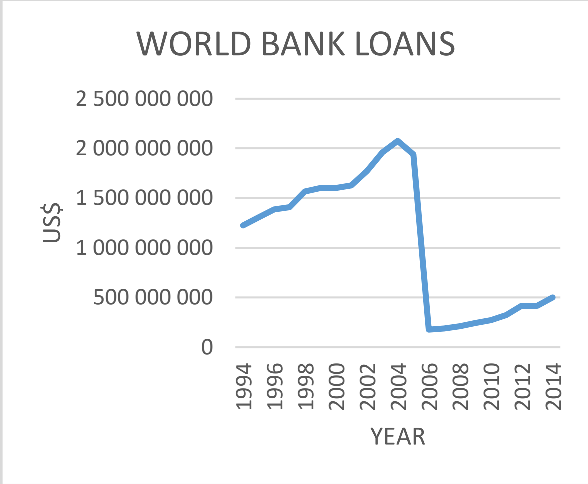


Source: Author's computation using data from the World Bank (2017).

Figure 4.13: Total Debt and GDP and Per Capita Income Trends of Malawi

Loans received from the World Bank by Malawi as shown in figure 4.14 declined sharply between 2004 and 2006 and increased sharply thereafter. World Bank loans increased from 1994 up to 2004 and declined sharply in 2006.

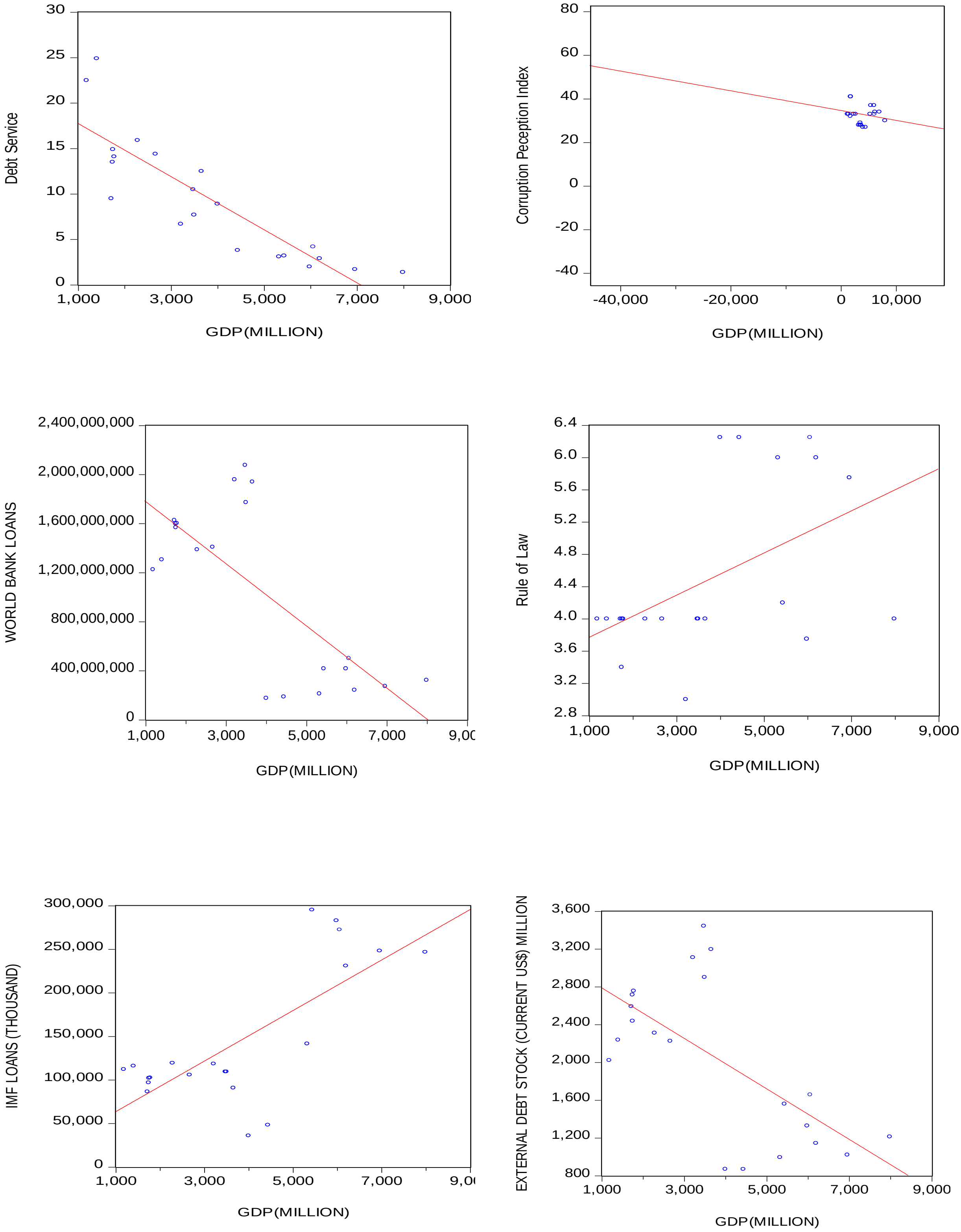




Source: Author's computation using data from the World Bank (2017).

Figure 4.14: IMF and World Bank Loans to Malawi

Loans received by Malawi from the World Bank as well as total external debt during the period under review indicates a negative relationship with GDP as shown in the scatter diagrams in Figure 4.15. However, loans from the IMF during the same period indicate a positive relationship with the country's GDP. The debt service to export ratio shows a negative impact on GDP and the CPI also indicates a negative relationship with GDP, meaning that the perceptions of the people with regard to the level of corruption in Malawi increased despite the increase in GDP during the period under review. ROL indicates a positive relationship with GDP in Malawi. This means that the perceptions of the people regarding the law and order in Malawi during the period under review improved whilst at the same time GDP was on an upward trajectory.



Source: Author’s computation using data from the World Bank (2017).

Figure 4.15: Scatter Diagrams using Data from Malawi

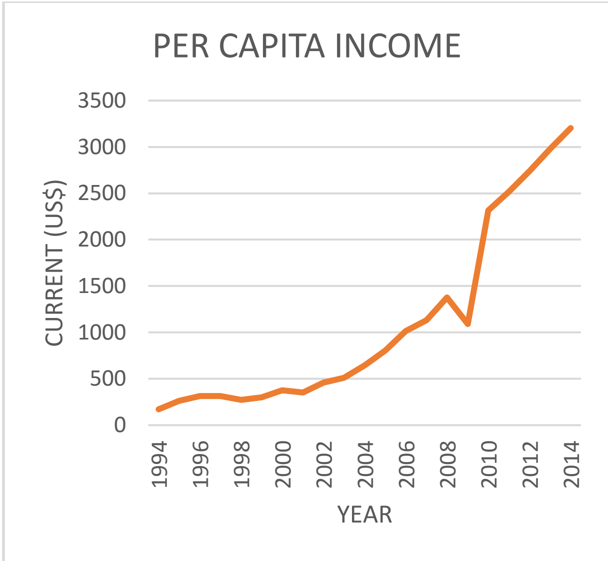
4.3.6 Nigeria

Nigeria is one of the richest countries in terms of GDP ranking and it has the largest population in Africa (World Bank, 2014). It has many natural resources including oil and natural gas and is the largest exporter of petroleum in Africa. Income inequalities within this country are large and a lack of development in infrastructure, specifically social infrastructure, prevents this nation from improving the living conditions of the majority. Nigeria's economy has a growth of about 7.4 percent per annum, according to a report released by the World Bank in July 2014 and poverty remains high at about 33 percent (World Bank, 2014). The high levels of poverty are overwhelming, especially for a country that has substantial wealth. The reasons for such high levels of poverty may be due to the high level of income disparity. In terms of infrastructure, Nigeria has one of the most promising pipelines of infrastructure projects in Africa. With a large population growth, infrastructure development is of paramount importance for continued economic growth. Infrastructure development is occurring with substantial expansion in the private sector. There is a new plan for infrastructure development, referred to as the National Integrated Infrastructure Master Plan (NIMP) that was tabled by the National Planning Commission detailing investment requirements for the key infrastructural sectors, which include energy, transport, housing and water (Vivien & Nataliya, 2011). Nigeria's road network is also in poor condition due to a lack of maintenance. Addressing the country's infrastructure development requires about 12 percent of GDP (Vivien & Nataliya, 2011).

The country has received financial support from the World Bank as well as the IMF. The World Bank is helping in the fight against poverty and the improvement of living standards for the people with more than 130 IBRD loans and IDA credits since 1958 (World Bank, 2014). In 2014 the World Bank approved an IDA credit of more than US$140 million in support of the country's ongoing efforts of making social services and community development activities work for the impoverished majority (World Bank, 2014). This funding was to be directed towards assisting the most vulnerable households in the country. The completed micro-projects have benefited approximately 5600 communities and more than 2 million people (World Bank, 2014). These micro projects included community infrastructure built for education purposes, rural electrification, transport, water and rural market development. In 2016 the World Bank Board approved additional finance in IDA credit for the rebuilding of livelihoods in the North-East region (World Bank, 2016). This project focused on improving people's lives though investing in infrastructure that would aid agriculture, education, health and social protection.

Boko Haram has remained a threat in this region, resulting in the destruction of infrastructure, loss of lives and the displacement of millions of people that need assistance.

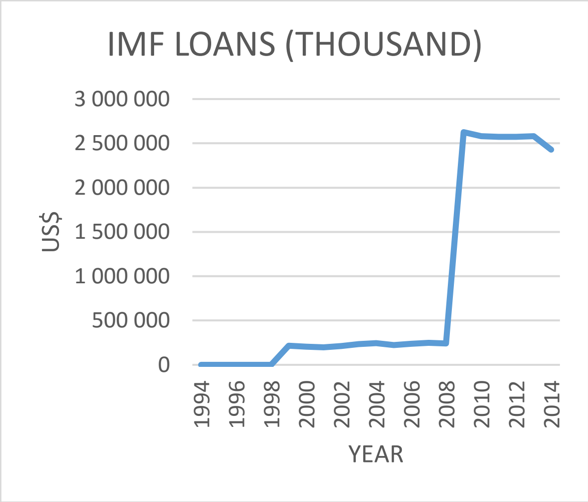
Figure 4.16 depicts the total debt and GDP trends in Nigeria from 1994 to 2014. Total external debt declined and GDP increased steadily from 1995 until 2008 and declined in 2009, followed by a sharp increase in 2010. After that it increased continuously during the remaining years of the period under review. Per capita income also increased steadily, then declined in 2009 but increased sharply thereafter.

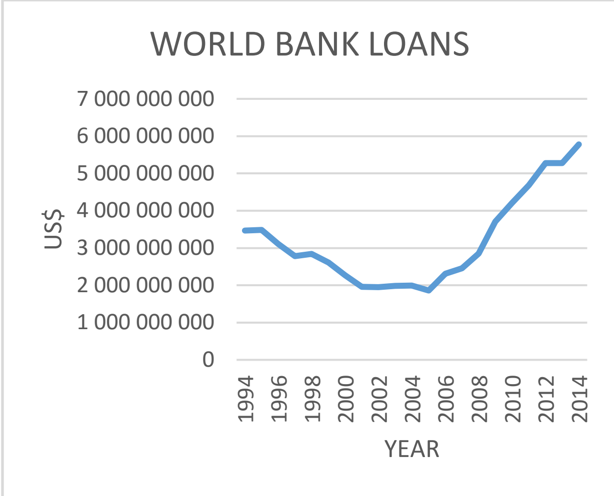


Source: Author’s computation using data from the World Bank (2017).

Figure 4.16: Total Debt, GDP and Per Capita Income Trends for Nigeria

Nigeria is also a heavily indebted country with external debt of approximately US$10.3 billion in 2015 (World Bank, 2016). Loans received from the IMF and the World Bank have increased over the years, as shown in Figure 4.17. IMF loans sharply increased during from 2008 to 2010. Loans from the World Bank have generally increased during the period under review.

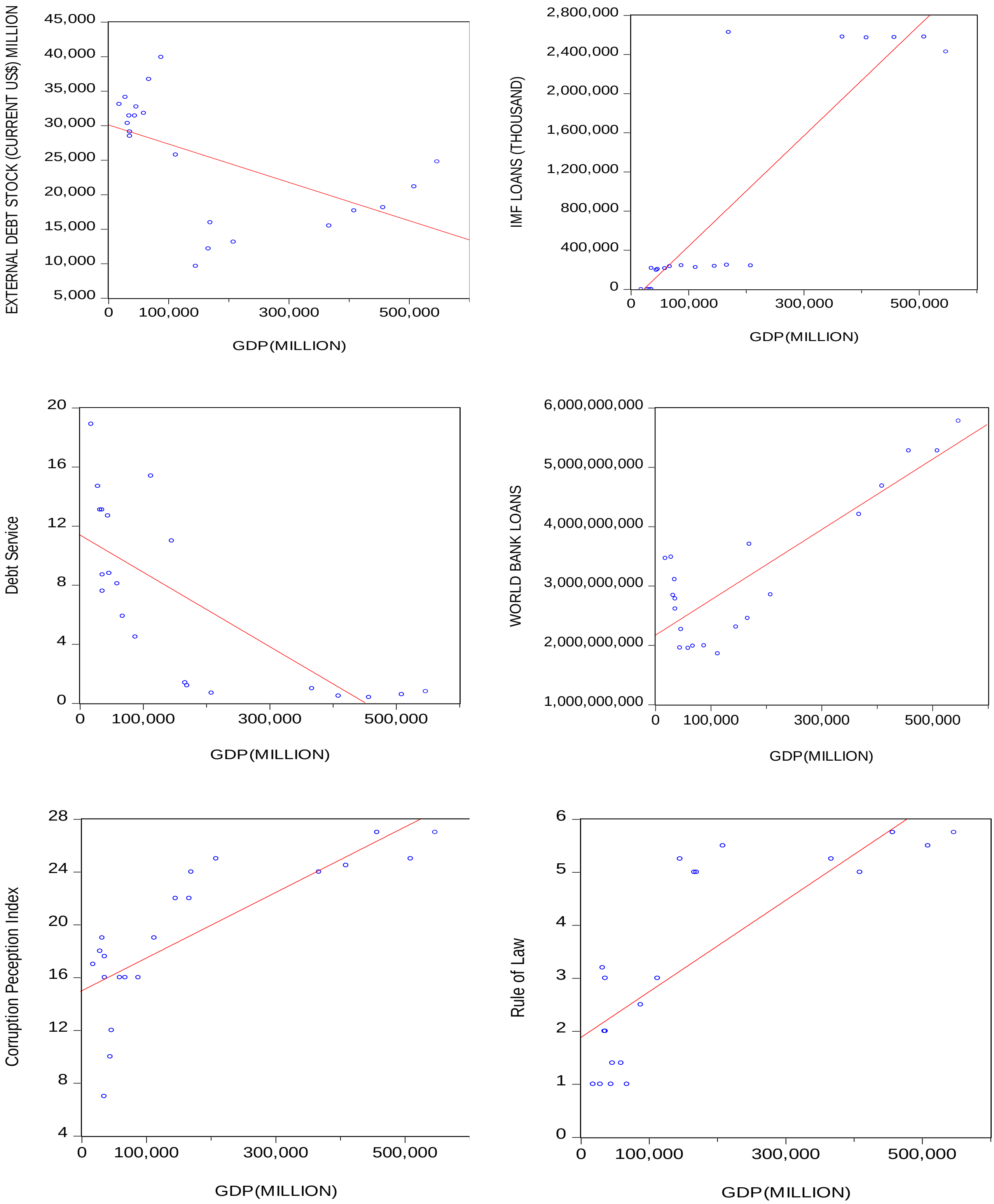




Source: Author's computation using data from the World Bank (2017).

Figure 4.17: IMF and World Bank Loans to Nigeria

The scatter diagrams in Figure 4.18 indicate a negative relationship between total external debt as well as debt service to export ratio and GDP during the period under review. IMF and World Bank loans indicate a positive relationship with GDP during that period. In Nigeria, people's perception of corruption (CPI) improved as GDP increased during the period under consideration. ROL also shows a positive relationship with GDP, meaning that people perceived Nigeria's laws to be clear and applied equally during that period.



Source: Author's computation using data from the World Bank (2017).

Figure 4.18: Scatter Diagrams using Data from Nigeria

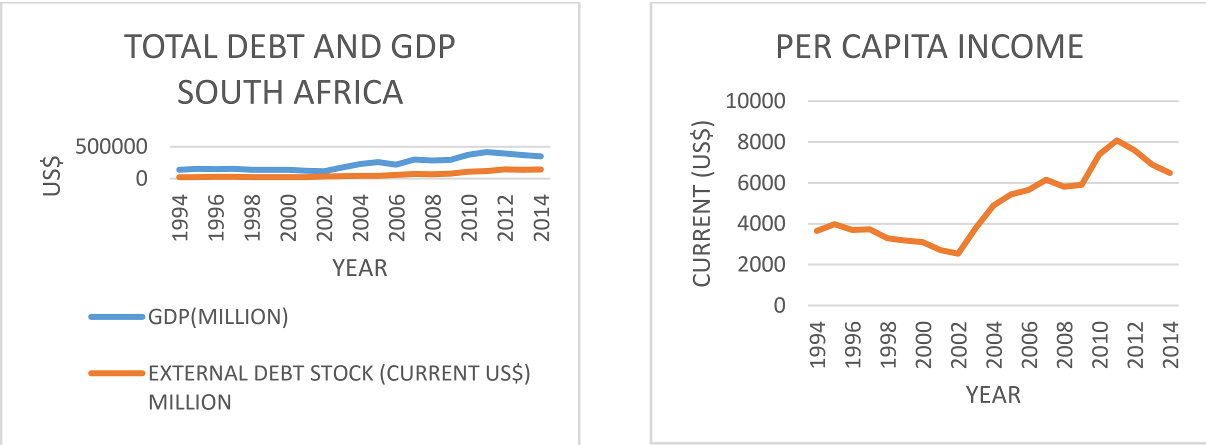
4.3.7 South Africa (SA)

South Africa, like most countries, experienced a decline in economic growth due to the global economic crisis of 2008 but the economy recovered slightly in 2010 due to the soccer World Cup that was held there (ENCA, 2015). According to the ENCA (2015), the then Finance Minister, Nhlanhla Nene, reminded South Africans that infrastructure development is needed in the country and highlighted that the government aimed to spend about R813 billion on infrastructure over the following three years. Infrastructure was a key theme in the President of the Republic's State of the Nation Address and the National Development Plan emphasised infrastructure development, stressing the importance of infrastructure development in South Africa (SA). Assistance has been received from various institutions to help build infrastructure in SA. These include the European Union (EU) through an Infrastructure Investment Programme for South Africa (IIPSA) 2012. The IIPSA assists the government in achieving the National Development Plan's goal of improving the standards of living of South Africans by addressing poverty and unemployment (DBSA, 2013).

Poverty remains a challenge in South Africa (SA) in addition to unemployment and inequality problems (DBSA, 2013). According to a World Bank report, despite SA being ranked as the second largest economy in Africa, it has one of the highest unemployment rates in the world, high levels of poverty and prevalent inequality (World Bank, 2013). The government has been increasing its social service spending in an effort to reduce poverty, but it has been reported that it has begun to place a greater emphasis on infrastructure, employment and economic growth. According to Lipton 2016, living standards in general have improved significantly but income inequality remains an intensively difficult problem to solve.

The World Bank and the IMF have also assisted the South African Government in financing a number of projects. The World Bank Group's lending activities in SA mainly encompass three operations funded by the International Bank of Reconstruction and Development and Global Environment Facility grants. The projects include the Eskom Investment Support Project, the Isimangaliso Wetland Park Project and the Renewable Energy Market Transformation Project, to name but a few. The World Bank is also financing the Clean Technology Fund, which is for the building of renewable solar and wind energy sources (World Bank, 2016). The World Bank has said this is the first substantial lending arrangement that it has had with SA since approximately sixteen years ago at the fall of apartheid. The World Bank's vice President said this project would help South Africa realise economic growth and assist the poor with access to energy, as this is vital for economic growth.

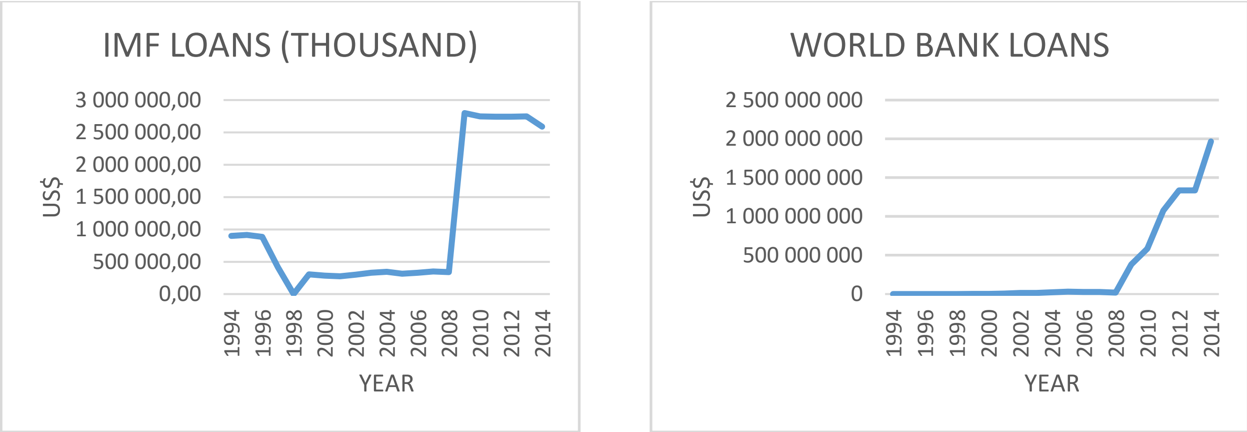
According to the World Fact Book, as at 31st December 2014, South Africa was running an estimated external debt of US$143billion. Almost everyone, from the government and private investors down to the ordinary citizens, (as well as non-citizens), is "guilty of the debt crime", with Cape Town residents being the largest borrowers in the World (World Bank, 2014). The debt to GDP ratio grew at a rapid rate of almost 70%, from 26% in 2009 to 43.9% by 2014 (Ezebuiro, 2018). There have been reports of wide-spread corruption in the country recently, evidenced by the growing poverty. The economy needs to develop more so as to address the various development issues affecting the majority of the people. Figure 4.19 indicates that total external debt increased during the period under review. GDP declined from 1994 until 2002 and increased steadily from 2003 to 2005. GDP then sharply declined in 2006 and fluctuated increasingly thereafter until 2011. Per capita income declined from 1994 until 2002 and increased from 2003 until 2007. There was a sharp increase in 2011 but it declined thereafter until 2014, as shown in Figure 4.19 below.



Source: Author's computation using data from the World Bank (2017).

Figure 4.19: Total Debt, GDP and Per Capita Income Trends for South Africa

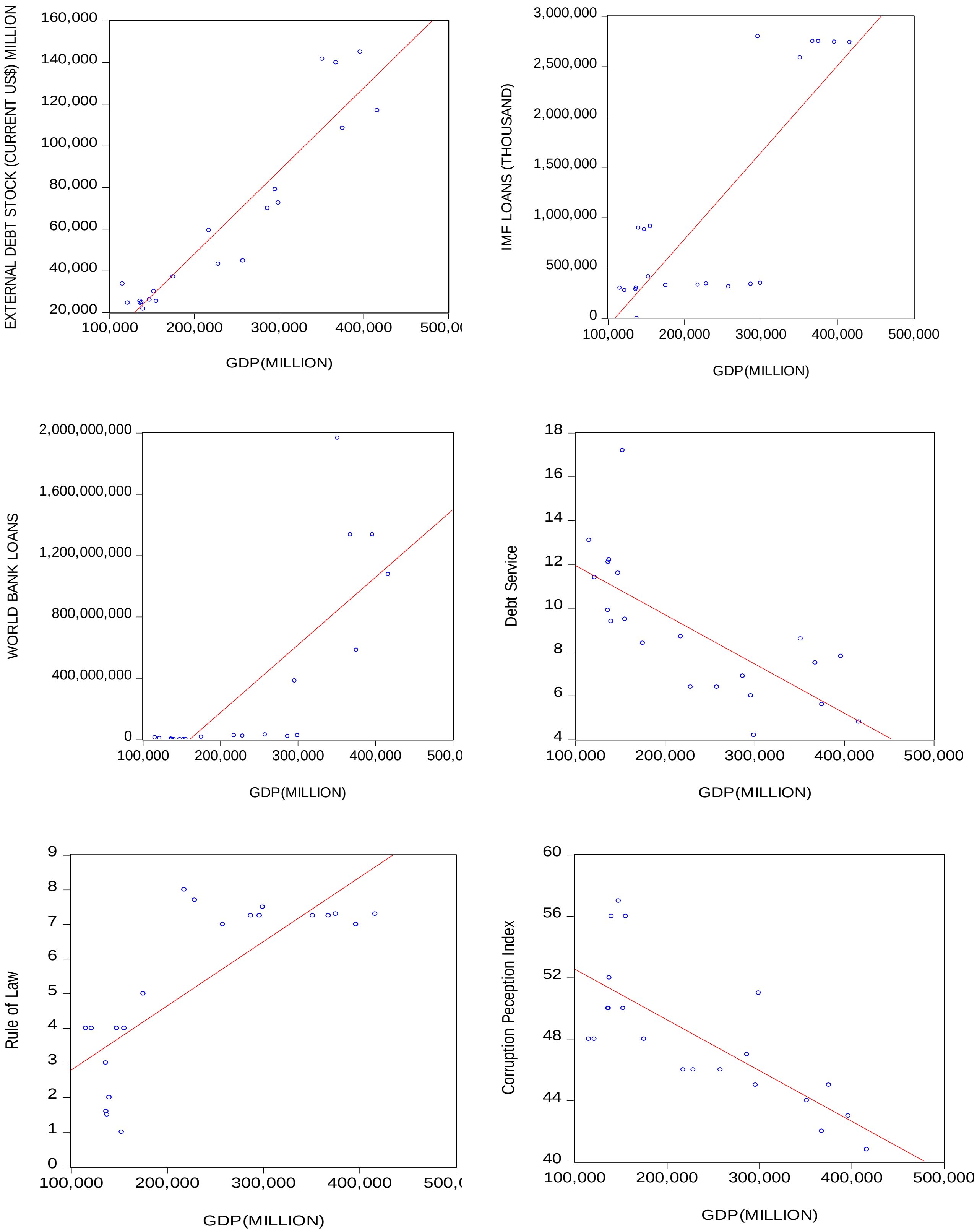
Loans in SA increased sharply from around 2008 to 2010 for IMF loans and from 2009 to 2012 for World Bank loans, as depicted in Figure 4.20.



Source: Author's computation using data from the World Bank (2017).

Figure 4.20: IMF and World Bank Loans to South Africa

As depicted in the scatter diagrams in Figure 4.21, external debt, IMF loans and World Bank loans had a positive impact on GDP in South Africa during the period under review. The debt service to export ratio indicates a negative impact on GDP during that period in South Africa. A higher debt service to export ratio means that a country's exports are falling short of servicing the country's debt and a higher ratio is associated with a lower GDP, as the country may have to use national income to repay or service its debt fully. The Corruption Perception Index declined during the period under review, meaning that people perceived the country to be highly corrupt or to be increasingly corrupt, despite the increase in GDP. It is important to note that the country witnessed the former president, Jacob Zuma, and other government officials' charges of alleged corruption during the end of the period under consideration. ROL during this period indicated a positive relationship with GDP. During this period people perceived South Africans to be adhering to laws and particularly to be treating everyone equally before the law. Again, this can be attributed to the former president's case, as he was brought before the court for allegations of corruption. South Africa has of late shown that everyone is equal in the eyes of the law and there is high accountability to the public among government officials, even though corruption is still rampant.



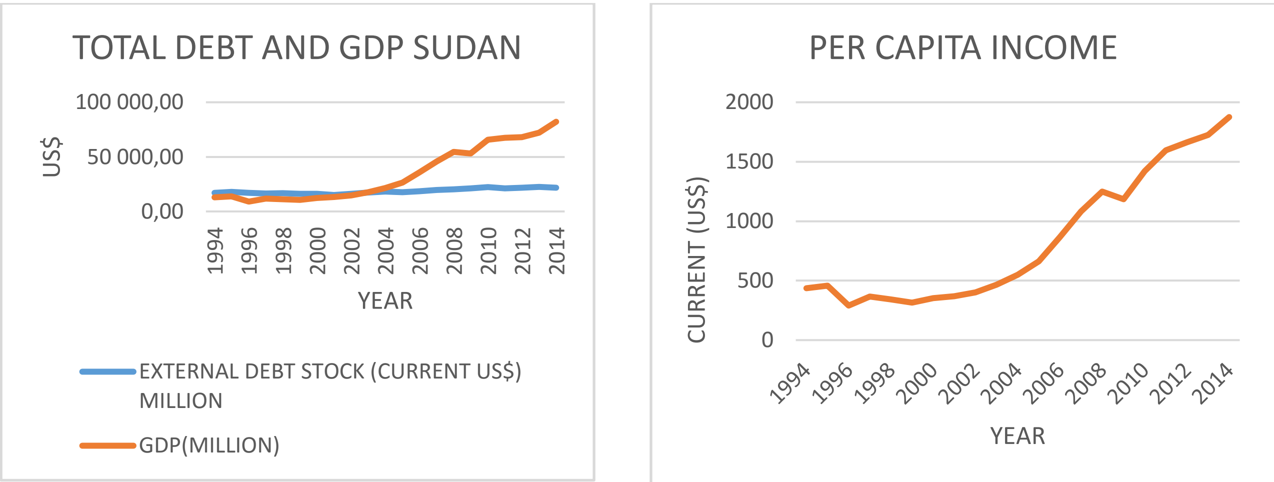
Source: Author’s computation using data from the World Bank (2017).

Figure 4.21: Scatter Diagrams using Data from South Africa

4.3.8 Sudan

The international financial institutions have also assisted Sudan, a country that is located in the northern part of Africa at the crossroads of sub-Saharan Africa and the Middle East, with fertile lands, abundant livestock and manufacturing. The country has, however, been experiencing conflict for most of its independent history and as a result, the 2005 Comprehensive Peace Agreement was formed under which the southern states formed the Republic of South Sudan in July 2011 (World Bank, 2014). The division resulted in it being 'cut off' from the modern world isolating a number of villages in the process. The instabilities occurring in South Sudan continued exerting pressure on Sudan and more than 10 000 people sought safety in Sudan around mid-October of 2014. Sudan is a highly indebted country, the same as many African countries that accumulated vast external arrears and has been in non-accrual status with the World Bank Group (WBG) since 1994. At the end of 2014, Sudan's external debt stock was at $43.6 billion in nominal terms, about 85% of which was in arrears (World Bank, 2014).

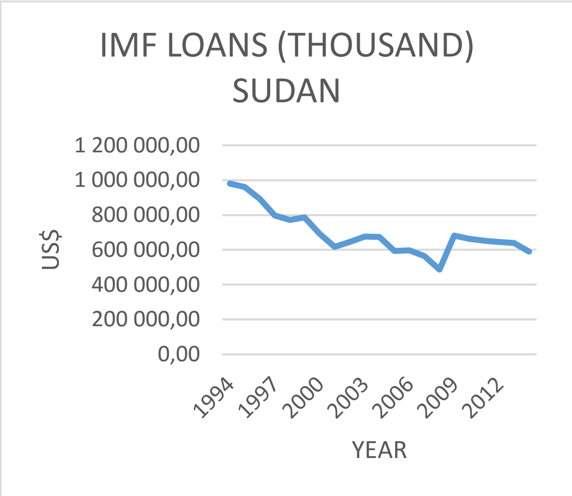
Infrastructure in Sudan is at low levels due to adverse economic conditions and prevailing internal conflicts but numerous projects are taking place towards development. In recent years, improvements in infrastructure contributed approximately 1.7 percent to the total per capita growth, as the country has recently invested heavily in infrastructure development (JICA, 2016). The main area of concern in this country is the infrastructure development in the water and transport sectors. The water sector needs to improve access to safe sources of water and sanitation, at the same time improving utility efficiency. The transport sector, on the other hand, needs to increase rural and international connectivity as well as improve quality across the network. Sudan spends nearly $1.5 billion every year on infrastructure development, regardless of which the country still faces a substantial financial gap of approximately $2.9 billion every year. Poverty in Sudan is mainly caused by the sustained conflicts that derailed economic and social development as well as over-dependency on oil and abandoning agriculture and livestock sectors as alternatives (World Bank, 2016). The Sudanese Government launched a five-year reform plan for growth and poverty reduction (IMF, 2016). A team from the IMF led by Eric Mottu visited the country mid-2016 and encouraged Sudan to accelerate policy reforms for restoring macroeconomic stability and ensuring growth. They discussed options for the country to ensure growth in public infrastructure and social spending and job creation, among other things (IMF, 2016). Sudan is a heavily indebted poor country and the arrears hinder access to external finances, thereby derailing development. Sudan now realises the need to place more emphasis on agriculture and livestock, as was reflected in the Interim Poverty Reduction Strategy Paper (I-PRSP), as well as the Five-year Program for Economic Reforms officiated by its legislature in December 2014. The agriculture and livestock industries could be a diversification tool for Sudan to move away from oil. Oil production and foreign direct investment has been increasing and saw the economy booming until the second half of 2002. Since 1997 Sudan has worked closely with the IMF to implement macroeconomic reforms. The lack of infrastructure in most areas of the country and the greater reliance on agriculture caused the largest part of the population to remain below the poverty datum line despite increases in the average per capita income (World Bank, 2014). Sudan became the world's largest debtor to the World Bank and International Monetary Fund in 1993 and its relationship with the international financial institutions soured in the mid-1990s (World Bank, 2014). The government fell out of compliance with an IMF standby program and accumulated substantial arrears on repurchase obligations. In 1993 the IMF suspended Sudan's voting rights and the World Bank also suspended Sudan's right to make withdrawals under effective and fully disbursed loans and credits. As part of the World Bank's engagement with Sudan, it manages Sudan's Multi-Partner Fund (SMPF) and maintains a portfolio of approximately $130 million (World Bank, 2016).

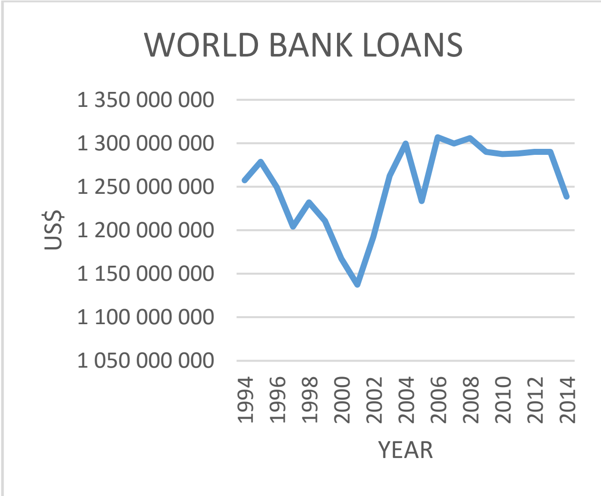


Source: Author's computation using data from the World Bank (2017).

Figure 4.22: Total Debt, GDP and Per Capita Income Trends in Sudan

Figure 4.22 illustrates that Sudan's GDP increased gradually during the period under review and total external debt increased slightly. Per capita income also increased during the period under review. Figure 4.23 indicates that loans owed to the IMF by Sudan fluctuated and steadily declined during the period under review. The loans from the IMF increased slightly in 2009. Loans owed to the World Bank sharply declined in 2001 and sharply increased again in 2004, declined in 2005, increased in 2006 and declined steadily thereafter.



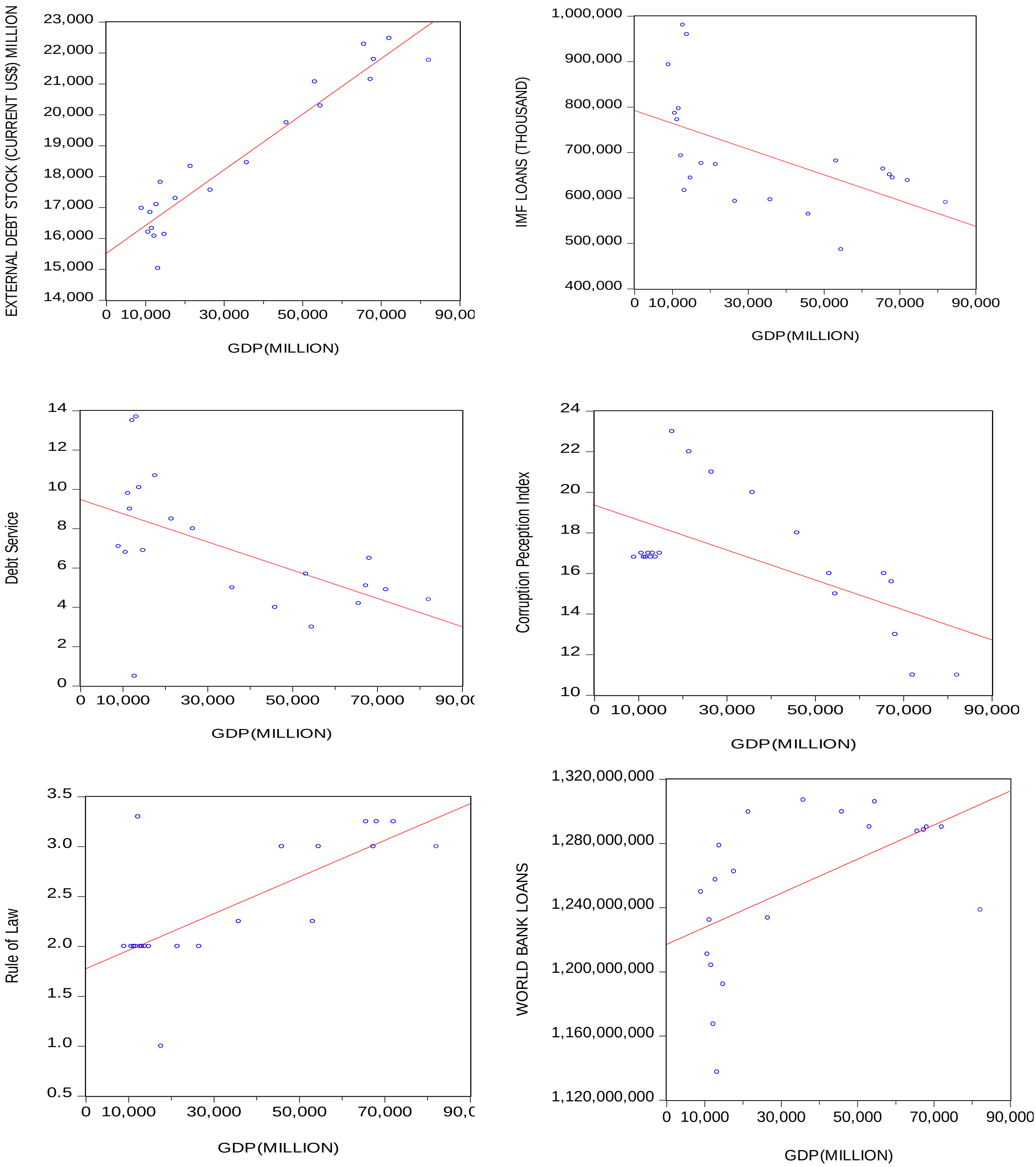


Source: Author's computation using World Bank data.

Figure 4.23: IMF and World Bank Loans to Sudan

The scatter diagrams in Figure 4.24 indicate that during the period under review in Sudan IMF loans and debt service to export ratio displayed a negative relationship with GDP. CPI also shows a negative relationship with GDP, meaning that during the period under review people's perceptions of corruption in Sudan increased (people perceive it to be more corrupt, as indicated by a lower CPI). Transparency International's 2011 corruption perception index ranked Sudan as one of the most corrupt nations in the world. For most of its independence history it has been plagued by conflicts that resulted in an agreement that saw the splitting of the country into two in 2011, South Sudan and Sudan. This development resulted in economic shocks for Sudan, particularly the loss of oil revenue.

This resulted in pressures and, as indicated on the scatter diagrams, debt to export ratio negatively affected GDP. These economic hardships (low economic growth and inflation), triggered violent protest and a civil war in 2013. The ROL in the scatter diagrams indicates a positive relationship with GDP during the period under review. This means that during this period people perceived Sudan to be improving in terms of its laws being clear and applied equally to everyone.



Source: Author’s computation using World Bank data

Figure 4.24: Scatter Diagrams using Data from Sudan

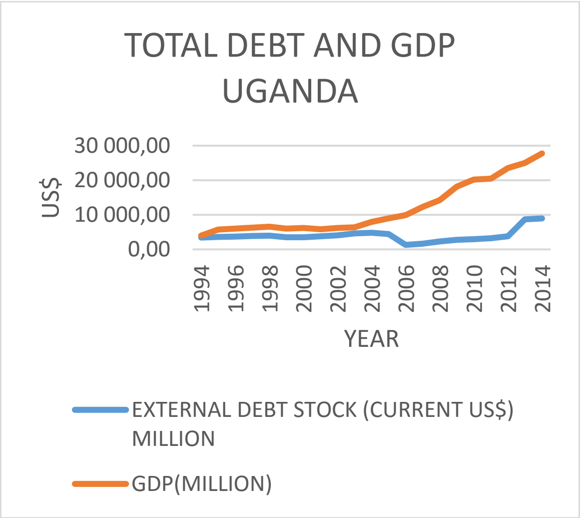
4.3.9 Uganda

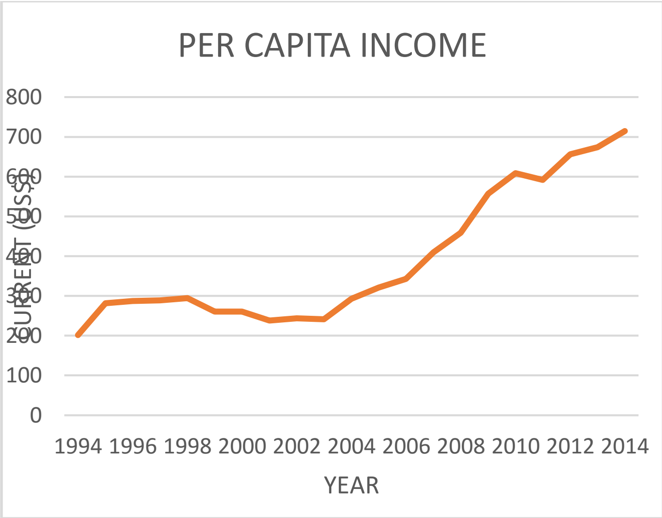
The new Ugandan Government of the mid-1980s took over a country that was shattered by years of divergence and economic mismanagement. The World Bank assisted by providing the government with advice to learn from the comparative experiences of Ghana and other countries and helped it design and implement key measures on fiscal adjustment, exchange rate reform and trade liberalization (World Bank, 2007). Aid and the conditionality associated with World Bank-supported adjustment lending helped create policy reforms in the late 1980s and early 1990s, a period during which multilateral assistance from the World Bank and other lenders was particularly important. Since that period, Uganda has achieved a remarkable recovery, for example, it has increased private investment, reversed capital flight, increased external trade and privatized commercial public enterprises (World Bank, 2016). The country has made huge strides in primary education, with numerous additional children attending school during the first year of a World Bank adjustment loan. Uganda has also sharply reversed income poverty, from 56 percent in 1992–93 to 35 percent by the year 2000. The country witnessed a period of growth between 1987 and 2010 after which it witnessed great economic volatility and slower growth in GDP (World Bank, 2016). Although there was a reduction in poverty in 2000, the majority of the people are still impoverished. This may be because Uganda has a high dependence ratio with almost half of its population under the age of 15 and the fertility rate in 2015 was estimated to be 5.7 children per woman (World Bank, 2016).

The international financial institutions have been working with the Ugandan Government by providing financial support for the country's development programmes. From 2006 until around 2013, poverty reduction among households, especially in the agriculture sector, accounted for about 79 percent of the nation's poverty reduction. According to the World Bank (2014), the population living beneath the poverty line declined from 31.1 percent to 19.7 percent. A third of Ugandans remain poor, even after the reduction in poverty levels and many others remain vulnerable to poverty. Regional inequality appears to be on the rise and poverty is higher in the north and east than in the central region and west. High fertility rates have made efforts to reduce poverty unsuccessful, as this increases the dependence ratio and limits the participation of women in development programmes. The World Bank has been supporting Uganda with the World Bank manager for Uganda, Christina Calvo, noting that there is a need to improve education, health and basic infrastructure services (World Bank, 2016). The World Bank has supported, among other things, the country's Growth and Poverty Reduction Strategy

(GPRS II) for the country to achieve middle-income status and the Millennium Development Goals (World Bank, 2007). In 2016 however, the World Bank decided to withhold new lending to Uganda as they continue monitoring the country's portfolio. The areas of concern included delays in project effectiveness, weaknesses in safeguards, monitoring and enforcement, to name but a few (World Bank, 2016). This decision came after the cancellation in Uganda of a road project because of numerous failures. Uganda's debt kept rising, primarily due to the vast need to finance infrastructure projects as it is facing an infrastructure deficit (Oketch, 2016).

As illustrated in Figure 4.25 below, debt and GDP have increased steadily, as well as per capita income.

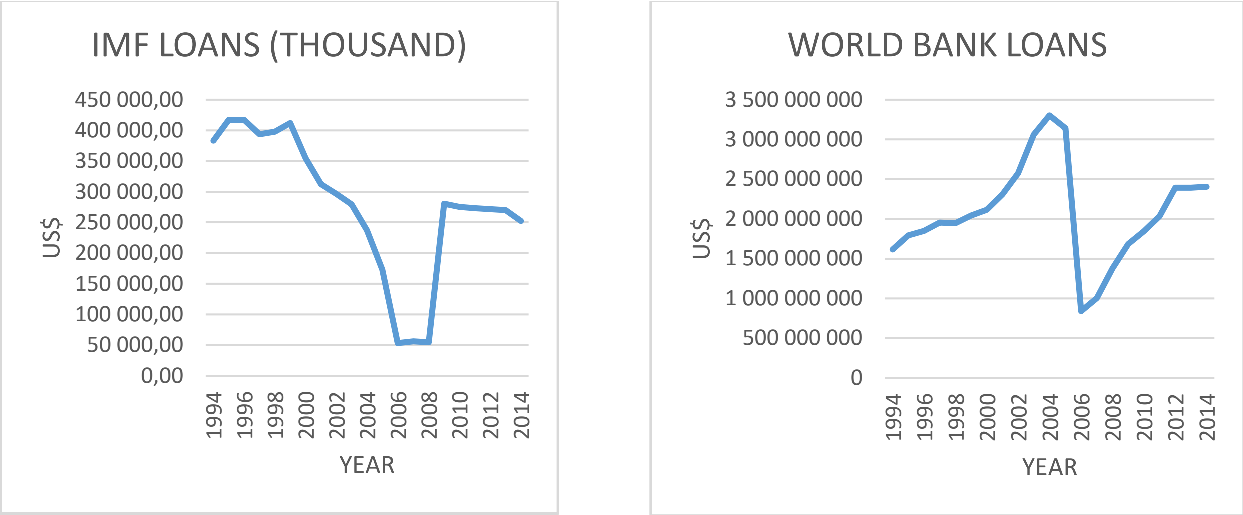




Source: Author's computation using data from the World Bank (2017).

Figure 4.25: Per Capita Income and Population Growth Rate Trends for Uganda

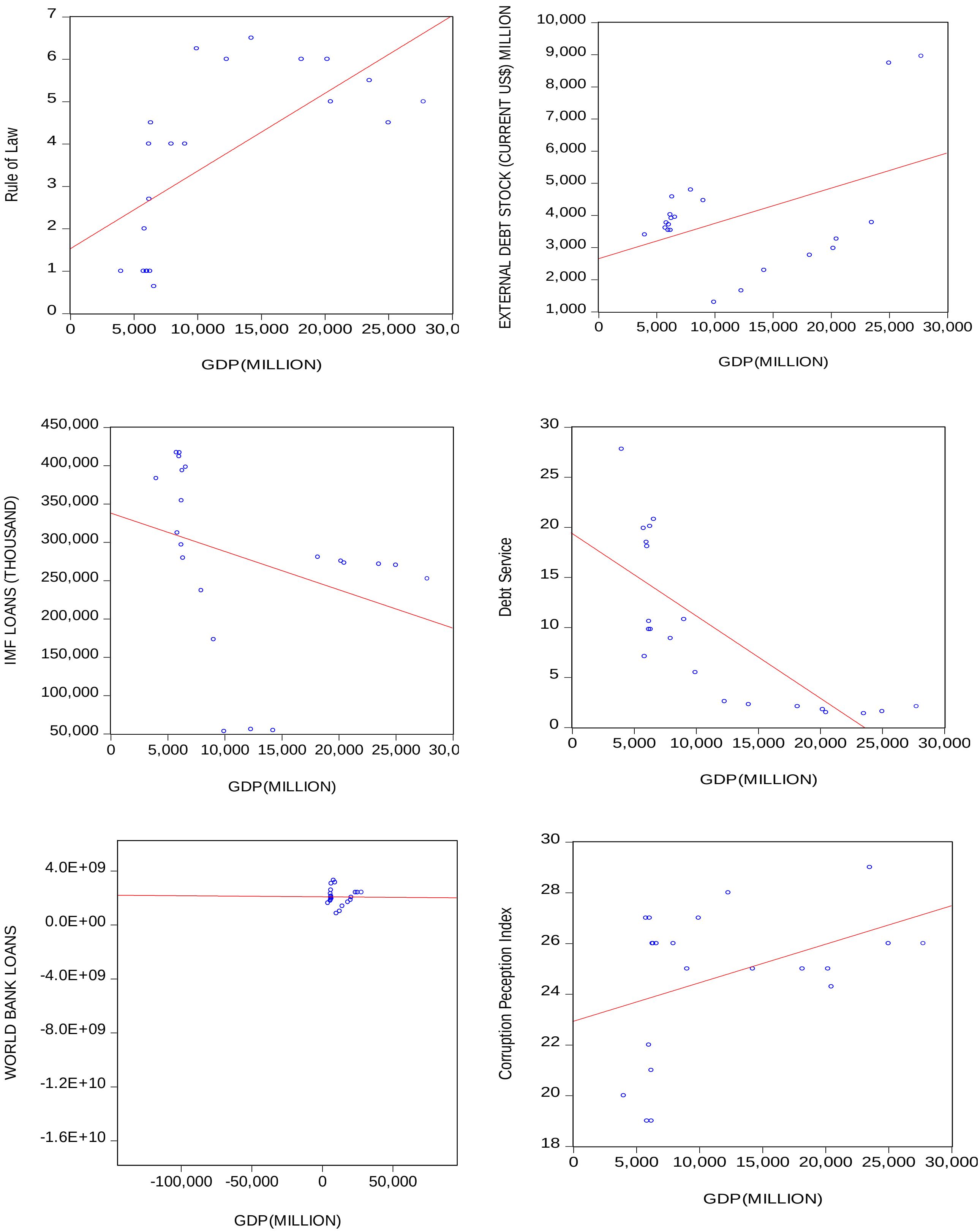
Figure 4.26 depicts that loans from the IMF and World Bank fluctuated over the period under review with a substantial reduction around 2006-2008.



Source: Author's computation using data from the World Bank (2017).

Figure 4.26: IMF and World Bank Loans to Uganda

The scatter diagrams in Figure 4.27 depict the relationship between GDP and different variable for Uganda for the period under review. Total external debt shows a positive relationship with GDP whilst loans from the IMF indicate a negative relationship and higher loans from the IMF are associated with lower GDP levels for this period. Loans from the World Bank indicate a constant relationship with GDP. The debt service to export ratio displays a negative impact on GDP. When it comes to ROL, there is a positive relationship between with GDP in Uganda, meaning that during this period people's perceptions of law and order in the country increased as GDP also increased. During that period Uganda was perceived as having clear laws applied equally and governments and people were perceived to be accountable, to name but a few components of ROL. The Corruption Perception Index during the period under study in Uganda indicated a positive relationship with GDP indicating that people's perceptions of corruption in Uganda improved, resulting in the index moving towards the clear mark of 100 while GDP also increased.



Source: Author’s computation using data from the World Bank (2017).

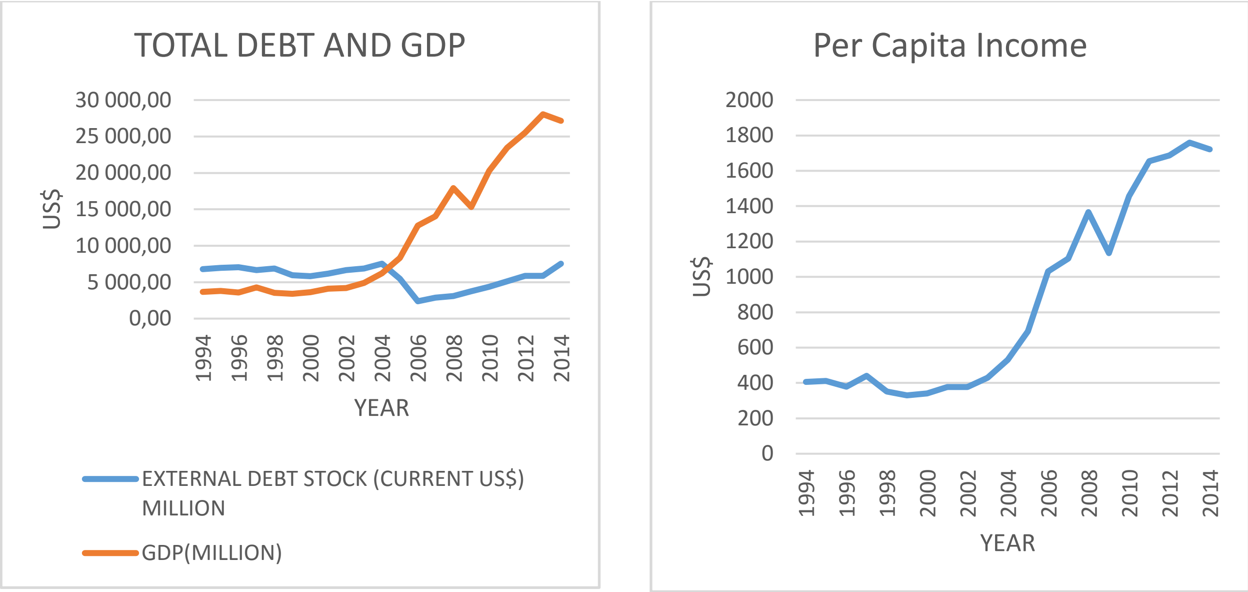
Figure 4.27: Scatter Diagrams using Data from Uganda

4.3.10 Zambia

The World Bank has lent money to Zambia on numerous occasions and has collaborated with Zambia since 1955 in support of the country's development projects that include mining. Infrastructure development is a primary concern for the Zambian Government, as highlighted in the country's fifth and sixth National Development Plans, as well as in the country's 2030 Vision (Zambia Development Agent, 2016). Around 1991 a newly elected government privatised key parts of the economy and the IMF imposed strict borrowing limits on Zambia, which in turn constrained infrastructure development (IMF, 2016). Zambia has vast infrastructural development needs but the availability of funds remains problematic. The infrastructure development funds required by Zambia are approximately $1.6 billion in total, to be able to develop it to a developed country's standard (World Bank, 2015). In April 2013 the World Bank Board of Executive Directors approved a US$50 million International Development Association (IDA) credit to support Zambia in the implementation of an integrated framework for the development and management of water resources. The project supports the development of infrastructure in the water resources department (World Bank, 2015). Zambia is one of the fast-growing nations in sub-Saharan Africa but the lack of water infrastructure presents a significant challenge to the country's economic expansion. The IDA has been helping the world's poorest nations by providing loans referred to as credits for projects to boost economic growth, reduce poverty and improve the standards of living of the people and Zambia is one of the countries that has benefited.

The poverty rate remains high in Zambia, more so in rural farming areas. The country has been preparing a Systematic Country Diagnostic (SCD) aimed at ensuring that poverty reductions and equality issues are understood. The Zambian Government is also finalizing the seventh National Development Plan 2017-2021 (NDP) that is expected to provide practical implementation strategies for the government's goals to achieve economic transformation by linking key sectors (Foster & Dominquez, 2013). The government works hand in hand with the World Bank's Country Partnership Framework (CPF) (World Bank, 2016). The NDP prioritises the government's objectives for poverty reduction and the linkage between budgeting and planning (Foster & Dominquez, 2013).

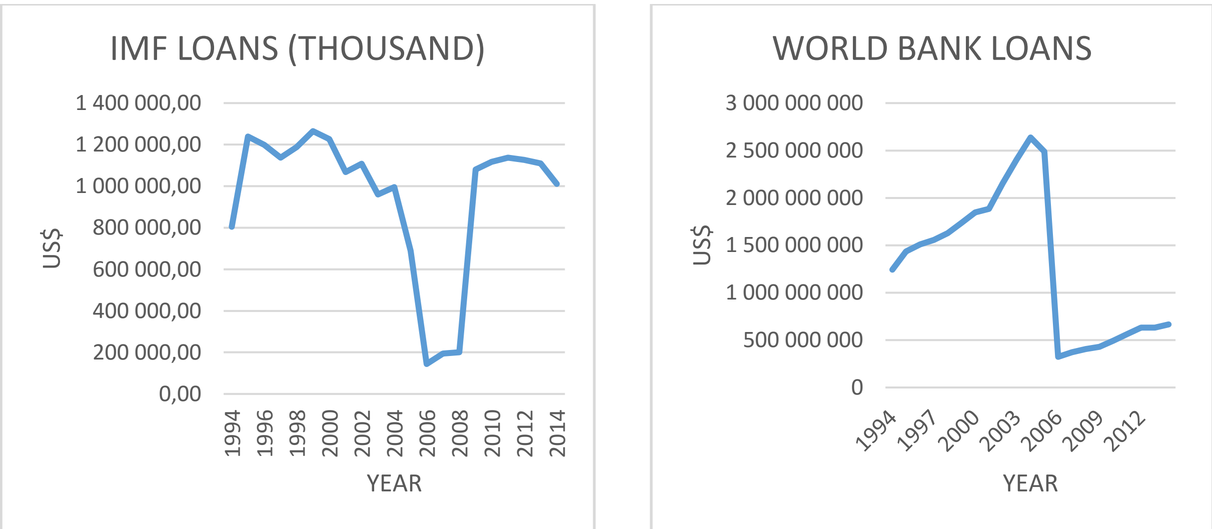
Figure 4.28 indicates that GDP in Zambia has increased. Total external debt has followed a more constant trend but declined sharply between 2004 and 2006 and increased steadily thereafter.



Source: Author's computation using World Bank data (2017).

Figure 4.28: Total Debt, GDP and Per Capita Income Trends for Zambia

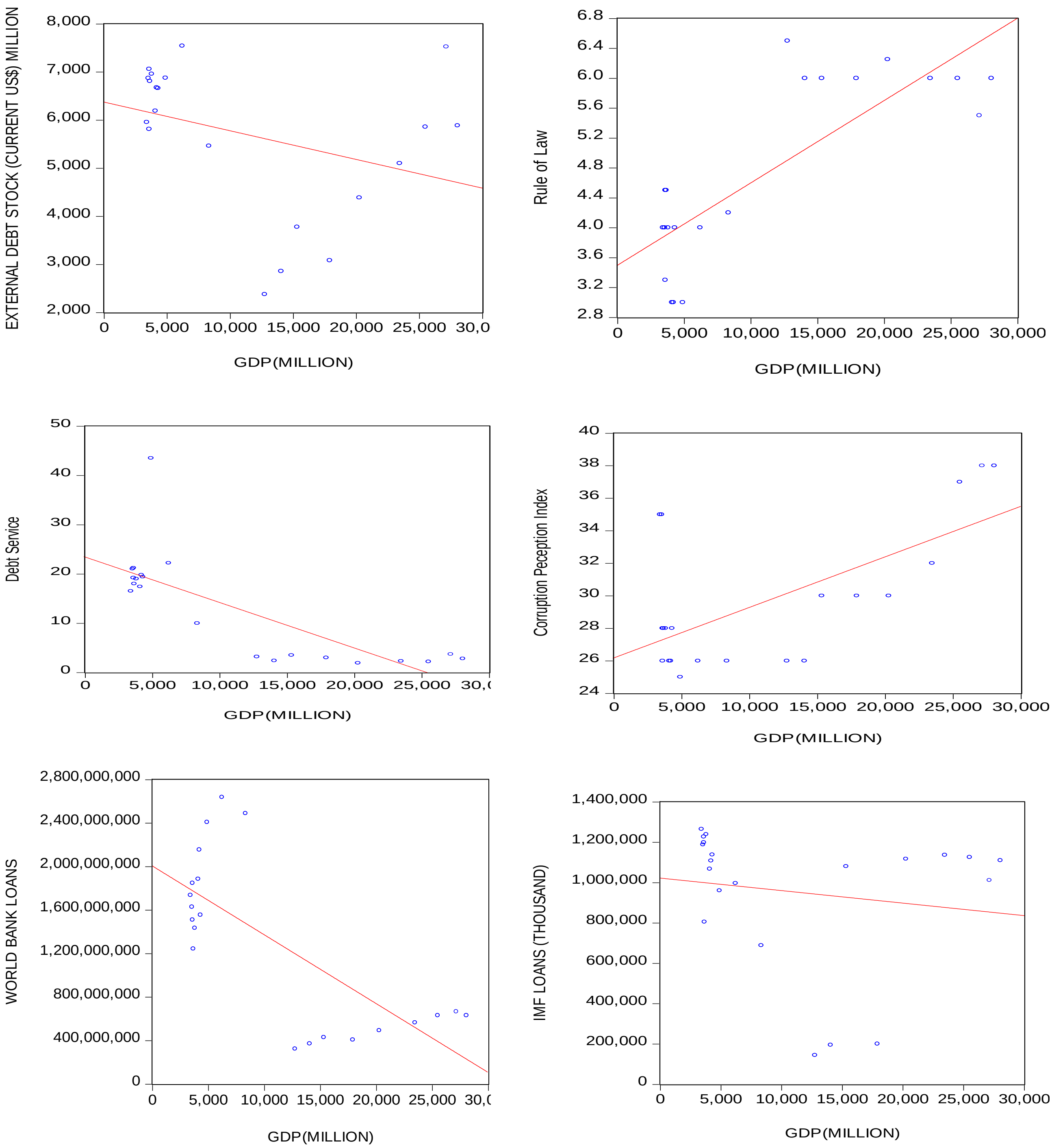
Loans owed to the IMF declined sharply between 2004 and 2007 and increased sharply in 2009. World Bank loans increased steadily from 1994 to 2004, declined sharply in 2006 and have increased steadily ever since.



Source: Author's computation using World Bank data (2017).

Figure 4.29: IMF and World Bank Loans to Zambia

In Zambia, total external debt, loans from the World Bank, loans from IMF and debt service to export ratio all indicated a negative relationship with GDP during the period under study as shown in the scatter diagrams in Figure 4.30. ROL indicated a positive relationship with GDP during that period, showing that Zambia's adherence to law improved according to the perceptions of the people during this period and GDP increased with ROL. CPI also indicated a positive relationship with GDP. During this period people's perceptions regarding corruption improved, resulting in a higher index showing less perceived corruption.



Source: Author's computation using World Bank data (2017).

Figure 4.30: Scatter Diagrams using Data from Zambia

The examples discussed above closely resemble most developing countries that are highly indebted but development is slow. Over the years, poor African countries have had to increasingly turn to the World Bank and the IMF for financial assistance due to their impoverishment, which has made it impossible for them to borrow elsewhere. These two institutions have attached strict conditions to the loans, giving them greater control over the governments of the borrowing countries (Stiglitz, 2002). The conditions are usually accepted by the desperate countries, as they have no choice. Conditions include the Structural Adjustment Programs (SAP) and other measures that reduce government spending on basic services. Reduced government spending on health care for example, has left the majority of the people vulnerable to AIDS and other poverty-related diseases. African countries have also had to reduce trade barriers and open their markets. The debt crisis has also worsened over the past years as most countries became more reliant on new loans, at times to repay old loans. The World Bank and the IMF have faced criticism and in response to some of the critics, the World Bank and the IMF have constantly edited their Structural Adjustment Programs and in 1999 they initiated the Poverty Reduction Strategy Paper (PRSP), which is a document that outlines a country's program for the promotion of growth and poverty reduction (World Bank, 2015). The PRSP is financed by the World Bank and IMF's Poverty Reduction Growth facility (PRGF).

In addressing the external debt crises faced by most poor economies, the World Bank and IMF came up with the Heavily Indebted Poor Countries (HIPC) initiative in 1996. However, the strict eligibility conditions have excluded numerous highly indebted countries from the initiative. Around 2005 the Multilateral Debt Relief Initiative (MDRI) was introduced, which grants debt cancellation to all countries that are eligible and that adhere to the economic policies and programs deemed necessary by the World Bank and the IMF. By December 2007 nineteen countries in Africa had benefited from this initiative. In 2003 Zambia's partial debt cancellation allowed its government to grant free basic healthcare to its population in 2006 and in Tanzania, the funds were used to eradicate primary school fees, thereby increasing attendance by two-thirds (Ngwane & Dan, 2000). Uganda is currently using the $57.9 million of savings it gained from debt relief in 2006 to improve primary education, energy and water infrastructure, malaria control and healthcare.

4.4 CONCLUSION

Developing economies have evidently received vast sums in loans from the IMF and the World Bank, as discussed in this chapter but these countries have remained poor with substantial debt. Generally, African countries are highly indebted and lagging behind in terms of economic growth and development. The trend analyses indicate that the majority of the African countries discussed above remain poor and are failing to fully service their debts. The debt service to export ratio indicates a negative impact on GDP for all countries analysed in this chapter, indicating that as countries are obliged to service their debts, they experience a reduction in economic growth and part of the national income is being used to repay loans plus interest. Total external debt indicates mixed effects on GDP according to the scatter diagrams presented above, with some showing a negative relationship (Malawi, Nigeria and Zambia), and some positive effects (Angola, Ethiopia, Ghana, South Africa, Sudan, Tanzania and Uganda).

Loans from the World Bank and the IMF have had varied effects on GDP, as shown in the scatter diagrams presented in this chapter. Six of the ten countries analysed indicate that IMF loans received during the period under review had a positive effect on GDP whilst four countries experienced a negative impact of IMF loans on GDP. Data from six of the countries indicate that World Bank loans had a positive effect on GDP during the period under review. The negative impact of the loans from the IMF and the World Bank is of great concern. These international financial institutions have been criticized for the policies they recommend to borrowing countries as well as the strict conditions they attach to the loans they issue, which include adjustments of government expenditure on public goods and various other policies (Stiglitz, 2002). The IMF and the World Bank have failed to be sensitive to the differing needs of developing economies. This has led to policy recommendations that did not meet the specific needs of the countries who were forced to continuously accumulate debt and use some of the acquired debt to service past debts (Stiglitz, 2002). This study endeavoured to use econometric techniques to probe into the effects of the loans issued by these institutions on the economic growth and development of the recipient countries.

In addition to the variables that speak of debt, internal issues in the recipient countries that affect economic development were also analysed in this chapter. The Rule of Law (ROL) index is a perception-based index on the way in which people perceive a country to be in terms of whether laws are clear and applied equally to everyone, whether governments and people are accountable under the law and whether justice is delivered timeously by competent, ethical and independent representatives who are neutral. A higher index of ROL means that people perceive the rule of law to be favourable. In the discussions in this chapter ROL has had a negative relationship with GDP in a number of the countries under study and the majority of the countries indicated a positive and improved ROL as GDP has increased. Generally, African countries are perceived to be adhering to law and order despite wars and other political instabilities on the continent. Of particular interest is South Africa, which has a high ROL as people perceive it to be a fair country with the charges levelled against the former president, Jacob Zuma, and him being called to appear before the courts of South Africa. This high ROL is indicative of the fact that people perceive everyone as being equal before the law. In the case of the Corruption Perception Index (CPI), the majority of the countries indicated a positive relationship between CPI and GDP during the period under study. CPI is an index that indicates the way in which a country is perceived to be corrupt. It ranks countries on a scale of 0 to 100, 0 indicating high corruption and 100 indicating no corruption. During the period under study, people's perception of corruption improved as GDP increased. However there are countries that indicated a negative relationship between CPI and GDP.

The analysis of the countries presented in this chapter is a reflection of the situation in most developing economies that have received funds for development and growth but have not been able to show any economic growth and development and there is still a need for funding for development purposes. Given the gap that still exists between the financial needs of these developing countries and what the current institutions can provide, there is a need for more institutions that can add to the pool and become a tool for the reform of the current institutions for the betterment of the whole system and the benefit of developing economies. The current financial system has reached the peak of its effectiveness and can no longer address the needs of developing countries. It is in light of these observations that alternative sources of funds are crucial and the BRICS bank appears to be an alternative that will foster more inclusive, equitable and sustainable growth for all. The BRICS economies have created a development bank (New Development Bank (NDB)) that has added to the pool of funds and must now become integrated into the global financial architecture, taking lessons from the current institutions as well as developing countries' experiences and assist in bringing economic growth and sustainable development to developing countries. It was the aim of this study to undertake an econometric analysis of the impact of the loans received by developing economies (particularly African countries), from the dominant international financial institutions and use the results to advise the NDB on how it can integrate into the international financial system and how it can be of assistance in bringing the much-needed development to developing and under-developed countries.

CHAPTER FIVE

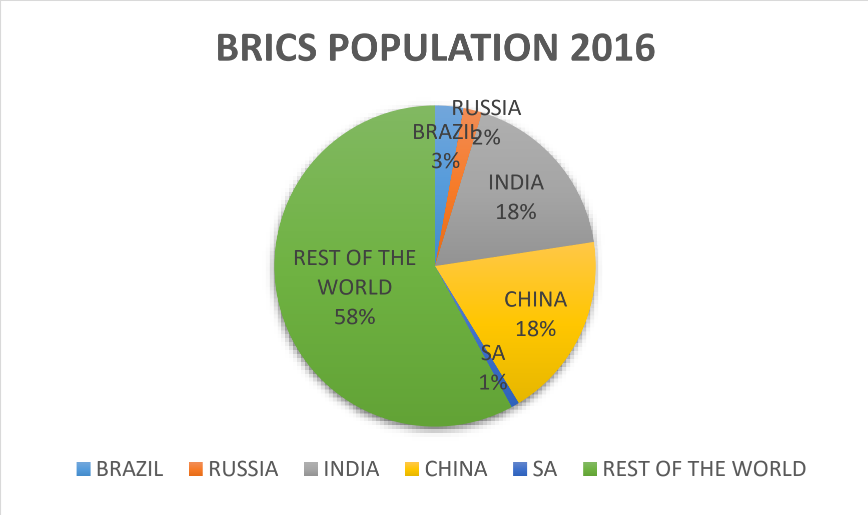
TOWARDS A NEW DEVELOPMENT BANK AND ITS ROLE IN BRICS COUNTRIES

5.1 INTRODUCTION

This chapter provides the rationale behind the New Development Bank as well as the background of its formation and its contribution. The chapter also presents a structural analysis of the BRICS (Brazil, Russia, India, China and South Africa) economies showing evidence of loans received from the West as well as frustrations that led to the development of the BRICS Bank. The chapter begins by providing a background and structural analysis of the BRICS countries indicating the frustrations that triggered the establishment of the New Development Bank. The chapter then provides the rationale of the New Development Bank (NDB) followed by an analysis of the NDB from its formation up to and including its activities so far. The chapter concludes with a brief discussion of the development banks or institutions that BRICS and hence the NDB have been part of and the reason for this being an advantage for the NDB.

5.2 BACKGROUND TO THE DEVELOPMENT OF NDB IN BRICS COUNTRIES

BRICS is a group of five countries, namely Brazil, Russia, India, China and South Africa that came together to form an economic integration. The union of these five economies has an agenda for supporting the Global South in achieving the main objectives of reducing poverty and inequality and bringing about sustainable development to help deal with the problems. These countries are characterized by speedy growth and their international influence has been increasing gradually (O'Boyle, 2014). BRICS are all leading developing countries distinguished by their fast growing economies and their influence on regional affairs, as well as their influence in the World. Together, the BRICS countries contain about 42 percent of the world's population (see Figure 4.1 below) and as at 2014 they accounted for about 30 percent of the world's GDP (Bremmer, 2017).

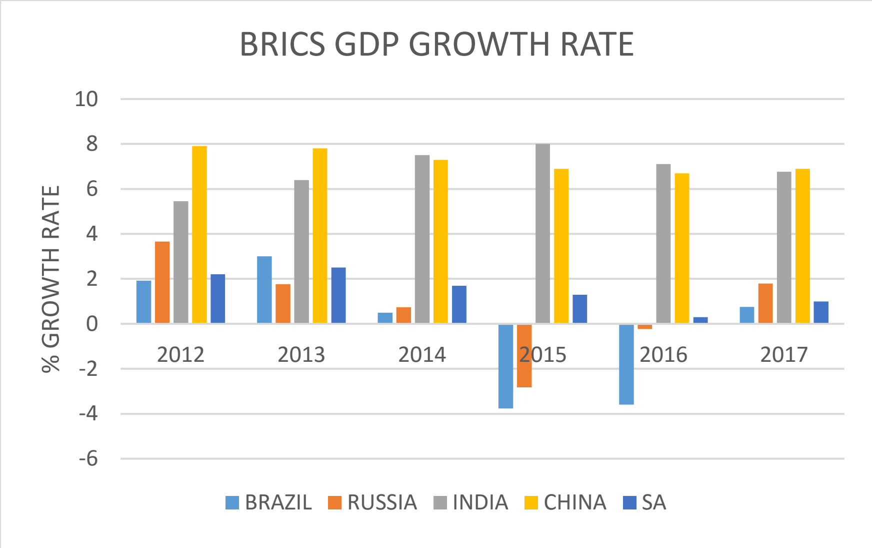


Source: Author's computation, data obtained from the Population Reference Bureau (2017).

Figure 5.1: BRICS Population in 2016

Economists predict that Brazil, China, India and Russia will join the United States as the five largest economies in the world by 2050 (O'Boyle, 2014). Generally, GDP growth (2012 to 2017) figures in the BRICS economies has been increasing, as illustrated in Figure 4.2.

India shows stronger growth potential that the other members partly because it has been benefitting from being a net crude importer that has experienced a fall in prices. India's exports also contributed to its GDP by 23.2% in 2014. China also has shown growth in GDP over the years but the growth rate has been declining lately in line with global standards. Russia and South Africa have experienced slower growth rates than the other members and Brazil has generally shown a decline in GDP growth over the years. The growth rate increased slightly in 2013, fell drastically in 2014 and in 2015/6 there was a negative growth rate. BRICS economies together account for about 25% of the global GDP.



Source: Author's computation using data obtained from the World Bank (2017).

Figure 5.2: BRICS GDP Percentage Growth Rate

The BRICS union was formed in June 2006 at a UN General Assembly in New York, where dialogue concerning ways in which the members could cooperate politically and economically took place (O'Boyle, 2014). At this point only Brazil, Russia, India and China were part of the group and it was known as BRIC. After the global financial crisis of 2008, BRIC (as it was known before South Africa joined in 2011), finance ministers met in Sao Paulo, Brazil and a communique was released that detailed their commitment to work together. After this meeting they agreed to arrange the BRIC heads of state summit and the first was held in June 2009 in Russia (O'Boyle, 2014). The grouping has held annual summits since 2009, with each member country having a turn to host. Their first formal summit commenced on 16 June 2009 in Yekaterinburg with all leaders of the four (BRIC) countries in attendance. The main agenda items for this summit were to find means of improving the global economic situation, as well as ways of reforming financial institutions and to deliberate on how best they, as a group, could co-operate in the future. At this summit the BRIC nations brought up the need for a new global reserve currency, which was not intended to be a direct attack on the US dollar as the dominant currency but this did spark a fall in its value against other currencies (O'Boyle, 2014).

The second summit was held in 2010, (the then South African president, Jacob Zuma attended as an observer), and the topics discussed included the importance of cooperation in areas of energy and food security. At the end of 2010 South Africa was officially invited to become a member as a way for the BRIC economies to connect with African markets, and in the third summit in China in 2011 BRIC became BRICS. At their summit in 2012 the heads of state called for expanded voting rights in the IMF and in June 2012 the BRICS nations pledged $75 billion to boost the IMF's lending power however this loan had reforms of the IMF voting system as a condition A summary of the BRICS' summits and the main points for discussion at each summit is provided in Table 5.1.

Table 5.1: BRICS Summits

	DATE	HOST COUNTRY	HOST LEADER	NOTES
1st	16 June, 2009	Russia	Dmitry Medvedev	First summit to discuss how members could cooperate. The issue of global reserve currency was also discussed.
2nd	15 April, 2010	Brazil	Luiz Inácio Lula da Silva	Guests: Jacob Zuma (President of SA) and Riyad al-Maliki (Foreign Minister of the Palestinian National Authority).
3rd	14 April, 2011	China	Hu Jintao	First BRICS summit to include South Africa alongside the original BRIC countries.
4th	29 March, 2012	India	Manmohan Singh	BRICS announced an optic fibre submarine communications cable system that carries telecommunications.
5th	26–27 March, 2013	South Africa	Jacob Zuma	Idea of BRICS bank was formally accepted and discussed.
6th	14–16 July, 2014	Brazil	Dilma Rousseff	The signing of the BRICS New Development Bank agreement as well as a treaty for the establishment of a BRICS Contingent Reserve Arrangement Agreement (CRA). Guests: Leaders of Union of South American Nations (UNASUR).

	DATE	HOST COUNTRY	HOST LEADER	NOTES
7th	8–9 July, 2015	Russia	Vladimir Putin	Joint summit with SCO-EEU. CRA entered into force.
8th	15–16 October, 2016	India	Narendra Modi	Joint summit with BIMSTEC.
9th	3-5 September, 2017	China	Xi Jinping	Stronger BRICS partnership for a brighter future (theme). Discussion was on economic, political and security collaboration.

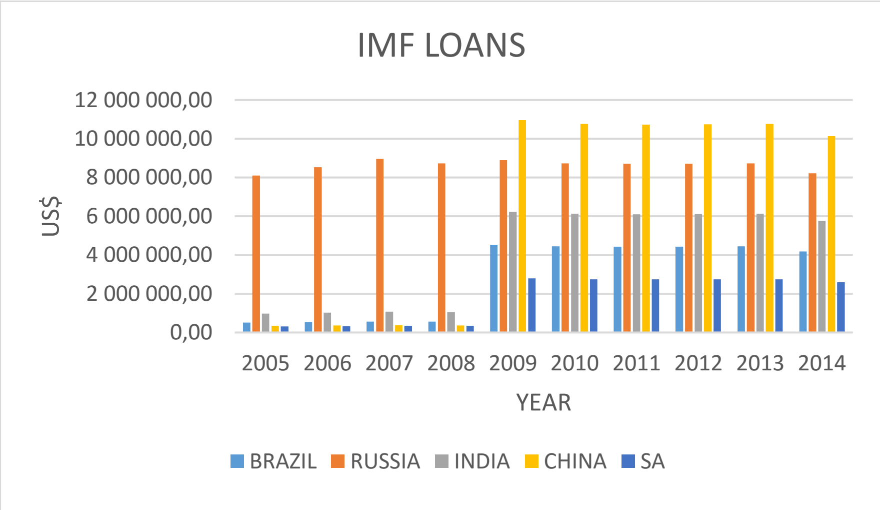
Source: NDB (2017).

BRICS was created as a structure to further economic integration and to provide an alternative to the traditional global economic setup through providing an alternative institution to the World Bank and the IMF for financing development in impoverished developing economies (SAFP Policy Brief Number 23, 2013). The members of BRICS considered the idea of a global financial institution out of frustration with the IMF and World Bank and they also began considering an alternative BRICS development bank. This proposal was formally agreed upon at the BRICS' 5th summit held in South Africa in 2013. It was also agreed in this summit to establish the BRICS Business Council, which would be made up of five entrepreneurs from each country who would discuss ways of expanding cooperation (Das, 2016). In July 2014 at the 6th summit, the leaders signed agreements to establish a currency reserve pool and a development bank. At this summit they also discussed the lack of reforms in the IMF to allow greater representation for the developing economies. Lack of representation of emerging economies in the IFIs, particularly in decision-making issues, led to the BRICS countries coming up with the idea of a development bank. However, by 2010 188 members of the IMF had agreed to the IMF representation reforms but the US Congress took about six years to get the reforms approved and they only became effective in 2016 (Das, 2016). Under the new IMF governance structure, China would have the third largest IMF quota and voting share with US and Japan being the first and second respectively and India, Russia and Brazil would be among the top ten members of the IMF (The BRICS Post, 2016). These reforms would see an increase in the role of emerging economies, particularly China, in the IMF. China's voting share increased from 3.8% to 6%, India's share increased from 2.3% to 2.6%, Brazil now has 2.22% and Russia 2.59%. US's share decreased slightly from 16.7% to 16.5% (IMF, 2016).

In addition to the frustrations as a result of the lack of reforms in the IMF, there are many reasons that could be attributed to the development of the BRICS Bank. One of the reasons is the lack of adequate development funds to meet the ever-growing demand. The existing institutions are unable to meet their own financial needs. A number of countries still need funds, as their economies are still struggling with basic services such as access to clean water, health services and basic education, to name but a few, but according to the International Development Association (IDA) they no longer qualify for the World Bank's concessional support (Preet et al., 2013). Regional and international development banks have played an important role in helping to fill the finance gaps but they remain, particularly in developing countries as the available financial resources are not sufficient to meet the financial needs. Given the gap between funds that are available and the demand, there is a need for additional sources of funds that can be provided, such as those added to the pool by the BRICS Bank. Creating a BRICS Bank gives developing and emerging economies greater bargaining power to voice their interests, both for the development of their own countries and other developing and under-developed economies.

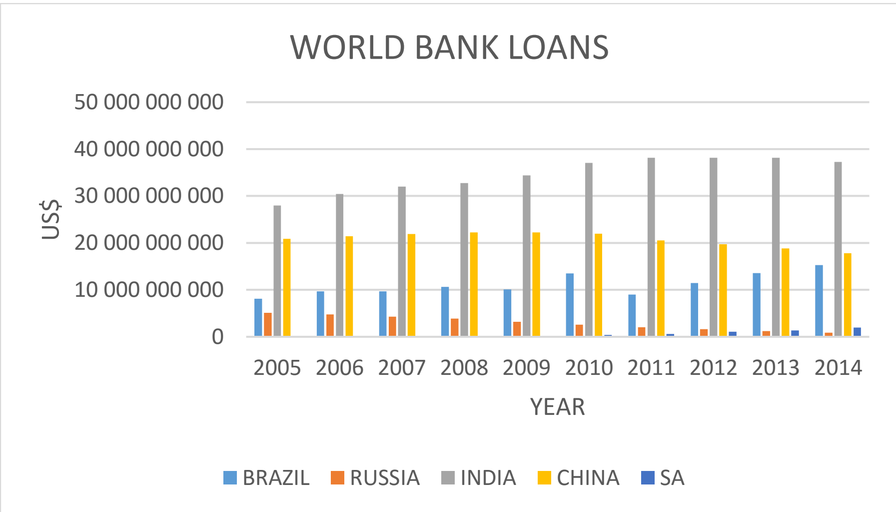
At the creation of the NDB in July 2014, the BRICS members also signed a treaty for the establishment of a BRICS Contingent Reserve Arrangement (CRA) in Brazil. The CRA was then established in 2015 with its legal basis lying in the treaty signed in 2014. The BRICS CRA is a framework for providing protection against global liquidity pressures, including currency issues where members' national currencies are adversely affected by global financial pressures. The CRA is there to provide liquidity and precautionary instruments as a response to actual or potential BOP pressures (IMF, 2015). The CRA is generally seen as a competitor to the IMF and together with the NDB, is an example of cumulative South-South cooperation (NDB, 2014).

BRICS member countries have faced numerous challenges, for example Brazil, South Africa (SA) and Russia experienced economic downturn and were given junk status by credit rating agents. These developing countries have received financial assistance from the international financial institutions and like many other developing countries they have faced economic frustration due to these institutions. China is one of the countries that ranks top in terms of the most debt in the world. Of all the BRICS members, as depicted in Figure 5.3 below, China received the most IMF loans from 2005 to 2014, followed by Russia. India has received the most money through IBRD loans from the World Bank (Figure 5.4), followed by China as the second largest recipient.



Source: Author's computation using data from the World Bank (2017).

Figure 5.3: IMF Loans to BRICS Countries



Source: Author's computation using data from the World Bank (2017).

Figure 5.4: World Bank Loans to BRICS Countries

Brazil is the only BRICS country in the Western Hemisphere (Laguna & Nandyal, 2014). In 2017 Brazil's economy was the 8th largest both in terms of nominal GDP and GDP (PPP) with a diverse economy that includes agriculture, industry and a wide range of services (World Bank, 2017). Until 2010 it had one of the fastest growing economies and managed to lift approximately 29 million people out of poverty (World Bank, 2016). However, the growth rate began to decline into deep recession with GDP dropping and inflation increasing. In 2012 Brazil became an oil exporter for the first time and predictions were that it could become one of the largest global oil exporters. Brazil's economic and social progress between 2003 and 2014 saw the country lifting millions of people out of poverty and the inequality dropped from 58.1 down to a Gini coefficient of 51.5 (World Bank, 2018). The rate of poverty reduction has deteriorated since 2015 as Brazil is currently going through a deep recession and the growth rate has decelerated from an annual growth of 4.5% to 2.1% between 2006 and 2010 (IMF, 2017). The economic crisis resulting from the fall in commodity prices and an inability to make the necessary policy adjustments, combined with the political crisis faced by the country, has contributed to undermining the confidence of consumers and investors. Brazil has received loans from both the World Bank and the IMF. Mid 2002, Brazil received a loan from the IMF, (the largest ever made by the institution), that helped to stabilize Brazil's financial market (IMF, 2007). Brazil, together with other developing countries, has expressed frustration with regard to the lack of IMF reforms that would increase the share of influence of the developing economies.

Russia is currently a major oil exporter amongst the BRICS countries, with India, China and SA remaining energy deficient states. At world levels, Russia is the second largest producer of natural gas and the largest producer of oil (IMF, 2015). Russia also produces and exports diamonds, nickel and platinum. Economically it averaged 7% growth during the 1998-2008 period but has been experiencing a financial crisis since 2014. Economic sanctions were imposed on Russia after its military intervention in Ukraine, which led to the fall of its exchange rate against the dollar, as companies needed the dollar to pay their debt (REF). Russia also relies more on world prices for its oil and gas and as a result it was also affected during the great depression of 2007/8. In 2017 it is said to have emerged from this recession through deepening macroeconomic stability, firming energy prices and a recovering global economy (World Bank, 2018). Unemployment decreased to 5.5% in 2017 but real wages have fallen due to inflation and social inequalities remain between cities and rural areas (1% owns 71% of private assets) and poverty rate remains high.

Russia has also indicated frustration over the international financial institutions. Given the delays that had been witnessed with the IMF reforms due to United States' delay in accepting them, Russia was pushing the IMF to move ahead with the reforms without the United States and that indicates the extent of the frustration.

India is a developing mixed economy and the seventh largest economy in the world by nominal GDP and the third largest by purchasing power parity (PPP) (IMF, 2016). It has one of the fastest growing service sectors in the world, with an annual growth rate above 9% since 2001 and has become a major exporter of IT services (IMF, 2016). According to the IMF (2017), India is expected to be one of the top three economic powers of the world within the next 10 to 15 years. While India has not been a recurrent user of IMF funds or resources, it has been helped by the few IMF credits received to resolve balance of payments problems. India, like the other BRICS members, has been at the forefront of reforms in the IMF and it is the country that proposed the establishment of the BRICS Bank as a way of dealing with the frustrations that developing economies feel with the IMF and the World Bank (NDB, 2017).

China is the world's second largest economy by nominal GDP and the world's largest by PPP (IMF, 2017). It was the fastest growing economy until 2015. China has been trying to expand its political and decision-making power within the IMF and China's quota has been increased to 30.5 billion, giving it 6.09% of the total vote (IMF, 2017). It has advocated for an increase in the power for emerging economies, citing that this would be significant for the IMF's legitimacy, accountability and long-term health.

South Africa is the only African member of BRICS, (also the only African member in the G-20 group). South Africa's economy is the second largest in Africa, after Nigeria, and contributes about 35% to Africa's GDP. It is the most industrialized country on the continent. The economy has grown considerably well after the global financial crisis of 2008 but inequality and corruption remains high. It joined the BRIC in 2011 and the name changed to BRICS to accommodate South Africa. However, South Africa had relationships with these countries before it joined the BRICS alliance. With India and Brazil, South Africa shares membership of the Tripartite IBSA and with China, South Africa had a Comprehensive Strategic Partnership and a treaty on Friendship and Partnership with Russia. The BRICS alliance would therefore help South Africa to strengthen, deepen and broaden its bilateral engagements with Russia, Brazil, India and China. South Africa's economy may be viewed as being far below those of the other members of BRICS, as it has a per capita income that is higher than those in China and India and has one of the largest market capitalizations in the world (White, 2011). This, together with the fact that South Africa is the fastest growing economy on the continent, makes South Africa a useful member of the alliance. South Africa's participation in BRICS means that Africa as a continent is represented in all the group's activities.

In a nutshell, the BRICS nations suffer from a substantial financing gap. Although they have abundant energy resources, most BRICS economies have been hindered by under-developed infrastructure, Brazil's roads, ports and air transport, China's mobile telephone subscriptions, India's electricity supplies and telecommunications and Russia's roads all need attention for development purposes (Lingxia, Yao & Zexian, 2015). Outdated infrastructure has become an impediment for growth and development in these countries, as is the situation in most developing economies. Table 5.2 indicates the world ranking for BRICS countries in terms of the infrastructure that is important for development. An estimated $1.1 trillion in annual infrastructure investment is needed in developing economies (World Bank, 2016). Roads, ports, railways, electricity and information communications technology are all vital for economic growth and sustainable development. BRICS national have all received funds from IFIs but wide gaps in infrastructure as well as socio-economic issues prevail. Establishing a bank over which they have control may assist them in sharing unconditional loans to enable them to address the gaps in their countries. Existing financial channels cannot meet the demands of these developing economies, both from the point of view of domestic channels and international financial institutions (Lingxia, Yao & Zexian, 2015). For example, in 2012 Brazil, South Africa and India had current account deficits of $52.45 billion, $23.33 billion and $88.16 billion respectively, indicating a gap between aggregate savings and investment (IMF, 2013). For most developing economies domestic savings fall short of the infrastructure investment demands. Even when countries have savings (surplus current account), like China and Russia in 2012, they lack the mechanisms to channel these savings into investments. The creation of a bank controlled by developing countries can thus help countries that have large surpluses to recycle those savings into productive investments in their own and other developing countries.

Table 5.2: Statistics regarding the Quality of Infrastructure in BRICS Countries

Country	Overall	Roads	Railway	Ports	Air transport	Electricity supply	Mobile telephone subscription	Fixed telephone lines
	Rank (Value)	Rank (Value)	Rank (Value)	Rank (Value)	Rank (Value)	Rank (Value)	Rank (Value)	Rank (Value)
Brazil	107 (3.4)	123 (2.7)	100 (1.8)	135 (2.6)	134 (3)	68 (4.9)	41 (123.2)	55 (21.9)
Russia	101 (3.5)	136 (2.3)	30 (4.2)	93 (3.7)	104 (3.8)	84 (4.3)	5 (179.3)	41 (30.9)
India	87 (3.8)	86 (3.5)	27 (4.4)	80 (4)	68 (4.7)	110 (3.2)	116 (7.2)	118 (2.6)
China	69 (4.3)	54 (4.4)	22 (4.6)	59 (4.4)	70 (4.5)	59 (5.2)	114 (73.2)	58 (21.2)
South Africa	58 (4.5)	42 (4.9)	46 (3.4)	52 (4.7)	15 (6.1)	94 (3.9)	35 (126.8)	99 (8.2)

Source: World Economic Forum, Global Competitive Report 2012-2013. Retrieved from World Economic Forum (2017).

From the angle of external finance, there is still no adequate finance to cover the gap. For example, from 2008 to 2012, the World Bank granted BRICS countries about $52.031 billion in loans and the Asian Development Bank had, by the end of 2011, approved $25.976 billion and $26.996 billion in loans to China and India respectively, (with no loans to the other BRICS countries) (Lingxia, Yao & Zexian, 2015). Over the same period other development banks provided small amounts to selected BRICS countries. Despite all the efforts by the various financial institutions there is little chance of them meeting BRICS' financial needs, let alone those of the other countries that require loans to fund infrastructure construction, thus signalling an urgent need for these countries to access new sources of finance.

BRICS have established a development bank as a way of giving themselves access to more funds and control over financial matters, which they do not have in the IFIs. They have regularly criticized the Bretton Woods institutions for their inability to reflect the growing contribution of the emerging economies to the global economy. As highlighted above, China is the second largest economy in the world but has only slightly more voting power in the IMF than Italy for example, which is far smaller than China (IMF, 2002). Since the creation of these institutions they have been led by the Americans and Europeans, leaving emerging economies frustrated (Prasad, 2016). The establishment of the bank appears to be a concrete attempt to address these biases.

5.3 BRICS NEW DEVELOPMENT BANK

At the BRICS presidential summit in 2013 the members agreed to create an institution that would serve as an alternative to the current dominant financial institutions, namely the IMF and the World Bank. This institution is intended to perform a similar role to that of the dominant international financial institutions while avoiding their biases as far as developing nations are concerned (Mazenda & Ncwadi, 2016). In July 2014 the leaders formalized the New Development Bank (NDB) (formally known as the BRICS Development Bank), which had the obligation of mobilizing resources for infrastructure and sustainable development projects in the member countries as well as other emerging economies. The infrastructure development role of the NDB in the BRICS nations serves as a stimulator for trade and investment opportunities amongst the developing countries. The NDB was, in fact, created to deal with the shortcomings of the IMF and the World Bank. As a result of frustrations resulting from the failures of the structural adjustment programme imposed on African countries, as well as other failures of the IMF and the World Bank, BRICS have urged a relook at these stringent conditions that accompany IMF loans. BRICS have clearly articulated their continuing support to African countries in their industrialization process by stimulating foreign direct investment, exchange of knowledge, capacity-building and diversification of exports from the African countries (Mazenda & Ncwadi, 2016). BRICS and the New Development Bank stipulate the need to stimulate infrastructure investment in developing economies on the basis of mutual benefit in terms of job-creation, food and nutrition security and poverty eradication.

The treaty for the establishment of the NDB was signed in July 2014 and enforced in July 2015. The aim of the bank is to encourage greater cooperation of economies while at the same time removing too much dependency on the developed world, particularly those that currently dominate the IFIs. According to Preet et al. (2013), the decision by BRICS to launch a BRICS Development Bank was an expression of the concerns they have with the current financial institutions and it may turn out to be the push needed to bring about the reforms required in these institutions. The BRICS Bank is an international financial institution with its headquarters in Shanghai, China and the first regional office is in Johannesburg, South Africa.

The member countries signed an agreement to create the bank with $100 billion capital with an initial contribution of $10 000 billion from each country for a total of $50 000 billion. The idea of opening bank membership to other countries was not ruled out but the capital share of the BRICS cannot fall below 55 percent. Upon inception it was agreed in the Articles of Agreement that the bank will have the following main organs: Board of Governors, Board of Directors and President and Vice-Presidents. It was also agreed that South Africa will be the home of the bank's first regional office and the centre for Africa.

5.3.1 Governance of the New Development Bank

The NDB operates on an equal power basis (no provision for a veto). For the first five years of operation (2014 to 2018), the headquarters are located in China and the bank's leadership composition comprises the first president, K.V Kamath, from India with the presidents of the other four BRICS countries as the vice presidents of the bank. The president of the bank will be elected rotationally from one of the founding members and there will be at least one vice president from each of the other founding members. The agreement stipulates that voting powers for each member country is equal to its subscribed shares. Currently, no single country has more power than the others. The board of governors for the NDB comprises all the member countries' finance ministers in accordance with the agreement. As at September 2017, according to the NDB (2017), the Board of Governors was as follows:

- Henrique de Campos Meirelles (Brazilian finance minister);
- Anton Siluanoy (Russian finance minister);
- Arun Jaitle (Indian finance minister, Corporate Affairs and Information & Broadcasting);
- Xiao Jie (Chinese finance minister);
- Malusi Gigaba (South African finance minister)

The first chairman of the Board of Governors is from Russia and the first vice chairman of the Board of Governors is from Brazil (IMF, 2015). Rotations will be made in all areas of leadership within the stipulated five years (BRICS, 2014). The principle of fair governance, a non-intervention approach and constructive supplements are among the NDB's principles of operation. The fairness principle is seen in the structure of the leadership of the bank and the non-intervention principle insists on respecting the rights of the countries on the choice of their own policies as well as their own development paths (Zhu, 2015). The bank held its first annual meeting of the Board of Governors in Shanghai in July 2016 to discuss the bank's future activities and gave a positive assessment of its work thus far. In 2016 the board of directors approved seven projects in member states involving financial assistance of over 1.5 billion US dollars.

The bank's founding members are Brazil, Russia, India, China and South Africa. The Articles of Agreement stipulates that members of the United Nations can become members if they so wish (upon approval of founding members), but BRICS' shares in the NDB can never be less than 55% of the voting power.

According to the Articles of Agreement, the authorized capital is divided into 1 million shares with par value of $100 000. Any increase in the authorized capital stock and any change in paid in shares and callable shares will be decided upon by the Board of Governors. Share distribution and voting power is currently distributed equally, as summarized in Table 5.3.

Table 5.3: Countries' Shareholding in the BRICS Bank

Country	Number of Shares	Shareholding (% of total)	Voting rights (% of total)	Authorized Capital (billion USD)
Brazil	100 000	20	20	10
Russia	100 000	20	20	10
India	100 000	20	20	10
China	100 000	20	20	10
South Africa	100 000	20	20	10
Unallocated Shares	500 000	-	-	50
Grand Total	1 000 000	100	100	100

Source: NDB (2017).

5.3.2 Objectives and Activities

According to the New Development Bank's agreement, the bank will support public and private projects through loans, guarantees, equity participation and other financial instruments. It further stipulates that the bank will cooperate with international organizations and other financial entities and provide assistance for projects to be supported by the bank. The bank has an authorized lending of up to US$34 billion a year. The NDB also aims at assisting countries to respond quickly to the rapid pace of change in technology and clients' needs.

The main objectives of the NDB can be summarized as follows:

1. to promote infrastructure and sustainable development projects with a significant development impact in member countries;
2. to establish an extensive network of global partnerships with other multilateral development institutions and national development banks and
3. to build a balanced project portfolio giving proper respect to their geographic location, financing requirements and other factors.

The NDB has a mandate to provide interest-free loans to developing countries for sustainable infrastructural development projects in the BRICS economies (BRICS, 2013, 2015). The main activity of the bank is therefore to utilize resources in support of infrastructure investments. The NDB highlighted that it is prioritising projects aimed at developing renewable energy sources and it aims at cooperation with other institutions in accelerating green financing expansion and promoting protection of the environment. According to Mushwana (2015), the BRICS Bank's official development aid (ODA) will target countries that are not reached by the conventional development financial institutions. In 2016 the bank's board of directors approved loans for 7 projects in member states totalling more than USD$ 1.5 billion. On 21 December 2016 the NDB signed its first loan agreement to finance a project in China, the Shanghai Lingang Distributed Solar Power Project. China received a loan from the NDB of $81 million for a project in renewable energy (solar rooftop PV) and $298 million for a wind power project. In April 2017 it also signed an agreement with the Brazilian Government to provide a loan of USD 300 million aimed at developing the renewable energy sector in Brazil. In 2016 India received a loan from the NDB amounting to $250 million through the Canara Bank that was guaranteed by the Government of India. This loan was for a project in the renewable energy sector. An additional loan from the NDB was received in the same year ($350 million) to upgrade major district roads. In 2017, India received $470 million under the Madhya Pradesh Multi-Village Rural Drinking Water Supply Project targeted at rural areas and in the same year it received $345 million to finance the irrigation and agriculture sector (NDB, 2017).

Tables 5.4 and 5.5 summarize the projects supported by the NDB in 2016 and 2017.

Table 5.4: Projects Supported by the NDB in 2016

Country	Loan Amount	Borrower	Target Sector
Brazil	US$300mln	BNDES	Renewable energy (wind, solar, etc.)
Russia	US$100mln	EDB/IBB	Renewable energy (hydropower), green energy
India	US$250mln	Canara Bank	Renewable energy (wind, solar)
India	US$350mln	Government of India	Upgrade major district roads
China	US$81mln	PRC Government	Renewable energy (solar roof-top PV)
China	US$298mln	PRC Government	Renewable energy (wind power)
SA	US$180mln	ESKOM	Renewable energy (transmission)

Source: NDB handout material, press release of the NDB (22 November, 2016).

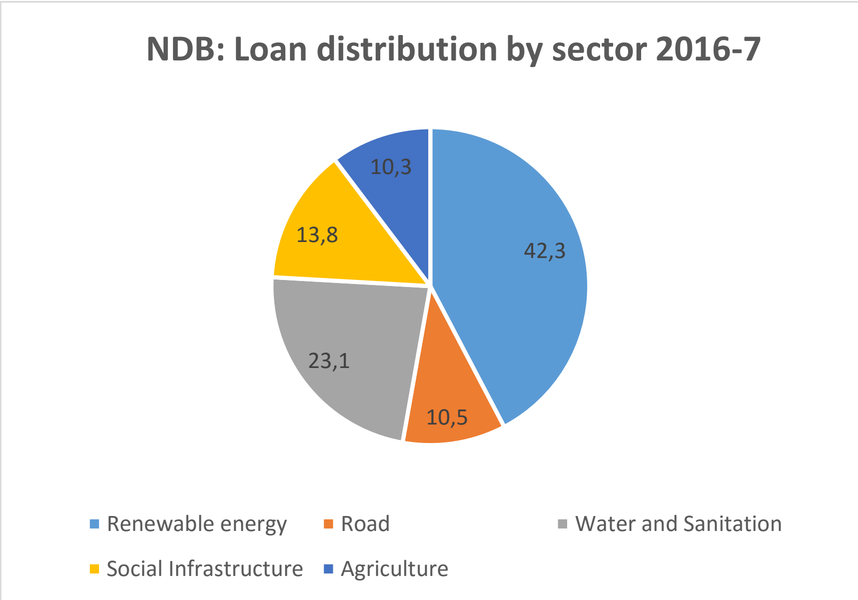
Table 5.5: Projects Supported by the NDB in 2017

Country	Loan Amount	Borrower	Target Sector
India	US$470mln	Government of India	Water supply and sanitation, rural development
India	US$345mln	Government of India	Irrigation, agriculture
China	US$300mln	PRC Government	Water, sanitation and flood control, environmental
China	US$200mln	PRC Government	Energy conservation
Russia	US$460mln	Government of Russia	Social infrastructure

Source: www.ndb.int (2017).

As indicated above, the NDB approved its first projects in the second quarter of 2016, four projects totalling $811 million, mostly in the area of renewable energy and in July it issued three billion Yuan-denominated bonds, which is equivalent to $448 million on the China Interbank bond markets. This first issue of bonds is the bank's initial strategy to explore local currency bond insurances in the capital markets of all BRICS countries (Wu, 2016).

The NDB issued its loans mainly for development of the renewable energy sector, as indicated in Figure 5.5 below.



Source: Author's computation using data from the NDB (2017).

Figure 5.5: NDB Loan Distribution by Sector

As the bank grows it will be able to provide more loans, both to member countries and other developing economies. If the total paid in capital doubled to $100 billion from the current $50 billion, (either through increasing contributions by current members of adding new shareholders), the NDB could provide loans to other countries to the value of $50 billion in 10 years (or $5 billion annually). This can be increased as retained profits are added to the lending pool and assuming that leverage will be double that of the CAF, annual lending capacity could reach $14 billion and after 20 years it could reach $34 billion (United Nations, 2017). According to the United Nations (2017), in twenty years' time if the NDB expands its operations to other countries as it did to its member countries, then it would have a lending capacity not far below that of the current institutions, such as the World Bank, which had a capacity of $45 billion in 2015.

The loans that have been issued to the current members had no conditions attached (NDB, 2017). Given that the NDB can expand to lend to other countries, then it can integrate into the financial system and help reduce the gap that exists between financial needs and available funds.

5.3.3 NDB sources of funds

The initial authorized capital of the bank was set at $100 billion divided into one million shares with a par value of $100 000 each (NDB, 2016). The initial capital injected into the bank was $50 billion divided into paid-in-shares of 10billion and callable shares of $40 billion. The initial capital of the NDB is therefore divided equally amongst the founding members. No member country can increase its share of capital without the other four members consenting.

In March 2016 the bank announced that it would undertake a bond issue in China to raise finance on the Chinese market and in July 2016 the bank successfully issued its first green finance bond. The bond’s nominal interest rate was at that time 3.07% (NDB, 2016). This made the bank the first international financial institution to issue a green financial bond in China. The profits from the bond would be used to finance infrastructure and sustainable development projects in the member countries, in other words, the profits would add to the bank’s pool of funds.

The bank also interacted with other institutions such as the Asian Development Bank (ADB) in July 2016 with the signing of a memorandum of understanding on strategic cooperation. The two banks indicated a willingness to work together to co-finance projects that bring about sustainable development. The two banks will also share knowledge in areas that include sustainable development projects in renewable energy efficiency, water management and sewage treatment (ADB, 2016). The two banks have already begun working on identifying their first project to co-finance and preparatory work has begun on two potential projects in India to determine costs and co-financing arrangements (ADB, 2016). In September 2016 the NDB also signed a memorandum of understanding with the World Bank Group in which they agreed to cooperate their efforts focusing on infrastructure development issues (World Bank, 2016).

These co-financing arrangements will assist the NDB to increase its impact and become integrated into the international financial architecture. The NDB complements the existing efforts of other financial institutions (regional and international), in bringing about development and growth. The Articles of Agreement authorize the bank to cooperate with other institutions and organizations, both private and public, particularly financial institutions and development banks. The NDB’s current pool of funds makes it impossible for other countries to benefit from loans from the bank. Aware of their current drawback, the NDB has made it clear that it will work with other institutions to co-finance and when they increase their source of funds they will be able extend loans to other countries. The NDB’s member countries have vast experience that can be used to its advantage.

5.4 RATIONALE BEHIND THE NDB

The creation of the NDB reveals the feasibility and dynamics of the BRICS, despite all the scepticism and criticism in recent years. Some of the criticisms may be legitimate, as BRICS nations have experienced slow growth in recent times and even China’s economic growth appears to be slowing down for a variety of reasons (Chen, 2014). The NDB is important as it indicates the coming together of countries with similar goals of development and improving the lives of citizens in developing countries, including the member countries, as they are also still developing. With such goals, the NDB is significant for the development of countries that desperately need funding for infrastructure projects.

The NDB is a much needed addition in terms of adding to the global pool of funds. The NDB is not challenging the international financial institutions, however it can be said that as it grows it may foster, through competition, reforms in the IFIs for the benefit of developing countries in need of development funds. The NDB should push the IMF and World Bank to be more open and transparent and the competition between the NDB and the IFIs should be more about efficiency for the benefit of loan recipients (Chen, 2014). The NDB, as a complement to the existing pool of funds, is a significant and necessary catalyst for efficiency in the market. BRICS countries banding together to form the NDB can be seen as creating a cohesive nucleus to counteract the functional deficiencies in existing IFIs and displays a proactive attitude to reshaping the New International Economic Order (Lingxiao, Yao & Zexian, 2015).

The NDB is also an important cooperative mechanism among member countries, as it can help reduce the pressures on infrastructure finance and at the same time offer a feasible solution to the problem of low returns on foreign exchange reserves and the high costs of self-contained management. The capital subscriptions and re-lending performed by the NDB can allow the

BRICS countries' central banks to bring together the foreign exchange reserve held in each country. By issuing bonds for example, the NDB can effectively attract funds that are idle within BRICS countries thereby improving the efficiency of transfer between the demand for, and the supply of finance (Lingxiao, Yao & Zexian, 2015). The NDB can maximize meeting the infrastructure finance needs of its member countries, thus promoting economic growth and development. The shared interests of growth and development through the NDB is also advantageous to the member countries, as they will be able to increase complementarity rather than competition, share benefits and experiences of economic growth and boost local currency settlements, (as that which occurred between China and Russia) (Yao, 2016). In the long run, the increased internal trade and investment will reduce the member countries' dependency on the dollar for trade. In a nutshell, the NDB is significant in the provision of economic and social benefits to BRICS nations.

Another reason for the creation of the NDB lies in the BRICS's frustration over the issue of reforms in the IMF and the World Bank. The reform process was delayed due to one country and this frustrated the BRICS countries. The inequalities presented in the IFIs are viewed as old rules that require that a European always head the IMF and an American the World Bank (Blomfield & Davydov, 2015). In this sense, the NDB represents an alternative to the Bretton Woods institutions.

The NDB was also created to boost investments among BRICS countries. The NDB can act as an advisor and coordinating facility in this field. The NDB cannot only promote intra-BRICS investment but must also enhance the role of BRICS countries in the international financial architecture and foster their transition into developed economies. Each of the BRICS countries is characterized by significant domestic, (social and regional), inequality and the NDB could play a major role in addressing the problem of 'the middle-income trap' in these countries.

The NDB's member countries have demonstrated great potential in managing development banks, as evidenced by their participation in various development banks both domestically and internationally, as discussed in the following paragraphs. Most importantly, the NDB demonstrates China's global leadership, given its substantial size and rapid development (Chen, 2014). According to Chen (2014), China needs to balance its own influence on the bank and the other member's impact to avoid a situation of dominance, as is the case with the US in the IMF and the World Bank. In line with this, China should not exert undue influence and impose its own will and rule on the other members or on developing countries seeking funding from the NDB. The NDB is an important indication of the potential of developing economies. The member countries have vast experience that can be useful for the NDB making the bank a beneficial institution for member countries as well as other developing countries. Brazil has a strong network of development banks with the Brazilian National Development Bank (BNDES) standing at the centre (United Nations, 2017). The BNDES is a national development bank that has a crucial role in the developmental issues of the country. The bank is fully owned by the government and was established in the early 1950s. In early 2000 the BNDES became more concerned with South-South and sub-regional partnerships (Sampaio, 2015). The bank also funded projects in Africa, for example, Mozambique’s airport project worth US$ 200 million (Leahy, 2015). In 2015 the BNDES was the third largest national development bank in the world after the China Development Bank (CBD) and the Kreditanstalt fur Wiederaufbau (KfW), in terms of both loans and assets (United Nations, 2017). Brazil’s bank has grown rapidly with loans issued increasing from R$96 billion to R$188 billion (United Nations, 2017). The bank also provided loans to firms that no longer had access to international markets. These practical experiences can be useful to the NDB.

Russia also has a development bank known as Russia’s Development and Foreign Affairs Bank - Vnesheconombank (VEB), which mainly promotes Russian economic competitiveness through the stimulation of economic activities towards infrastructure development, support of exports and development of SMEs (VEB, 2017). The bank also collaborated with the World Bank and other banks to fund foreign investment projects (VEB, 2017). Since 2007 the VEB has funded projects in capital intensive investments that would not be funded by private commercial banks because of the incapacities of the private banks to provide sufficient capital, amongst other reasons. The bank has also acquired assets and funded investment projects abroad in the form of direct investment, making the Russian economy more competitive (VEB, 2017). According to Mazenda and Ncwadi (2016), the NDB can complement the VEB’s work by providing investment capital and consultancy to the Russian Central Bank and other development bodies, providing funds to other governmental entities dealing with sectors that are neglected, (for example Russia’s transport sector), collaborating with the public-private sector and engaging in joint ventures to fund development projects.

India also has a development bank known as the Indian Export-Import Bank (EXIMINDIA) that is responsible for aligning the country’s foreign trade and direct investments with economic growth. This bank funds export credit projects, offers project consultancy and also provides credit to foreign entities and development banks channelled towards infrastructural equipment imports (EXIMINDIA, 2015). EXIMINDIA funds projects outside India as well, particularly other developing economies in Africa and the Middle East. According to EXIMINDIA (2015), the bank supported the construction of a petroleum refinery in Nigeria and airport construction in 2014 in Saudi Arabia, to name but just a few. EXIMINDIA can therefore also aid in the functioning of the NDB. China's development bank is known as the state-owned China Development Bank (CDB), an entity mandated to provide loans for industry, (and other growing sectors), and infrastructure development. The CDB also provides financial assistance to grassroots investments and promotes China's international business partnerships (CDB, 2015a). CBD loans can be viewed as seed money for projects that commercial banks and other institutions may be unwilling to finance (Gao, 2010). China's development bank has established a network with overseas banks and world markets. The CDB has also been involved in investments in African, Asian and Latin American countries. This bank financed a US$ 45 million First Automobile Works (FAW) in South Africa and construction of a US$ 473 million coal power plant in Indonesia (CDB, 2015b). China has experience that the NDB can take advantage of in its integration efforts into the international financial architecture. China is also involved in other development banks, particularly the Asian Infrastructure Investment Bank (AIIB), in which it enjoys vetoing power with regard to decisions such as structure, membership and capital increases, which requires 75% of the votes (United Nations, 2017).

South Africa is the home of the Southern Africa Development Bank (DBSA), which was formed with the objective of bringing sustainable development to the Southern African Development Committee (SADC) region. In 2013 the DBSA lengthened its distribution scope to provide access to infrastructure development solutions to the SADC and sub-Saharan African states (DBSA, 2015). The DBSA has financed developmental projects in the region for the construction of roads and other infrastructure projects, but the DBSA's efforts fall short of the substantial need for financial assistance in the region and in Africa as a whole. Africa needs investment in infrastructure, particularly sub-Saharan Africa, and the NDB could be an additional source of funds for this cause by expanding the DBSA' and other regional banks' scope and the co-financing of infrastructural projects (DBSA, 2015b).

5.5 CONCLUSION

The chapter presented the rationale behind the BRICS New Development Bank. BRICS is an economic integration that brought together five developing economies for economic development purposes. Together, these countries are home to more than 42 percent of the world's population and account for about 30 percent of the world's GDP as at 2014 (Bremmer, 2017). The group has become a collective voice for developing and emerging economies, especially when it comes to issues of representation in international institutions. BRICS discussed the proposal of a development bank at their annual summit in 2013 and established the New Development Bank (NDB) or BRICS bank, in July 2014. The NDB is a multilateral development bank that has the mandate to finance development projects aimed at fostering sustainable development among the five member states as well as other emerging and developing economies. The headquarters is in China and the first president of the NDB is Kamath, the president of India. All members of the NDB have equal power in the bank and no single country has veto power or control. This is a paradigm shift from the IMF and World Bank ideology and since the group currently has six members it will take at least three members to agree to make a decision and no member has veto power to stop the others from taking action. The NDB has a lot to cover before it can become an engine for the reform of the international financial system, but this does not prevent the bank from making a difference in developing countries. The NDB issued its first loans to member countries, Brazil, Russia, India, China and South Africa, in 2016 and in 2017, mainly funding projects in the renewable energy sector.

The rationale behind the creation of the NDB was mainly the frustrations over the issue of IMF and World Bank reforms for better representation for developing countries in these institutions. The delays in implementing these reforms was an indication of the inequalities in these institutions. The establishment of the NDB revealed the potential of developing economies to manage their own affairs. There are also substantial gaps in terms of available funds and the financial needs of developing economies and any additional revenue is advantageous. There has been a decline in financial support from developed countries and multi-lateral development banks to developing countries (Zhu, 2015). At the same time, there has been an increase in the demand for developmental finance in most developing economies. The NDB brings an additional source of funds, particularly to the BRICS member countries that have substantial infrastructural development needs. Sound infrastructure is important for the economic growth and sustainable development that is lacking in the BRICS countries, as well as in most developing economies. These countries, (both BRICS countries and other developing economies), have received loans from the IMF and the World Bank that are normally coupled with conditions that makes it impossible for the countries to develop. The establishment of the NDB can be seen as a tool to enhance the idea that developing economies need to be allowed to determine their own terms of development. The NDB was created as a complementary effort to cover the financial shortfall and to promote efficiency in the existing institutions. The shared interest of economic growth and development through the NDB is also advantageous to the member countries, as they will be able to increase complementarity rather than competition, share benefits and experiences of economic growth and boost local currency settlements (Yao, 2016). In the long run the increased internal trade and investment will reduce the member countries' dependency on the dollar for trade. In a nutshell, the NDB is significant in the provision of economic and social benefits to BRICS nations. The strategic role of BRICS through its bank, is that of encouraging sustainable development and reducing the poverty and inequality that exists in most developing and under-developed economies. BRICS countries themselves are faced with a number of problems and they need to alleviate these problems in their countries as well as in other countries. The NDB member countries have already benefited from the first loans issued by the NDB and the NDB can benefit from its members' experiences with regard to economic issues, particularly development banks.

CHAPTER SIX

RESEARCH METHODOLOGY

6.1 INTRODUCTION

This chapter provides an explanation of the methodology employed in this study to determine the impact of the loans received from the World Bank and the IMF, amongst other variables of economic growth, and the development of selected developing African countries. The chapter advances the foundation that was laid by the literature review with regard to theories of economic growth and development and elaborates on the method that was employed. The chapter is divided into the following main sections: model specification; description of variables; justification of variables; data sources and expected a priori of the variables under study.

6.2 MODEL SPECIFICATION

Based on the theoretical framework presented in chapter three, the model was developed by following the neoclassical model, which postulates that economic growth and development are determined by labour and capital. The factors of production that determine the output level in an economy are summarised in the production function given below.

$$Y = f(L, K, A) \quad \text{.......} \quad (5)$$

Where Y denotes GDP

K denotes the amount of capital stock

L denotes the amount of labour

A denotes total factor productivity (TFP)

Assuming that equation 1 is linear in logs, then log and first differencing gives:

$$y = \partial + \beta l + \delta k + \emptyset a \quad \text{.......} \quad (6)$$

The lower case letters in the equation above denote the rate of growth of the individual variables. As the labour force is affected by population size (PS), we replace rate of change in labour input with the growth rate of population and the rate of growth of capital with the share of investment in GDP (INV). Total factor productivity (TFP) is denoted by A in the equation above and is the portion of the total output that is not explained by the amount of the "conventional inputs" (L and K) used in production (Comin, 2010). The 'A' in the equation then captures the increase/growth in output that is not accounted for by increases in L and K. Following Karras 2006, the research included several other variables that affect GDP. In this study it was assumed that total factor productivity, or the 'A' in equation 1, is a function of loans received from the IMF and the World Bank as well as other variables that influence the dependent variable. Equation 3 below indicates the components of TFP used in this research.

$$A = f(LOANS, INF, DSEX, CP, X, M, PKI, EXC, PS, ROL) \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(7)}$$

Where, LOANS are IMF and World Bank loans, INF is Inflation, DSEX is Debt Service to Export Ratio, CP is Corruption Perception Index, X is Exports, M is Imports and EXC is Exchange Rate. These are the variables that affect the dependent variable that is used as a measure of economic growth and development, namely per capita income (GDP). The econometric model used in this study is as follows:

$$\ln GDP_{it} = \beta_0 + \beta_1 lnDEBT_{it} + \beta_2 ln(INV)_{it} + \beta_3 ln(IMF\_LOANS)_{it} + \beta_4 ln(WB\_LOANS)_{it} + \beta_5 ln\, INF_{it} + \beta_6 lnROL_{it} + \beta_7 lnCP_{it} + \beta_8 ln(M)_{it} + \beta_9 ln(X)_{it} + \beta_{10} lnDSEX_{it} + \beta_{11} lnEXC_{it} + \beta_{12} lnPS_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{(8)}$$

Where GDP_{it}	= Gross Domestic Product of country i at time t.
$DEBT_{it}$	= Total External Debt of country i at time t.
$(INV)_{it}$	= Total Investment as a fraction of GDP for country i at time t.
$(IMF\_LOANS)_{it}$	= Loans received from IMF of country i at time t.
$(WB\_LOANS)_{it}$	= Loans from World Bank of country i at time t.
INF_{it}	= Inflation rate of country i at time t.
$(M)_{it}$	= Imports of goods and services of country i at time t.
$(X)_{it}$	= Exports of goods and services of country i at time t.
$DSEX_{it}$	= Debt service to export ratio of country i at time t.
EXC_{it}	= Exchange rate of country i at time t.
PS_{it}	= Population size of country i at time t.
ROL_{it}	= Rule of law index of country i at time t.
CP_{it}	= Corruption perception index of country i at time t.
ε_{it}	= white noise error term.
Ln	= denoting natural logarithm.
β_0	= intercept/constant.
$\beta_1 - \beta_{13}$	= coefficients of the parameters in the model.

6.3 ESTIMATION TECHNIQUES

The quantitative research method used in this analysis is based on an econometric technique, namely cross sectional panel data analysis. The series are transformed to logarithms before estimations are made. Log transformation helps deal with the skewness of data. This is done to make patterns in the data more interpretable and for helping to meet the assumptions of inferential statistics (Gujarati, 2013).

6.3.1 Pre-estimation Statistic test

6.3.1.1 Stationarity test

It is essential to first test for unit root or stationarity of the data to avoid spurious regression and misleading conclusions from the use of non-stationary data (Gujarati, 2013). A unit root test generally tests whether data is non-stationary or has a unit root with the null hypothesis defined as the presence of unit root and the alternative hypothesis is stationarity. As this thesis makes use of panel data, panel data unit root tests are used to test for stationarity of the data. The panel unit root tests used are Levin, Lin and Chu (2000), Im, Pesaran and Shin (2003), ADF Fisher Chi-square and PP-Fisher Chi-square (1999). The Fisher type tests are also referred to as Maddaka and Wu (Green, 2008). The general structure of a panel unit root testing procedures is as follows:

$$\Delta y_{it} = \rho_i y_{i,t-1} + \sum_{t=1}^{pt} \emptyset_{i,l} \, \Delta y_{i,t-1} + \propto_i d_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots \quad (9)$$

d_{it} represents the deterministic components. When p_i = 0, it means the y process has a unit root for individual i and when ρ_i < 0 it means that the process is stationary around the deterministic part (Breitung & Das, 2005).

The Levin, Lin and Chu (2000) (LLC) is a test with an alternative hypothesis that the ρ_i are identical and negative. LLC suggest the following hypotheses:

- H_0: Each time series contains a unit root (all cross-sections have a unit root).
- H_1: Each time series is stationary (all cross-sections have no unit root).

The test statistic of the LLC test relies critically on the assumption of cross sectional independence, for example, Angola's GDP does not depend on Zambia's GDP. LLC has the disadvantage that it assumes all cross-sections have unit root as the null hypothesis, which is restrictive as it does not allow for the case where some individuals are subject to a unit root and some not. This method would therefore be more appropriate when N is very large or T is very small (Levin et al., 2002).

Unlike the LLC, the Im, Pesaran and Shin (2003) (IPS) allows ρ_i to vary and some series may therefore have unit root. It computes separate ADF test statistics on each individual and then combines them by averaging the t statistics. In this sense, the IPS is not as restrictive as the LLC, as it allows for heterogeneous coefficients. The following is the hypothesis for the IPS test:

H_0= all individuals follow a unit root

H_1= some (but not all) individuals have unit root

The Fisher-type tests, (ADF Fisher Chi-square and PP-Fisher Chi-square (1999)), use p-values from unit root tests for each cross-section. The greatest advantage is that the test can handle unbalanced panels. Furthermore, the lag lengths of the individual augmented Dickey-Fuller tests are allowed to differ. The null hypothesis of this test is that all panels contain a unit root and the alternative hypothesis is that all panels do not contain a unit root (Baltagi, 2001).

Given the different tests with different strengths and weaknesses, the research used all four and the results are presented from all methods and the conclusion on whether series are stationary or not will be made by considering what the majority of the tests conclude on each series. Table 6.1 below presents a summary of the panel unit root tests.

Table 6.1: Summary of Panel Unit Root Tests

Test	Null	Alternative	Possible Deterministic Component	Autocorrelation Correction Method
LLC	Unit Root	No Unit Root	None F, T	Lags
IPS	Unit Root	Some cross-sections without Unit Root	F, T	Lags
Fisher-ADF	Unit Root	Some cross-sections without Unit Root	None F, T	Lags
Fisher-PP	Unit Root	Some cross-sections without Unit Root	None F, T	Kernel

None - no exogenous variables; F - fixed effect and T - individual effect and individual trend.

Following the disadvantages and drawbacks of each test, it is advisable to consider as many tests as possible. The thesis will interpret results from all four of the panel unit root tests that were discussed. This is because it is advisable to use multiple methods and analyse their outcomes to avoid conclusions of non-stationarity when in fact the series display stationarity. The LLC test for example, has high power if the time dimension is large and this is a problem as one can then infer stationarity for the whole panel even if it is only a true reflection for a few individuals. On the other hand, the LLC test has a lower power for small time dimensions (Levin et al., 2002). Such a case will result in concluding non-stationarity when in fact most series display stationarity. The Im-Pesaran-Shin and Fisher-type tests on the other hand, ease the cramping assumption of Levin-Lin-Chu that ρi must be the same for all series under the alternative hypotheses.

6.3.2 Panel data analysis/model

Panel data analysis uses panel data to examine changes in variables over time and differences in variables between subjects. Panel data, also referred to as time series cross sectional (TSCS) data, is data that combines both time series data and cross sectional data. Cross-sectional data refers to data that is collected by observing numerous subjects at the same time without regard to differences in time and time series is where aggregate entity is observed at various points in time. Panel data analysis therefore uses data that examines both changes in variables over time and differences in variables between subjects. To decide whether to use a fixed effect model or a random effect model, as required by panel data analysis, the Hausman test was run first, where the null hypothesis was that the preferred model is random effect against the alternative hypothesis of a fixed effect model (Greene, 2000). The Hausman test ascertains whether the unique errors are correlated with the repressors, the null hypothesis being that they are not.

6.3.2.1 Fixed Effects (FE)

The fixed effects model, (also known as within estimator), examines individual differences in intercepts assuming the same slope and constant variance across individuals. FE explores the relationship between predictor and outcome variables within an entity. FE has varying intercepts across group/ time and error variants are constant. When using FE it is assumed that something within the individual may impact or bias the predictor or outcome variables and there is a need to control this. FE removes the effect of those time-invariant characteristics so that the net effect of the predictors on the outcome variable can be assessed. Each entity is different, therefore the entity's error term and the constant, (which captures individual characteristics), should not be correlated with the others. If the error terms are correlated, then FE is not suitable, as inferences may not be correct and one needs to model that relationship, (probably by using random-effects). Fixed effects are tested using the F-test with the following estimation equation:

$$Y_{it} = \beta_i X_{it} + \alpha_i + \mu_{it} \qquad (10)$$

Where Y_{it} is the dependent variable of entity i at time t
X_{it} represents one independent variable
α_i = (i=1...n) is the unknown intercept for each entity
β_i is the coefficient of that variable
μ_{it} is the error term

The fixed-effects model controls for all time-invariant differences that may be between the individuals and this makes the estimated coefficients unbiased because of omitted time-invariant characteristics, for example culture or gender (Baltagi, 2011). The FE model has an advantage in that it provides consistent estimates in the presence of country-specific effects that are correlated with the explanatory variables in the model (Clements et al., 2003).

6.3.2.2 Random Effects (RE)

The random effects (RE) model assumes that the individual effect (heterogeneity) is not correlated with any regressors, the difference among individuals' lies in their individual specific errors and not in their intercepts. The difference between FE and RE is explained as follows:

> *"…the crucial distinction between fixed and random effects is whether the unobserved individual effect embodies elements that are correlated with the regressors in the model, not whether these effects are stochastic or not"* (Green, 2008).

When there is reason to believe that differences across entities have some influence on the dependent variable then one should use random effects. The RE model has the advantage that one can include time invariant variables (i.e. gender). In the fixed effects model these variables are absorbed by the intercept. The model for random effects takes the following functional form:

$$Y_{it} = \beta X_{it} + \alpha + \mu_{it} + \varepsilon_{it} \quad \text{(11)}$$

Where μ_{it} is between entity error and ε_{it} is within entity entry.

6.3.2.3 Choosing between FE and RE

Generally, the accepted way of selecting the appropriate model when choosing between the FE and the RE models is by conducting a Hausman test. The Hausman specification test compares the random effect model with its fixed effect model and if the null hypothesis that the individual effects are uncorrelated with the other regressors is not rejected, a random effect model is favoured over a fixed effect model (Hausman, 1978). The hypotheses tested are as follows:

- H_0 Individual effects are uncorrelated with the other regressors (random effect is appropriate);
- H_1 Individual effects are correlated with the other regressors (fixed effect is appropriate).

The Hausman test, in other words, tests if the RE estimates are insignificantly different from the unbiased fixed effect estimate (Kennedy, 2008). It tests for the most efficient model against a less efficient but consistent model making sure that the more efficient model also provides consistent results. If the null hypothesis is rejected, it may be concluded that individual effects

μ_i are significantly correlated with at least one regressor and the RE model will be problematic if used, therefore select the FE model. In a nutshell, the Hausman test statistic, H, is a computation of the difference amid the two estimates of FE and RE:

H = (βRE - βFE)'[Var (βFE) –Var (βRE)]-1 (βRE - β FE) ……………………………… (12)

Under the null hypothesis, H is distributed chi-square with degrees of freedom equal to the number of regressors in the model. A $p < 0.05$ is taken as proof that at conventional levels of significance, the null hypothesis is of the random effect model being appropriately rejected and the fixed effects model is appropriate. If the Hausman test shows a p value greater than 0.05, the random effect model is preferable to the fixed effect model.

Table 6.2: Summary of the Hausman Test

Fixed Effects (F-test)	**Random Effects (B-P LM test)**	**Selection**
H_0 not rejected (no FE)	H_0 not rejected (no RE)	Pooled OLS
H_0 is rejected (FE)	H_0 not rejected (no RE)	Fixed Effect model
H_0 not rejected (no FE)	H_0 is rejected (RE)	Random Effect model
H_0 is rejected (Fixed Effects)	H_0 is rejected (Random Effetcs)	Choose fixed model if null hypothesis of a Hausman test is rejected, otherwise a random model.

Source: Author's computation using information from Green (2008).

6.3.2.4 Panel causality test

To further validate the findings, a panel granger causality test was applied on the variables of interest. Granger causality tests simply test how much the current y can be explained by past values of y and lag values of x. Therefore y is said to be Granger caused by x if x helps in the prediction of y. In other words, Granger causality tests if there is any causality between two variables. There are two panel causality tests, namely the stacked test, which assumes common coefficients across all cross-sections (common coefficients), and the Dumitrescu-Hurlin test, which assumes that coefficients are different across cross-sections (individual coefficients).

The hypotheses of the panel Granger causality test are as follows:

- H_0 x does not Granger cause y
- H_0 x does Granger cause y

6.3.2.5 Quantile regression

In addition to the above estimation techniques, quantile regression on total external debt, IMF loans, World Bank and debt service to export ratio was performed. Quantile regression is used to describe the distribution of the dependent variable and it provides a more comprehensive picture of the effect of the independent variable on the dependent variable (Koenker & Bassett, 1978). It provides estimates of the linear relationship between repressors and a specified quantile of the dependent variable. It permits a more complete description, allowing us for example, to see how the median or the 75th percentile of the response variable is affected by the regressor variables. It has the advantage that it is flexible for modelling data with heterogeneous conditional distribution.

6.3.3 Diagnostic tests

The Wald test, also known as the Wald chi-square test, is used to test for joint significance. When a relationship within or between data items can be expressed as a statistical model with parameters to be estimated from a sample, this test is used to test the true value of the parameter based on the sample estimate (Harrel, 2001). The Wald test can be used to test for both a single hypothesis on multiple parameters and jointly on multiple hypotheses on single or multiple parameters. It has the advantages that it only requires estimating one model and it allows for the testing of multiple parameters (Greene, 2012). The Wald test is run under the null hypothesis that the parameters are jointly equal to zero. Failure to reject the null hypothesis therefore means that the variables in question are not significant and removing them would not have an effect. The alternative hypothesis is that the variables are not equal to zero and are significant.

- $H_0 : parameters\ or\ variables\ are\ simultaneously = 0$
- $H_1 : parameters\ \neq 0$

The Wald test was used in this study to test whether the explanatory variables in the model are jointly significant.

6.4 DESCRIPTION OF VARIABLES

The variables used in the research and the data sources are discussed in the following sections.

6.4.1 Gross Domestic Product (GDP)

GDP is the monetary measure of the market value of all final goods and services produced in a country during a particular period of time, normally a year. It is used to determine the performance of an economy or region and it is compared from period to period to determine the growth rate of that country. GDP affects almost everyone and everything in the economy and hence has a substantial impact on economic growth and development of the economy. When there are increases in the GDP of an economy, ceteris paribus, it means there is an increase in economic production and growth that may cause firms to expand and hire more workers and / or afford to increase wages, which will in turn lead to an increase in consumer spending on goods and services. Nominal GDP is not a good indicator of wealth, as it does not take inflation into account and so in this study real GDP was used as the dependent variable. Development is directly linked to GDP growth and countries that receive loans use that money to finance projects that add value to the country through GDP.

6.4.2 Total external debt (debt)

Total external debt is the total amount of money owed by a country to foreign lenders or creditors at any given time. This includes money owed to private commercial banks, other governments or international financial institutions. In this study total external debt was used to test the impact of total debt a country has at a particular point of time (not indicating where the debt comes from) on the GDP of the selected countries. Most governments borrow to finance the production of assets used for the betterment of the economy. As indicated in the literature review, debt is beneficial up to the point where debt overhang begins to set in and debt then becomes a burden to the country, as it has to pay back both the principal and interest.

6.4.3 IMF Loans

International Monetary Fund (IMF) Loans are loans that a country receives from the IMF and may include purchases and drawings under stand-by, extended, structural adjustments, enhanced structural adjustments and systemic transformation facility arrangements as well as trust fund loans. In this study loans from the IMF were used to evaluate the impact that the IMF has had on the economic growth and development of the selected countries. These loans are issued to aid development and their impact was tested to evaluate the impact they had during the period in question.

6.4.4 World Bank Loans (IBRD + IDA)

IBRD and IDA credits refer to the public and publicly guaranteed debt given by the World Bank Group. These come from the International Bank of Reconstruction and Development (IBRD) and the International Development Association (IDA) respectively. Unlike the variable total external debt, IMF loans and World Bank loans are variables that help assess the impact of loans received from specified lenders, i.e. IMF and World Bank. These variables are then used to evaluate the exact impact of loans from these institutions coupled with whatever conditions they put and thereby makes it possible to assess the causes behind the results obtained.

6.4.5 Investment

Investment/GDP (investment to GDP) ratio is used as a proxy for the growth rate of capital stock. Investment is a process of committing money to an endeavour with the expectation of a return.

6.4.6 Inflation

Inflation is defined as the persistent increase or change in the price index over time. It can also be understood as the rate at which the currency loses its value. When the economy experiences inflation, the value of its currency reduces and this could have an adverse effect on consumers. Inflation reflects the annual percentage increase in the cost of the average consumer acquiring a basket of goods and services. It is the general increase in the price levels and affects the welfare of a country. If a country has towering inflation there is an elevated risk that money received as loans will not be spent well. This is because the inflation rate is indicative of the government's ability to manage the economy. The IMF stipulates that governments that fail to manage their economies (inflation) will generally perform badly when managing foreign loans (Stiglitz, 2002). Inflation indicates the stability of a country's macro economy and it is a proxy for the general macroeconomic instability.

6.4.7 Imports (M)

Imports of goods and services (M), represents the value of all goods and other market services received from the rest of the world. In this study the ratio of imports/GDP was used to ascertain the impact that imports have on the level of wellbeing in an economy.

6.4.8 Exports (X)

Exports of goods and services (X), represents the value of all goods and other market services provided to the rest of the world. In this study, exports of goods and services as a percentage of GDP was used. Exports bring in revenue that can be used to repay debts as well as to reinvest and enhance economic growth.

6.4.9 Debt Service to Export Ratio

Debt service to export ratio (DSEX) is the ratio of total debt service (repayment of loan and interest) to total exports. When this ratio is low, a country's international finances are healthier, in other words the country is gaining more revenue from exports than it needs to service its debt. It is considered to be a key indicator of a country's debt burden (IMF, 2001). According to the World Bank (2012), the debt service to exports ratio is a target for measuring the progress on the development millennium development goal.

6.4.10 Rule of Law

Rule of law (ROL) is a principle to which all people and institutions are subject and accountable if that law is fairly applied and enforced. The World Justice Project defines rule of law as a system in which the government and its people are accountable under the law; the laws are clear, published, stable and applied evenly; the process by which the laws are enacted, administered and enforced is accessible, fair and efficient; justice is delivered timeously by competent, ethical and independent representatives who are neutral and of sufficient number and have resources that are adequate and reflect the makeup of the communities they serve. It can also be defined as the restriction of the arbitrary exercise of power by subordinating it to well-defined and established laws. The measure used in this study to represent the rule of law was the World Justice Project (WJP) rule of law index, which measures the extent to which countries adhere to the rule of law in practice. A higher ROL index, (usually ranked between 0 and 10), means people perceive that rules are clearly defined and followed and everyone is equal before the law. Rule of law was significant in this thesis, as a system in which ROL reigns means the process in which law is created is open and accessible to all. In such a system, the law applies to everyone equally regardless of class, meaning no one is above the law (Brahm, 2005). ROL is often viewed as very important in attracting investment and as a result bringing about development. It then follows that ROL also affects the distribution of income within an economy, which is per capita income.

6.4.11 Corruption Perception Index (CP)

The corruption perception index (CP) measures the way in which a country's citizens perceive the corruption in that country. The corruption perception index scores countries according to how corrupt they are perceived to be. It captures the informed views of analysts, business people and experts in countries around the world. It is the most widely used indicator of corruption and is based on perceptions, as corruption, being illegal, is not practiced openly, it is only brought to light through scandals and investigations. If the public sector has high levels of corruption, even loans received may end up being used for private benefits and not for the benefit of everyone through development projects. It is a composite index, a combination of surveys and assessments of corruption. This index was created in 1995 by Transparency International and it ranks countries on a scale of zero to 100 with zero indicating high corruption and 100 indicating no corruption. This index can be used to illustrate the relationship between the extent of corruption and other important outcomes (Corruption Perception Index, 2012).

6.4.12 Population size

Population size is the actual number of individuals in a population. The actual number of people in a country determines the per capita income of that country and affects labour market as well as standards of living. The population size therefore captures the effect that the population size (total number of people in a country), has on the economic well-being of that country.

6.4.13 Exchange rate

Exchange rate is the value of one currency for the purpose of conversion to another. Changes in the exchange rate can have important effects on macroeconomics. An appreciation of the exchange rate usually reduces the price of imported consumer goods, raw materials and capital goods, which can benefit the economy. A higher exchange rate makes it more difficult to sell overseas because of a rise in relative prices, as exports are expensive to the other countries. A reduction in exports, depending on the elasticity of demand of the exports, can cause a fall in GDP. An exchange rate appreciation causes a slower growth of real GDP as net exports (injection) fall and net imports (leakage) increase. A devaluation or depreciation will make exports cheaper (may increase exports and hence GDP), and imports more expensive. The impact of the exchange rate is not conclusive, as there are various opinions of the impact of the exchange rate on the economy as a whole.

6.5 JUSTIFICATION OF VARIABLES

The relationship between economic growth and development, represented in this thesis by Gross Domestic Product (GDP), and debt, was tested to evaluate the impact that debt has had on developing countries. Based on the literature reviewed in chapter three, the Solow-type neoclassical model stipulates that GDP is the measure of economic growth and development and was used in this study as the dependent variable. The Solow growth model includes investment and population size as important determinants of growth and this study adopted those variables too. GDP has also been used by other researches that tested the impact of debt on economic growth (Adegbite et al., 2008; Fosu, 1999; Cholifihani, 2008). Total external debt is used to test the impact that total debt has on economic growth, as many developing countries have high levels of debt, as discussed in chapter four. There is growing concern as to the reasons for these countries still facing numerous development problems after receiving vast sums of debt. Total external debt, investment and population size have all been used by the authors cited in this paragraph.

IMF and World Bank loans are used to test the impact of loans on economic growth and development. Econometric analysis has not yet been performed using loans from the IMF and the World Bank and this is where this study added to the existing literature. Loans received from these two institutions are specifically for development purposes and unlike total external debt, these two variables capture the specific institution’s impact on economic growth (GDP). As indicated in Chapter four, African countries are highly indebted to these institutions, and as stipulated by Stiglitz (2002), instead of aiding development these institutions have derailed development because of the attached conditions insisted upon for every recipient of their loans. These variables were used in this study to indicate the impact that development banks have had on developing economies and the findings are important for existing and new development banks as they integrate into the system to bring development to these countries that are in dire need of their funds for development.

The debt service to exports ratio is used to ascertain the ability of countries to repay their accumulated debt. As explained in the previous chapters, developing countries are highly indebted and are failing to service their debt. According to the debt overhang theory, when a country is no longer able to service its debt, then debt becomes detrimental to economic growth. When the country is not making enough money through its exports, it becomes difficult for it to service its debt. Most African countries suffer from low-price exports and on the other hand, high debts and so the debt to service ratio of most developing countries is high, indicating difficulties to service debt with export revenue. This variable has been used by a few researchers and this study used this as one of the most important variables. Exports and imports are used to indicate the extent to which a country is open to trade and were included as they are important for the calculation of GDP.

Inflation was used in this study as an important indicator of macroeconomic stability. Inflation affects growth and living standards of a country negatively and countries that fail to manage their macro economies successfully are unlikely to manage their debts successfully (Stiglitz, 2002). African countries are characterized by high inflation, which erodes their currencies and slows growth. The rule of law that indicates stability and adherence to the law in countries is used to assert the impact that unrest, e.g. political instabilities, wars etc., have on economic growth. Numerous African countries have suffered from social unrest, as discussed in chapter four and this could be a reason for the lack of development. In addition, if governments cannot make everyone equal before the law, then this will have detrimental effects on growth. The corruption perception index indicates the way in which resources are misused in a country. The rule of law and corruption perception index variables have not been used in many studies.

The study used data from ten self-selected African countries, namely Malawi, Sudan, Ethiopia, Zambia, Angola, South Africa, Uganda, Nigeria, Ghana and Tanzania. These countries are selected on the basis of them being developing economies and highly indebted to the IMF and the World Bank. All variables were transformed to logarithms, as justified theoretically and empirically. Theoretically, logarithmic returns are critically more tractable and empirically, logarithmic data is more normally distributed, which is a prior condition of standard statistical techniques (Strong, 1992).

6.6 DATA SOURCES

The study used annual secondary panel data for the period 1994 to 2014. Panel data provides more informative data, more variability, less co-linearity among variables, more degrees of freedom and more efficiency (Baltagi, 2001). The data used was mainly drawn from the World Bank's World Development Indicators (WDI), the World Bank's Africa Development Indicators, the Global Development Financial database, the World Economic Outlook database, Quantec data and the respective countries' statistic service department's websites. The variables used in this study were gross domestic product (GDP), total external debt (debt), IMF loans, World Bank loans, debt service to export ratio (DSEX), investment (INV), population size (PS), inflation (INF), rule of law (ROL), corruption perception index (CP), exports (X), imports (M) and exchange rate (EXR). All variables were in current US$ except for population size, rule of law and corruption perception index.

6.7 EXPECTED PRIORI

Based on the literature review and economic theory, the intuitive signs for all independent variables used in the study are presented in Table 6.3.

Table 6.3: Expected Priori

Variable	Expected coefficient	Rationale
Investment	Positive	Investment is an injection into the economic system that is expected to increase wealth.
Total External Debt	Positive	Holding other things constant, additional revenue is expected to bring positive impacts to GDP.
Loans from both IMF and World, as a fraction of Gross Domestic Product	Positive	Loans are expected to positively affect GDP. However, according to the debt overhang theory, positive returns can only be gained up to a certain point.
Inflation (INF)	Negative	Inflation erodes purchasing power and robs the economy of the value of its money and therefore affects wealth negatively (Christi et al., 2011). Inflation is a sign of macroeconomic instability, as its coefficient is expected to be negative ($\beta_5 < 0$).

Variable	Expected coefficient	Rationale
Rule Of Law (ROL)	Positive	Rule of Law is placed with the intended effect of positively affecting the economy. It is therefore expected to increase the per capita income of a country.
Corruption Perception Index (CP)	Negative	Corruption is an evil in any economy and it distributes income unevenly, leaving the majority of the people poor. It is therefore expected to have a negative relationship with PKI. Corruption brings institutional weakness and thus reduces growth (Mauro, 1995).
Exports	Positive	Exports are expected to bring income into the economy benefiting the people of that economy. As they are an injection into the economy they are expected to increase PKI (Khamala, 2015). In addition, exports are expected to increase the welfare of the economy, as they create greater access to broader markets.
Imports	Negative	Imports worsen trade balance in the Balance of Payments and indicate an outflow of revenue. They are subtracted from GDP calculations.
Debt Service to Export ratio	Negative	As a nation pays off its debt plus interest it reduces the resources available for the country and therefore negatively affects GDP. A higher debt service to export ratio affects growth negatively.
Population Size	Positive	Population size determines the labour force, which is a factor of production and with an increase in the labour force due to population growth, the total output may increase causing the GDP to increase. The wages for labour may also decrease due to an abundance of labour and this would allow the cost of production to decrease.

Variable	Expected coefficient	Rationale
Exchange rate	Positive/negative	The effects of exchange rate on per capita income can be either positive or negative. A strong exchange rate is often considered to be a sign of economic wellbeing and can attract investment into the country thus increasing economic growth. A strong currency will also allow the country to get imports at a favourable price. On the other hand, a lower exchange rate may cause the country's exports to be cheaper and demand for them will increase, thus boosting the economy.

6.8 CONCLUSION

This chapter presented the research methods used in determining the effects that the loans received from the IFIs has had on the economic growth and development of the recipient countries. The study used panel data models and the Hausman test was used to choose between the Fixed Effect Model and the Random Effect model. The Wald test was used as a diagnostic test to ascertain the joint significance of the explanatory variables.

To further validate the results, additional panel econometric techniques were used. The panel Granger causality test was used mainly to assess the direction of causality between selected variables and GDP. Quantile regression for panel data to ascertain the impact of a few selected variables on different quantiles or percentiles of the dependent variable was also employed.

Ten self-selected African countries were used in the study. The period used for this study covered annual data from 1994 to 2014. The data were obtained from various sources, as indicated in this chapter but mainly from the World Bank's various statistical databases. GDP was used as the dependent variable as a proxy for the level of economic development and variables that affect it were included as explanatory or independent variables. The explanatory variables were total external debt, IMF and World Bank loans and debt service to exports ratio, exports, imports, inflation rate, investment and rule of law index, corruption perception index, population size and exchange rate. These variables were defined and justified and their expected a priories were also presented in this chapter.

CHAPTER SEVEN

EMPIRICAL FINDINGS: PRESENTATION AND ANALYSIS

7.1 INTRODUCTION

The previous chapter presented the analytical framework and the estimation techniques used in this study. This chapter presents the results of pre-estimation statistic tests, estimation results and diagnostic test results. As indicated in previous chapters, the variables of interest IMF loans and World Bank loans, as well as the other variables, are tested for their impact on economic growth. The last part of the chapter presents an interpretation of the results and conclusions that were drawn from the results.

7.2 RESULTS OF ECONOMETRIC MODELS

7.2.1 Unit Root test result

Panel unit root tests were performed and it is argued that they have higher power than those based on individual time series. A check for stationarity on all the variables under study was done using the Levin, Lin and Chu (2000), Im, Pesaran and Shin test (2003), and the Fisher-type tests using ADF and PP tests (Maddala and Wu, 1999), which are ADF-Fisher Chi-square and PP-Fisher Chi-square respectively. The null hypothesis is that the series are non-stationary or that they contain a unit root. Rejection of the null hypothesis is based on MacKinnon critical values with *, **, and *** representing rejection at 10%, 5% and 1% significance levels respectively. The results are presented in the Table 7.1.

Table 7.1: Unit Root Test Results

	Levin, Lin & Chu	**Im, Pesaran and Shin W-stat**	**ADF-Fisher Chi-square**	**PP-Fisher Chi-square**	
Variable	p-value	p-value	p-value	p-value	Decision
Lngdp	0.6247	0.9818	0.8540	0.1785	All methods fail to reject H_0. Conclude that there is unit root at level.

	Levin, Lin & Chu	Im, Pesaran and Shin W-stat	ADF-Fisher Chi-square	PP-Fisher Chi-square	
d(lngdp)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0. Conclude that series are stationary after first difference.
Lndebt	0.9888	0.9827	0.9539	0.9933	All methods fail to reject H_0. Conclude that there is unit root at level.
d(lndebt)	0.0000***	0.0000***	0.0003***	0.0000***	Reject H_0. Conclude that series are stationary after first difference.
lnimf_loans	0.1301	0.3976	0.5630	0.4606	All methods fail to reject H_0. Conclude that there is unit root at level.
d(lnimf_loans)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0. Conclude that series are stationary after first difference.
lnwb_loans	0.1269	0.1610	0.2660	0.0009***	Majority of the methods fail to reject H_0. Conclude that series have unit root.
d(lnwb_loans)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0. Conclude that series are stationary after first difference.
lndebt_service	0.1520	0.7368	0.9499	0.1236	All methods fail to reject H_0. Conclude that there is unit root at level.

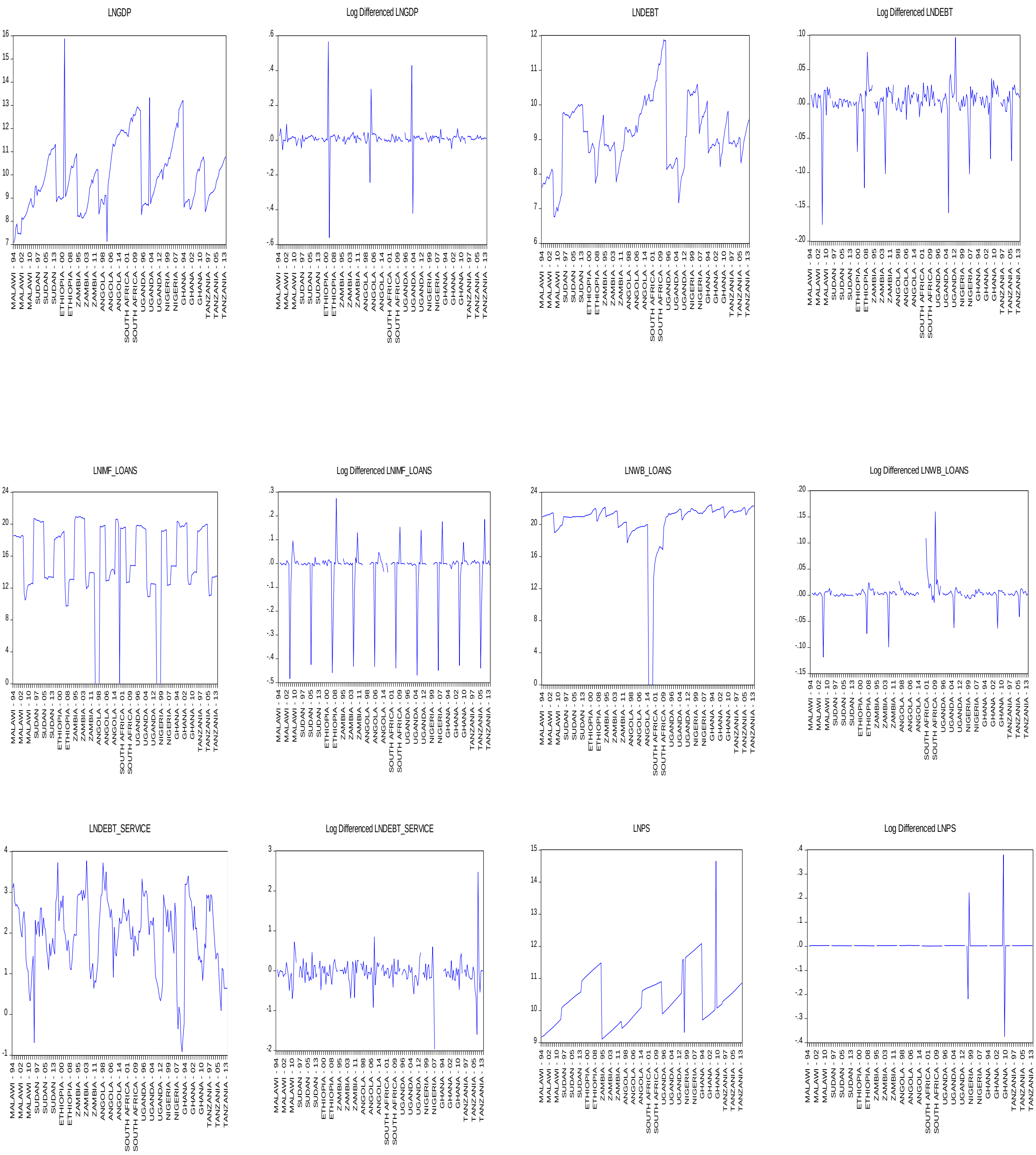
	Levin, Lin & Chu	**Im, Pesaran and Shin W-stat**	**ADF-Fisher Chi-square**	**PP-Fisher Chi-square**	
d(lndebt_service)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0 All methods show stationarity after first difference.
Lninv	0.3363	0.3564	0.3972	0.0281**	Majority of the methods fail to reject H_0. Conclude that series have unit root.
d(lninv)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0 All methods show stationarity after first difference.
Lnps	0.2168	0.9998	0.2816	0.0000***	Majority of the methods fail to reject H_0. Conclude that series have unit root.
d(lnps)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0. All methods show stationarity after first difference.
Lnm	0.5843	0.9987	0.9997	0.9981	All methods fail to reject H_0 and conclude that series are non-stationary at level.
d(lnm)	0.0001***	0.0000***	0.0000***	0.0000***	Reject $H_{0.}$ All methods show stationarity after first difference.
Lnx	0.8687	1.0000	1.0000	0.9996	All methods fail to reject H_0 and conclude that series are non-stationary at level.

	Levin, Lin & Chu	Im, Pesaran and Shin W-stat	ADF-Fisher Chi-square	PP-Fisher Chi-square	
d(lnx)	0.0003***	0.0000***	0.0000***	0.0000***	Reject H_0. All methods show stationarity after first difference.
Lninf	0.0000***	0.0005***	0.0008***	0.0021***	All methods reject H_0 at level. Series are stationary at level.
Lnexr	0.0000***	0.0741*	0.1261	0.0075***	Majority of the methods reject H_0. Conclude that series are stationary at level.
Lnrol	0.1459	0.0392**	0.0373**	0.0001***	Majority of the methods reject H_0. Conclude that series are stationary at level.
Lncp	0.6005	0.3116	0.4490	0.1713	All methods fail to reject H_0 and conclude that series are non-stationary at level.
d(lncp)	0.0000***	0.0000***	0.0000***	0.0000***	Reject H_0. All methods show stationarity after first difference.

Significance levels ***1%, **5% and *10%

All four (or the majority) panel unit root tests used indicate that GDP (lngdp), total external debt (lndebt), IMF loans (lnimf_loans), World Bank loans (lnwb_loans), debt service to export ratio (lndebt-service), investment (lninv), population size (lnps), imports (lnm), exports (lmx) and corruption perception index (lncp) are none stationary at level and become stationary after first difference. These series are therefore integrated in order one, l (1). Rule of law (lnrol), exchange rate (lnexr) and inflation (lninf) are stationary at level. These series are integrated in order zero l (0).

In addition to Table 7.1, the visual plots of the series are presented in Figure 7.1.



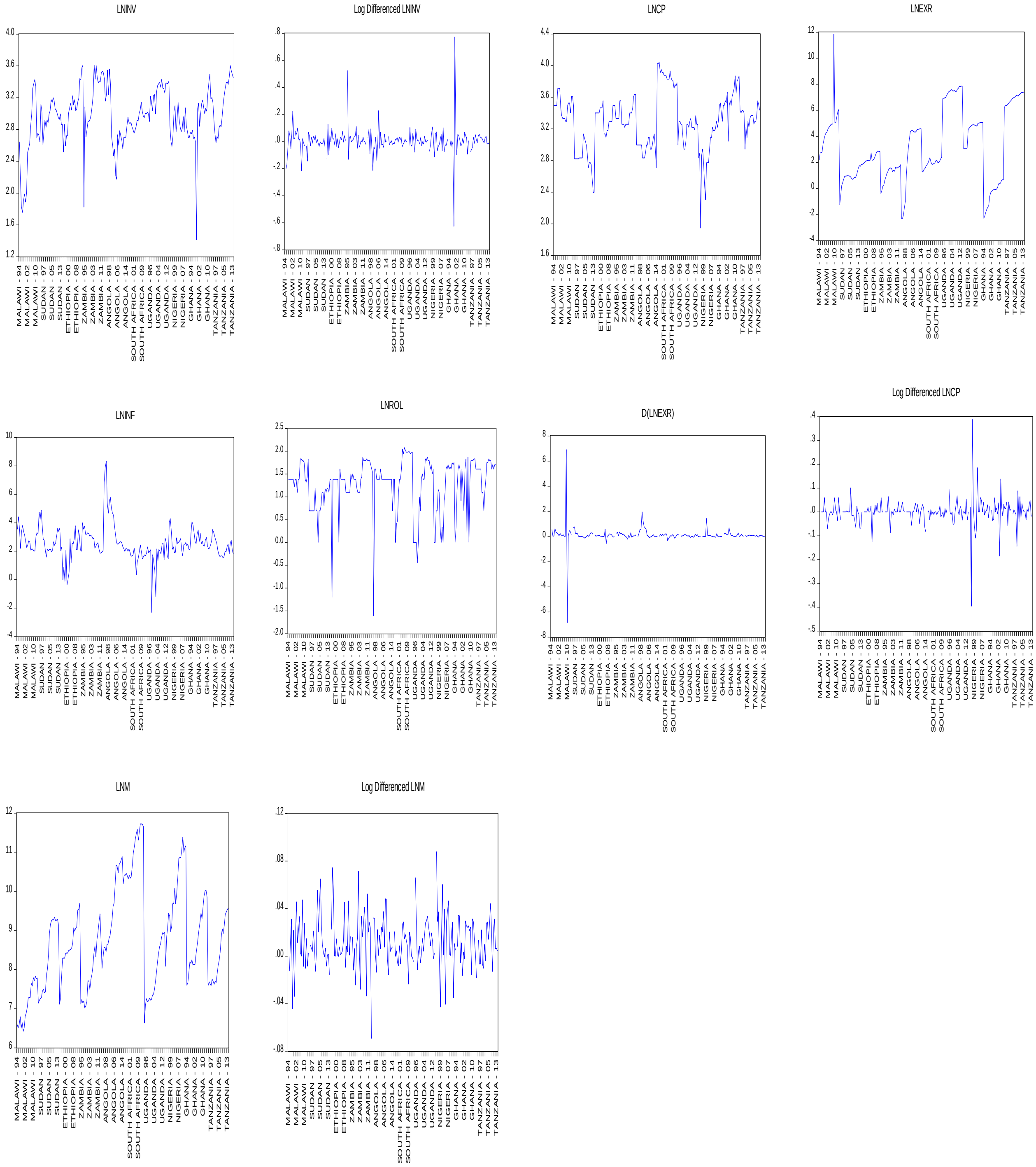


Figure 7.1: Visual Plots of the Series

7.2.2 Panel data analysis results

Fixed effect (FE) and random effect (RE) results are presented in Table 7.2.

Table 7.2: Fixed Effects and Random Effects Results

	FE				RE			
Variable	**Coefficient**	**Std Error**	**T-Statistic**	**P-Value**	**Coefficient**	**Std Error**	**T-Statistic**	**P-Value**
C	2.940657	1.824460	1.611796	0.1087	2.403125	1.236368	1.943697	0.0534
lndebt	0.123325	0.126938	0.971536	0.3325	0.311575	0.086814	3.588991	0.0004***
Lnimf_loans	0.002970	0.011749	0.252781	0.8007	0.001918	0.010377	0.184832	0.8536
lnwb_loans	-0.014619	0.019840	-0.736848	0.4621	-0.036320	0.015301	-2.373749	0.0186**
lndebt_service	-0.173574	0.084902	-2.044403	0.0423**	-0.247298	0.068276	-3.622055	0.0004***
lninv	0.031011	0.159814	0.194044	0.8464	0.055863	0.135748	0.411522	0.6811
lnps	0.066267	0.126089	0.525557	0.5998	0.183213	0.82628	2.217335	0.0277**
lnm	0.456445	0.239218	1.908067	0.0579*	0.464426	0.188907	2.458489	0.0148**
lnx	0.244466	0.201609	1.212575	0.2268	0.1134758	0.144948	0.929699	0.3537
lninf	-0.201466	0.052567	-3.832543	0.0002***	-0.236194	0.046034	-5.130818	0.0000***
lnrol	0.034605	0.097418	0.355222	0.7228	0.031320	0.09423	0.332348	0.7400
lncp	0.56114	0.275085	0.203988	0.8386	-0.235950	0.170875	-1.380833	0.1689
lnexr	-0.025284	0.055029	-0.459454	0.6464	-0.009097	0.021739	-0.418480	0.6761

Significance levels: ***1%, **5% and *10%.

To select the appropriate model between Fixed Effect (FE) and Random Effect (RE) models, the Hausman test was run.

7.2.2.1 Hausman test results

The Hausman test checks for any correlations between error components and the regressors in a random effects model. It is also referred to as the correlated random effects test. The test compares the coefficient estimates from an RE model to those from an FE model and helps to determine which of the two models will be appropriate given the data set at hand. It has the following hypothesis:

- $H_0: Random\ Effect\ (\beta_0)\ is\ appropriate$
- $H_1: Fixed\ Effect\ is\ appropriate$

Table 7.3: Hausman Test Results

Test Summary	**Ch-Sq. Statistic**	**Chi-Sq.d.f.**	**Prob.**	**Decision**
Cross-section random	0.000000	12	1.0000	Fail to reject H_0 and conclude that Random Effects model is appropriate.

Based on the Hausman test, it was concluded that a random effects (RE) model was appropriate and the results of the RE model were therefore interpreted.

7.2.2.2 Random Effect model results

Table 7.4 presents the results of the random effect model as the model chosen by the Hausman test. The results presented in table 7.4 indicate that total external debt affects GDP positively. A unit increase in external debt per year will increase GDP by 31.1 units .This is in line with the expected a priori and economic theory as additional revenue adds to GDP as the available revenue can be used to increase production as well as demand in the economy. Debt is normally used to finance capital projects and government deficit and in that sense it leads to an increase in the output levels through an increase in government expenditure. The results are in line with the findings of Abu, Baker and Hassan (2008), who found a positive impact of total external debt on economic growth in Malaysia.

Table 7.4: Random Effect Model Results

Variable	Coefficient	Std Error	T-Statistic	P-Value
C	2.403125	1.236368	1.943697	0.0534
Lndebt	0.311575	0.086814	3.588991	0.0004***
Lnimf_loans	0.001918	0.010377	0.184832	0.8536
lnwb_loans	-0.036320	0.015301	-2.373749	0.0186**
lndebt_service	-0.247298	0.068276	-3.622055	0.0004***
Lninv	0.055863	0.135748	0.411522	0.6811
Lnps	0.183213	0.82628	2.217335	0.0277**
Lnm	0.464426	0.188907	2.458489	0.0148**
Lnx	0.1134758	0.144948	0.929699	0.3537
Lninf	-0.236194	0.046034	-5.130818	0.0000***
Lnrol	0.031320	0.09423	0.332348	0.7400
Lncp	-0.235950	0.170875	-1.380833	0.1689
Lnexr	-0.009097	0.021739	-0.418480	0.6761

Significance levels: ***1%, **5% and *10%.
Prob (F-statistic) 0.000000
$R^2 = 0.812683$ Adjusted R^2 0.801273
Dublin Watson = 2.087947

Population size also has a positive impact on GDP; an increase of one percent in the population size will increase GDP by 18%. This is in line with the expected signs and economic theory. An increase in the population increases the labour force, which results in more production as well as a reduction in real wages in the labour markets, which is a reduction in the cost of production. As cost of production falls, firms are encouraged to expand their production, thereby increasing GDP.

World Bank loans negatively affected the GDP of the countries under study with a unit increase in loans from the World Bank causing a decrease in the GDP of 3 units. The negative sign or impact is not in line with the expected a priori but may provide an explanation as to why most countries that are highly indebted to the World Bank have not developed in the past years.

African countries, as well as other developing economies, have received vast sums in the form of loans from the World Bank and the IMF for development purposes. One can argue that the recipient governments' spending programmes are not effective in using the loans. On the other hand, the loans received are usually tied to conditions that makes it difficult for recipient countries to develop (Stiglitz, 2002). The conditions sometimes disturb the allocation of the loans and can lead to poor results. Loans have also become a substantial liability as they have to be serviced, thus constraining growth efforts. Conditions impose on Ghana under the stabilization programmes for example, were that government should cut its spending, raise taxes and interest rates and restrain domestic credit so as to improve the current account balance. These conditions were found to affect economic growth negatively (Boakye, 2008). The negative effect of foreign debt on the welfare of the economy confirms the findings of other researchers with regard to various African countries. Munzara (2015) found a negative relationship between foreign debt and economic growth in Zimbabwe. In research conducted in Nigeria by Ijirshar, Joseph and Godoo (2016), debt was found to have a negative effect of economic wellbeing as it resulted in burden of debt servicing on the economy. This study however, indicated that loans from the World Bank had a particularly negative effect on growth in recipient countries.

Debt service to export ratio indicates a negative and significant effect of 24.7% on GDP. This is in line with expectations as well as economic theory and the findings of Alfredo (2004), who found a negative impact of debt service to export ratio on GDP in developing and industrialised countries. As a country services its debt, it deprives its citizens of the revenue it is using to repay the debt plus interest. Most developing economies end up using the money they get from other sources, as they normally do not use loans received to invest in income generating projects. Debt service to export ratio that is high, as is the case in most developing and particularly African countries, indicates that their exports revenue falls short of servicing debts. This is because they export less and export prices are normally low. Exports themselves affect GDP positively, as indicated by the results, which is in accordance with economic theory (they are an injection into the economy). However, because countries are highly indebted and according to the debt overhang theory, the debt in these countries has reached levels that are unmanageable, it has become a burden and serving debts thus affects GDP negatively.

Imports also show a positive impact of 46 percent increase in GDP per 1 percent increase in imports. This is against economic theory as well as the expected sign presented in chapter six.

The positive sign can be based on the fact that imports can bring in much-needed goods thereby improving the lives of the people. The results are in line with those of Seyoum (2013).

Inflation shows a negative and significant impact on GDP. An increase in inflation of one dollar will negatively affect GDP by $23.6 in a year. Inflation has a negative effect as it erodes the purchasing power and negatively affects the welfare of an economy. This is in accordance with the expected a priori and it is statistically significant. Inflation was used to capture macroeconomic instabilities and the results indicate that if general price levels increase by one percent, GDP will fall by 23.6 percent. This is also in line with the findings of Boakye (2008), who in his study on the effects of aid on growth in Ghana, found that inflation affects economic growth negatively.

Investment and rule of law both indicate a positive impact on GDP. The sign of investment is in line with expectations as well as economic behaviour. As more investment occurs in a country, so GDP will increase. These findings are in line with the findings of Anwer & Sampath (1999). Rule of law indicates a positive coefficient, which is as expected because if the economy has a strong adherence to its laws the economy will likely develop. This is representative of some African economies where the people tend to live in accordance with the rules and regulations and everyone can be brought before the law and be prosecuted for corruption, for example in South Africa. However, there are numerous developing countries that are facing political and economic unrest, (including civil wars), which reflect rule of law problems. During these wars infrastructure that is important for development is destroyed, thereby slowing growth. The majority of the African countries that were included in this study have a good adherence to rule of law, as indicated by a higher index of rule of law and the results obtained indicate a positive effect in general.

The corruption perception index indicates a negative relationship with GDP. Corruption is an evil in the economy that causes unequal distribution of wealth and slow growth and development. Corruption may also be a reason for the loans received by a country not being ineffective, as top officials may be too corrupt in utilising the funds. The results obtained are in line with the findings of Ugur (2013), who found a negative impact of corruption on economic wellbeing and growth. Exchange rate negatively affects the GDP of the developing economies under study. Debates with regard to exchange rates are inconclusive. Exchange rates can be negative or positive and in this case exchange rate depreciation, (that is the loss of value of domestic currency in respect of other currencies), has a negative effect on the growth of the countries. African economies have experienced the weakening of their currencies against the dollar, which has affected their trade balances and their economies negatively. The effect of the exchange rate on GDP is never conclusive but Hua (2011) found evidence of a negative impact of exchange rate on economic growth in Chinese provinces. In this study the results indicate that a 1% depreciation of the domestic currency against the US$ will have a 0.09% negative impact on GDP.

The RE model that was selected was statistically significant, as presented by the F-statistic of 71.2 (p value 0.000000), R^2 of 81% and adjusted R^2 of 80%. For this model, the value of Durbin is 2.0879 which is close to 2 and indicates there is no serial correlation. The lower p-value (0.0000) implies that the regression parameters are significantly different from zero and that the regression equation is valid in fitting the data. To prove that all the explanatory variables are significant, jointly, in explaining the dependent variable, the Wald test was used and the results are presented in Table 7.5. The results of the Wald test have led to the rejection of the null hypothesis and the conclusion that all the variables are jointly (simultaneously) significant in explaining the dependent variable and that they add something to the model.

Table 7.5: Wald Test Results

Test statistics	Value	df	Probability
F-statistics	71.21422	(12.197)	0.0000
Chi-square	854.5707	12	0.0000

Null hypothesis: c(2)=0, c(3)=0, c(4)=0, c(5)=0, c(6)=0, c(7)=0, c(8)=0, c(9)=0, c(10)=0, c(11)=0, c(12)=0, c(13)=0.

Given the above statistics, the null hypothesis was rejected and the alternative that all exogenous variables are jointly significant in explaining the variations in the dependent variable was accepted.

7.2.2.3 Panel Granger causality test results

The results of the Granger causality test are presented in Table 7.6. Using lag 2, the results show that GDP Granger causes debt at the 5% level of significance, whereas debt does not granger cause GDP. The results also show that GDP Granger causes the World Bank. It implies that countries may borrow to boost GDP; it is the level of GDP that causes them to borrow. However, it should be noted that correlation does not necessarily means causality.

Table 7.6: Panel Granger Causality Test Results

Direction of causality	P value	Lag	Decision	Outcome
Debt → GDP	0.7035	2	Accept H_0	Debt does not Granger cause GDP.
GDP → Debt	0.0222**	2	Reject H_0	GDP Granger causes debt.
IMF → GDP	0.9334	2	Accept H_0	IMF does not Granger cause GDP.
GDP → IMF	0.6060	2	Accept H_0	GDP does not Granger cause IMF.
WB → GDP	0.7761	2	Accept H_0	WB does not Granger cause GDP.
GDP → WB	0.0239**	2	Reject H_0	GDP Granger causes WB.
Debt → GDP	0.3444	4	Accept H_0	Debt does not Granger cause GDP.
GDP → Debt	0.2984	4	Accept H_0	GDP does not granger cause Debt.
IMF → GDP	0.0000***	4	Reject H_0	IMF Granger causes GDP.
GDP → IMF	0.0000***	4	Reject H_0	GDP Granger causes IMF.
WB → GDP	0.5881	4	Accept H_0	WB does not Granger cause GDP.
GDP → WB	0.007***	4	Reject H_0	GDP Granger causes WB.

Source: Author's computation and estimation using data from the World Bank.
Significance levels: ***1%, **5% and *10%.

7.2.2.4 Quantile regression results

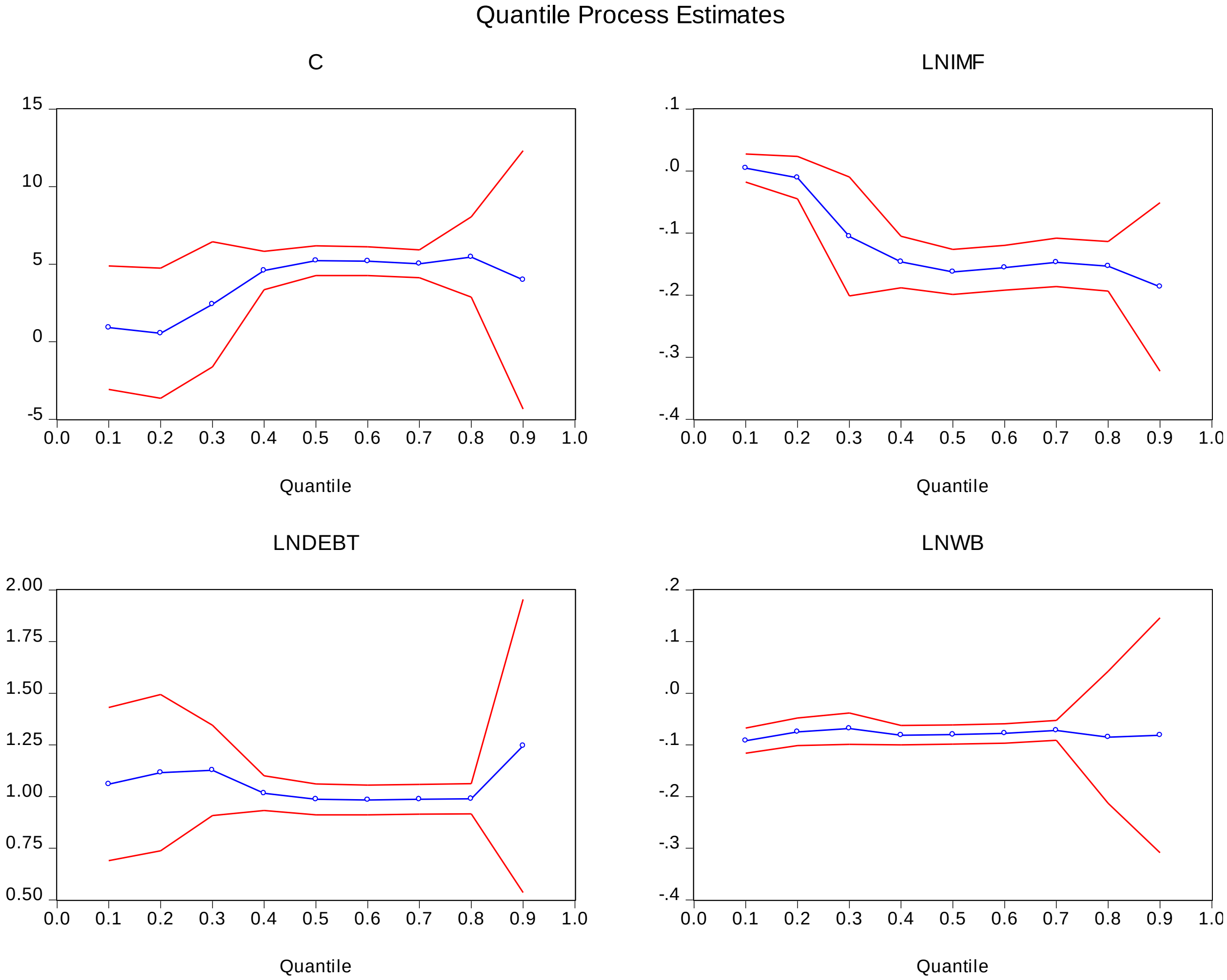
Quantile regression is estimated for the selected variables to further explain the findings. Results are presented in Table 7.7. In the 0.25 quantile, a percentage increase in external debt (debt) increases GDP by about R987 and in the median quantile it increases GDP by about R1044. The effect of debt on GDP increase as we move to the next quantile.

Table 7.7: Quantile Regression Results

	Quantile regression @0.25 quantile	Quantile regression @0.5 quantile	Quantile regression @0.75 quantile
Debt	0.987341***	1.044232***	1.044643***
IMF	-0.008317	-0.004682	-0.015498
WB	-0.082351***	-0.066546***	-0.56117***
Debt service	-0.800128***	-0.819227***	-0.723342***

Significance levels: ***1%, **5% and *10%.

The coefficient for debt under the random effect (RE) is 0.311575 and there is a significant different between this coefficient and those of the 0.25, 0.5 and 0.75 quantiles. IMF remains insignificant throughout the various quantiles and the coefficients of quantile regression are not statistically different from the coefficient of the RE, which is 0.001918. However, unlike in the RE model, under quantile regression IMF shows a negative effect on GDP; it only shows a positive effect on quantile 0.1 (not shown in the table). This means that IMF at a lower GDP quantile affects GDP positively but as we move to higher quantiles it begins to affect GDP negatively. World Bank loans negatively affects GDP and this relationship generally increases as we move from the 25th percentile to the 75th percentile. The 0.75 quantile is also significantly different from the RE coefficient of -0.036320. The debt service to export ratio affects GDP negatively. At the 25th percentile an increase in debt service to export ratio will cause a decrease in GDP by 0.800. The RE coefficient of -0.173574 is significantly different from the coefficients of the quantile regression, indicating different effects along the distribution of the dependent variable, GDP. The visual plot of the quantile regression results are presented in Figure 7.2. As indicated in Figure 7.2, total external debt (debt) exhibits positive effects on the GDP of the selected countries throughout the percentiles indicated. IMF and World Bank loans indicate negative effects. For IMF the negative impact on GDP dampens from the 0.2 quantile to about the 0.4 quantile and remains constant until the negative impact dampens again round the 0.9 quantile.



Source: Author's computation using data from the World Bank (2017).

Figure 7.2: Quantile Process Estimation

7.3 CONCLUSION

This chapter presented the estimation regression models, the results obtained and the interpretation of these results. The data was transformed into logarithms first and checked for the existence of unit root before estimation was performed. Panel unit root tests were conducted using four methods, namely Levin, Lin & Chu, Im, Pesaran and Shin W-statistic, ADF-Fisher Chi-square and PP-Fisher Chi-square. Decisions with regard to the unit root tests were made considering what the majority of these tests reported and mixed results were found with some variables being integrated at level [I(0)] and some being integrated at order one [I(1)]. Inflation, exchange rate and rule of law series are integrated at level while the rest of the variable only become stationary after first difference. The variables of interest in this study were total debt, IMF loans, World Bank loans, rule of law, corruption perception index and debt service to export ratio.

The results indicated that total external debt affected GDP positively in the countries under analysis during the period under study. A unit increase in external debt per year increased GDP by 31.1 units as the RE model results indicated. This means that total external debt increases GDP thereby increasing economic growth for developing economies. Economically, additional revenue into a country should stimulate economic activities and boost growth. In most countries debt is used to finance government deficit, capital projects or infrastructure, which are important for economic growth and development. The results are in line with the findings of Abu, Baker and Hassan (2008), Spilioti (2015), Ugochukwu, Okafor and Azino (2016), Ajayi and Oke (2012) and Upendo (2015).

The results indicate a negative impact of World Bank loans on the GDP of the countries under study, with a unit increase in loans from the World Bank causing a decrease of 3 units in the GDP. Almost nothing has been written about testing the effect of debt specifically using World Bank and or IMF loans. However, there is plenty of evidence of a negative impact of debt in general on GDP (Ayadi and Ayadi, 2008; Munzara, 2015; Tchereni et al., 2013; Morsheda and Mahmound, 2005; Mohamed, 2005; Fosu, 1999; Geiger, 1990). As discussed in chapter four, African countries are highly indebted, particularly to the World Bank and the IMF, but at the same time are experiencing low economic growth and development. These loans are issued with conditions that are not country factor specific and hence become detrimental to development (Stiglitz, 2002). Countries can be asked to adjust spending on essential public goods thereby reducing the wellbeing and sustainable development of the country (Stiglitz, 2002). Conditions imposed on Ghana for example, under the stabilization programmes, that government should cut its spending, raise taxes and interest rates and restrain domestic credit so as to improve current account balance, were found to affect economic growth negatively (Boakye, 2008). Loans become a liability and countries are failing to service their debts, as evidenced by the high indebtedness of African countries presented in Chapter four. Countries have been forced to continue borrowing, in some cases to repay past obligations but of course increasing their debts. The IFIs realised how heavily indebted developing countries are as evidenced by their implementation of various programmes to reduce debts, (for example HIPC Initiatives). Financial institutions should learn from this and reconsider the issue of conditions when issuing loans if development is to be realised from these loans.

The results presented above indicate that the debt service to export ratio affects GDP negatively, in line with the findings of Alfredo (2004). As explained in Chapter three through the debt overhang theory, debt becomes detrimental when repaying becomes a burden to the recipient country. Countries have a high debt service to export ratio mostly because exports are low or the price of exports for most developing countries is so low because they export raw materials and face unfavourable exchange rates As a country services its debt so it deprives its citizens of the revenue it is using to repay the debt plus interest, thus reducing GDP levels.

The variable, rule of law, indicates a positive coefficient, which is as expected, because if the economy has a strong adherence to its laws the economy will likely develop. Some African countries have very strong and fair application of the law and anyone can be brought before the courts and be persecuted, for example in South Africa. However, numerous African countries are facing problems emanating from weak rule of law, including civil wars and political unrests, which is detrimental to economic growth. During these types of problems, infrastructure, which is important for development, is destroyed, further slowing growth. Rule of law forms the basis of socio-economic development. The corruption perception index indicates a negative relationship with the GDP of the developing economies under study, which is in line with the findings of Ugur (2013). Corruption is an evil in the economy that causes unequal distribution of wealth and slow growth and development. Highly corrupt countries are likely to misuse funds and revenues is misdirected for personal gain and this could be a reason why the loans received by a country may be ineffective, as top officials may be too corrupt in using the funds. Ozpolat et al. (2016) found that institutional variables, including rule of law and corruption, affect growth positively only in developed countries but negatively in developing economies.

Population size also has a positive impact on GDP, as an increase of one percent in the population size will increase GDP by 18%. This is in line with the expected sign as well as economic theory. An increase in the population increases the labour force which results in more production, as well as a reduction in real wages in the labour markets, which is a reduction in the cost of production. As cost of production falls, firms are encouraged to expand their production, thereby increasing GDP. This is surprising, especially when one considers how African countries, (and most developing countries), are highly populated and yet only slow economic growth is realised. This may be because numerous developing countries have a high number of citizens that are children or dependent citizens or it may be due to low levels of education and a lack of skills, as stipulated by the linear stage of growth theories that developing economies lack the skills needed for economic growth. Other variables such as inflation and exchange rate indicate a negative impact on GDP. Inflation shows a negative and significant impact on GDP in line with findings by Boakye (2008). Inflation is used to capture macroeconomic instabilities and the results indicate that if general price levels increase by one percent, GDP will fall by 23.6 percent. Investment indicates a positive impact on GDP. The sign of investment is in line with expectations as well as economic behaviour. As more investment is undertaken in a country so GDP will increase. These findings are in line with findings by Anwer and Sampath (1999) and GuechHeang and Mooli (2013).

To further validate the results, a Granger causality test and the quantile regression were estimated. Granger causality was used to ascertain the direction of the relationship between GDP and the variables of interest in this study. The results of the Granger causality test were that GDP Granger causes debt at the 5% level of significance but debt does not Granger cause GDP. The results also indicated that GDP Granger causes the World Bank. It implies that countries may borrow so as to boost GDP, it is the level of GDP that causes them to borrow. Quantile regression was applied to ascertain the way in which the dependent variable is affected at various quantiles by the variables of interest. In the 25 percentile a percentage increase in external debt (debt) increases GDP by about R987 and in the median quantile it increases GDP by about R1044. The effect of debt on GDP increases as we move to the next quantile. The coefficient for debt under the random effect (RE) is 0.311575 and there is a significant different between this coefficient and those of the 0.25, 0.5 and 0.75 quantile. The quantile regression therefore validates the results of the RE model of a positive effect of total external debt on GDP of the African countries under study. The IMF remains insignificant throughout the various quantiles and the coefficients of quantile regression are not statistically different from the coefficient of the RE, which is 0.001918. Unlike the RE model, under quantile regression the IMF indicates a negative effect on GDP; it only shows a positive effect on quantile 0.1 (not shown in the table). This means that IMF at a lower GDP quantile affects GDP positively but as we move to higher quantiles it begins to affect GDP negatively. World Bank loans affects GDP negatively and this relationship generally increases as we move the 25th percentile to the 75th percentile. The 0.75 quantile is also significantly different from the RE coefficient of -0.036320. The debt service to export ratio affects GDP negatively. At the 25th percentile an increase in debt service to export ratio will cause a decrease in GDP by 0.800. The RE coefficient of -0.173574 is significantly different from the coefficients of the quantile regression indicating different effects along the distribution of the dependent variable GDP. Overall, the results of the quantile regression correspond with the findings presented under RE model results and indicate the different quantiles and the effects the independent variables have on the GDP at these different quantiles.

Despite the fact that Africa has received loans for development purposes, more than half of the population in Africa is still in poverty and countries remain under-developed. African and other developing economies need financial assistant to develop their economies and the main source of such development finance comes from the IFIs. However, these loans have evidently brought negative instead of positive results to the development of the receiving countries and, as indicated by the results above, the loans have a negative impact on economic growth as measured by GDP. According to Boakye (2008), loan conditionality sometimes affects the efficient allocation of the loans received and in that way it can transform to negative economic growth. Ghana, for example, under stabilization programmes, was encouraged to pursue demand-reducing policies that included cutting government expenditure, raising taxation to reduce budget deficit, raising interest rates and restraining domestic credit to improve the current account balance (Boakye, 2008).

Stiglitz (2012) holds that the conditions that these institutions attach to their loans do not regard the borrower's individual circumstances and as a result normally fail to resolve economic problems in those countries. The World Bank's shift, for example, from project-based lending to a policy-based lending system under its Structural Adjustment Programmes (SAPs), has formed a new type of lending with new conditions requiring borrowing countries to undertake reforms that are expensive and time-consuming. The CAF, in contrast, does not have formal conditions but undertakes an economic evaluation of the project that requires funding before it approves the loan. Financial institutions that aim at providing development funds, such as the NDB, need to learn from this when they issue loans. If there is a need to attach conditions to loans then enhancing ownership of development policies for borrowing countries will be necessary. The institutions can finance in a way that allows mutual benefit and development with the conditions, which should be fair and conducive to realising the anticipated results/outcomes and preferably include the borrower in formulating the conditions (Mwase, 2012). Stiglitz (2002) holds that the conditions issued by the IMF were not previously drawn up in consultation with the other members of the institution or with the recipient countries, which may be blamed for the poor policies and hence poor results of the loans issued.

Involvement can create a sense of responsibility and accountability which will further fruitful growth agendas in all nations.

The lending institutions need to be careful when attaching loan conditions and not consider conditions that will disrupt development and increase dependence on lenders. According to Mazenda and Ncwadi (2016), experiences of the BRICS countries indicate that the NDB is likely to provide loans without any conditionality. As highlighted by the literature that was reviewed, most African countries end up being dominated by, and excessively relying on foreign countries, as they are highly indebted to them. In cases where loans cannot be issued without conditions, then they should be based on thorough research of the receiving country's specific conditions and not a one size fits all policy (Stiglitz, 2002).

Before borrowing, a country should identify a project that will yield returns and should only take debt up to the optimal point where benefits are still realised, as explained by the Debt Laffer Curve in chapter three. According to Adegbite et al. (2008), the optimal condition is that marginal return on investment is greater than or equal to the cost of borrowing, in which case debt finance will have a positive effect on growth. As indicated by the debt overhang theory, the results obtained in this study and as evidenced by the fact that highly indebted African countries are not developing well, debt has a negative effect on economic development only after a certain threshold has been reached. In such a case, it would be advisable that the BRICS Bank should assist countries to identify the threshold point and ensure that debt does not go beyond that point, because after that point debt becomes unsustainable, reducing the chances of the lender getting its money back and negatively affecting economic wellbeing.

CHAPTER EIGHT

IMPLICATIONS OF THE FINDINGS

8.1 INTRODUCTION

BRICS' New Development Bank (NDB) is expected to introduce a fresh source of finance for developing and emerging economies who are in great need of finances for development purposes. BRICS has a special mandate to assist the world to end poverty and inequality and to achieve development that is sustainable (Oxfam, 2014). Given the effects of the loans received from the dominant financial institutions on the recipient countries' GDP as discussed in the previous chapter, and the growing needs and demands for development finance, there is more that the NDB can do to enhance or reform the financial system and to address development issues both in the member countries as well as in other developing economies.

This chapter presents the fundamental principles on the way in which the NDB may be integrated into the global financial architecture. The chapter begins by exploring the role of the NDB in developing countries, followed by a discussion of the way in which the NDB can be integrated into the international financial architecture. In this section, institutional stakeholders and role-players are discussed, as well as factors the NDB should consider and the challenges and obstacles it may face as it integrates into the global financial architecture.

8.2 THE ROLE OF THE NDB IN DEVELOPING COUNTRIES

The NDB was formed on the basis of mobilizing resources for infrastructure and sustainable development projects in member countries and other emerging economies in a manner that supplements the current efforts of financial institutions, both regional and international (NDB, 2016). It therefore follows that the NDB has to ensure that its activities do not bear the same results as the existing financial organizations.

It must be remembered that the main challenges in developing countries are poverty, inequality and unemployment. Given this scenario it becomes important to ascertain in what way the NDB can make a difference in developing countries. One of the ways in which the NDB can be made effective in developing countries is by ensuring that investment flows from the NDB are utilised predominantly in the economic sectors of the developing countries. The economic sectors encompass the development of infrastructure, such as export promotion zones, transport and communications networks, education and health facilities, as well as funding businesses that need large capital layout. This does not in any way undermine any investment in social services such as housing. However, focusing on economic sectors in the developing countries will go a long way towards ensuring that, through a 'trickle-down effect', poverty is addressed (Todaro and Smith, 2011; Oxfam, 2014). Given the importance of addressing inequality and poverty reduction, the NDB should direct its investments and activities towards making societies fairer and authorities more accountable. It can do so by addressing social exclusion, gender inequalities and the needs of the most marginalized and vulnerable groups in society. This would make a difference and can foster economic growth and development. The NDB should impose tax transparency policies and policies that increase accountability. As indicated in Chapter seven, rule of law and corruption have an adverse effect on economic growth. In order for the NDB to make a difference it is important to ensure that corruption and other economic ills are addressed through transparent policies.

The issues of transparency of public policies, as well as conditions attached to loans, have been main criticisms levelled at the Bretton Woods institutions. The bank should be guided in its activities by the principles of the South-South cooperation that emphasizes national sovereignty and ownership, non-conditionality, non-interference in domestic affairs and mutual benefit (Oxfam, 2014). If there is ever a need to attach conditions or policy recommendations to the loans, these should be transparent and the affected country must be involved in the formulating the conditions.

According to Boakye (2008), financial assistance is likely to have a positive effect in countries that have good fiscal, monetary and trade policies. In some cases where these are lacking, the NDB should assist such countries in formulating these policies. When doing so it must involve the recipient country so that there is ownership of the policies and avoid making generalisations that may not necessarily be relevant to all countries. Stiglitz (2002) holds that the IMF and the World Bank's policies are often designed without consultation with the country in question and the resultant policies are not always applicable (Stiglitz, 2002).

The World Bank institutions and other regional development banks have, without doubt, provided critical development finance; however, this has not been as effective as expected due to the conditions imposed on recipients. These conditions range from economic structural adjustments to human rights conditions (Hochstetler, 2015). The experiences of a developing world are of importance when designing development policies. Stiglitz (2002) posits that sustainable development and growth can be fostered if all countries concerned have a voice in the policies affecting them. Involvement can create a sense of responsibility and accountability that will further enhance the economies of the developing nations. In this respect the NDB should be guided in its operations by four principles, namely professionalism, efficiency, transparency and green (Blomfield & Davydov, 2015).

According to Stiglitz (2002), the Western countries often advise developing countries to open up their economies to trade, that is to eliminate trade barriers but at the same time the Western countries kept their trade barriers up, especially in their agricultural sectors. A current example would be the ongoing trade tensions as a result of US President Trump's trade manoeuvres and trade tariffs that affect countries such as China. This prevents the poor countries from exporting their agricultural products, which deprives them of the much-needed income from exports. Stiglitz (2002) also expresses a view that even sectors that were opened for global competition were opened gradually and never with a 'big bang' approach, as expected from the developing countries. It is no wonder therefore that the developing countries have remained under-developed for long periods in history despite funding received from the West.

This study does not by any means suggest that the current global financial architecture should be done away with or completely abolished but rather contends that the NDB be integrated into the current global financial architecture as one of the global players. The following section presents insights into the way in which the NDB can be integrated into the global financial system.

8.3 INTEGRATING THE NDB INTO THE INTERNATIONAL FINANCIAL ARCHITECTURE

In order for the NDB to be integrated successfully into the international financial architecture the bank should be prepared to enter into agreements with the existing financial institutions. The NDB cannot operate in isolation from the existing institutions, despite all the criticisms levelled against the existing global financial hegemony. Given the substantial financial gap, the NDB needs to partner with other regional, monetary and financial institutions to support infrastructure projects. This means that the NDB can co-sponsor projects with other institutions in an attempt to bridge the finance gap.

The involvement of the NDB with other institutions will allow it to gain the necessary experience and expertise. It is therefore crucial to balance relationships with existing international and financial institutions for funding and for expertise. This implies that the future of the global financial architecture should go beyond ideological battles and focus on development issues. The NDB should play a role in championing a 'beyond ideological rhetoric' era instead of engaging in competition with the existing institutions. In other words, the NDB is not a replacement for the IMF or the World Bank, but rather plays a complementary role catering for the needs of developing countries (Ncwadi & Ruzive, 2015). Although anti-hegemonic in that they aspire to a more multipolar system, BRICS do not aim for a systemic break. While the group's official discourse stresses the need for a multipolar, equitable and democratic international order, these countries' primary aim is to expand their own influence in the world, rather than replace or disengage from established international institutions. The member states' dissatisfaction with the current global governance architecture is stressed in their summit declarations, which note that established international institutions have not proven able to adequately respond to global challenges. Their desire for change, combined with the promotion of somewhat different approaches to certain international relations issues compared with those of Western countries, for instance the importance of national sovereignty, has often led to the characterization of the coalition as an anti-Western bloc. This umbrella statement tends to disregard the extent to which the individual BRICS countries rely upon international institutions and norms (Hou, 2014).

It is pleasing to note that the NDB has structured its governance in a way that shows that its reactions to the unequal power distribution is serious. For example, the NDB membership and governance structure represents equal power and no country has veto power. As a starting point for its capital base, the NDB has all members contributing equal capital and they have adopted a one country one vote practice giving all member countries equal voting and decision-making power. According to the NDB (2014), the bank may add members as it increases its operations and when this occurs it is important for the bank to maintain the fairness represented by its governance structure.

8.3.1 The NDB institutional stakeholders and role-players

The NDB is surrounded by various stakeholders and as it adds members it will increase the number of shareholders. Stakeholders are persons or organizations who may be significantly affected by the bank's activities; and in turn, whose actions may affect the ability of the bank to perform successfully (Freeman, 1984). The NDB must be able to manage and determine the level of involvement and interaction the bank will have to make with the various stakeholders so as to be successful in its operations. Using Rowan's (2006) adaptation of Grunig and Hunt's (1982) public relations theory, it is possible to identify areas where the bank is going to need to partner and collaborate with other organisations and the matrix of stakeholder management framework is going to be crucial for determining the manner in which selected stakeholders are going to be managed by the bank, hence determining their levels of involvement in order for the bank to achieve its core objectives of infrastructure and sustainable development projects.

Grunig's Organizational Linkage Model identifies six areas or sections of institutional stakeholders or linkages, namely enabling linkage, input linkage, output linkage, functional linkage, normative linkage and diffused linkage (Ncwadi & Ruzive, 2015). The functional linkage group holds the most weight in terms of the operation of the NDB, as the institutions in this group have the expertise to run the bank as well as the financial power to enable the bank to lend in accordance with its mandate. These include the WTO, the IMF, the World Bank, UNDP and UNCTAD. These stakeholders can have outright resistance (resistor) or total enablement (enabler) support for the bank to perform its mandate, as they perform their different roles in the operations of the NDB. The duty of the NDB in relation to the functional linkage group will be to draw as many as possible from the resistance side to the enablement side so as to effectively fulfil its development initiative. Resistors will be resistant to change, not seeing any benefits to their involvement and this may be due to their vested interest. Enablers will be proactive and convinced of the benefits of becoming involved. The UNCTAD, for example, as an enabler may convince policymakers about the structure and evolution of foreign direct investment in the world and the way in which the BRICS Bank can be used as a channel for FDI. If it becomes a resistor it may discourage investments into the bank or withdraw assistance for BRICS Bank beneficiary countries as far as expertise to attract FDI is concerned. The IMF and the World Bank may become resistors and maintain terms of loans that may not go hand in hand with the economic needs of the NDB recipients, while as enablers they may provide technical support to NDB recipient countries, enabling them to grow and also supply funds for co-financing selected projects with the NDB.

The heads of the World Bank, Asian Development Bank and African Development Bank have shared encouraging words that indicate their desire to cooperate with the NDB (Blomfield &

Davydov, 2015). The NDB may seek a different and new way of operating from the current institutions; true partnership rather than rivalry with these established institutions will provide the NDB with knowledge and experience-based advice (Blomfield & Davydov, 2015).

From this discussion it is clear that the NDB is at a turnaround point with the various institutions joining the financial system. The Bretton Woods Conference, post-World War 2, laid the foundation for the international financial architecture. The NDB, being a new multilateral development bank (MDB), is part of the new world financial architecture, which holds risks for the bank in terms of the stakeholder involvement discussed above. The new institutions, including the NDB, can complement existing institutions in bridging some financial gaps in the financial needs of emerging economies. It should be noted that the NDB may also follow a different strategy from the existing institutions in terms of the attention it pays to poverty alleviation, proportion of resources allocated to various sectors, its governance principles, conditions on loans and the geographical area or regions to which it chooses to apportion funds. However different the NDB may be, it needs to become well-integrated into the international financial architecture.

8.3.2 Things to be considered in an endeavour to integrate the NDB into the global financial architecture

The NDB may need to obtain additional sources of finance from the existing international financial institutions. In the context of finance for international development, key institutions are the Bretton Woods institutions, the UN and the World Trade Organisation. They provide much-needed finance and expertise that will be required to run the bank, although there will be differences in mandates and approaches, especially given that the NDB was initiated specifically to operate using a different ideology.

This could create an obstacle to the bank's operations. In the meantime, it will be useful to engage alternate sources of financing in the form of regional development banks, especially in line with domestic and regional resource mobilization (Ncwadi & Ruzive, 2015). The NDB can also raise funds on international financial markets utilising bonds, leaving the market to make the decisions, especially with relation to the creditworthiness of the instruments. Rating agencies may also play a crucial role in rating the NDB's paper, although hopefully it will be an objective rating given the stance that the rating agencies take on anything that is opposed to the Bretton Woods institutions and their policies on economic policy and lending standards.

To be able to integrate into the international financial architecture, as the NDB brings in new members in the future, its current members can maintain a governance structure that is attractive to more governments to entice them to become members, thereby improving the bank’s books as well as its international influence. The New Development Bank was convened at an interesting time in the development of the world economy, as there is an increasing connectedness among global economies and shifts of economic power from traditional western powers to a group of emerging economies, which presents them with an opportunity to turn the tables and transform the international financial landscape by prioritising their development needs and redefining ways in which to provide finance (Ncwadi & Ruzive, 2015).

Both the purpose of, and the need for the NDB are intrinsically linked to the imperative of efficiently channelling global savings into infrastructure and sustainable development. It is worth noting that the BRICS countries’ share in global savings is now larger than that of the United States, Japan and the EU combined. Given the location and availability of global savings, the NDB is expected to mainstream development financing. It is expected to encourage not only broader participation of institutional investors that are managing a large share of these savings but also more efficient financial intermediation.

As indicated earlier in this thesis, the NDB is to fulfil its mandate as a catalyst for infrastructure and sustainable development financing in developing countries. In order to harness multiplier affects through a diversified financing portfolio, the ethos of the bank should be imaginative and not fiscally restrictive. It should be clear that this is not an advocacy for profligate spending. The Chinese Development Bank’s experience is instructive. After initial problems with repayments, it has achieved financial stability without reducing its developmental imprint. The Brazilian Development Bank (BNDES), on the other hand, has also offered concessionary finance in a sustainable fashion. Developmental finance needs to consider the social returns and devise prudential norms accordingly and this will require political support. The NDB's pool of funds will not be large enough to enable a development transition on its own. It will have to look to play the role of an exemplar in the evolving multilateral financing space by leveraging mobilised resources optimally.

8.3.3 Challenges and obstacles in integrating the NDB into the global financial architecture

Notwithstanding the above assertions, integrating the New Development Bank into the global financial architecture will not be without challenges. BRICS needs a new approach if it is to foster a more equitable global order. For example, the development financing conversation is currently situated in New York and Paris, whereas the conversation on recalibrating the international financial architecture is located in Washington, DC and Basel.

Specifically, despite a softening of official rhetoric, the Washington-Basel discourse continues to project fiscal orthodoxy. This is enforced by the dominant institutions of global finance, including credit rating agencies, which define the de facto environment in which both public and private finance operates in most developing countries. An example of this is the focus on capital adequacy, as exemplified by the Basel III Accord, which contradicts the need for credit enhancement in developing countries. Some examples of the activities with high social returns that are questioned by the Basel model include rural development (particularly smallholder systems), urban infrastructure, sustainable energy and bottom of the pyramid health and education delivery.

A prominent example are the micro, small and medium enterprises (MSMEs) sector in India, in which only 33 to 34 percent of total firms have access to institutional finance. As a direct result of a growing schism between the discourse on development finance and the evolution of the international financial architecture reform process, many financial institutions in the OECD economies have begun to exclude critical sectors from their financing mix. For instance, in 2013 the Export Import Bank of the United States voted to shift its funding out of coal plants. Such disruptive policy shifts are not new. That is why it remains important for the institutions in developing countries to take into account the domestic context of their economies when formulating policy. Denying developing countries the opportunity to consider their respective domestic economies and policies is sub-optimal in terms of sustainable development. The G20, which consists of 20 major economies including the five in BRICS, has supplanted the G7 that was made up of Canada, France, Germany, Italy, Japan, the UK and the US, as the premier forum for global economic governance but the agenda in these meetings is still largely set by the most powerful countries, which now includes China but not the other BRICS nations.

The IMF and the World Bank have both changed their voting arrangements to allow the developing and emerging economies to have more of a voice. This has particularly benefited China, India and Brazil but these three BRICS countries have so far not supported South Africa's call for a third African seat on the board of the IMF. This has left Africa as the most underrepresented region on the board.

BRICS countries, together with other G20 developing countries, have become more active participants in organisations responsible for developing international financial regulatory standards. This means that they can now participate in the writing of standards that guide the international financial system. However, the system continues to be more responsive to the interests of the rich and powerful than those of the developing world.

New international financial institutions_have been created, including the BRICS' New Development Bank and the Contingent Reserve Arrangement, which provides financial support for BRICS countries experiencing balance of payments problems. Unfortunately, the New Development Bank is currently operating in a less transparent and less accountable way than other multilateral development banks. For example, it is more difficult for outsiders to access information on the operational policies and practices of the bank than those of the World Bank or the African Development Bank. Unlike those other banks, there is not yet a mechanism in place to hold the New Development Bank accountable if it causes harm.

The New Development Bank also risks repeating the tragic mistakes of these other institutions, which for many years concentrated only on economic issues in their operational decision-making. Following a number of scandals they began to pay more attention to the social, human rights and environmental impact of their operations. Members of the New Development Bank seem to share this concern. The BRICS leaders have reiterated their commitment to achieving sustainable development in its three dimensions - economic, social and environmental - in a balanced and integrated manner. However, it is difficult to see how the bank is expected to meet this commitment if it continues to place more emphasis on speed in project implementation than on identifying and managing the adverse environmental, human rights and social effects of its projects. To fulfil their commitment to promote a more just and equitable global economy, BRICS will need to up its game.

It is against this background that this thesis contends that the NDB needs to harness the core competencies available within BRICS countries, and of becoming familiar with other emerging and developing countries. The NDB may consider giving preference to developing countries other than those within the BRICS itself in terms of direction of project financing flows.

The fundamental principles that should inform the NDB’s operations within an integrated finance order are discussed below.

- Means of Finance and Other Operational Aspects

The NDB should ensure that important operational costs such as compliance, recovery and due diligence are minimised for maximising the efficiency of projects being undertaken. The International Development Association, part of the World Bank Group, alone incurred operational costs of around USD 1,612 million in 2014. The balance between operational costs and the average size of projects will be critical in determining the operational efficiency of the NDB. A suggestion for reducing operational costs is the adoption of the 'bank of banks' approach by partnering with local banking institutions and other development finance institutions (DFIs). An outcome of this approach would be risk-sharing and therefore a dilution of the prudential concerns of NDB members.

- Latecomer Advantage in the Landscape of Multilateral financial system

The NDB enjoys the benefits of being a latecomer to the financial system. New technologies such as internet finance and crowd funding, (used in Egypt where citizens have contributed more than USD 8 billion towards the expansion of the Suez Canal), can be used to leapfrog traditional modes of financial inclusion such as 'branch banking'. One specific suggestion that bridges both of these dimensions is for the NDB to issue bonds denominated in all five currencies, with averaged out interest rates and no intermediation fees. The NDB also has the advantage of learning from the shortcomings of the current institutions and upping its own game, thus avoiding the mistakes previously made by other institutions.

In order be able to take latecomer advantage, the staffing of the NDB should be based on merit and should in turn reflect 'best in class' recruitment practices. This in turn would mean that the NDB will need to institute democratised hiring practices and not restrict hiring to government officials and professionals from BRICS countries. Connected to the operational efficiency imperative is the need to keep the bank's staff to a minimum while simultaneously aiming at maximizing the institutional footprint in the global development discourse. The World Bank

Group, for instance, employs well over 10,000 staff and consultants with a not much larger capitalisation than the NDB will have.

In as far as its activities are concerned, the NDB needs to take advantage of areas that have been abandoned by existing IFIs and its primary areas for the NDB's intervention should include energy, social infrastructure and basic services. The NDB may consider a composite index measuring elements of the sustainable development goals once they are finalised in order to benchmark disbursements and measure impact.

- New Thinking and Knowledge Creation

Public-Private Partnerships (PPPs) are premised on the imperative of private sector participation in critical investment areas where public financing may be less than adequate. However, for a number of reasons, PPPs are also becoming increasingly untenable for large projects in developing countries. For one, the private sector is unable to assess political risks and anticipate ground-level implementation challenges. Recent experiences of PPPs in infrastructure projects in India are illustrative of such issues. Through NDB funding, the PPP model can potentially assume a significant role, although the modalities and interface with the state need to be carefully defined. For example, the NDB can direct financing into providing risk guarantees.

The NDB will have to consistently strive to balance implementation efficiency and inclusiveness of ground-level stakeholders. Experts have suggested that, contrary to widely held notions, local stakeholder buy-in and commercial viability of large project are not negatively correlated.

An important question here is how the NDB will receive and synthesize suggestions from within the BRICS Track II framework, and civil society in general.

While resource mobilisation will be the key element of the NDB's functioning, it also has a pivotal role to play in terms of knowledge creation. While it can be nobody's case that the production of knowledge is a substitute for actual development interventions, the NDB should aim at shifting the premise of development discourse from that of generating consensus to promoting constructive debate over the most suitable model for development in specific sectors and geographies. The NDB must become the nerve centre for knowledge production as well as the leader in the useful implementation of such knowledge. It should provide an avenue for the discussion and dissemination of alternative development alternatives by developing and emerging economies.

What is seen in many parts of the world is that 20th century knowledge on global finance and sustainable development is still relied upon for development interventions. One of the key aspects of the NDB's knowledge creation should be to transition the development discourse towards 21st century solutions. This in turn would mean that the NDB would have to focus on niche yet key areas, such as the digital economy and data generation on the informal economy. It would also have to regularly solicit inputs from civil society and the private sector as it begins to define its knowledge creation programmes and outputs. Knowledge outputs should be published in the languages of all member countries in order to achieve wider dissemination.

8.4 CONCLUSION

The NDB was established at a crucial time in the development of the world's economy as an additional source of funds for developing countries. Countries that have received development funds from financial institutions remain under-developed or developing and most importantly, are highly indebted. Poverty levels have increased over the years and so too the financial needs of these poor countries. The NDB is thus perceived as an important institution that is more sensitive to the needs of developing countries as it is run by developing countries. The bank therefore needs to be able to carry out its mandate and bring about sustainable development for the borrowers directly and indirectly through the reformation of the international financial architecture. It should strive to balance socio-economic development and economic growth, as the socio-economic side is important for ensuring sustainable development and has been largely ignored in the past. These include poverty and inequality issues in developing economies. The bank should engage in activities that address inequality, as this is a problem in BRICS countries as well as other developing countries. The member countries of the NDB must play a leading role in addressing inequality in their countries and then extend their efforts to addressing it to the recipient countries when they begin issuing loans to other countries. Addressing race and gender inequality can help foster economic growth and development. The bank must be careful not to compromise the rights, privileges and development paths of indigenous and local communities.

The NDB should address sectors that have been ignored by the existing financial institutions, for example the agriculture sector as well as rural development. The majority of the poor and neglected populations in developing countries are in rural areas and funding activities that improve the lives of those people will go a long way towards development and growth. In its conduct, the bank should be as transparent as possible and encourage inclusive growth with the recipient country. Policies or conditions that govern the loans must be discussed and implemented with the knowledge and agreement of the representatives of the recipient country so as to enhance ownership, responsibility and accountability, all of which will increase the chances of the loans being used effectively to bring about economic growth and development. Any policy recommendations must be fair to all. For example, if the bank encourages recipient countries to open up their economies to trade, the fair part should be that the member countries also open up their economies to facilitate and support the trade initiatives in these developing countries.

The NDB must also pay attention to its interaction and involvement with stakeholders in a way that will enhance its activities and not hinder its success. Attention should be paid to the various spectrums of stakeholder involvement and an attempt must be made to move those that are resistant to become enablers. In this regard, the NDB must complement the existing international financial institutions and learn from their expertise and experiences. There has been wide spread criticism of the Bretton Woods institutions for example, and the NDB can learn from such critics and correct their mistakes in their own operations. These institutions have experience and funds that the NDB can take advantage of for the benefit of developing economies. The bank can, for example, co-finance projects with other development institutions as well as accept funds from them to increase its capital base.

The NDB has an advantage in that it can channel the savings of emerging economies towards infrastructure development. The New Development Bank was initiated at a time when there is increasing importance being placed on the role of developing and emerging economies in global affairs and an increasing connectedness among global economies with some shifts of economic power from traditional western powers to a group of emerging economies, which presents them with an opportunity to turn the tables and transform the international financial landscape by prioritising their development needs as well as redefine the way in which to finance these needs (Ncwadi & Ruzive, 2015). The NDB can therefore perform a pivotal role in the transformation of international financial architecture if it can make a difference in its approaches and activities by looking at the problem of development and addressing it from a different angle to include socio-economic concepts for development, among other angles.

In integrating into the global financial architecture, the NDB needs to be aware of possible advantages and challenges that it can face. Latecomer advantage in the landscape of multilateral and new thinking and knowledge creation are some of the strengths that the NDB can use to integrate and bring about the much-needed economic growth and development in developing and emerging economies.

This thesis contends that the NDB has to harness the core competency available within BRICS countries and become familiar with other emerging and developing countries. The NDB can take advantage of the information contained in the criticisms that have been directed at the IMF and the World Bank and correct these in its own conduct.

CHAPTER NINE

SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS OF THE STUDY

9.1 INTRODUCTION

This chapter presents a summary of the study and the main findings based on the econometric techniques that were employed. The chapter also presents the conclusions drawn from the findings as well as implications and recommendations emanating from the findings. The chapter concludes by mentioning the limitations of the study and areas for further study.

9.2 SUMMARY OF THE THESIS

The study analysed the integration of the New Development Bank into the international financial architecture. To put the study into context, it began with an introductory chapter, Chapter one. This chapter presented the background of the international financial system, indicating that it is dominated by the IMF and the World Bank as the key players in providing development finance. The chapter proceeded to provide an overview of the financial needs and gaps that exist in developing countries, hence the need for more sources of funds, which the NDB can provide by adding to the existing pool. The problem highlighted in this chapter was that although countries have received development funds from the IMF and the World Bank, not much development has been realised in most countries, particularly those that are highly indebted to these institutions. This problem has often been attributed to the harsh conditions attached to these loans, as well as the way in which these institutions conduct their activities in relation to the borrowing countries. The need to test whether there was any causal relationship between the slow economic growth and development noted in most countries and the loans they received from these institutions became apparent. The NDB was advised to learn from the findings so as to conduct its business in a way that will bring about the much-needed development to those economies that are developing or under-developed and that need funds to aid their development endeavours.

The study proceeded with a background and an overview of the IMF and the World Bank (international financial institutions), beginning with the formation of these institutions, their governance, objectives and activities, as well as the sources of funds of these two institutions in Chapter two. The chapter also discussed the activities of these institutions in Africa, ranging from the loans they issued to the way in which Africa accumulated debt over the years, debt relief programs the IMF and the World Bank have implemented and the way in which they affected the highly indebted poor countries. Chapter two concludes with an overview of the criticism that has been levelled against the World Bank and the IMF from which the NDB can also gain insight into the issues and use these to map the activities and conduct of the NDB. Most importantly, the chapter highlights that African economies accept loans from these institutions to finance projects that they anticipate will bring economic growth and development to their economies.

Chapter three of the study presented the various theories of economic growth and development. It began by discussing the debt overhang theory, which explains that there is a threshold beyond which debt becomes detrimental to an economy, as it becomes difficult to service. This theory explains the case for most African economies that have been accumulating debt with some being unable to repay the debt plus interest. The chapter proceeded to discuss the various economic growth and development theories, namely the linear-stage-of-growth theories, structural-change-model, international dependence revolution and the neo-classical growth theories. Although all these theories contribute significantly to understanding development, the emphasis is on the fact that economies need finance to grow (in terms of savings and investments). It remains problematic that most developing economies cannot save and hence lack the necessary finances to boost their economies. They end up relying on aid and loans, which may lead to over dependence on the lenders as explained by the international-dependence revolution. Given this situation, this study was interested in the international dependence theories that focus on international power imbalances and fundamental economic, political and institutional reforms. They offer clarity on why most poor countries remain under-developed, in that they are forced into dependent relationships with the lenders. However, they do not provide insight into the way in which these countries can initiate and sustain development (Todaro & Smith, 2012). The international dependence revolution theories do not shed any light on what needs to be done for development to be realised. The neo-classical model developed by the neo-classical counterrevolution model, (Solow's growth model), was of particular interest to this study as it provided the fact that growth is as a result of the exogenous factor (technology),an increase in labour quantity and an increase in capital. The debt overhang theory identifies well with this study as debt can be said to be beneficial for the borrowing countries up to a certain point, after which it becomes detrimental and servicing the debt becomes a burden.

Chapter three concluded by presenting the empirical literature indicating that the majority of the studies focused on the impact of debt (that is total external debt, or government debt in some instances), on economic growth, mainly using per capita GNI or per capita GDP. This total debt is debt from all financial providers from whom the country has borrowed. Different lenders form different agreements and loans are used for various purposes that may not be directly linked to economic growth. Therefore loans will have various conditions and possibly different effects on economic growth. It will therefore be unfair to judge the impact of loans or debt on growth using total debt, as these debts may have different effects on growth, depending on the use of the loan and the conditions attached to the loan. This study identified this gap in the literature and aimed to contribute by testing the impact of loans received from the IMF and the World Bank as the dominant international financial institutions, as well as the institutions that issue loans aimed at developing economies, particularly loans issued by the World Bank's IBRD, the largest development bank. In addition, most studies made use of time series analysis and not many studies used panel data and sophisticated econometric techniques to deal with various data management and empirical issues. This study added to existing literature by using the results to advise the NDB on the way in which it could integrate into international systems and provide development finance that actually brings development and also the way in which to use the loans to develop economies.

The study then presented an overview of debt received by developing countries and the economic growth and development trends in ten self-selected African countries in Chapter four. The chapter presented scatter diagrams of ten different African countries indicating the relationship that exists between GDP and a number of variables, namely total external debt, IMF loans, World Bank loans, Rule of Law index, Corruption Perception Index and Debt Service to Export Ratio. The chapter presented evidence of a negative relationship between debt variables and GDP and this study tested this using econometric techniques in the chapters that follow Chapter four. Having realised the financial needs of developing economies and the gap that exists between these needs and the available sources of finance, the thesis proceeded to provide an overview of potential additions to the pool of sources of funds that have indicated an interest in financing development projects in Africa. Chapter five presented an overview of the NDB and its role in the BRICS countries and African countries. The chapter explored the activities that the NDB has undertaken so far as a precursor of the way in which it may conduct business when it extends its activities to other developing countries.

Chapter six presented the research method and approach used in the study, beginning with the model specification and the pre-estimation techniques used. The study made use of panel data analyses and employed three econometric techniques to validate the results. The chapter also described the data used and justification for the variables and data sources. The expected signs of each variable were presented. Chapter seven presented the findings from all the techniques used in estimation. The findings are summarized below.

- Total debt service exerts a significant positive impact on GDP. This positive impact remains positive and strengthens as we move up the quantiles of GDP.
- IMF loans in the RE model indicate a positive impact on GDP. Quantile regression results indicate that IMF loans are only positive in the 10 percentile of GDP, but as we move up the quantiles, the impact becomes negative.
- Loans from the World Bank affect GDP negatively and the impact strengthens negatively as we move up the quantiles.
- Debt service to export ratio indicates a negative effect on GDP.

The results of the Granger causality test indicate that GDP Granger causes debt at 5% the level of significance whereas debt does not Granger cause GDP. The results also indicate that GDP Granger causes World Bank loans. This implies that countries may borrow to boost GDP, it is the level of GDP that causes them to borrow. However, it should be noted that correlation does not necessarily means causality.

Chapter eight discussed the implications of the study on the NDB having concluded that there is a need for a positive contribution to the development of economies, particularly in Africa. In order to do so, the NDB needs to integrate into the global financial architecture and so Chapter eight presented the fundamental principles on the way in which it can do so, drawing from some of the findings of this study. The chapter explored the role of the NDB in developing countries, followed by a discussion of the NDB’s institutional stakeholders and role-players and the challenges and obstacles it may face as it integrates into the global financial architecture.

Chapter nine is the last chapter of the study and it covers the summary, conclusions, recommendations and limitations of the study and areas for further study.

9.3 CONCLUSIONS

This study focused on the impact of loans received from IMF and World Bank on economic growth and development of selected African countries and made use of the results to advice on the integration of the NDB into the international financial architecture. The findings led to the conclusion that loans from the IMF and the World Bank have affected economic growth and development of the recipient countries negatively. The results of the Granger causality test indicate that GDP Granger causes debt at the 5% level of significance but debt does not Granger cause GDP. The results also show that GDP Granger causes the World Bank. This implies that countries may borrow to boost GDP; it is the level of GDP that causes them to borrow. This means that countries borrow hoping that the borrowed money will help boost their economies and aid economic growth and development. This study found evidence of these loans negatively affecting economic growth and this was supported by the literature that was reviewed. The study concluded that the debt service to export ratio of many developing countries is high, indicating that countries are not able to service their debts using money derived from exports and as a result they strain their economies by using national income, which is already low, to service the debts that have accumulated. The IMF and the World Bank, as indicated previously, have been accused of encouraging countries to borrow to repay other debts and this has led to African countries being highly indebted, further damping their economies.

The study also concluded that countries need finance to develop and with the existing financial institutions must stay, as countries have growing financial needs for infrastructure development and lack enough savings to kick-start the development process. Countries have received development funds from financial institutions but are still less developed or developing and most importantly, are highly indebted. Poverty levels have increased over the years and so have the financial needs of these poor countries. The gap between what the current financial providers can provide and the growing financial needs of developing economies has been widening, emphasising the need for additional sources of funds from institutions such as the NDB. There is therefore a need for the international financial system to conduct activities in a way that aids the development of loan recipient countries. The NDB provides the opportunity for reforming the system. This study advised the NDB on possible ways that it can conduct business to bring about development. Ensuring that the recipient country manages the projects funded by the loans and the financial aid itself falls outside the scope of this study and may be an area for further study.

It is on the basis of the above arguments and those presented in previous chapters that this study concludes that whilst the NDB is aimed at focusing mainly at the developing countries' agendas, particularly infrastructure development, this cannot be achieved in isolation. The NDB must play a crucial complementary role to the existing global financial architecture. The study concluded that the NDB comes in as an important institution that is deemed to be more sensitive to the needs of developing countries as it is run by developing countries. The bank therefore needs to be able to carry out its mandate and bring about sustainable development through its activities, directly to the borrowers and indirectly through the reforming of the international financial architecture.

The study concludes that the current financial system has failed to effectively bring economic growth and development as loans from them has had a negative impact on economic growth. In light of these observations, alternatives are being sought that provide inclusive and equitable development for all. The study also concluded that some of the reasons that the loans from the IMF and the World Bank have been criticised range from their activities to the structure of the institutions themselves. The NDB should therefore take a different approach if it is to make a positive contribution to the development needs of emerging economies. The NDB currently has an equal voting structure with all members having equal voting rights in the bank, which is already a paradigm shift from the IMF and World Bank's ideology and this study therefore concludes that this is a strong indication of a possibility that the NDB is a 'saviour bank' in addressing the needs of developing economies. The NDB should strive to balance socio-economic development and economic growth as the socio-economic side is significant in sustainable development issues and has been ignored in the past. In other words the NDB should strive to do things differently. The study concludes that, in order to make a difference, the NDB should:

- address sectors that have been ignored by existing financial institutions, for example the agriculture sector and rural development;
- be as transparent as possible and encourage inclusive growth with the recipient countries;
- be fair and transparent in terms of policy recommendations, is there are any, for example, if the bank encourages recipient countries to open up their economies to trade, the fair part should be that the member countries also open up their economies to facilitate and support the trade initiatives in these developing countries and

- pay attention to its interaction and involvement with stakeholders in a way that will enhance its activities and not hinder its success. In this regard the NDB must complement the existing international financial institutions and learn from their expertise and experiences.

The study concludes that the NDB can play a pivotal role in the transformation of the international financial architecture if it can make a difference in its approaches and activities by looking at the problem of development and addressing it in a manner that includes the socio-economic concept to development. The study also concludes that to integrate into the global financial architecture successfully, the NDB needs to be aware of the potential advantages and challenges that it can face and be prepared.

9.4 RECOMMENDATIONS

Based on the findings and the conclusions drawn in this chapter, this thesis advances the following recommendations to the NDB (in addition to the recommendations presented in Chapter eight on the implications of the findings).

- By fostering a transparent regulatory framework, visionary leadership, equitable conflict resolution mechanisms, robust risk assessment criteria and a common aspiration, the BRICS bank will achieve its goal of economically, socially and politically fostering more inclusive, equitable and sustainable growth for all.
- Avoid a skewed representation as it extends membership of the bank.
- There are several quarters in the IMF and the World Bank's membership that feel that the terms attached to the loans that are disbursed to recipient countries and the prescriptive tone with which they are handed down, is tantamount to the perpetuation of American dominance. The BRICS bank should learn from this and if there is a need to attach conditions to the loans they should be designed and placed in constant consultation with the recipient countries.
- The NDB should look at funding projects that foster social change, projects that are environmentally friendly and include the vulnerable groups of the society. This study agrees with an Oxfam report that puts into words the challenges that the BRICS bank could tackle as follows:

> *"The association of five major emerging national economies, Brazil, Russia, India, China and South Africa (BRICS) has a special responsibility towards helping the world*

achieve its goal of ending extreme poverty, reducing inequality and achieving sustainable development, as they collectively represent some of the world's greatest challenges and achievements. Despite remarkable strides made in reducing poverty within India and China, BRICS countries still house nearly half of the world's poor and have experienced a rise in inequality in recent years. The creation of a BRICS Bank, and with it the promise of reforming the global development architecture, offers a real and concrete opportunity for governments of these countries to ensure development financing is sensitive to the needs of those who are poorest and most marginalized."(Oxfam, 2014)

- The millennium development goals are lagging behind in developing countries and the BRICS bank could be utilized as a catalyst for the achievement of these goals. The connectivity of the BRICS economies can enable them to be leading nations in the attainment of these goals, for instance, South Africa is connected to the SADC region and China has strong links to the ASEAN nations. The BRICS bank could be the financial catalyst that will bring about the quick attainment of the millennium development goals on a global scale.
- The bank should have transparent and clearly laid down rules and procedures regarding conflicts of interest management and settlement of conflicts that may arise as it enhances its operations. This is important considering the different political orientations of the existing members, with some coming from democracies and others from non-democracies. It is therefore important for the bank to lay down rules and policies in this regard.
- The bank needs to assess risks adequately and finance sustainable projects that will provide an adequate return to be able to perpetuate the survival of the bank. In this regard the bank might need to agree with recipient countries to undertake progress reports of the funded projects to ensure that the projects are progressing according to expectations. Some countries lack the know-how with regard to the management of projects and the NDB can perform an advisory role in consultation with the policy makers of the recipient country to map the way forward to make projects more successful and bring about benefits for both the recipient country (growth and development) and the NDB (repayment of loan).
- As the bank grows, it should work diligently to avoid becoming politicised and stick to the market-based operation model. It should focus on making full use of professionals and building a reasonable business operation model and risk control systems and mechanisms. It can consider market-based recruiting to attract the best international talent.

- The NDB should build an international image as a new development bank that belongs to developing countries, through its conduct. It needs to avoid repeating the mistakes made by the World Bank, which include neglecting the development needs of developing countries and imposing the experiences of developed countries onto developing economies.
- At an operational level, the NDB should strengthen co-operation with other development banks in developing countries, such as the Brazilian National Development Bank and the Indian National Development Bank. The NDB should also play a commentary role to existing institutions and be prepared to work with them, even in co-financing some projects, as highlighted in the previous chapters. It can serve as a constructive supplement to the existing multilateral development banks, rather than as competition. Given the financing gap faced by developing countries for infrastructure development, funds from developed or emerging economies alone cannot meet the need.

9.5 LIMITATIONS OF THE STUDY AND AREAS FOR FURTHER STUDY

The unavailability of data limited this study from probe into the use of the loans in the recipient countries to ascertain whether there is evidence of any mismanagement of the loans received, which may also lead to a negative impact of the loans on economic growth. Further research should probe into the projects that have been funded by the loans to ascertain if they were completed successfully. This would advise emerging financial institutions on what to look out for and also advise developing countries on the way in which to make the best use of these scarce funds to bring about economic growth and sustainable development.

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APPENDICES

APPENDIX 1: FIXED EFFECT MODEL

Dependent Variable: LNGDP
Method: Panel Least Squares
Date: 06/20/18 Time: 11:39
Sample: 1994 2014
Periods included: 21
Cross-sections included: 10
Total panel (balanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.940657	1.824460	1.611796	0.1087
LNDEBT	0.123325	0.126938	0.971536	0.3325
LNIMF_LOANS	0.002970	0.011749	0.252781	0.8007
LNWB_LOANS	-0.014619	0.019840	-0.736848	0.4621
LNDEBT_SERVICE	-0.173574	0.084902	-2.044403	0.0423
LNINV	0.031011	0.159814	0.194044	0.8464
LNPS	0.066267	0.126089	0.525557	0.5998
LNM	0.456445	0.239218	1.908067	0.0579
LNX	0.244466	0.201609	1.212575	0.2268
LNINF	-0.201466	0.052567	-3.832543	0.0002
LNEXR	-0.025284	0.055029	-0.459454	0.6464
LNROL	0.034605	0.097418	0.355222	0.7228
LNCP	0.056114	0.275085	0.203988	0.8386

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.852051	Mean dependent var	9.953284
Adjusted R-squared	0.835525	S.D. dependent var	1.481431
S.E. of regression	0.600802	Akaike info criterion	1.917755
Sum squared resid	67.86102	Schwarz criterion	2.268404
Log likelihood	-179.3643	Hannan-Quinn criter.	2.059510
F-statistic	51.55763	Durbin-Watson stat	2.143495
Prob(F-statistic)	0.000000		

APPENDIX 2: RANDOM EFFECT MODEL

Dependent Variable: LNGDP
Method: Panel EGLS (Cross-section random effects)
Date: 06/20/18 Time: 11:55
Sample: 1994 2014
Periods included: 21
Cross-sections included: 10
Total panel (balanced) observations: 210
Wallace and Hussain estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.403125	1.236368	1.943697	0.0534
LNDEBT	0.311575	0.086814	3.588991	0.0004
LNIMF_LOANS	0.001918	0.010377	0.184832	0.8536
LNWB_LOANS	-0.036320	0.015301	-2.373749	0.0186
LNCP	-0.235950	0.170875	-1.380833	0.1689
LNDEBT_SERVICE	-0.247298	0.068276	-3.622055	0.0004
LNINV	0.055863	0.135748	0.411522	0.6811
LNPS	0.183213	0.082628	2.217335	0.0277
LNM	0.464426	0.188907	2.458489	0.0148
LNX	0.134758	0.144948	0.929699	0.3537
LNINF	-0.236194	0.046034	-5.130818	0.0000
LNEXR	-0.009097	0.021739	-0.418480	0.6761
LNROL	0.031320	0.094239	0.332348	0.7400

Effects Specification

	S.D.	Rho
Cross-section random	0.083845	0.0190
Idiosyncratic random	0.602281	0.9810

Weighted Statistics

R-squared	0.812683	Mean dependent var	8.391158
Adjusted R-squared	0.801273	S.D. dependent var	1.350950
S.E. of regression	0.602237	Sum squared resid	71.44990
F-statistic	71.22452	Durbin-Watson stat	2.087947
Prob(F-statistic)	0.000000		

Unweighted Statistics

R-squared	0.842683	Mean dependent var	9.953284
Sum squared resid	72.15791	Durbin-Watson stat	2.067461

APPENDIX 3: HAUSMAN TEST

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000000	12	1.0000

* Cross-section test variance is invalid. Hausman statistic set to zero.

Cross-section random effects test comparisons:

Variable	Fixed	Random	Var(Diff.)	Prob.
LNDEBT	0.123325	0.311575	0.008577	0.0421
LNIMF_LOANS	0.002970	0.001918	0.000030	0.8486
LNWB_LOANS	-0.014619	-0.036320	0.000159	0.0857
LNCP	0.056114	-0.235950	0.046473	0.1755
LNDEBT_SERVICE	-0.173574	-0.247298	0.002547	0.1440
LNINV	0.031011	0.055863	0.007113	0.7682
LNPS	0.066267	0.183213	0.009071	0.2195
LNM	0.456445	0.464426	0.021540	0.9566
LNX	0.244466	0.134758	0.019636	0.4337
LNINF	-0.201466	-0.236194	0.000644	0.1712
LNEXR	-0.025284	-0.009097	0.002556	0.7488
LNROL	0.034605	0.031320	0.000609	0.8941

Cross-section random effects test equation:
Dependent Variable: LNGDP
Method: Panel Least Squares
Date: 06/20/18 Time: 11:59
Sample: 1994 2014
Periods included: 21
Cross-sections included: 10
Total panel (balanced) observations: 210

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.940657	1.824460	1.611796	0.1087
LNDEBT	0.123325	0.126938	0.971536	0.3325
LNIMF_LOANS	0.002970	0.011749	0.252781	0.8007
LNWB_LOANS	-0.014619	0.019840	-0.736848	0.4621
LNCP	0.056114	0.275085	0.203988	0.8386
LNDEBT_SERVICE	-0.173574	0.084902	-2.044403	0.0423
LNINV	0.031011	0.159814	0.194044	0.8464
LNPS	0.066267	0.126089	0.525557	0.5998
LNM	0.456445	0.239218	1.908067	0.0579
LNX	0.244466	0.201609	1.212575	0.2268
LNINF	-0.201466	0.052567	-3.832543	0.0002
LNEXR	-0.025284	0.055029	-0.459454	0.6464
LNROL	0.034605	0.097418	0.355222	0.7228

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.852051	Mean dependent var	9.953284
Adjusted R-squared	0.835525	S.D. dependent var	1.481431
S.E. of regression	0.600802	Akaike info criterion	1.917755
Sum squared resid	67.86102	Schwarz criterion	2.268404
Log likelihood	-179.3643	Hannan-Quinn criter.	2.059510
F-statistic	51.55763	Durbin-Watson stat	2.143495
Prob(F-statistic)	0.000000		

APPENDIX 4: WALD TEST

Wald Test:
Equation: Untitled

Test Statistic	Value	df	Probability
F-statistic	71.21422	(12, 197)	0.0000
Chi-square	854.5707	12	0.0000

Null Hypothesis: C(2)=0, C(3)=0, C(4)=0, C(5)=0, C(6)=0, C(7)=0, C(8)=0, C(9)=0, C(10)=0, C(11)=0, C(12)=0, C(13)=0
Null Hypothesis Summary:

Normalized Restriction (= 0)	Value	Std. Err.
C(2)	0.311575	0.086814
C(3)	0.001918	0.010377
C(4)	-0.036320	0.015301
C(5)	-0.247298	0.068276
C(6)	0.055863	0.135748
C(7)	0.183213	0.082628
C(8)	0.464426	0.188907
C(9)	0.134758	0.144948
C(10)	0.031320	0.094239
C(11)	-0.235950	0.170875
C(12)	-0.009097	0.021739
C(13)	-0.236194	0.046034

Restrictions are linear in coefficients.

APPENDIX 5: PANEL GRANGER CAUSALITY TEST

DUMISTRESCU-HURLIN TEST (INDIVIDUAL COEEFFICIENTS)

Pairwise Dumitrescu Hurlin Panel Causality Tests
Date: 06/28/18 Time: 10:25
Sample: 1994 2014
Lags: 2

Null Hypothesis:	W-Stat.	Zbar-Stat.	Prob.
LNIMF does not homogeneously cause LNGDP	2.26042	-0.08352	0.9334
LNGDP does not homogeneously cause LNIMF	1.88296	-0.51586	0.6060
LNDEBT does not homogeneously cause L...	2.00101	-0.38064	0.7035
LNGDP does not homogeneously cause LN...	4.33009	2.28710	0.0222
LNWB does not homogeneously cause LNGDP	2.08505	-0.28439	0.7761
LNGDP does not homogeneously cause LNWB	4.30509	2.25846	0.0239
LNDEBT does not homogeneously cause LN...	1.46693	-0.99238	0.3210
LNIMF does not homogeneously cause LND...	43.0994	46.6937	0.0000
LNWB does not homogeneously cause LNIMF	3.00746	0.77215	0.4400
LNIMF does not homogeneously cause LNWB	132.370	148.945	0.0000
LNWB does not homogeneously cause LND...	5.32789	3.42998	0.0006
LNDEBT does not homogeneously cause L...	3.92652	1.82484	0.0680

Pairwise Dumitrescu Hurlin Panel Causality Tests
Date: 06/28/18 Time: 10:29
Sample: 1994 2014
Lags: 4

Null Hypothesis:	W-Stat.	Zbar-Stat.	Prob.
LNIMF does not homogeneously cause LNGDP	16.9588	6.16534	7.E-10
LNGDP does not homogeneously cause LNIMF	34.9714	15.7179	0.0000
LNDEBT does not homogeneously cause L...	3.55052	-0.94548	0.3444
LNGDP does not homogeneously cause LN...	7.29402	1.03981	0.2984
LNWB does not homogeneously cause LNGDP	4.31214	-0.54157	0.5881
LNGDP does not homogeneously cause LNWB	15.0793	5.16857	2.E-07
LNDEBT does not homogeneously cause LN...	5.54288	0.11113	0.9115
LNIMF does not homogeneously cause LND...	34.1296	15.2715	0.0000
LNWB does not homogeneously cause LNIMF	7.39347	1.09255	0.2746
LNIMF does not homogeneously cause LNWB	155.154	79.4545	0.0000
LNWB does not homogeneously cause LND...	6.67898	0.71364	0.4755
LNDEBT does not homogeneously cause L...	4.64149	-0.36690	0.7137

APPENDIX 6: QUANTILE REGRESSION

Dependent Variable: LNGDP
Method: Quantile Regression (Median)
Date: 06/28/18 Time: 08:23
Sample: 1994 2014
Included observations: 210
Huber Sandwich Standard Errors & Covariance
Sparsity method: Kernel (Epanechnikov) using residuals
Bandwidth method: Hall-Sheather, bw=0.16345
Estimation successfully identifies unique optimal solution

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.389174	0.464445	7.297261	0.0000
LNDEBT	1.044232	0.041238	25.32201	0.0000
LNIMF	-0.004682	0.011833	-0.395665	0.6928
LNWB	-0.066546	0.007774	-8.560095	0.0000
LNDEBT_SERVICE	-0.819227	0.061640	-13.29057	0.0000

Pseudo R-squared	0.592455	Mean dependent var	9.953284
Adjusted R-squared	0.584503	S.D. dependent var	1.481431
S.E. of regression	0.820977	Objective	51.02566
Quantile dependent var	9.736841	Restr. objective	125.2024
Sparsity	1.439262	Quasi-LR statistic	412.3044
Prob(Quasi-LR stat)	0.000000		

Dependent Variable: LNGDP
Method: Quantile Regression (tau = 0.25)
Date: 07/24/18 Time: 11:05
Sample: 1994 2014
Included observations: 210
Huber Sandwich Standard Errors & Covariance
Sparsity method: Kernel (Epanechnikov) using residuals
Bandwidth method: Hall-Sheather, bw=0.11321
Estimation successfully identifies unique optimal solution

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.914629	0.698982	5.600472	0.0000
LNEXTERNAL_DEBT	0.987341	0.067897	14.54182	0.0000
LNIMF	-0.008317	0.006708	-1.239921	0.2164
LNWB	-0.082351	0.006661	-12.36291	0.0000
LNDEBT_SERVICE	-0.800128	0.055873	-14.32058	0.0000

Pseudo R-squared	0.555690	Mean dependent var	9.953284
Adjusted R-squared	0.547020	S.D. dependent var	1.481431
S.E. of regression	0.908845	Objective	38.15683
Quantile dependent var	8.838016	Restr. objective	85.87878
Sparsity	1.433795	Quasi-LR statistic	355.0259
Prob(Quasi-LR stat)	0.000000		

Dependent Variable: LNGDP
Method: Quantile Regression (tau = 0.75)
Date: 07/24/18 Time: 11:06
Sample: 1994 2014
Included observations: 210
Huber Sandwich Standard Errors & Covariance
Sparsity method: Kernel (Epanechnikov) using residuals
Bandwidth method: Hall-Sheather, bw=0.11321
Estimation successfully identifies unique optimal solution

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.529169	0.782236	4.511644	0.0000
LNEXTERNAL_DEBT	1.044643	0.038607	27.05867	0.0000
LNIMF	-0.015498	0.051530	-0.300754	0.7639
LNWB	-0.056117	0.010878	-5.158765	0.0000
LNDEBT_SERVICE	-0.723342	0.135457	-5.340002	0.0000

Pseudo R-squared	0.593884	Mean dependent var	9.953284
Adjusted R-squared	0.585959	S.D. dependent var	1.481431
S.E. of regression	0.877911	Objective	43.98773
Quantile dependent var	10.78306	Restr. objective	108.3131
Sparsity	1.711984	Quasi-LR statistic	400.7850
Prob(Quasi-LR stat)	0.000000		

APPENDIX 7: LETTER FROM THE LANGUAGE PRACTITIONER

ONE STOP SOLUTION
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Warbler Road
Cotswold Ext
Port Elizabeth
6045
www.onestopsolution.co.za

TO WHOM IT MAY CONCERN

I, Michele van Niekerk, declare that I have done the language editing for the dissertation of:

TAFADZWA THELMAH CHITENDERU (215137507)

entitled:

INTEGRATION OF THE NEW DEVELOPMENT BANK INTO THE INTERNATIONAL FINANCIAL ACHITECTURE

Submitted in fulfilment of the requirements for the degree of PhD Economics in the Faculty of Business and Economic Sciences at the Nelson Mandela University.

I cannot guarantee that the changes that I have suggested have been implemented nor do I take responsibility for any other changes or additions that may have been made subsequently.

Any other queries related to the language and technical editing of this treatise may be directed to me at 076 481 8341.

Signed at Port Elizabeth on 24 July 2018

....

Mrs M van Niekerk