

# Does Kenya agree with the world on the Finance-Growth nexus? A review of the empirical studies

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## Abstract

Many studies have been done in this area of financial economics. Various parameters have been used to represent finance and economic growth in a bid to provide a link between the two. The importance of the financial intermediaries in influencing the rate of economic development is still under contention. Most modern consensus on the subject refers to Schumpeter's Theory of economic development as the basis for the growth-enhancing character of improved financial institutions. The Schumpeterian logic of capitalist economic development has been supported with modern analysis. This study seeks to review the empirical studies and otherwise, in a bid to establish the whether there is concurrence on the relationship between the two in Kenya, Africa and globally. Selected studies done in Kenya, Africa and globally are picked from a cross section of the locations in the world. From the review, there is strong indication that there are two perspectives. The first one contends that financial development lead to economic growth whilst the second one asserting that economic growth leads to financial development. In Kenya there is strong indication that finance leads to growth. Subsequently, these findings vouch for an establishment of a proper financial sector infrastructure and promotion of a stable financial system while on the other hand calling for establishment of sound economic policies that spur growth.

**Key Words:** Financial development, Economic growth, Financial institutions and Financial System

## 1. Introduction

Saunders & Million (2008) states that financial intermediation is the way the financial intermediaries link deficit spending units and surplus spending units together. The link between the spending units is likely to result in more deepening of the financial system (Goldsmith, 1969). In simple terms, more investments will be realized in the economy through the financial System. A well-functioning financial system is mandatory for the pursuit of economic growth with stability. Wachtel (2001) provides at least four channels by which financial intermediaries promote economic growth through efficient allocation of resources. The first channel is where the financial intermediaries act as fund-transferring mechanisms channeling excess funds from surplus units to deficit units (productive sectors). Whilst the Second channel is through promotion of higher saving rates by financial intermediaries through offering of more attractive and innovative instruments and incentives to encourage the mobilization of savings. Thirdly, financial intermediaries lower their costs of project evaluation and origination through economies of scale, and further facilitate the monitoring of projects via corporate governance. Finally, financial intermediaries provide opportunities to reduce risk management and promote liquidity level by promoting the development of markets and instruments with attractive characteristics that enable risk-sharing since they operate at economies of scale and obtain symmetry information.

From the foregoing, the financial system plays a critical role of facilitating smooth and efficient allocation of resources from savers to the ultimate users. This summarizes the two primary roles of financial markets as facilitation of accumulation of capital and management of risk inherent in particular investments. The financial sector also ameliorates informational asymmetries and eases transaction costs. This qualifies economic growth as a consequent of financial sector development.

Financial development can be achieved when there is improvement in quantity, quality and efficiency of financial systems. The researchers have come up with various indicators to represent financial development. Due to evolvement of many measures as proxies for financial development, financial deepening indicators have been a better choice to best explain financial sector development. Financial deepening is assessing by looking measuring the increase in the supply of financial assets in the economy (Nzotta & Okereke, 2009). Popiel (1990)

narrows the definition to an increased ratio of money supply to Gross Domestic product. Financial deepening rate is thus the sum value of all the measures of financial assets to the gross domestic product (GDP). These assets include broad money, liabilities of non-bank financial intermediaries, treasury bills, value of shares in the stock market, money market funds, and so on. If these assets do not increase substantially then the financial sector is said to be shallow.

However, there is lack of consensus on the link or direction of it between financial deepening and economic growth. There are many schools of thoughts which are at variance with each other. The first view asserts that financial liberalization causes financial development which in turn leads to economic growth christened as supply-leading hypothesis (Patrick, 1966). The second view maintains that economic growth leads to financial development by creation of demand for financial products - financial development follows economic growth (Robinson, 1952). This is what referred to as demand-following hypothesis. The third view, however, contends that financial development and economic growth cause each other.

## 2. Literature Review

### 2.1 Review of Literature from Kenyan Studies

According to FinAccess survey (2006 & 2009) Kenya has made impressive strides over the past 5 years in financial inclusion. While formal exclusion has yet to match levels in Southern Africa, the proportion of the population which is completely excluded is lower in Kenya than any other African country except for South Africa. M-PESA a mobile money transfer platform, supportive regulation, innovative business models and technological advances are cited as drivers of the change.

Odhambo (2009) using two models studied the impact of interest rate reforms on financial deepening and economic growth in Kenya. The two models were the financial deepening model and the dynamic Granger causality model. He also used cointegration and error-correction models for research design. He observed a strong support for the positive impact of interest rate liberalization on financial deepening in Kenya. The study also found out that financial depth granger cause economic growth in Kenya. In conclusion, the interest rate liberalization in Kenya succeeded in increasing economic growth through its influence on financial depth.

Ngugi et al 2006 conducted a study dubbed Capital market, Financial deepening and Economic growth in Kenya. The research questions of the study were as follows: Does capital market facilitate deepening in the financial sector? How does the capital market interact with other financial system? Is capital market development related to economic growth? They analyzed the contribution of the capital market in financing investment, the relationship between capital market deepening and productivity and finally, the relationship between capital market deepening and economic growth. It was observed that well functioning capital markets increases economic efficiency, investment and growth. They described the Kenya's capital market as narrow and shallow. In conclusion, they contended that financial sector plays a crucial role in economic development since the depth of the financial sector was generally found to promote economic growth.

University of Nairobi (2012) conducted a study to establish the implications of financial deepening on savings and investments in Kenya. The researchers investigated the relationship between financial deepening and savings and investments in Kenya. The study made use of secondary data on financial deepening indicators, savings and investments from 2006-2011. Using regression analysis they established a strong positive correlation between savings and investments. It was observed that with proper financial deepening, the level of savings and investments in Kenya improved. Where there are unfavourable interest rates, with underperforming stock market, and deposits in banking institutions not growing then there will be slow growth and improvement in savings and investments. The researchers recommended improvement of savings and investments to spur growth. Further the government was recommended to establish proper financial and economic policies that can assist in improving financial deepening in the country.

### 2.2 Review of Literature from Africa Studies

Odhambo (2004) investigated the link between finance and growth in South Africa using cointegration approach and vector error correction model. The study used monetization ratio of M2 to GDP and intermediation ratio, the ratio of bank claims on the private sector to GDP against economic growth represented by real GDP per capita. The findings supported a directional position of economic growth to financial development what is called a demand-following response.

In Nigeria, Agu and Chukwu (2008) empirical study, found out that the choice of bank based financial deepening

variable influenced the economic growth. They upheld that demand – following hypothesis for bank-based financial deepening variables like private sector credit and broad money; whereas held the supply – leading hypothesis for “bank-based” financial deepening variables like loan deposit ratio and bank deposit liabilities.

Ndebbio (2004) conducted research to evaluate the impact of financial deepening and other growth related factors in selected sub-Saharan African (SSA) countries. The researcher used a cross-country regression for 34 SSA countries in an attempt to relate the factors to the economic growth of these countries through an unrestricted/augmented neoclassical growth model using cross-country data. He wanted to find out: 1) The definition of financial deepening (FD). 2) To determine the appropriate measures of financial deepening. 3) To evaluate the impact of financial deepening and other growth related factors on growth these countries. 4) Based on the evaluation, to recommend policies aimed at promoting financial development and economic growth in SSA. The researcher observed that “shallow - finance” causes lack of or stagnant growth of output of any country and recommended such countries to make real money balances grow, and craft policies to improve financial development/intermediation. Real money balances can grow only when the following factors; price stabilization, elimination of fiscal deficit and removal of various restrictions on financial institutions are managed.

Odhiambo (2005) examined the impact of financial liberalization in three sub-Saharan Africa countries namely Kenya, South Africa and Tanzania. Financial liberalization was represented by interest rate on financial deepening. The study established abundant support for the positive impact of real interest rate on financial deepening in the three study countries. He found positive and statistically significant of the deposit rate in the financial deepening function in Kenya, South Africa and Tanzania. The coefficients of the real GDP and the lagged value of the financial depth in the financial deepening function were found to be positive and statistically significant for all the countries studied. In conclusion, the positive real interest rates resulting from financial liberalization leads to financial deepening.

Isu et al (2013) used the granger causality test to determine the direction of the link between various proxies of financial deepening and economic growth in Nigeria over the period, 1990-2009. The researchers utilized the Augmented Dickey-Fuller (ADF) test for unit root test and found the variables to be uniformly stationary in their second difference. The result of the test showed that besides market capitalization which granger causes real GDP, the link runs from the growth indicator (RGDP) to other proxies of financial deepening namely economic volatility, market liquidity, money market diversification and broad money velocity. In conclusion, financial deepening in Nigeria was found to follows demand-following hypothesis. The researcher recommended policies that pursue growth oriented programmes that geared towards providing a conducive and efficient capital market that encourages the flow of finance for long term growth related investments.

Nzotta & Okereke (2009) investigated financial deepening and economic development in Nigeria between 1986 and 2007. The researchers used secondary data, sourced for a period of 22 years with specified nine explanatory variables by employing the two stages least squares analytical framework for A trend analysis. They found out that financial deepening index was low in Nigeria over the years. Further, the nine explanatory variables as a whole were useful and had a statistical relationship with financial deepening. The four of the variables namely lending rates, financial savings ratio, cheques/GDP ratio and the deposit money banks/GDP ratio had a significant link with financial deepening. In conclusion, they observed that financial system had not sustained an effective financial intermediation, especially credit allocation and a high level of monetization of the economy. They recommended a regulatory framework restructuring to ensure good risk management, corporate governance and stemming systemic crisis in the system.

Akinboade and Kinack (2013) studied the impact of interest rate reforms on financial deepening and growth in Cameroon. They used five proxies to represent financial deepening against deposit rate, a proxy for interest rate reforms. They observed that the impact of interest rate reforms on financial deepening is sensitive to the proxy used for financial deepening. They further observed that the impact was negative and significant for all the indicators, except for the ratio of broad money to Gross Domestic Product. Thus financial repression was seen to assist improve broad money and hamper the development of the other indicators of financial development in Cameroon.

### 2.3 Review of literature from global studies

Development economics pioneers’ exclusion of the discussion of financial development in growth process was not conclusive given the financial systems contribution (Meier and Seers, 1984). Stern (1989) lack of discussion

in his review on the contribution of financial development on growth further negates the issue as the earlier researchers were not keen on the nexus.

In Spain, Valverde et al. (2003) found that increased competition in the banking sector does not granger-cause economic growth in Spanish provinces. The group investigated the nexus between financial development and regional economic growth in Spain. Hicks (1969) pointed out that financial reforms were the main drivers of the British industrial revolution. He does not vouch for technology as contributor to industrial revolution of the 18<sup>th</sup> Century.

McKinnon (1973) and Shaw (1973) extension of the theoretical analysis of the relationship between growth and financial deepening to developing countries was more enlightening. On separate occasions the two established that the growth of real money balances is good for economic growth and argued further that the growth of an economy depends, in part, on the degree of financial development or financial intermediation. The theoretical analysis has further been augmented by empirical evidence of the same researchers. In their researches they contend that various policies should be developed to encourage and promote the activities of financial institutions which gave birth to the financial repression theory. In conclusion, their studies strike a consensus that financial development contributes significantly to economic growth only if there is no interference in the operations of financial system.

Goldsmith (1969) contends that the financial system stimulates economic performance through the facilitation of the movement of funds to the best user. In his study, he did calculate the values of the financial interrelation ratio (FIR), the ratio of all financial instruments, to the value of the national wealth. He compared the developing countries and developed countries and found that the ratios for developing countries were far lower than those of developed countries implying that the development of financial institutions affects development in that the lower the level of development of the financial superstructure the underdevelopment a country was. Montiel (1995) argues that the growth and financial development are mutually dependent. The level of per capita income partially influences the level of financial development whereas financial development can contribute to economic growth in the long run.

Popiel (1990) conducted elaborate studies on financial deepening. He attempted to define the parameters for depth of financial markets from a qualitative standpoint. According to him the depth is realized when the financial markets: 1) Offer savers and investors a variety of financial instruments differing in terms of liquidity, yields, maturities and degree of risk including debt instruments, equity instruments and in between quasi-equity instruments. 2) They constitute a diversity of sub-markets, trading in different financial instruments. 3) Mature, domestic financial markets are integrated into the international financial markets. 4) Are linked together through financial instruments. 5) Lastly, when the markets are connected through various financial institutions which function as financial intermediaries.

According to Soo (1996), the deepening of insurance markets makes a positive contribution to economic growth. While life insurance is causally linked to growth only in higher income economies, nonlife insurance makes a positive contribution in both developing and higher income economies. The researcher supports positive contribution of life insurance to growth which is primarily through the channel of financial intermediation and long term investments.

Dabla-Norris (2012) studied the scope of financial deepening in developing countries using a range of analytical tools and case studies. In the study he observed the structural characteristics of countries, policies, available technology and sociopolitical conditions as determinants of the conducive environment for financial deepening. Accordingly, the shallow financial systems hinder fiscal, monetary, and exchange rate policy choices, and hamper opportunities for hedging or diversifying risk, that assist in addressing sharp swings in commodity prices and fluctuations in external financing. Sustainable financial deepening engenders resilience and capacity to manage external shocks, enhance policy effectiveness, and support sustained growth. The researcher also points out the process of deepening itself can create new risks that arise from growing financial linkages or the challenges from unregulated financial innovation. To increase financial intermediations promote deposit mobilization, financial literacy, and lower fees and documentation requirements. On the other hand persistent macroeconomic instability, weak collateral regimes, limited completion, and regulatory restrictions are common impediments to deepening and diversifying financial systems. Further, excessive risk taking by institutions and market participants can lead to unsustainable expansions while weak and limited supervisory and regulatory frameworks and capacity, deficient early warning and resolution systems and governance problems increase the risks of collapse of the financial system.

Chenery and Strout (1966) made a case study of four countries namely Greece, Israel, Taiwan and Philipines. They noted that in each case, a substantial increase in investment financed largely by foreign loans and grants led to rapid growth in Gross Nation Product (GNP) followed by a steady decline in the dependence on the external financing. They came up with a two gap analysis which basically focused on foreign exchange and domestic savings as the two financial constraints of economic growth. Savings obviously finances investments, but foreign exchange could be used as a substitute.

Guryay *et al.* (2007) did a study in Northern Cyprus for the period between 1986 and 2004. The researchers examined the relationship between financial development and economic growth. They observed that there was little positive effect of financial development on economic growth rather their analysis indicated evidence of link from economic growth to the development of financial intermediaries. These results support a demand-following response between financial development and economic growth.

Thornton (1996) observed that cointegration analysis does not detect evidence of a long-run or equilibrium relationship between financial deepening and real GDP in selected Asian economies. Further he found out that the granger causality results indicated that financial deepening does not much bring the difference to the rate of economic growth in the short-run. This study was conducted by applying cointegration analysis and the granger causality technique to data for selected Asian economies with the objective of distinguishing between competing hypotheses regarding the role of financial deepening in economic growth.

### 3. Findings

The literature presents interesting findings. In spite of the four studies conducted in the global arena contention, there is consensus on the existence of a relationship between financial sector development and economic growth. However, the direction of relationship is a point of contention. According to two gap analyses by Cheng and Strout (1966) savings mobilized by financial sector can be substituted by foreign exchange making financial sector not mandatory for economic development. Development economics pioneers refusal to acknowledge the contribution of financial development in growth process was more telling (Meier and Seers, 1984). Stern (1989) even compounds it by belittling the role of financial development on growth in his review by avoiding it. However, this forms only thirteen percent of the studies reviewed.

A hundred percent of the study conducted in Kenya agrees that financial sector development causes economic growth. The direction of causal relationship is not debatable here. This explains why the governor of Central Bank of Kenya (CBK) vouches for developed financial sector. Professor Ndung'u of CBK in 2011 outlined some of the measures taken by the central bank to help deepen Kenya's financial sector. According to the governor; these measures included the rollout of branch networks to provide financial services to remote and lower-income areas, allowing mobile phone financial services to provide a new technological platform, the introduction of agent banking mechanisms to enable banks to leverage on additional cost-effective distribution channels; and the creation of credit reference bureaus to collect, collate, analyze and disseminate credit information. Further, he articulated policies that would help lower the cost of doing business, license deposit-taking microfinance institutions and build further capacity through human resources training and development.

In the African continent, even though there was some contention, the majority of researchers established a relationship between economic growth and financial sector development. There was only one study done in Cameroon that found a negative relationship between the variables. Whereas other studies revealed supply-leading hypothesis, the study of Odhiambo (2004) and Isu *et al* (2013) revealed a demand-following hypothesis which forms twenty percent of studies reviewed from Africa. All the studies found a positive relationship between the two.

Globally there are four studies that are neutral or show no causal relationship. According to two gap model by Chenery and Strout (1966) savings mobilized by financial sector can be substituted by foreign exchange making financial sector not mandatory for economic development. Development economic pioneers' refusal to discuss financial development in growth process negates the relationship (Meier and Seers, 1984) which is further propagated by Stern (1989) review. However, this lot forms only thirteen percent of the studies reviewed. Consequently forty percent here are indifferent to the relationship.

### 4. Discussions

The development economics pioneers who included three Nobel laureates totally excluded the discussion of financial development in growth process (Meier and Seers, 1984). This position was further propagated by Stern (1989) in his review. However, there has been growing interest in the study of the role of financial development



in the growth process. Schumpeter (1911) contends that the well-functioning financial system spurs technological innovations through the efficient resource allocation from unproductive sector to productive sector. His findings formed the foundation in analyzing the finance-led growth hypothesis. In contrast, Robison (1952) argues that the relationship should be started from growth to finance. According to this school of thought, a high rate of economic growth leads to a high demand for particular financial products with the well developed financial sector automatically responding to these types of demand. This particular viewpoint is what referred to as growth-led finance hypothesis is currently. Goldsmith (1969), McKinnon (1973) and Shaw (1973) have contributed immensely to the literature of financial development and economic growth relationship in a more formalized framework. Even though the original contributions to this literature have differing approaches in explaining the link between financial development and growth, the studies most strike a consensus suggesting that there is a significant relationship between these two variables. For example Goldsmith (1969) focus on the relationship between financial development and the efficiency of investment underscores the relationship. On the other hand, McKinnon (1973) and Shaw (1973) demonstrate the importance of financial liberalization in promoting domestic savings and consequently the investments. According to the Goldsmith's (1969) framework, the evolution of domestic financial markets may enhance and lead to a high level of capital accumulation.

The development hypothesis supports a developed financial infrastructure that promotes economic growth. This necessitates policy shift at each point in time to ensure that the financial system operates efficiently. This theory advocates for measured intervention. The financial repression theory resulted from this view point from the works of McKinnon (1973) and Shaw (1973). The implication of their studies is that financial development would contribute significantly to economic growth so long as there is less interference in the operations of financial institutions. In conclusion, various policies should be crafted to encourage and promote the activities of financial institutions.

From the foregoing, my considered view is that both supply-leading and demand-following hypothesis best describes the relationship that exists between financial sector development and economic growth. However, in Kenya the studies conducted point to finance leading to growth. From a policy perspective, a proper financial sector infrastructure should be established and a stable financial system promoted through balanced usage of liberalization, repression, inclusion and innovation. Also of important to note is that the stable macroeconomic environment is essential for efficient operation of financial sector. An economy that is growing will provide demand for financial products and consequently financial sector development.

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