

**THE RELATIONSHIP BETWEEN FINANCIAL MARKET DEVELOPMENT
AND ECONOMIC GROWTH IN EAST AFRICAN COMMUNITY**

BY

EVANS OCHORO OLONJE

D61/60660/2013

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS OF THE AWARD OF THE DEGREE OF MASTER OF
BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS, UNIVERSITY OF
NAIROBI**

OCTOBER, 2014

DECLARATION

This Research Project is my original work and has not been submitted for examination in any other University

Sign.....Date.....

Evans Ochoro Olonje

D61/60660/2013

This Research Project has been submitted with my approval for examination.

Supervisor.....Date.....

Mr. Mirie Mwangi

ACKNOWLEDGEMENT

The MBA programme has been long and challenging, the successful completion has been as a result of determination, concerted effort and support from many people.

My sincere gratitude to the Almighty God for seeing me through the entire process.

Special thanks to my supervisor Mr. Mirie Mwangi for his advice, guidance, availability and positive criticism and suggestions during the entire research period.

I also thank the teaching, administrative and the support staff of the University of Nairobi for their support through the entire course period.

Many thanks to my classmates for supporting me throughout the course especially in group work and revisions.

My Lord God Almighty bless you all abundantly!

DEDICATION

This paper is dedicated to my parents Mr. Ambrose Olonje and Mrs. Esther Olonje, my wife Joyce and children Elizabeth, Sean, Victoria and Noella, who have been a source of inspiration and support during the course of my studies.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENT	iii
DEDICATION.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES	vii
ABBREVIATIONS	vii
ABSTRACT	ix
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background of the Study.....	1
1.1.1 Financial Market Development	3
1.1.2 Economic Growth.....	5
1.1.3 Financial Market Development and Economic Growth	6
1.1.4 The East African Community.....	8
1.2 Research Problem	11
1.3 Research Objectives.....	15
1.4 Value of the Study.....	16
CHAPTER TWO: LITERATURE REVIEW	17
2.1 Introduction.	17
2.2 Theoretical Review	17
2.2.1 The Neoclassical Theory: The Exogenous Growth Theory	17
2.2.2 The Endogenous Growth Theory	18
2.2.3 Intermediation Theory	19
2.3 Determinants of Economic Growth.....	20
2.3.1 Inward and Outward Direct Investments	20
2.3.2 Human Capital.....	21
2.3.3 Innovation and Research & Development	21
2.3.4 Economic Policies and Macro Economic Conditions	22
2.3.5 Foreign Direct Investment	22
2.3.6 Institutional Frameworks	23
2.4 Empirical Review	24
2.5 Summary of Literature Review	30
CHAPTER THREE: RESEARCH METHODOLOGY	31
3.1 Introduction	31

3.2 Research Design	31
3.3 Population and Sample Design.....	31
3.4 Data Collection.....	32
3.5 Data Analysis.....	32
CHAPTER FOUR:DATA ANALYSIS, PRESENTATION AND INTEPRETATION OF FINDINGS.....	34
4.1 Introduction	34
4.2 Descriptive Statistics.....	34
4.3 Relationship between Financial development Indicators and Economic Growth in EAC	37
4.4 Discussion of Research Findings.....	38
CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS....	41
5.1 Introduction	41
5.2 Summary of Findings.....	41
5.3 Conclusions	43
5.4 Recommendations.....	44
5.5 Limitations of the Study.....	46
5.6 Suggestions for Further Research.....	47
REFERENCES	49
Appendix I: Sample of EAC Countries	61
Appendix II: Descriptive Statistics.....	62

LIST OF TABLES

Table One: Summary Statistics- Annual Averages 2008-2013	35
Table Two: Correlations Analysis.....	36
Table Three: Financial Development indicators and Economic growth in EAC	37

ABBREVIATIONS

ANOVA	-	Analysis of Variance
BMG	-	Broad Money Growth
BVAR	-	Bayesian Vector Auto Regressions
CIP	-	Covered Interest Rate Parity
CLR	-	Capital Liquidity Ratio
DCP	-	Direct Credit Programs
DCPS	-	Domestic Credit to Private Sector
EAC	-	East African Community
EASRA	-	East African Security Regulatory Authority
EG	-	Economic Growth
FD	-	Financial Development
FDI	-	Foreign Direct Investment
GDP	-	Gross Domestic Product
IMF	-	International Monetary Fund
IRS	-	Interest Rate Spread
KBA	-	Kenya Bankers Association
NPLs	-	Non-performing Loans
OECD	-	Organization for Economic Co-operative and Development
PCY	-	Per Capita Income
VECM	-	Vector Error Correction Model

ABSTRACT

Financial market development can be defined as the policies, factors, and the institutions that lead to the efficient intermediation and effective financial markets. A strong financial system offers risk diversification and effective capital allocation. The greater the financial development, the higher would be the mobilization of savings and its allocation to high return projects. Levine, (1993) emphasized to consider the importance of financial sector in economic growth. Economic growth is the sustained increase in welfare of an economy nation, region, city together with the ongoing changes in that economy's industrial (Ray 1998). Economists and many other social scientists have focused, primarily although not exclusively, on growth in per capita income as the preferred measure of economic growth. Economic growth is conventionally measured as the percent rate of increase in Gross domestic product (GDP). Economic growth will be dependent variable in the study, while Financial market development being independent variable and is analyzed through indicators such as; interest rate spread, nonperforming loans in financial institutions, broad money growth, domestic credit to private sectors and market capitalization. This study will tend to answer how financial market indicators relate to economic growth in East African Countries. The population of study focuses on the five official EAC member countries namely: Kenya, Uganda, Tanzania, Rwanda and Burundi for a six year period between the years 2008 to 2013. Secondary data was collected for the study for a period of 6 years 2008 to 2013. Data analysis was done using SPSS Version 20 whereby multiple regressions were employed; the findings suggest that 19.4% of variations in economic growth in EAC are explained by variations in the five financial development indicators under study. The study establishes positive relationships between market capitalization, money growth and economic growth and negative relationships between ratio of credit to private sector to GDP levels, levels of nonperforming loans and interest rate spreads to GDP.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

A major gap in the provision of financial services to the EAC private sector is the lack of long-term finance. Financial systems in the EAC are dominated by commercial banks, which typically have not been reliable sources of long-term capital. Non-bank sources of medium to long-term financing for example, leasing, mortgage and contractual savings are also underdeveloped (World Bank, 2002). Hence, a principal component of financial sector development efforts in the EAC is the expansion of capital markets in the Community, with the objective of developing long-term debt and equity capital for the private sector

A great deal of work has been undertaken over the last 20–30 years on the growth finance nexus. Both theoretical reasoning and earlier empirical evidence suggested that a positive relationship between financial development and economic growth is evident. No doubt, as a result of these developments the World Bank (2001) noted that policy makers prioritized more emphatically on financial strengthening as it is widely asserted that building deeper and more sophisticated financial systems can contribute significantly to economic performance.

East African Community attaches great importance to financial sector development in pursuit of their regional integration goal. This is exemplified by their commitment to the creation of an enabling environment within which the private sector can flourish and

generate faster growth in individual countries. One of the pillars of this effort as enumerated in Chapter 14 of EAC treaty is the pursuit of financial integration with a view to maximizing the ability of financial sectors to mobilize resources and efficiently allocate them to the most productive sectors of the respective economies. Wakeman-Linn and Wagh, (2008) refers to regional financial integration and development as a process, market driven and/or institutionalized, which broadens and deepens financial links within a region. At the very least, this process involves eliminating barriers to cross-border investments and differential treatment of foreign investors. Further, deepening of financial links can take the form of harmonizing national policies, laws and institutions. Over time, cohesion of regulatory frameworks, operational structures, information systems, and convergence of prices and risk assessments means that national financial markets within the region effectively function as one. Taking this concept further, a group of countries may set up a regional bond or stock market distinct from and potentially coexisting with national markets, with the specific intention of pooling resources, risks and returns.

Disparities in economic growth among countries are a subject that has attracted much attention. Political scientists as well as economists have sought answers to the question of why some countries experience economic growth while others do not, and what factors are related to economic growths (Beck et al., 2000). Economic growth is no longer believed to happen for exogenous reasons. Instead, regions through appropriate policies, particularly with regard to financial markets, can influence it. Financial markets were not seen by the economic theory as directly relevant for development as technological

progress and population growth were. This has changed with the development of endogenous growth models, which state that investment in research and development, physical capital and human capital are major determinants of economic growth, (Beck et al., 2000). How to finance these investments and how financial intermediaries allocate funds has become the real questions, not just for growth, but also in terms of distributional effects. Economic growth may also come from the following two channels: growth in the amount of factors of production; or increases in the efficiency with which those factors are used. In other words, growth is induced by the increase in investment (accumulation of capital) and the efficiency of investment. Theoretical underpinnings suggest that broader spectrum of factors that explain economic growth should be looked at. The concept of capital rather than simply equipment and buildings should be considered. Human capital, organizational capital and information should also be included, among others.

1.1.1 Financial Market Development

Financial market development can be defined as the policies, factors, and the institutions that lead to the efficient intermediation and effective financial markets. A strong financial system offers risk diversification and effective capital allocation. The greater the financial development, the higher would be the mobilization of savings and its allocation to high return projects. Levine, (1997) emphasized to consider the importance of financial sector in economic growth. Financial development can be measured by a number of factors including the depth, size, access, and soundness of financial system. It can be measured by examining the performance and activities of the financial markets, banks, bond markets and financial institutions. It is observed that higher the degree of financial

development in a country, the wider will be the availability of financial services. A developed financial system offers higher returns with less risk.

Financial development can be defined as the ability of a financial sector to acquire information, registration of contracts, enforce contracts, facilitate transactions and create incentives for the emergence of particular types of financial contracts, markets and intermediaries, and all this at a low cost (Rajan and Zingales, 1998; and Levine, 1997). Financial development occurs when financial instruments, markets and intermediaries improve though not necessarily eliminate the effects of information, enforcement and transaction costs, and therefore provide better financial services.

Also, a well-structured financial system is important to boost the economy, but the main question is how to measure financial development. Some of the prominent issues in the measurement of financial development are discussed in the literature. Pill and Pradhan, (1995) asserted that the standard measures of financial development like the real interest rates and the ratios like broad money to GDP can lead to misleading results. These indicators overlook the financial openness of a country and also ignore the figures of public borrowings are made from domestic financial systems.

Theory suggests that the creation and promotion of efficient financial institutions are necessary for genuine and enduring economic process. Financial institutions can ameliorate risk, improve savings, corporate governance, mobilize savings, reduce transaction and information cost, and promotes specialization (Lavine, 1997). Economists

have long held the views that the development of the financial system (financial deepening) and economic development are closely intertwined (Demirguc, Kunt and Levine, 2001).

Stock markets provide an alternative channel for savings mobilization and better resource allocation (N’Zué, 2006). They enable savings mobilization for financing “immense works” (Bagehot 1906, Hicks, 1969 and Greenwood and Smith, 1996). More efficiently mobilized savings cause capital accumulation, which firms tap to finance large projects via equity issues. This, undoubtedly, spurs economic growth (Levine and Zervos 1998a, 1998b; Adjasi and Biekpe 2006). Focusing on liquidity, Bencivenga, et.al. (1996) and Levine (1991) argue that stock market liquidity plays a key role in economic growth. Without a liquid stock market, many profitable long-term investments would not be undertaken because savers would be reluctant to tie up their investments for long periods of time. In contrast, a liquid equity market allows savers to sell their shares easily, thereby permitting firms to raise equity capital on favorable terms. By facilitating longer-term, more profitable investments, a liquid market improves the allocation of capital and enhances prospects for long-term economic growth.

1.1.2 Economic Growth

Economic growth is the sustained increase in welfare of an economy nation, region, city together with the ongoing changes in that economy's industrial (Ray 1998). It is the increase in the amount of the goods and services produced by an economy over time. Economists and many other social scientists have focused, primarily although not exclusively, on growth in per capita income as the preferred measure of economic

growth. Economic growth is conventionally measured as the percent rate of increase in Gross domestic product (GDP). GDP refers to the market value of all the final goods and services produced within in a country in a given time period. The concept of GDP was developed in the early twentieth century, not for measuring economic growth, but for assessing the state of a national economy.

For more than half a century, there have been heated debates on the sources of economic growth of developing economies (Lewis, 1954; Solow, 1956; Chenery and Strout, 1966; Denison, 1967; Myrdal, 1968; Harris-Todaro, 1970; Schultz, 1979; Fields, 1980; Romer, 1986; Lucas, 1988; Barro, 1991; and Easterly, 2001). The perceived sources of economic growth have ranged from surplus labour to physical capital investment and technological change, foreign aid, foreign direct investment (FDI), investment in human capital, increasing returns from investment in new ideas and research and development. Other researchers such as Owens (1987), Sen (1999), and Kaufmann, Kray, and Mastruzzi (2006) have also focused on the impact of institutional factors such as the role of political freedom, political instability, voice and accountability on economic growth and development. Economic theory has settled on three broad categories as determinants of the rate at which our standard of living grow; the progress of science and productive knowledge; the growth of individual skills and incentives.

1.1.3 Financial Market Development and Economic Growth

The relationship between growth rate of an economy and its financial structure is a long debated and controversial issue among the economists. Begehot (1873) and Hicks (1969) argue that the financial system of England played a critical role in the industrial

revolution. Schumpeter (1911) points out that a well functioning financial system encourages technological innovations by increasing funding to entrepreneurs which ultimately leads to economic growth. Subsequent supporting research studies mention that the development of financial system is positively correlated with current and future economic growth, physical capital accumulation and economic productivity. On the contrary, Robinson (1952), Kuznets (1955) and Friedman and Schwartz (1963) suggest that the causation goes the other way, that is, the financial system developed as a result of economic growth.

Patrick (1966) clarifies the “demand following” and “supply leading” role of the financial sector development. In the supply leading role, the causality runs from financial development to economic growth and vice versa in the demand following role. Patrick (1966) further advances a hybrid view of the financial development growth nexus. This view recognizes a two way relationship with the nature of the relationship depending on the stage of economic development.

The supply leading hypothesis is based on the lower cost of acquiring information and making transactions as argued by Debreu (1959) and Arrow (1964). The authors advance that if there is a framework with no information cost or transaction cost, and then there is no need for a financial system. Fry (1997) explain this in the argument that finance and financial institution become relevant in a world of positive information, transactions and monitoring costs. McKinnon and Shaw (1973) opine that the financial system is important to increase savings and consequently investment. Additionally, Diamond and

Dybvig (1983) are of the view that financial institutions do not only provide services at a lower cost but them also offer higher returns.

1.1.4 The East African Community

EAC history is often believed to date back in the 1960s but this goes back to 1922 (Zingoni, 2010). The East African Community (EAC) is the regional intergovernmental organization of the Republics of Kenya, Uganda, the United Republic of Tanzania, Republic of Rwanda and Republic of Burundi with its headquarters in Arusha, Tanzania. The Treaty for Establishment of the East African Community was signed on 30 November 1999 and entered into force on 7 July 2000 following its ratification by the original three Partner States – Kenya, Uganda and Tanzania. The Republic of Rwanda and the Republic of Burundi acceded to the EAC Treaty on 18 June 2007 and became full Members of the Community with effect from 1 July 2007.

The capital market regulatory authorities of Kenya, Tanzania, and Uganda entered into a Memorandum of Understanding (MoU) in 1997. This MoU sets out cooperation goals for the three countries' securities markets and set up the East African Member States Securities Regulatory Authorities (EASRA) as the coordinating regulatory body for capital market integration and cooperation. Article 80 of the 1999 Treaty of East African Cooperation recognizes EASRA and provides for harmonization of capital market policies and regulatory frameworks; promotion of cooperation and cross-border listing and trading among the three exchanges; and development of a regional rating system for listed companies.

As part of measures to develop a common capital market strategy for the sub-region, East African Community (EAC) finance ministers agreed in 2001 to strengthen the EAC stock exchanges, to encourage cross-border listings, and to plan to develop a regional exchange with trading floors in each member state. To this end, the ministers pledged to implement legislation that would enable citizens of the EAC countries to be treated as residents in any of the three countries for the purpose of making investments. The ministers also agreed to liberalize capital accounts with respect to East African capital markets, as part of an effort to promote cross-border trade in stocks. Finally, the ministers agreed to encourage national governments to issue long-term bonds on their capital markets as benchmark securities for the private sector, as part of measures to support development of a debt securities market in the sub-region. There has been notable progress in this latter regard, with the issue of 5-, 7-, and 10-year government bonds on the Dar-es-Salaam Stock Exchange since 2002, and the issue of 2-, 3-, and 5-year government bonds on the Uganda Securities Exchange since early 2004.

The Nairobi Stock Exchange and Kenya's Capital Markets Authority (CMA) are taking a number of actions to promote regional integration of EAC capital markets, including the following: coordinating the drafting of harmonized foreign investor rules for EAC members; presenting the Kenya CMA's upgraded trading rules to other EASRA members for EAC-wide harmonization; and taking the lead in developing common market infrastructure and regulations. The Kenya CMA plans to circulate draft rules and regulations on a Central Depository System and is developing minimum eligibility criteria for cross-border brokers. The Nairobi exchange has proposed that all three EAC

exchanges jointly conduct a regional public awareness and educational campaign, whereby contact is made with a list of potential issuers of both equity and debt compiled periodically on a regional basis.

The Uganda Securities Exchange has harmonized its listing rules with those of the Nairobi Stock Exchange. The exchanges also have progressed toward common trading and settlement rules and procedures. The East African exchanges are examining different technology systems that would foster cooperation and integration by setting up an East African Central Depository System and an electronic trading platform for the sub-region. This synchronization of rules, technology, and systems is expected to pave the way for more cross-border listings. NSE officials recently indicated that the automated regional infrastructure could form the basis for additional linkages in future with other African exchanges.

The EAC Capital Markets Development Committee also aims to promote the use of capital markets for carrying out privatizations and to encourage the development of financial instruments and institutions, particularly collective investment vehicles. In an effort to develop the sub-region's bond markets, EASRA is compiling debt ratio criteria for banks and insurance companies in the EAC that wish to issue debt securities. EASRA recently proposed harmonizing fiscal treatment of income from debt securities in the three East African markets.

The countries of the East African Community are aiming for full economic integration.

To this end, they have recently ratified the Common Market Protocol and attention is now turning to monetary and financial integration and the negotiation of a Monetary Union Protocol. To achieve financial integration, barriers to international movement of capital across national boundaries would need to be removed. Free capital movement across national borders among countries with different currencies requires the integration of foreign exchange and money markets. Capital movement would be difficult between two countries if the currency of one country cannot be converted into that of the other. A well-established regional foreign exchange market is thus a crucial step towards financial integration.

An integrated financial market is one in which potential market participants face a single set of rules, have equal access, and are treated equally (Baele et al, 2004). For the EAC to have an integrated interbank money market, all banks, regardless of country origin, should have equal access to the money market of every EAC partner country. Given that each EAC country has its own currency, it is essential for the foreign exchange markets of EAC members to function as one market to facilitate integration of the interbank money markets. This paper focuses on the integration of foreign exchange markets and money markets among EAC countries. It is possible to construct a theoretically sound and computationally easy measure of financial openness based on deviations from covered interest rate parity (CIP).

1.2 Research Problem

The relationship between financial development and economic growth has received a great deal of attention in recent decades. However, there are conflicting views concerning

the role that the financial system plays in economic growth. On one hand, Levine, (1997) believes that financial intermediaries enhance economic efficiency, and ultimately growth, by helping allocate capital to its best uses, on another hand, Lucas (1988) asserts that the role of the financial sector in economic growth is over-stressed. Notwithstanding the controversy, modern theoretical literature on the finance–growth nexus by Grossman and Helpman (1991); Khan (2001); Lucas (1988); Pagano (1993); Rebelo (1991); Romer (1986) among others combines the endogenous growth theory and microeconomics of financial systems.

It is further notable that studies on financial development (FD) and economic growth (EG) by Goldsmith (1969), King and Levine (1993a, 1993b), and Levine and Zervos (1998) were based on cross-country analysis. Such studies used cross - country analysis to study the relationship between financial development and economic growth. While their findings suggest that finance helps to predict growth, they do not deal formally with the issue of causality, nor do they exploit the time - series properties of the data. As explained by Hassan and Bashir (2003); Khan and Senhadji (2003), Chuah and Thai (2004); Al - Awad and Harb (2005); conclusions based on cross-country analysis are sensitive to the sample countries, estimation methods, data frequency, functional form of the relationship, and proxy measures chosen in the study, all of which raise doubts about the reliability of cross-country regression analysis.

To mitigate the shortcomings of cross - sectional analysis and time series analysis, this paper examines the dynamic relationship between economic growth and financial

development across EAC region using panel data which combines time series and cross sectional features and offers a variety of estimation approaches. Levine, (2005) explain that panel time-series analysis, exploits time series and cross-sectional variations in data and avoids biases associated with cross-sectional regressions by taking the country specific fixed effect into account.

It should be noted that earlier economists reached a general consensus that the link between financial development and economic growth was positive. Subsequent empirical studies by Kaminsky and Reinhart, (1999), Deidda and Fattouh, (2002), Wachtel (2003), Favara, (2003), Arcand et al. (2012) and Demetriades and Rousseau, (2011) offer contradictory evidence. Consequently, the current verdict on the financial development - growth relationship has remained inconclusive. This study therefore re-examines this relationship in the context of developing countries while applying recently developed econometric techniques that allow the relationship to vary between the short and long run, and the short-run relationship to vary across countries. The study proxies financial development in terms of interest rate spreads (IRS), Non - performing loans (NPLs), broad money growth in financial institutions and domestic credit to private sector.

The relationship between financial development and economic growth has been discussed in economic literature in recent decades. Carby, Craigwell, Wright and Wood (2012) observe that central to these discussions is the nature of causality between the two variables. On the one hand there is the very popular view that financial development is important and leads to economic growth (supply-leading phenomenon). Conversely, there

is the demand – following view point which suggests that economic growth stimulates the development of the financial sector.

East African Countries economic performance has been disappointingly low compared to other developing regions. This has been attributed to many factors, among them: the inability for most African countries to secure access to larger markets; inherent high intra-country trade costs; lack of an effective framework for regional cooperation and resource pooling; and the pressure from development partners pursuing their own foreign policy objectives in the continent (Njoroge, 2010). As a consequence, among other measures geared towards promoting economic growth and development, Africa is witnessing a renewed momentum for financial integration. Besides the fear of marginalization, the fact that most of the African economies are too small on their own to negotiate with powerful trading blocs has also led to increased interest towards regional economic and financial integration. The continent has witnessed a shift from closed regionalism with import competing approach to a more open approach.

However, there are conflicting views concerning the role that financial integration plays in economic growth and by extension trade. Tukenmze (2005,) for example, found no evidence that financial integration supports economic growth. IMF (2002) found it difficult to establish the relationship between financial integration and growth. Schulne (2006) supported the view that financial integration was associated with growth. Kose et al. (2003), on the other hand, found that financial integration was associated with macroeconomic volatility. In addition, whether the EAC efforts towards deeper financial

integration have yielded positive results in terms of improved economic growth and trade remains largely unexplored or uncertain. This is an important issue because growth and trade in the EAC is by and large low and highly variable among these countries, and need to be improved. The role of financial integration in the growth process has become even more apparent, as many developing countries especially in Africa try to determine an appropriate liberalization strategy. It is against this background that following research questions arises.

1.3 Research Objectives

The main objective of the study is to investigate the relationship between financial market development and economic growth in East African Community countries.

Specific objectives;

- i. To determine the relationship between interest rate spreads and economic growth in East African Community countries.
- ii. To analyze the relationship between non performing loans in financial institutions and economic growth in East African Community countries.
- iii. To investigate the effect of broad money growth on economic growth in East African Community countries.
- iv. To determine the influence of domestic credit to private sector on economic growth in East African Community countries.
- v. To analyze the relationship between capital market deepening and economic growth in East African Community countries.

1.4 Value of the Study

The study adds to the body of knowledge, specifically in regard to financial market development and economic growth in light of the fast changing financial sector environment and it hopefully ignites the need for further research especially looking into competition, financial innovations and risks and their effects on economic growth. The study adds to existing literature, and is an invaluable tool for students, academicians, institutions, corporate managers and individuals who want to know more about the growth financial development nexus.

The research findings are insightful to policy makers who infer from the study on government initiatives for financial deepening and economic growth. The study enables the policy makers to be aware of the effects of interest rate spreads, levels of nonperforming loans, broad money growth and domestic credit to private sector on regional economic growth.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction.

This section of the study reviews academic research carried out on the subject of financial development and economic growth. It focuses on data relating to theoretical as well as empirical theories on the topic.

2.2 Theoretical Review

The theoretical literature review help establish what theories already exist, the relationships between financial development and economic growth, to what degree the existing theories have been investigated, and to develop new hypotheses to be tested. Since the pioneering contributions of Goldsmith, (1969), McKinnon, (1973), and Shaw, (1973) on the role of Financial Development (FD) in promoting economic growth (EG), the relationship between economic growth and financial development has remained an important issue of debate among academics and policy makers (De Gregorio & Guidotti, 1995).

2.2.1 The Neoclassical Theory: The Exogenous Growth Theory

The neoclassical exogenous growth theory is also called the Solow-Swan growth model and is built upon the basic neoclassical frameworks of long run economic growth. This framework explains economic growth using four main components namely, productivity, capital accumulation, population growth and technological progress. This theory states that the long run economic growth is exogenously determined, that is, economic growth is determined by factors outside the basic model specifications. The basic building block

of this theory is the production function which has constant labor (L) and capital (K) which are reproducible. Therefore the equation is Output (Y) being a function of Capital (K). The crucial aspect of the production function is the assumption of diminishing returns of capital accumulation. This means giving labor more capital goods without technological inventions will result in redundant investment of the new capital at a certain point.

Another basic premise of the neoclassical growth model is that there tends to be a convergence to a steady state in the long run depending on the technological progress and rate of labor force growth. It states that a country that has higher savings than other will tend to grow faster than those with low savings. In the very long run the role of capital accumulation plays a smaller role in this model than technological progress as nations move to the steady state. The neoclassical growth model emphasizes mostly on the importance of technological innovation in the long run growth to offset the effects of diminishing returns that affect both capital accumulation and labor increases in the economy (Aghion and Howitt, 1998).

2.2.2 The Endogenous Growth Theory

In the endogenous growth theory, economic growth is seen to be as a result of internal and not external forces, this means that households, investing in human capital and innovation play a significant role in the growth of an economy. This theory focuses on the positive externalities and spillover effects of a knowledge based economy which ultimately leads to economic development (Kenneth Arrow 1962). It is in contrast to the

exogenous growth model that emphasizes the role of technological processes as a scientific exogenous process that is not determined by economic forces.

The main feature of the endogenous growth model is that the broad definition of capital stock is not subject to diminishing returns as with the exogenous growth model (Fry, 1997). This therefore means that growth is a positive function of the investment ratio. It states that in the long run, economic growth will depend on the policy measures that are taken by different governments. This implies that policies that embrace openness, competition and innovation will promote growth (Aghion and Howitt, 1998).

2.2.3 Intermediation Theory

Financial intermediation involves matching lenders with excess funds (savings) with borrowers who need the money and this is done by a third party agent such as a bank. The intermediation theory is built on models of resource allocation that are based on perfect and complete markets. The basis of complete perfect markets which this theory is based on comes from the basic assumptions of the neoclassical model that include lack of competitive advantages and little or no transaction costs in getting information as it is freely available to all participants in the market. These assumptions are however not realized in the real world due to various market imperfections such as asymmetric information which increases transaction costs and result in other having a competitive edge over others.

Financial intermediaries therefore exist to remove these imperfections and they do it in many ways. Intermediaries remove transaction costs by sharing or diversifying the

evaluation of assets fixed costs, something individuals find difficult to do. This means that business is diversified by financial intermediaries such as banks and with that costs are able to be reduced through economies of scale. Asymmetric information is removed through intermediaries as they act as delegated monitors for the lenders through collecting information on the borrower and also doing a number of screenings (for banks they look at credit worthiness of borrowers).

Financial intermediaries also signal an informed position by investing in the assets they have particular knowledge of as they do extensive research about the market that some individuals can not readily and actively do. Intermediaries like banks also provide commitments to long term relationships with customers and thereby creating a relationship with the customer, removing the problem of adverse selection and moral hazard (Gwilym, 2008). The intermediation theory however only recognizes the importance of financial intermediaries in the economy for the role of removing transaction costs and asymmetric information.

2.3 Determinants of Economic Growth

2.3.1 Inward and Outward Direct Investments

A wide range of studies has investigated the factors underlying economic growth. Using differing conceptual and methodological viewpoints, these studies have placed emphasis on a different set of explanatory parameters and offered various insights to the sources of economic growth. Investment is the most fundamental determinant of economic growth identified by both neoclassical and endogenous growth models (Podrecca and Carmeci, 2001). However, in the neoclassical model investment has impact on the transitional

period, while the endogenous growth models argue for more permanent effects. The importance attached to investment by these theories has led to an enormous amount of empirical studies examining the relationship between investment and economic growth (e.g. Easterly, 2002; Bond, 2002).

2.3.2 Human Capital

Human capital is the main source of growth in several endogenous growth models as well as one of the key extensions of the neoclassical growth model. Since the term ‘human capital’ refers principally to workers’ acquisition of skills and know-how through education and training, the majority of studies have measured the quality of human capital using proxies related to education e.g. school-enrolment rates, tests of mathematics and scientific skills. A large number of studies have found evidence suggesting that educated population is key determinant of economic growth (e.g. Hanushek and Kimko, 2000).

2.3.3 Innovation and Research & Development

Innovation and R&D activities can play a major role in economic progress increasing productivity and growth. This is due to increasing use of technology that enables introduction of new and superior products and processes. This role has been stressed by various endogenous growth models, and the strong relation between innovation, research and development, and economic growth has been empirically affirmed by many studies (e.g Lichtenberg, 1992; Ulku, 2004).

The role of technological progress as a key driver of long-run economic growth has been

put in scrutiny by more recent studies, which accept constant and increasing returns to capital. These theories, known as endogenous growth theories, propose that the introduction of new accumulation factors, such as knowledge, innovation, and the like, will induce self-maintained economic growth. Triggered by Romer's (1986) and Lucas's (1988) seminal studies, work within this framework highlighted three significant sources of growth: new knowledge (Romer, 1990, Grossman and Helpman, 1991), innovation (Aghion and Howitt, 1992) and public infrastructure (Barro, 1990).

2.3.4 Economic Policies and Macro Economic Conditions

Economic policies and macroeconomic conditions have, also, attracted much attention as determinants of economic performance since they can set the framework within which economic growth takes place. Economic policies can influence several aspects of an economy through investment in human capital and infrastructure, improvement of political and legal institutions. Openness affects economic growth through several channels such as exploitation of comparative advantage, technology transfer and diffusion of knowledge, increasing scale economies and exposure to competition. Openness is usually measured by the ratio of exports to GDP. A large part of the literature has found that economies that are more open to trade and capital flows have higher GDP per capita and grew faster (Dollar and Kraay, 2000).

2.3.5 Foreign Direct Investment

Foreign Direct Investment (FDI) has recently played a crucial role of internationalizing economic activity and it is a primary source of technology transfer and economic growth. This major role is stressed in several models of endogenous growth theory. The empirical

literature examining the impact of FDI on growth has provided more-or-less consistent findings affirming a significant positive link between the two (Lensink and Morrissey, 2006).

The macro empirical literature finds weak support for an exogenous positive effect of FDI on economic growth. Findings in this literature indicate that a country's capacity to take advantage of FDI externalities might be limited by local conditions, such as the development of the local financial markets or the educational level of the country, i.e., absorptive capacities. Borensztein, De Gregorio, and Lee (1998) and Xu (2000) show that FDI brings technology, which translates into higher growth only when the host country has a minimum threshold of stock of human capital. Alfaro, Chanda, Kalemli-Ozcan and Sayek (2004), Durham (2004), and Hermes and Lensink (2003) provide evidence that only countries with well-developed financial markets gain significantly from FDI in terms of their growth rates

2.3.6 Institutional Frameworks

Another important source of growth highlighted in the literature is the institutional framework. Although the important role institutions play in shaping economic performance has been acknowledged long time ago (Lewis, 2004; Ayres, 1962), it is not until recently that such factors have been examined empirically in a more consistent way (Acemoglu et al, 2002). Rodrik (2000) highlights five key institutions (property rights, regulatory institutions, institutions for macroeconomic stabilization, institutions for social insurance and institutions of conflict management), which not only exert direct influence

on economic growth, but also affect other determinants of growth such as the physical and human capital, investment, technical changes and the economic growth processes.

The relation between political factors and economic growth has come to the fore by the work of Lipset (1959) who examined how economic development affects the political regime. Since then, research on the issues has proliferated making clear that the political environment plays an important role in economic growth (Lensink, 2001). At the most basic form, political instability would increase uncertainty, discouraging investment and eventually hindering economic growth. There has been a growing interest in how various social-cultural factors may affect growth (Zak and Knack, 2001; Barro and McCleary, 2003). Armstrong and Read (2004) affirmed that natural resources, climate, topography and 'landlockedness' have a direct impact on economic growth affecting (agricultural) productivity, economic structure, transport costs and competitiveness. However, others (e.g. Rodrik et al, 2002; Easterly and Levine, 2003) found no effect of geography on growth after controlling for institutions.

2.4 Empirical Review

The empirical economic growth literature has addressed indicators of financial development to the growth rate of real per capita income in growth models including conventional determinants of economic growth (especially investment, human capital, and initial income). While there is only a handful of studies that focus explicitly on Africa, the existing evidence suggests that financial development has a positive effect on economic growth. Spears (1992) find that aggregate measures of financial intermediation have positive and statistically significant effects on the growth rate of real per capita

GDP.

Odedokun (1996) undertook a study suggesting that financial development have substantial positive impact on economic growth. The study attempts to provide further evidence on this issue with both time-series and panel data for eight Asian economies.

Contrary to the conclusions reached in the previous studies, the estimating results of this study do not support the view that financial development promotes economic growth, at least for East and Southeast Asia, although a significantly negative connection between financial development and income growth is not supported either.

Levine and Zervos (1998) found that stock market and banking development “leads” economic growth, it show that stock market liquidity and banking development both positively predict growth, capital accumulation and productivity improvements when entered together in regressions, even after controlling for economic and political factors. The results are consistent with the views that financial markets provide important services for growth and that stock markets provide different services from banks.

Mehran et al (1998) have made a significant contribution to the area of financial development and economic growth. Based on results from a survey of 38 sub-Saharan African countries in 1997, they compiled indicators on six major aspects of financial development; the market structure and competitiveness of the financial system, the range of financial products available on the market, the degree of financial liberalization, the institutional environment under which the financial system operates, the degree of

integration with foreign financial markets (financial openness), and the degree of sophistication of monetary policy instruments.

Gelbard and Leite (1999) in measuring financial development in Sub-Saharan Africa introduced an instrument for measuring financial development and a set of six indices representing key characteristics of the financial systems in 38mSub-Saharan African countries. The results show that these countries have made good progress in improving and modernizing their financial systems during the last decade, particularly with regard to financial liberalization and the adoption of indirect instruments of monetary policy. In many countries however the range of financial products remains extremely limited, interest rate spread and wide capital adequacy ratios are insufficient, judicial loan recovery is a problem and the share of nonperforming loans is large.

Allen and Ndikumana (2000) find similar results in the case of the Southern African Development Community. The findings suggests that a positive and statistically significant link between real per capita GDP growth and their indices of financial development. They find that both the level of initial financial development and the change in the overall financial development index between 1987 and 1997 are positively and significantly related to economic growth. Their results confirm the findings from earlier studies that concluded that the initial level of financial development is an important determinant of future economic growth (King and Levine 1993a).

Shan and Morris (2002) and Shan, Sun and Morris (2001) found that the hypothesis was supported in only a few of the countries surveyed and, therefore, that no general conclusions could be drawn. The positive view of the finance-led growth hypothesis normally focuses on the role played by financial development in mobilizing domestic savings and investment through a more open and more liberalized financial system, and in promoting productivity via creating an efficient financial market.

There is evidence that African country that have made significant progress in macro-economic and financial sector reform also have experienced improvement in economic performance and that their financial systems are improving. Uganda is often cited as an example of recent success in economic reform (see, among others, Kasekende and Hussain 2000). The Ugandan government as well as the Bank of Uganda has progressively established a good record of credibility in policy decision making, which has promoted an environment that is conducive to private investment and growth.

According to recent studies, Africa as a region has the highest amount of private assets held abroad compared to other developing regions (Collier, Hoeffler and Pattillo 1999). Capital flight is pervasive especially in the severely indebted low-income countries, which at the same time are overburdened by high levels of indebtedness. The illicit outflows of capital impose high costs on African economies and must be regarded by policy makers as an urgent matter of concern.

Some studies have investigated the causes or determinants of capital flight from Africa using both cross-country data and country-specific case studies. These studies, find that capital flight is higher in countries (or episodes) with high corruption, bad governance, and high political instability. Olopoenia (2000) finds that capital flight in Uganda was higher during the periods of political and economic instability in the 1970s and the first half of the 1980s. Excessive monetary expansion, high inflation, and high fiscal deficits also tend to be correlated with high capital flight.

Chen (2002) examined the causal relationship between interest rates, savings and income in the Chinese economy over the period 1952 to 1999, using the co integration test and Bayesian vector auto regressions (BVAR) model. He argues that "it is therefore important to establish well-developed financial institutions-particularly the independence of the Central Bank-interest rate liberalization and sound financial intermediation, all of which are important for the efficient allocation of capital, which, in turn, can help to establish sustainable economic growth"(Chen, 2002, p.59).

In the cases of other developing economies, Ansari (2002), who has used a vector error correction model (VECM) to analyze the impact of financial development, money and public spending on Malaysian national income, argues that Malaysian experience has shown "an unambiguous support for the supply-leading view of financial development, implying the importance of financial sector development". Strong government ownership of banks, which is a typical phenomenon in the countries such as China is said to be one of the sources of slow economic growth around the world.

In the cases of developed economies, (Schich and Pelgrin2002) have applied a panel data for 19 OECD countries from 1970 to 1997 to examine the relationship between financial development and investment levels. Their conclusion arising from a panel error correction model indicates that financial development is significantly linked to higher investment levels.

Deidda and Fattouh (2002) who used a model allowing a non-linear and non-monotonic relationship between financial development and economic growth have supported the hypothesis of King and Levine (1993). Nourzad (2002) has also used a panel data by a stochastic production function to investigate the impact of financial development on productive efficiency and concludes that “financial deepening reduces productive inefficiency in both developed and developing countries, although the effect is larger in the former”.

Claessens and Laeven (2005) related banking competition and industrial growth and found that the higher the competition among banks, the faster the growth of finance-dependent industries, suggesting also that higher financial development precedes economic growth.

The result shows that financial development and economic growth Granger cause one another. This indicates that financial development and economic growth promotes one another in the countries. The results for Kenya support the findings of bidirectional

causality by Wolde-Rufael (2009)

Agbetsiafa (2003), while examining the causal relationship between financial development and economic growth in a sample of eight (8) emerging economies in sub-Saharan Africa (SSA), finds a unidirectional causality from growth to finance dominate in Ivory Coast and Kenya.

2.5 Summary of Literature Review

From this section we have seen that the basic premise of the growth theories did not put much focus on financial intermediation development and its role on economic growth. The neoclassical and endogenous growth theorists however fail to explain why over the long run some economies perform better than. As new research is done by various endogenous growth theorists who factor in financial intermediation, part of the question was answered as to why some economies perform better than others. Moving on to the empirical work we see that there is lack of consensus over the direction of causality between financial development and economic growth.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The study investigated the financial development and economic growth nexus in Kenya by looking at the relationship between economic growth/ Development (ED) and financial development variables that include; interest rate spreads, non performing loans, broad money growth and domestic credit to private sector on economic growth.

3.2 Research Design

The study employed a correlational research design. Orodho, (2003) explains that this type of design enables the researcher to assess the relationship that exists between two or more variables. It analyzes the correlation between two or more variables. Arestis, et al. (2002) used this design when investigating the impact of financial liberalization policies of financial market development in developing economies. To achieve the objectives of the study, both quantitative and qualitative data were used for the period 2008 to 2013.

3.3 Population and Sample Design

Mugenda and Mugenda (2003), explains population should have some observable characteristics to which the researcher intend to generalize the result of the study. According to Ngechu (2004), a population is a well defined or set of people, services, elements, events, group of things or households that are being investigated. This definition ensures that population of interest is homogeneous. Population studies are more representative because everyone has equal chance to be included in the final sample that is drawn. There are a total of 5 official East African Community member countries

i.e. Kenya, Uganda, Tanzania, Rwanda and Burundi. Southern Sudan and Sudan have also applied to join the community. This study focuses on the five official EAC member countries namely: Kenya, Uganda, Tanzania, Rwanda and Burundi for a six year period between the years 2008 to 2013.

3.4 Data Collection

Data was collected from secondary sources. Data on GDP, M2, Private credit, reserve requirements, directed credit programs, level of Non performing Loans, Broad Money Growth, interest rates spreads and Capital Markets reports were obtained from The Central Banks of EAC countries, World Bank development reports, International Financial Statistical Year Books of the IMF, Security Exchanges for EAC countries. These were supplemented with data from the Kenya National Bureau of statistics. The data was for the years 2008 to 2013.

3.5 Data Analysis

This study applies multiple regression equation technique whereby analysis is done on the various variables that explain the level of economic growth. This is to establish the relationship between the dependent variable (Economic growth) and the independent variable Financial development (FD) represented by interest rate spreads, levels of nonperforming loans, broad money growth and domestic credit to private sector and capital market development.

This multiple regression equation used is as:

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \varepsilon_i$$

Y= Dependent variable i.e. Economic Growth, measured by change in GDP per capita income for each country for the period 2008 to 2013.

B₀= Constant

β₁, β₂, β₃, β₄, β₅ = Regression coefficients/slope

X₁= Interest Rate Spread; will be measured by, (Interest Received/All interest bearing assets)-(Interest paid/Interest earning liabilities).

X₂= Levels of Non-performing loans; will be measured using total non-performing loans as a fraction of the total loan book.

X₃= Broad Money Growth; to use conventional measure of money supply such as narrow money (M₁), broad money (M₂), and quasi money (M₃) scaled by the country's GDP.

X₄= Domestic Credit to Private Sector; will be a measure of the supply of credit to the private sector as a share of total domestic credit or a ration of GDP.

X₅= Capital Market Deepening; will be measured by market capitalization over GDP.

i = market index measure per country

t= time period

ε_i = Error term represents the deviations of the observed values Y, from their mean.

The regression model is interpreted by the coefficients of determination which is R², T-Statistics and β-Value. The analysis of variance (ANOVA) was also used to test the differences in levels of development.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION OF FINDINGS

4.1 Introduction

This chapter presents the results of the analysis and findings of the study with reference to the study objectives. The first section of the chapter presents a description of the data used in the analysis. The second section presents the findings of the study and it includes relevant tables and figures that help to explain the results of the data analysis. The last section of the chapter presents a summary of findings and interpretation of the results of the study.

4.2 Descriptive Statistics

The objective of the study was to establish the relationship between financial market development and economic growth amongst the EAC member countries. Secondary data obtained from the EAC statistics portal, World Bank website, member country central banks and bureau of statistics was compiled and analyzed in Excel format and then transferred to Statistical Package for Social Sciences (SPSS) for further statistical data analysis.

Table one below presents the summary statistics on annual averages for the period 2008-2013, the table analyzes on the mean, median, standard deviation, minimum and maximum for the indicators of both the independent variables of financial market development i.e. interest rate spread, broad money growth, domestic credit to private sector, nonperforming loans in financial institutions and market capitalization and the

dependent variable economic growth in the EAC state.

Table One: Summary Statistics- Annual Averages 2008-2013

	Economic Growth	Private Credit to GDP	NPLS to GDP	IRS	Money Growth	Market Capitalization
Unit Measures	US\$	US\$	US\$	US\$	US\$	US\$
Mean	1.63E10	19.43	6.34	8.91	17.98	5.05E9
Median	1.63E10	16.75	6.28	9.22	16.65	3.78E9
Std. Deviation	3.14E9	1.96	1.85	0.798	7.22	1.87E9
Minimum	2.04E9	12.1	3.48	7.18	16.8	0
Maximum	3.41E10	34.62	9.7	10.48	20.53	1.39E10

From Table One, both financial market development indicators' mean and median has a small margin of difference, an indication that the data is probably normally distributed.

Spread of score as shown by standard deviation is higher in Broad Money Growth and Market Capitalization suggesting that the two indicators are more variable in economic growth i.e. positive relationship.

Table Two: Correlations Analysis

	Economic Growth	Private Credit to GDP	NPLS to GDP	IRS	Money Growth	Market Capitalization
Economic Growth	1					
Private Credit to GDP	-.128	1				
NPLS to GDP	.145	-.215	1			
IRS	.065	-.073	.459*	1		
Money Growth	.125	-.164	.010	-.077	1	
Market Capitalization	-.139	.822**	-.487**	-.426*	-.163	1

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

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

The Table Two above presents a weak positive relationship between interest rate spread and non performing loans ($r = 0.459$), there is weak negative relationship between interest rate spread and broad money growth ($r = -0.077$).

There is weak relationship between interest rate spread and domestic credit as a percentage of GDP ($r = -0.164$), there is positive relationship between market capitalization and domestic credit as a percentage to GDP ($r = 0.822$).

4.3 Relationship between Financial development Indicators and Economic Growth in EAC

Table Three: Financial Development indicators and Economic growth in EAC Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.440 ^a	.194	-.143	1.0738643

a. Predictors: (Constant), Money Growth, Credit to GDP, NPLs, IRS, Mkt Capt

ANOVA^b

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.321	5	.664	.576	.718 ^a
	Residual	13.838	12	1.153		
	Total	17.159	17			

a. Predictors: (Constant), Money Growth, Credit to GDP, NPLs, IRS, Mkt Capt

b. Dependent Variable: Economic Growth

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
1 (Constant)	-12.321	20.433		-.603	.558
Mkt Capt	.757	1.013	.443	.747	.469
Credit to GDP	-1.092	1.402	-.417	-.779	.451
NPLs	-.853	.646	-.397	-1.321	.211
IRS	-1.961	1.680	-.366	-1.167	.266
Money Growth	.506	.960	.183	.527	.608

a. Dependent Variable: Economic Growth

The test of significance to test the model of multiple regression results for the period 2008 to 2013 indicates that financial market variables i.e. interest rate spread money growth, nonperforming loans, domestic credit and market capitalization are not significant indicators of the economic growth in EAC countries.

The p-values obtained were; (Mkt. Capt p=0.469, Domestic Credit p=0.451, NPLs p=0.211, IRS p=0.266 and BMG p=0.608) against standard measure of p=0.05 i.e p-values are more, hence financial market development indicators has no significant relationship with economic growth in EAC countries.

4.4 Discussion of Research Findings

As presented in table three above, 19.4% of variations in economic growth in EAC ($R^2 = 0.194$, $F = 0.576$, $p = 0.718$) is explained by variations in the five identified indicators of financial development. It is presented that there is a positive relationship between market capitalization ($\beta = 0.757$, $t = 0.747$, $p = 0.469$) and economic growth in EAC. This finding suggests that as the capital markets grow, funds are channeled to the

productive sectors of the economy that subsequently enhance economic growth. There is also a positive relationship between money growth ($\beta = 0.506$, $t = 0.527$, $p = 0.608$) and economic growth. This finding thus suggests that as narrow, broad and quasi money grows in an economy, the rate of economic growth is equally enhanced.

The study finds a negative relationship between interest rate spreads ($\beta = -1.961$, $t = -1.167$, $p = 0.266$) and economic growth evidenced in the EAC countries. This finding confirms the proposition that higher interest rate spreads discourages borrowing and hence affects economic growth while lower interest rate spreads encourages borrowing and consequently economic productivity. There is also a negative relationship between the ratio of credit to the private sector to the GDP ($\beta = -1.092$, $t = -0.779$, $p = 0.451$).

The negative relationship between ratio of private sector credit to GDP and economic growth indicates that there may be unproductive applications of credit in the respective economies. One possible cause is attributed to the levels of interest rate spreads deemed higher which discourages borrowing for use in the private sector. The results of a negative relationship between levels of nonperforming loans ($\beta = -0.853$, $t = -1.321$, $p = 0.211$) and economic growth confirms the expectations that when the levels of nonperforming loans are high in an economy, the lenders are unable to function as financial intermediaries especially on their role of credit creation. This will subsequently affect economic activities.

Statistically significant strong positive relationship is observed between market

capitalization and domestic credit as a percentage of GDP in EAC. Statistically significant moderate positive relationship exists between interest rate spreads and non performing loans as a percentage of GDP. There are also statistically significant weak moderate relationships between market capitalization and non performing loans as a percentage of GDP as well as market capitalization and interest rate spreads.

The study results find that all the EAC member countries have increased GDP over the years with different trends. There is however no significant difference in mean levels of economic growth across the countries as established by the analysis of variance. The findings suggest that 19.4% of variations in economic growth in EAC are explained by variations in the five financial development indicators under study. The study establishes positive relationships between market capitalization, money growth and economic growth and negative relationships between ratio of credit to private sector to GDP levels, levels of nonperforming loans and interest rate spreads to GDP.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

From the analysis and data collected, the following discussions, conclusions and recommendations were made. The responses were based on the objectives of the study which was to determine the relationship between financial market development and economic growth in EAC countries.

5.2 Summary of Findings

The objective of the study was to establish the relationship between financial market development and economic growth amongst the EAC member countries. The financial development indicators studies include the interest rates spreads, the levels of nonperforming loans, the levels of credit to the private sector, the money growth in the economy and the levels of capital markets capitalization.

Annual economic growth derived as a percentage of change in GDP for respective EAC member countries are established to be variable across the countries. A comparison of the mean economic growth indicates that there are no significant differences between the countries thereby implying that the EAC member countries have relatively similar levels of rate of economic growth in the study period.

The positive relationship between market capitalization and rate of economic growth is a pointer to the significance of capital markets in generating long term finances for productive capital investment activities that stimulate economic growth.

The positive relationship established between money growth and economic growth in an economy indicates the importance of increasing the broad, narrow and quasi money in an economy. With the money growth, many productive deficit projects access financing which eventually translates into economic growth.

The negative relationship obtained between interest rate spreads in an economy and rate of economic growth is a pointer to the fact that when financial intermediaries maintain high differentials between deposit and lending rates, surplus fund holders will have no motivation to channel the fund to deficit fund projects because of the low interest rates. At the same time, borrowers will not find it feasible to obtain credit capital at high interest rates for investment projects that stimulate economic growth.

Economic growth is also affected by the levels of nonperforming loans negatively. This implies that when borrowers are unable to settle their obligations with lenders, credit creation role of the lenders is incapacitated. There is therefore little productivity from the economy as the lenders shy away from additional lending due to liquidity and default risks.

Related to levels of nonperforming loans, the study establishes that the percentage of credit to the private sector as a percentage of GDP negatively relates to levels of economic growth too. Though the countries continue to experience growth in GDP, there seem to be reducing levels of advancements to the private sector which may be explained

by credit risks in the region. The negative relationship thus suggests decreasing credit capital to the private sector as the economies grow which negatively affects economic growth given that EAC member countries consider the private sector as the engine of economic growth.

5.3 Conclusions

From the study findings, it is concluded that the specific EAC member countries' economies continue to expand with the levels of GDP increasing over the years. However, the rates of economic growth do not correspondingly increase. There are periods of increased rate of growth as well as declining rates of growth for all the EAC member countries. Though the rates of growth vary, the mean rates of growth are established not to vary significantly across the five EAC countries which thus suggest similar mean rates of economic growth in the EAC region.

The study finds statistically significant strong positive relationship is observed between market capitalization and domestic credit as a percentage of GDP in EAC. This finding shows that lending in the private sector move in tandem with the EAC member country's equity markets capitalization. Statistically significant moderate positive relationships also exist between interest rate spreads and non performing loans as a percentage of GDP in '2EAC which underscore the effects of higher interest rate spreads on levels of nonperforming loans in economies. The weak moderate relationships between market capitalization and non performing loans, and market capitalization and interest rate spreads is within the expectations that equity market activities may have negligible if any

effect on non performing loan levels and interest rate spreads have no effect on equity markets capitalization.

The financial development indicators are also established to have different strengths on influencing economic growth positively or negatively. Market capitalization and money growth are established to influence rates of economic growth positively. Interest rate spreads, rate of private sector credit to GDP and levels of nonperforming loans are found to affect rate of economic growth negatively. The strengths of the effects vary based on the financial development indicators considered.

The established relationships between financial development indicators and economic growth are consistent with the findings of King and Levine (1993) who concluded that financial development leads to economic growth. Levine and Zervos (1998) also found that stock market and banking development leads to economic growth. The findings also support the arguments by Wolde-Rufael (2009) and Agbetsiafa (2003) that financial development and economic growth possibly Granger cause one another.

5.4 Recommendations

Since economic growth is the desire of government leadership, it is advisable from the study findings to address the concept of economic growth by initiating policies that support continued economic growth in EAC countries. Relevant policies should be put in place to ensure that economic growth rate does not decline beyond a given benchmark acceptable rate.

Because the study notes a negative relationship between economic growth and non performing loans, policy makers should develop a framework for limiting bad loans which may cripple the ability of the financial intermediaries to create credit and in worst instances may lead to bankruptcy and bank runs. One of the possible avenues to address this issue is credit information sharing.

The negative relationship between Broad money growth and economic growth suggests that expansion in money supply affects economic growth. Possibly by enhancing inflation in the economy. Government policy makers should develop strategies for attaining optimum levels of broad money growth which do not encourage undesirable consequences like inflation.

The positive relationship between interest rate spreads and economic growth is not consistent with the literature on finance, development and growth. Government policy makers should develop policies that manage the interest rate spreads at acceptable levels that encourage borrowing for private investments. This should be attained through legislation and availing cheaper sources of deposits for lenders.

Financial sector deepening policies which are measured by the proportion of domestic credit as a percentage of GDP and the number of bankable citizen also positively relates with the levels of economic growth. The policy makers in Kenya should therefore strive increase the number of bankable and borrowing citizen. This can be attained through automation of banking services, entrenched use of the agency banking concepts and

supporting new developments in the electronic and mobile banking avenues.

5.5 Limitations of the Study

The study uses a linear regression model to establish the relationships between financial development indicators and economic growth. There may be instances where linear regression models are not best models for studying time series items which may also have dual causality. The study findings are as accurate as the data used and the regression analysis. This research has not been able to establish the accuracy of the data used beyond the authenticity of the source. This means it cannot be deduced whether the records are accurate and if so, to what extent.

The research findings are applicable to EAC countries and within the period of study. The study has not established whether the results are same outside EAC Countries or not. Further, since finance is in part a behavioural issue, the study has only given findings applicable within the context of the historical data. As to whether the findings are applicable after 2013, the study has not expressly investigated that.

The study assumed that the relationship between economic growth rate and financial development indicators is linear. This assumption led to the use of the multivariate linear regression model. There is a possibility that the relationship is not linear like used in the analysis among all the variables of financial development and that could be why some of the variables weakly explained the variation in GDP growth. This study is unable to categorically state whether the relationship is linear or otherwise. The findings are therefore limited to the linearity assumption.

5.6 Suggestions for Further Research

Further studies in this area should investigate other factors that influence the rates of economic growth in the EAC member countries other than the financial development indicators. From the model, financial development indicators explain 19.4% of economic growths as the other 80.6% are possibly explained by other factors not considered in this study. The effects of the rates of economic growth of one member country on economic growth of trading partner member countries should also be reviewed.

The findings of this study can be improved if the causality relationships between financial development indicators and economic growth can be established. This study has not established the causality relationship between investment and economic growth in EAC countries. A study should be done to establish whether there is a causality relationship between investment and economic growth and, further, establish the nature and direction of the causality.

There is need to investigate whether the relationship between economic growth and financial markets development is a linear function. This study assumed the relationship is linear. This is just one of the possibilities. It therefore must be empirically confirmed that the relationship is linear. If not, then the true relationship should be found and used to provide true results.

In this study, financial development indicators were the independent variables. These indicators are affected by various other factors. There is therefore the need to further

investigate the characteristics that affect the financial development indicators especially the annual macro economic variables.

REFERENCES

- Acemoglu, D., Johnson, S. & Robinson, J. (2002). Reversal of fortune: geography and institutions in the making of the modern world income distribution. *Quarterly Journal of Economics*, 117(4), 1231-1294
- Adjasi, C. K.D. & Biekpe, N. B. (2006). Stock Market Development and Economic Growth: *The Case of Selected African Countries*
- Agbetsiafa, D.K. (2003). The Finance Growth Nexus: *Evidence from sub-Saharan Africa, Savings and Development*, 28(3), 271-288.
- Aghion, P. & Howitt, P. (1992). A Model of Growth through Creative Destruction. *Econometrica*, 60(2), 323-351.
- Aghion, P. & Howitt, P. (1998). *Endogenous Growth Theory*. Cambridge, MA: MIT Press.
- Alfaro, L., Chanda, A., Kalemli-Ozcan, S. & Sayek, S. (2004). FDI and Economic Growth. The Role of Local Financial Markets. *Journal of International Economics* 64, 113-134.
- Al-Awad, M. & Harb, N. (2005). Financial Development and Economic Growth in the Middle East. *Applied Financial Economics* 1041-1051
- Al-Tamimi, H., Al-Awad, M. & Charif, H. (2001). Finance and growth: evidence from some Arab Countries. *Journal of Transnational Management Development* 7, 3-18.
- Al-Yousif, Y.K. (2002). Financial development and economic growth: another look at the evidence from developing countries. *Review of Financial Economics* 11, 131-50.
- Allen, D.S. & Ndikumana, L. (2000). Financial intermediation and economic growth in Southern Africa, *Journal of African Economies*, 9(2), 132-160.

- Ansari, M. I., (2002). Impact of financial development, money, and public spending on Malaysian National Income: an econometric study. *Journal of Asian Economics* 13,72-93.
- Arcand, J., Berkes, E., & Panizza, U. (2012), Too Much Finance? International Monetary Fund. Research Department.
- Arestis, P. & Demetriades, P. (1997). Financial development and economic growth: Assessing the evidence. *Economic Journal* 107, 783–799.
- Armstrong, H. & Read, R. (2004). The Economic Performance of Small States and Islands: The Importance of Geography. Paper presented at Islands of the World VIII International Conference, Taiwan.
- Arrow, K.J. (1962). The Economic Implication of Learning by Doing. *Review of Economic Studies*. 29(3): 155-73.
- Arrow, K.J. (1964). The Role of Securities in the Optimal Allocation of Risk Bearing. *Rev. Econ. Stud.*, 2: 91-96.
- Ayres, C. (1962). The Theory of Economic Progress: A study of the fundamental economic development and cultural change, Schocken, New York.
- Baale, L., Ferrando, A., Hördahl, P., Krylova, E. & Monnet, C. (2004). Measuring Financial Integration in the Euro Area. *ECB Occasional Papers*, no 14.
- Bagehot, W. (1873), *Lombard Street*, London: K. Paul, Trench.
- Barro, R. J. (1991), Economic Growth in a Cross Section of Countries. *Quarterly Journal of Economics*, 106, 407-43.
- Barro, R. & McCleary, R. (2003). Religion and Economic Growth. NBER Working Paper no. 9682.
- Bayoumi T. & Melander O. (2008). Credit Matters: Empirical Evidence on US Macro Financial Linkages, IMF Working Paper No 08/169 <http://www.imf.org/external/pubs/ft/wp/2008/wp08169.pdf>
- Beck, T., Demirgüç-Kunt., Asli., Levine., & Ross. (2000). A New Database on Financial Development and Structure. *World Bank Economic Review* 14, 2000, 597-605.

- Bencivenga, V.R., Smith, B. & Starr, R.M. (1996). Equity Markets, Transaction Costs, and Capital Accumulation: *An Illustration. The World Bank Economic Review*, 10: 241-65.
- Borensztein, E., De Gregorio, J. & Lee, J.W. (1998). How Does Foreign Direct Investment Affect Economic Growth? *Journal of International Economics* 45,115-135.
- Boyce, J.K. & Ndikumana, L. (2000). Is Africa a net creditor? New estimates of capital flight from severely indebted sub-Saharan African countries, 1970-1996. University of Massachusetts, Department of Economics and Political Economy Research Institute, *Working Paper 2000-1*.
- Bridges J., Rossiter N. & Thomas R. (2011). Understanding the recent weakness in broad money growth. Available at <http://www.bankofengland.co.uk/publications/Documents/quarterlybulletin/qb110101.pdf>. Accessed on 20th July, 2014.
- Cargill, T. & Elliott, P. (2001). Financial liberalization in China: imitations and lessons of the Japanese regime. *Journal of the Asia Pacific Economy* 6, 1-21.
- Chen, C.H., (2002). Interest rates, savings and income in the Chinese economy. *Journal of Economic Studies* 29, 59-73.
- Chenery, H. B. & Strout, A. (1966). Foreign Assistance and Economic Development, *American Economic Review*, 56 679-733.
- Chuah, H. & Thai, W. (2004). Financial development and economic growth: Evidence from causality tests for the GCC countries, *IMF Working paper*
- Claessens, S., & Laeven, L. (2005). Financial dependence, banking sector competition and economic growth. *Journal of the European Economic Association*, 3, 179–207.
- Collier, P., Hoeffler, A. & Pattillo, C. (1999). Flight capital as a portfolio choice. World Bank, unpublished manuscript.
- Debreu, G. (1959) *Theory of value*. New York:Wiley.
- De Gregorio, J. & Guidotti, P. (1995). Financial Development and Economic Growth. *World Development*, 23(3), 433-448

- Deidda, L. & Fattouh, B. (2002). Non-linearity between finance and growth. *Economics Letters* 74, 339-45.
- Demetriades, P. & Hussein, K. (1996). Does financial development cause economic growth? Time-series evidence from 16 countries. *Journal of Development Economics* 51: 387–411.
- Demetriades, P. & Rousseau, P.L. (2011). The changing face of financial development, paper presented at the MMF Conference, University of Birmingham.
- Demirguc-Kunt, A. & Levine, R. (2001). *Financial Structures and Economic Growth: A cross-country comparison of Banks, Markets and Development*, MIT Press, Cambridge, MA.
- Denison, E. F. (1967). *Why Growth Rates Differ: Post-War Experience for Nine Western Countries*, Washington: DC.
- Diamond, D.W. & Dybrig, P.H. (1983). Bank Runs, Deposit Insurance and Liquidity. *Journal of Political Economy* 91 (June), 401-19
- Dollar, D. & Kraay, A. (2000). *Trade, Growth and Poverty*. The World Bank Development Research Group, Washington, Mimeo.
- Durham, K. B. (2004). Absorptive Capacity and the Effects of Foreign Direct Investment and Equity Foreign Portfolio Investment on Economic Growth. *European Economic Review* 48, 285-306.
- Easterly, W. & Levine, R. (2001). What have we learned from a decade of empirical research on growth? It's Not Factor Accumulation: Stylized Facts and Growth Models. *World Bank Economic Review*, 177-219.
- Easterly, W. & Levine, R. (2003). Tropics, germs and crops: how endowments influence economic development. *Journal of Monetary Economics*, 50(1), 3-39.
- Favara, G. (2003). An Empirical Reassessment of the Relationship between Finance and Growth. *International Monetary Fund Working paper series*, wp/03/123, 1-46.
- Fields, G. S. (1980). *Poverty, Inequality, and Development*, Cambridge University Press, Cambridge, England.

- Folawewo, A. O. & Tennant D. (2008). Determinants of Interest Rate Spread in Sub-Saharan African Countries: A Dynamic Panel Analysis. A paper prepared for the 13th Annual African Econometrics Society Conference, 9 – 11 July, 2008, Pretoria, Republic of South Africa
- Friedman, M. & Schwartz, A. (1963). A monetary history of the United States, Princeton: Princeton University Press
- Fry, M.J. (1997). In Favour of Financial Liberalization, *Economic Journal* 107, 745-770
- Gelbard, E & Leite, S.P. (1999). Measuring financial development in sub-Saharan Africa. *IMF working paper* 99/105.
- Goldsmith, R. W. (1969), Financial Structure and Development. *New Haven, CT: Yale*
- Greenwood, J. & Smith, B. (1996). Financial Markets in Development and the Development of Financial Markets. *Journal of Economic Dynamics and Control*, 21: 145-81.
- Grossman, G. & Helpman, E., (1991). Quality ladders in the theory of Growth, *Review of Economic studies*, 58, 43-61 University Press.
- Gwilym, O. (2008). Financial Intermediation. London, University of London International studies publications office.
- Hanushek, E. & Kimko, D. (2000) Schooling, Labor-Force Quality, and the Growth of Nations, *American Economic Review*, 1184-1200
- Harris-Todaro, J.R.M. (1970). Migration, Employment, and Development: A Two- Sector Analysis, *American Economic Review* , 60 (March):126-142.
- Hassan, M.K. & Bashir, A. (2003). Financial development and economic growth in themiddle east. Working paper, The 6th International conference in Islamic Economics, Manama, Bahrain.
- Hermes, N. & Lensink, R. (2003). Foreign Direct Investment, Financial Development and Economic Growth. *Journal of Development Studies* 40, 142-163.
- Hicks, J. (1969). A Theory of Economic History, Oxford: Clarendon press

- IMF. (2002), International Financial Integration and Economic Growth. *Journal of International money and finance* 9(3), 503-17.
- International Monetary Fund, (2009). International Financial Statistics. 55(2). Washington, DC: Author.
- Kaminsky, G.L. & Reinhart, C.M. (1999). The twin crises: the causes of banking and balance-of- payments problems. *The American Economic Review (Evanston)*, 89(03), 473-500.
- Kasekende, L.A. & Hussain, I. (2000). The central bank as a restraint: the experience of Uganda, in Collier, Paul and Catherine Pattillo (Eds.) *Investment and Risk in Africa, New York: St. Martin Press*, 169-181.
- Kaufmann, D., Kraay, A. & Matruzzi, M. (2006). Governance Matters V: Aggregate and individual Governance indicators for 1996-2005. World Bank Policy Research Paper No.4012. Washington, DC
- Kenya Bankers Association (2013). Assessing the determinants of interest rate spread of commercial banks in Kenya: An empirical investigation. Available online at [http://www.kba.co.ke/workingpaperseries/img/pdf/Working_Paper_WPS_04_12\[2\].pdf](http://www.kba.co.ke/workingpaperseries/img/pdf/Working_Paper_WPS_04_12[2].pdf). Accessed on 20th July, 2014.
- Khan, A. (2001). Financial development and economic growth: Macroeconomics Dynamics, 5, 413-433
- Khan, M. & Senhadji, A. (2003). Financial development and economic growth: A review an new evidence. *Journal of African Economies* 12, 89-110.
- King, R.G. & Levine, R. (1993a). Finance and growth: Schumpeter might be right, *Quarterly Journal of Economics*, 108(3), 717-737
- King, R.G. & Levine, R. (1993b). Finance, entrepreneurship, and growth. Theory and Evidence, *Journal of Monetary Economics*, 32, 513-542.
- Kose, M., Prasad, E., & Terrones, M. (2003). Financial Integration and Macroeconomic Volatility. *IMF Staff Paper*, no 167 B(2003).
- Kuznets, S. (1955). Economic Growth and Income inequality, *The American Economic Review* 45: 1-28

- Lensink, R. (2001). Financial development, uncertainty and economic growth. *De Economist*, 149(3), 299-312.
- Lensink, W. & Morrissey, O. (2006). Foreign Direct Investment: Flows, Volatility and the Impact on Growth. *Review of International Economics*, 14(3), 478-493.
- Levine, R. (1996). Financial development and economic growth: views and agenda. *Policy Research Working Paper Series* 1678, World Bank, Washington, DC.
- Levine, R. (1997). Financial development and economic growth: Views and agenda, *Journal of Economic Literature*, 35, 688-726.
- Levine, R. (2005). Finance and Growth: Theory and Evidence, *Handbook of Economic Growth*, in: Aghion P, and Durlauf S. 865-934
- Levine, R. & Zervos, S. (1998). Capital control liberalization and stock market development, *World Development*, 26(7), 1169-1183.
- Levine, R. & Zervos, A.(1998a). Stock Markets, Banks, and Economic Growth. *American Economic Review*, 88(3), 537-58.
- Lewis, A.W. (1954). Economic Development with Unlimited Supplies of Labor, *Manchester School of Economic and Social Studies* , 22, 139-191.
- Lichtenberg, F. (1992). R&D Investment and International Productivity Differences, NBER Working Paper, No. 4161.
- Lipset, S. M. (1959). Some Social Requisites of Democracy: Economic Development and Political Legitimacy. *American Political Science Review*, 53(1), 69-105
- Lucas, (1988), On the Mechanics of Economic Development. *Journal of Monetary Economics* 22, 3-42.
- Luintel, K. & Khan, M. (1999). A quantitative reassessment of the finance-growth nexus: Evidence from a multivariate VAR. *Journal of Development Economics* 60, 381–405.
- Mburu, T. (2006). A Political and Economic Assessment of the Feasibility and Desirability of an East African Monetary Union (Unpublished PhD Thesis). Claremont Graduate University, Claremont, USA.
- McKinnon, R. I. (1973), *Money and Capital in Economic Development*. Washington, DC: The Brookings Institution.

- Mehran, H., Piero, U., Briffaux, J.P., Iden, G., Lybek, T., Swaray, S. & Hayward, P. (1998) Financial sector development in sub-Saharan African Countries, *IMF Occasional Paper 169*.
- Mkenda, B. (2001). Is East Africa an Optimum Currency Area? Göteborg University Department of Economics Working Paper, 41 (April 2001).
- Mugenda, O.M. & Mugenda, A.G. (2003). Research methods quantitative and qualitative approaches Nairobi. Nairobi Press
- Mvungi, E. (2002). The draft treaty for the establishment of the East African Community: A critical review. Dar es Salaam University Press Ltd
- Myrdal, G. (1968). Asian Drama: An Inquiry into the Poverty of Nations, (New York: Twentieth Century Fund).
- Mwase, N. (1982). Regional economic integration and the unequal sharing of benefits: background to the disintegration and collapse of the East African Community. *Journal of African Development, Volume 4 Number 2 and 3, 1979*.
- Ndikumana, L. (2001). A study of capital account regimes in Africa, paper prepared for the UNCTAD workshop on Management of capital flows: comparative experiences and implications for Africa, held in Cairo on March 20- 21, 2001.
- Ndikumana, L. (2000). Financial determinants of domestic investment in Sub-Saharan Africa: *Evidence from panel data, World Development, 28(2): 381-400*.
- Ndikumana, L. & Boyce, J.K. (1998) Congo's odious debt: External borrowing and capital flight in Zaire, *Development and Change, 29 (2), 195-217*.
- Njoroge, L. (2010). The impact of regional integration on economic growth: empirical evidence from COMESA, EAC and SADC trade blocs. *American Journal of Social and Management Sciences, 2010, 1(2): 150-163*.
- Nyoni, Timothy (2000), Capital flight from Tanzania, in Ajayi, Ibi and Mohsin Khan (Eds.). External Debt and Capital Flight in Sub-Saharan Africa. *Washington, DC: The IMF Institute, 265-299*.

- N'zue, F. F. (2006). Stock Market Development and Economic Growth: Evidence from Cote D'Ivoire. *African Development Review*, 18(1), 123-143.
- Odedokun, M.O. (1996), Alternative econometric approaches for analyzing the role of the financial sector in economic growth: Time-series evidence from LDCs, *Journal of Development Economics*, 50, 119-146.
- Odhiambo, N. (2008). Financial development in Kenya: A dynamic test for the finance led growth hypothesis. *Journal of Economic Issues*.
- Olopoenia, R. (2000). Capital flight from Uganda, 1971-94, in Ajayi, Ibi and Mohsin Khan(Eds.) *External Debt and Capital Flight in Sub-Saharan Africa*. Washington, D.C.: The IMF Institute, 238-264.
- Owens, E. (1987). *The Future of Freedom in the Developing World*, Pergamon Press.
- Pagano, M. (1993). Financial markets and growth, *European Economic Review* 37, 613-622.
- Patrick, H. (1966). Financial Development and Economic Growth in Underdeveloped Countries. *Economic Development and Cultural Change*, 174-189.
- Pill, H. & Pradhan, M. (1995). Financial Indicators and Financial change in Africa and Asia, IMF Working paper 95/123 (Washington: International Monetary Fund, November)
- Podrecca, E. & Carmeci, G. (2001). Fixed Investment and Economic Growth: New results on Causality. *Applied Economics*, 33,177-182.
- Rajan, R. & Zingales, L. (1998). Financial Dependence and Growth, *American Economic Review*, 88, 559-586.
- Rashid H. (2011). Credit to Private Sector, Interest Spread and Volatility in Credit-Flows: Do Bank Ownership and Deposits Matter? DESA Working Paper No. 105. Available online at http://www.un.org/esa/desa/papers/2011/wp105_2011.pdf. Accessed on 20th July,2014.
- Ray, D. (1998). *Development Economics*, Princeton University Press, Chapters 2,3,4,5.

- Rebelo, S. (1991). Long run policy analysis and long-run growth. *Journal of political Economy*, 99(3), 500-21
- Robinson, J. (1952). *The Rate of interest and other Essays*, London: Macmillan
- Rodrik, D. (2000). Institutions for High-quality Growth: What they are and How to Acquire them. *Studies in Comparative International Development*, 35, 3–31.
- Rodrik, D., Subramanian, A. & Trebbi, F. (2002). Institutions rule: the primacy of institutions over geography and integration in economic development. NBER Working Paper no. 9305.
- Romer, P. (1986). Increasing returns and long-run growth. *Journal of political Economies*, 94(5), 1002-1037
- Romer P. (1990). Endogenous Technological Change. *Journal of Political Economy*, 98(5), S71-S102.
- Rousseau, P. & Wachtel, P. (2000). Equity Markets and Growth: Cross-Country Evidence on Timing and Outcomes, 1980-1995. *Journal of Banking and Finance*, 24, 1933-57.
- Schich, S. & Pelgrin, F. (2002). Financial development and investment: Panel data evidence for OECD countries from 1970 to 1997. *Applied Economics Letters* 9, 1-7.
- Schularick, M., Adams, K., & Steger, M. (2006). Does Financial Integration Spur Economic Growth? New Evidence from the first Era of Financial Globalization, *Cesifo Working Paper no.* 1691.
- Schultz, T.W. (1979). *The Economics of Being Poor: Noble Lecture*.
- Schumpeter, J. A. (1911). *The Theory of Economic Development*, Cambridge, MA. *Harvard University Press*.
- Schumpeter, J. A. (1934). *The Theory of Economic Development*. MA: *Harvard University Press*.
- Sen A. (1999). *Development as Freedom*, Alfred Knopf Publisher (New York: NY).
- Shan, J.Z. & Morris, A.G. (2001). Financial development and economic growth: An egg and chicken problem?. *Review of International Economics* 9, 443–454.

- Shaw, E.S. (1973). *Financial Deepening in Economic Development*. New York, Oxford University Press.
- Solow, R. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics*, 70(1), 65-94
- Tucker, C. & Jordan, A. (2013). Assessing the Impact of Nonperforming Loans on Economic Growth in the Bahamas. Available at <http://www.cemla.org/PDF/monetaria/PUB-MON-I-02-04.pdf>. Accessed on 20th July, 2014.
- Tukenmeza, M., Ozemira, I.A., Aksakala, M., Agcaoglua, O. & Castellini F.M. (2005). Economic development in Small Island States (SIDs) and integration to international financial markets: a case of Cyprus. Buca-Izmir.
- Ulku, H. (2004). *R&D Innovation and Economic Growth: An Empirical Analysis*, IMF Working Paper 185.
- Wachtel, P. (2003). How Much Do We Really Know about Growth and Finance? *Federal Reserve Bank of Atlanta Economic Review*, 88, 33-47.
- Wakeman-Linn, J. & Wagh, S. (2008). Regional financial integration: Its potential contribution to financial sector growth and development in Sub Saharan Africa. *IMF Working paper Washington, DC: IMF*.
- Wolde-Rufael, Y. (2009). Re-examining the Financial Development and Economic Growth Nexus in Kenya *Economic modeling*, 26(6), 1140-1146
- Wood, A. (1993). Financial Development and Economic Growth in Barbados: *Causal Evidence. Savings and Development*, 4, 379-390.
- World Bank. (2001). *World development report, Attacking poverty*, Washington, DC. The World Bank
- World Bank. (2002). *Building institutions for markets*, Washington, DC, The World Bank.
- Xu, B. (2000). Multinational Enterprises, Technology Diffusion, and Host Country Productivity Growth. *Journal of Development Economics* 62, 477-493.

- Zingoni, T. (2010). Regional integration in East Africa- towards a united state of Africa (unpublished PhD Thesis). University of Stellenbosch, Stellenbosch, USA.
- Zak, P. & Knack, S. (2001). Trust and growth. *The Economic Journal*, 295-3

Appendix I: Sample of EAC Countries

Kenya

Tanzania

Uganda

Rwanda

Burundi

Appendix II: Descriptive Statistics

	N		Mean	Mode	Std. Deviation	Skewness	Std. Error of Skewness	Kurtosis	Std. Error of Kurtosis
	Valid	Missing							
Kenya GDP US\$	7	0	3.412853E10	2.7237E10	6.0565082E9	.889	.794	-.419	1.587
Uganda GDP US\$	7	0	1.634226E10	1.2293E10	3.2656159E9	.712	.794	-.566	1.587
Tanzania GDP US\$	7	0	2.345543E10	1.6826E10	4.5705271E9	.249	.794	-.415	1.587
Kenya Market Capitalization US\$	6	1	1.393962E10	1.0206E10	4.5008544E9	1.555	.845	2.488	1.741
Uganda Market capitalization US\$	6	1	5.108725E9	3.0849E9	1.8486397E9	.910	.845	.637	1.741
Tanzania Market Capitalization US\$	6	1	6.198756E9	3.3306E9	2.9892272E9	.497	.845	-1.669	1.741
Private Credit to GDP Kenya	6	1	34.616667	29.9000 ^a	4.0261230	-.153	.845	-2.026	1.741
Private Credit to GDP Uganda	6	1	15.533333	13.3000 ^a	1.8726096	.623	.845	.617	1.741
Private Credit to GDP Tanzania	6	1	16.750000	15.3000 ^a	1.0445095	-.190	.845	-1.724	1.741
NPLs/Total Kenya Loans	6	1	6.283333	4.4000 ^a	1.8904144	.390	.845	-2.216	1.741
NPLs/Total Uganda Loans	6	1	3.483333	2.2000 ^a	1.5854547	.738	.845	-.741	1.741
NPLs/Total Tanzania Loans	6	1	6.750000	4.3000 ^a	1.8758998	-.062	.845	-1.946	1.741
IRS Kenya	6	1	8.980000	8.2000 ^a	.5600000	.210	.845	-.125	1.741
IRS Uganda	6	1	10.480000	8.8000 ^a	1.2671227	.517	.845	.571	1.741
IRS Tanzania	6	1	7.180000	5.9000 ^a	.8471127	-.294	.845	-.443	1.741
Money Growth Uganda	6	1	20.533333	9.5000 ^a	11.3385478	.909	.845	-.887	1.741
Money Growth Kenya	6	1	16.800000	12.8000 ^a	3.4831021	.777	.845	-.026	1.741
Money Growth Tanzania	6	1	17.250000	9.8000 ^a	5.4982725	.081	.845	-.120	1.741
Rwanda GDP US\$	7	0	5.7480E9	3.74E9	1.32161E9	-.172	.794	-.893	1.587
Burundi GDP US\$	7	0	2.0401E9	1.36E9	4.98020E8	-.003	.794	-1.477	1.587
Private Credit to GDP Rwanda	6	1	12.1000	11.29	.83805	.600	.845	-1.531	1.741
Private Credit to GDP Burundi	6	1	18.1333	15.20 ^a	2.01362	-.263	.845	-.556	1.741
NPLs/Total Rwanda Loans	6	1	9.7000	6.00 ^a	3.02523	-.064	.845	-2.435	1.741
NPLs/Total Burundi Loans	6	1	5.5067	4.77 ^a	.86361	1.680	.845	3.045	1.741
IRS Rwanda	6	1	9.0300	8.07 ^a	.61987	-.337	.845	.016	1.741
IRS Burundi	6	1	8.8800	8.07 ^a	.69429	1.049	.845	1.904	1.741
Money Growth Rwanda	6	1	18.0000	14.00	6.51153	.652	.845	-1.626	1.741
Money Growth Burundi	6	1	17.3500	5.50 ^a	9.30177	.775	.845	1.298	1.741

a. Multiple modes exist. The smallest value is shown