# THE IMPACT OF FINANCIAL SECTOR IN THE ECONOMIC GROWTH OF TANZANIA

By

**Bwigane Hessron Mwakalobo** 

#### **THESIS**

Submitted to

KDI School of Public Policy and Management
in partial fulfillment of the requirements
for the degree of

MASTER OF DEVELOPMENT POLICY

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Committee in charge:

Professor Lee, Jinsoo, Supervisor

Professor Han, Joong Ho

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#### **ABSTRACT**

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#### **Bwigane Hessron Mwakalobo**

This study use annual time series data from World Bank Development indicator from 1988 to 2011 for both banking sector and stock market of Tanzania. Apparently, the study investigate whether measures of financial development which consist of banking sector and stock exchange market can predict future rates of economic growth in Tanzania, and which sector contribute much higher than the other to economic growth.

The study find that banking sector and stock exchange market as measured by domestic credit to private sector and market capitalization is positively and significantly causes future rates of economic growth. The study also finds that banking sector contributes much higher to economic growth than the stock exchange market in Tanzania. The results are consistent with the view that stock exchange market and banking sector promote more efficient resource allocation and future economic growth of the country.

# **DEDICATION**

To my mother Tulibako Minga Mwakalobo and siblings Jacquiline Mlay, Ipyana, Tusekile and Nisile Mwakalobo.

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#### **ABBREVIATIONS**

DSE: Dar es Salaam Stock Exchange Market

KDI: Korean Development Institute

WB: World Bank

IMF: International Monetary Fund

POS: Program of Study

BOT: Bank of Tanzania

CMSA: Capital Markets and Securities Authority

GDP: Gross Domestic Product

OLS: Ordinary Least Square

MCP: Market Capitalization Ratio

WDI: World Development Indicator

**RGDP: Real Gross Domestic Product** 

PRIVY: Private Domestic Credit to Private Sector

#### 1.0 INTRODUCTION

#### 1.1 Background of the study

The financial sector provides and facilitates an enabling environment for the economy to thrive in economic growth. It act as intermediaries between savers and spenders in stimulating economic activities of the country through provision of deposits, loans, capital, and exchange of currency for international transactions and markets for economic actors which are the Government, investors, consumers, sellers and workers. Thus, in support of Joseph Schumpeter view that the financial system can promote economic growth. For the country to realize economic growth, efficient functioning of financial systems supported by sound monetary and fiscal policy is a vital issue.

Despite of this promise on financial sector of creating conducive environment for the economy to thrive, development of financial sector and its contribution to economic growth in Tanzania remains small. In spite of the increasing number of registered banks and introduction of stock exchange market, the sector contribution to the country's economic growth remains an issue of skepticism among policy makers and even brings some of us to the question; whether this development of the stock market and banking sector raise economic growth in Tanzania.

Recognizing the opportunity brought by modern economy, financial system in Tanzania undergone several reforms after independence in 1961, where all financial sectors were state owned complying with the Arusha Declaration in 1967 of socialism policy as state own and allocate resources of the economy. Subsequently, in 1989 Tanzania was among the African countries experienced external pressure from Developed countries particularly international bodies, like World Bank and International Monetary Fund to adopt Structural

Adjustment Programs in Africa in implementing free market by privatizing and deregulating state owned enterprises.

Financial liberalization expected to provide opportunity for the financial deepening by raising utilization of financial intermediation and allow efficient resources allocation among the people and institutions (Mckinnon, 1973). That is, development of financial sector will encourage savings and relax credit constraint in the economy.

Since then, Tanzania went through several economic reforms and among them is financial sector reform, which began in early 1991 by making the Bank of Tanzania autonomous in policy formulation in order to comply with structural adjustment programs. This has strengthen financial system in Tanzania, in which attributed to substantial structural change in the banking institutions and establishment of non banking institutions such as stock exchange market in 1994, mutual funds, social security's funds, brokerage firms and currency exchange market.

The financial system in Tanzania dominated by the Banking sector, which consists of 32 commercial banks and the Bank of Tanzania, the Country's Central Bank. Moreover, there are also five licensed financial institutions (Special Banks) together with eight regional commercial banks. Furthermore, the number of foreign – owned bank in Tanzania is 15 against 16 local - owned and 10 banks jointly owned between local and foreign investors. <sup>1</sup>

The financial sector reforms has brought improved functioning of banking sector, in turn attracts investment of new banks including domestic and foreign ones that provides and facilitates an enabling environment for Tanzania to thrive in economic growth. Since the banking sector plays a vital role of intermediaries between savers and spenders in stimulating

<sup>&</sup>lt;sup>1</sup> www.bot-tz.org, Bank of Tanzania

economic activities of the country through provision and mobilizing of savings, deposits, loans, capital, and exchange of currency for international transactions and markets.

The banking sector performance has been improving in every single year. More recently, the banking sector in Tanzania total assets has been increasing by 16% (26% in 2010; 19% in 2009; 20% in 2008 and 30% in 2007). However, the ratio of earning assets to total assets has decreased to 78.6% (80% in 2010; 79% in 2009; 83% in both 2008 and 2007). The deposits has been increased by 16% (25% in 2010; 24% in 2009; 22% in 2008 na 23% in 2007) and the shareholders' funds increased by 14% (22% in 2010; 28% in 2009; 25% in 2008 and 48% in 2007) and paid upper capital increased by 21% (31% in 2010; 39% in 2009; 15% in 2008 and 44% in 2007). Moreover, the banking liquidity was satisfactory, with the ratio of liquid assets to deposits at 54% (59% in 2010; 58% in 2009; 54% 2008 and 65% in 2007).

Thus, banking sector development proves the 1911 claims by Joseph A. Schumpeter that, the positive influence of the development of a country's financial sector on the level and the rate of growth of its per capita income.<sup>3</sup> That is, the main ideas is on the services that financial sector provides as an essential catalyst of economic growth.

The financial sector reforms have stimulated the massive investment of registered banks in Tanzania, which also play a vital role in stimulating economic activities. In 1994, Tanzania has tested the thrill of achievement by establishing Capital Markets and Securities Authority (CMSA), which paved the way for a remarkable incorporation of Dar es Salaam Stock Exchange market in 1996 before start trading activities in 1998.

<sup>&</sup>lt;sup>2</sup> Ernst & Young, Tanzania Banking Sector Performance Review: May, 2012.

<sup>&</sup>lt;sup>3</sup> Raghuram G. Rajan and Luigi Zingales, Financial Dependance and Growth,

The establishment of Dar es Salaam Stock Exchange market through its mission ''To provide a responsive securities market which mobilizes savings and channels them into productive sectors, encourages a savings culture that contributes to the country's economic growth and facilitate wider access to resources" has supplemented banking activities. According to Bank of Tanzania, there are 17 listed companies in the Dar es Salaam Stock Exchange market, six corporate and treasury bonds, which are trade in the market, but secondary market for trading Government bonds reportedly not vibrant. Moreover, since its inception Dar es Salaam Stock Exchange Market experience increasing number of traded assets, market capitalizations and has trying to change culture of among Tanzanian citizen start investing in financial sector.

More recently, enormous performance of financial sector, especial stock exchange market has increased its role in general market for traded securities, demand and supply, price determination, raising capital for companies and enterprises, income generated base. Above all, it facilitates allocation of resources in a free market economy by encouraging citizen participate in the privatization process in order to own resources of their economy.

The stock exchange market has a vital role in the economy in enhancing the efficiency on capital formation and allocation. It provides an opportunity for companies, corporations and Government Institutions to mobilize funds to finance productive projects and daily operations. The existence of Stock market provide an opportunity for listed companies to raise long term capital and strategic investors to channel their surplus funds to deficit spenders to finance productive projects.

<sup>4</sup>http:// www.dse.co.tz, Dar es Salaam Stock Exchange Hand Book, March, 2008

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<sup>&</sup>lt;sup>5</sup> http://www.bot - tz.org, Financial Markets/Fin Markets in Tanzania.

The well functioning of stock market as part of financial system in the developing country like Tanzania has a role to play in contributing to economic growth of the country, particularly in mobilizing savings from surplus spenders and channel them to productive sectors. In addition, it facilitates privatizations of the state owned enterprises. Sound functioning stock market minimizes the principal – agent problem and information asymmetry problems in the economy.

Dar es Salaam Stock Market has been facilitating transactions of securities such as Government bonds and shares. It has been used as mechanism through which funds moves from idle holders to productive users with highly involvement of banking institutions.

#### 1.2 Problem Statement

Financial sector reform in Tanzania began 1991 with the liberalization of the lending rates that lead to mushrooming of commercial banks and the later establishment of Capital Market and Security Authorization, following earlier periodic adjustments in interest rate and flexible exchange rates. This adjustment programs was successful due to support from International Monetary Fund and World Bank. The World Bank in 1986 recommended in the country economic growth through the liberalization of financial sector. Unfortunately, during that time, financial sector was underdeveloped that would be impediment for the country economic growth and development. Following several financial sector studies and initiatives, the Government of Tanzania undertook a systematic program of financial sector reform.

Overall the financial system in Tanzania improved from being underdeveloped characterized by fixed exchange rates, few foreign banks and Government banks with no stock exchange market to a well functioning financial sector with more than 32 Commercial

banks and other financial institutions including stock exchange market.

It was against this background that this thesis aimed at empirically answering the question: has the effort by the Government of Tanzania to develop the financial sector particularly stock exchange and banking sector lead to economic growth.

#### 1.3 Purpose of the Study

The purpose of this study is to find out the role of stock market and banking sector in Tanzania and its direct and indirect contribution to economic growth of the country. Moreover, this thesis will examine which sector contributes significantly to economic growth. Furthermore, to investigate the direction of the causality between stock exchange market and banking sector and economic growth in Tanzania using time series data. Despite of progress that have been achieved in the financial sector in Tanzania, Dar es Salaam Stock exchange market's and banking sector contribution to the country's economic growth remains an issue of skepticism and even brings some of us to questions their role in the economic growth of the country. This issue have been debated among academicians whether the completely financial system have a positive correlation with economic development.

#### 1.4 Objectives

The thesis aimed at evaluating the contribution of Dar es Salaam stock exchange and banking sector towards economic growth. To assess which sector among them has a significant contribution to economic growth. Financial system has importance in economic growth, which can stimulate economic growth in the country. The objective of the study includes-

- (i) To evaluate whether Dar es Salaam stock exchange market and banking development as measured by stock market liquidity proxy by market capitalization and domestic credit to private sector respectively are significantly correlated with economic growth in Tanzania.
- (ii) To analyze which sector among them have a significant contribution to economic growth.

#### 1.5 Research Hypothesis

Banking sector is a promising sector that enables pooling and trading risk. That is, it facilitates lenders to have enough liquidity to finance long-term investment projects. Banks may improve in a different situation by providing savers immediate access to their funds while at the same time providing borrowers a long-term supply of finance. At macro level, the liquidity risk that individual lenders face is perfectly diversified (Diamond and Dybvig, 1983; Greenwood and Smith, 1997; Bencivenga and Smith, 1991). That is, facilitating diversification; banks give the economy to invest relatively more in productive technology. This spurs economic growth (Obstfeld, 1994)

Banking sector also facilitate the allocation of resources and capital over investment projects by acquiring information ex – ante. Firms with productive investment projects while encountering finance shortfalls have an informational advantage over the quality of their investment. An information acquisition cost motivates intermediaries to arise.

Moreover, banks have ability mobilize savings efficiently than any financial

intermediaries. It can initiate a market place where savers are willingly to relinquish control of their savings.

The stock exchange market also expected to accelerate economic growth by providing domestic savings and raise the amount and quality of investment (Singh, 1997). That is, it provides an opportunity to increase savings by giving individuals and firms with an additional financial instrument to raise their risk preferences and liquidity needs. Efficient savings mobilization can raise the rate of savings in an economy (Levine and Zervos, 1998). Stock exchange markets provide an opportunity for firms to raise finance at low cost and grow. Further, in a developed and functioning stock exchange market, companies are relative independent financially. Therefore, stock exchange market is can positively stimulate economic growth through spurring savings amongst individuals and providing opportunity for the firms financing.

Furthermore, theoretically, stock exchange market is expected to have obstacle in taking over to provide control (managers) with a motivations to increase firm's value. That is, as management proved to be failing to increase firm value, another agent may take control of the management of the firm. In free market, corporate management is supposed to provide financial management, give an opportunity for efficient utilization of the assets. Likewise, the ability to influences changes in the management of listed companies expected to ensure that managerial resources are utilized efficiently (Kumar, 1984).

Efficient stock exchange market expected to decrease information costs. That is, through the generation and dissemination of corporate information that efficient stock prices reveal. Stock exchange is efficient if prices accommodate all available information. Minimization of the cost of obtaining information expected to increase the dissemination of information over investment opportunities in which enhance efficiency allocation of

resources. Stock exchange prices are determined in exchanges and other available publicly information on helping investors in decision-making process.

The study tests the following hypothesis accordingly:-

I. H<sub>0</sub>: Dar es Salaam Stock exchange market and banking sector do not lead to economic growth.

H<sub>1</sub>: Dar es Salaam Stock exchange market and banking sector leads to economic growth

II.  $H_0$ : The banking sector does not contribute much higher than stock exchange market to economic growth.

H<sub>1</sub>: The banking sector does contribute much higher than stock exchange market to economic growth.

#### 1.6 Research Questions

The study aimed at answering the following questions:-

- 1. Do stock exchange market and banking sector lead to directly or indirectly economic growth of the country?
- 2. Does the banking sector contribute to economic growth much higher than stock exchange in Tanzania?

#### 1.7 Significance of the Study

The literature show that, most research have focused on cross – sectional regression which have been illustrated by Levine and Renelt (1992) that among others should be view with causation. That is, It is accepted that time series studies of economic growth provide significant advantages over the cross – sectional growth regressions. For example, Jones and Kocherlakota (1995) and Yi (1997). According to Levine and Zervos (1996), cross – country growth regression suffer from measurement, statistical and conceptual problem.

Since, measurement problems exist, some country officials sometimes define, collect and measure variables inconsistently across countries. Moreover, officials with more country information frequently find gaps between available and published data and what is actually on the ground.

In terms of statistical problems, regressions analysis assumes that the observations are drawn from the sample population, but different countries appear in cross – country regression. Much different country may be sufficiently different such that they warrant separate analysis.

Theoretically, the coefficients from cross – country regression should be interpreted cautiously. When averaging over long periods, many changes are occurring simultaneously: country change policies, economies experience business cycles and government rise and fall.

The cross – sectional approach controls the potential robustness of the results with respect to country specific effects and time related effects. In this, studies by using time series data from Tanzania provide results pertaining to Tanzania by taking into account country specific effects, time related effects, and hence avoid the measurement, statistical and conceptual problems suffered by the cross – country growth regression.

#### 1.8 Method and Material

In order to examine the role of Dar es Salaam Stock Exchange Market and banking sector to economic growth of the country, analytical framework would be developed that based on financial development Vis economic growth supported by Literature. Literature review will be based on the previous Scholar like Joseph Schumpeter and Bagehot and more currently scholar like King, Levine, Zervos and others. This thesis is based on the Secondary data from Dar es Salaam Stock Exchange Market, Bank of Tanzania, Tanzania Financial Institutions and World Bank Data.

#### 1.9 Limitation

Possible limitations of this study is the specific literature on Dar es Salaam Stock exchange market, banking development and economic growth of the country because most of the literature based on the whole financial sector on economic growth of the country. As well as availability of data since stock exchange, market in Tanzania began trading 1998 with small number of listed companies.

#### 2.0 LITERATURE REVIEW

The issues regarding financial development and economic growth across the countries are considered differently from Scholar point of view. Joseph Schumpeter who argued that, financial development is essential for technological innovation and economic growth can trace this issue concerning financial development back in 1911. Through services provided by financial intermediaries like savings mobilizations, risk management, project evaluations in a well functioning financial system will enhance the rate of growth of per capita income. Thus, technological change from Schumpeter point of view can support invention and innovation of methods of production in which new products and production process are invented and eventually economic growth.

In line with this school of thought, King and Levine (1993b) test Schumpeter view and finds out that there is positive correlation between financial development measures and economic growth indicators. That is, financial development measures have an ability to predict long run economic growth in which support capital accumulation and future improvements in efficiency of the economies. Moreover, Raymond W. Goldsmith (1969, p48) observed a parallelism between economic and financial development over decades. The emphasize on choice between financial factors responsible for the acceleration of economic development and financial development reflected economic growth should be sought. In this view, Bagehot (1873) and Hicks (1969) support that financial sector development triggered industrialization in England through increase of the access to funds, which in turn they used to finance and execute capital projects. That is, private investment project could no longer rely on funds from individuals instead stock markets acts as intermediaries.

Capital market is a market where medium and long-term finance is raised (Akingbohungbe, 1996). That is, capital markets provide various financial assets in order to

mobilize, pricing assets and diversifying risk. According to Al – Faki in 2006 argued that capital markets is a network for financial system, mechanisms and process in which facilitate linking together suppliers and spenders of long term capital for investment to enhance economic growth. In support of this argument, Pedro and Erwan (2004) claimed that financial market development increase output with capital in production and efficient allocation of capital.

Financial institutions development enables capital market development through stock market in which raises country real growth (Agarwal, 2001). This idea that financial institutions development facilitates economic growth were supported by Rousseau and Sylla (2001; Thomton (1995) and Calderon and Liu (2002).

More recently, empirical evidence show that money and capital markets are the two channels through which developed countries uses to mobilize resources to affect their economic growth (Samuel, 1996; Demirguc – Kunt and Levine, 1996). That is, liquidity in the stock market can lead to economic growth through reducing savings rate when there is increasing returns on investment for income and substitution effect, reductions of uncertainty associated with investment to influence the saving rate and emphasizing on effective corporate governance.

Furthermore, Levine (1991) also claims that developed stock market reduce liquidity shock and productivity shock businesses. There is a positive relationship between financial markets and indirectly affect economic growth through efficiently capital allocation to finance productive investment. Simultaneously, liquidity stock markets motivate information's provisions about the firms and corporate governance (Kyle, 1984; Holmstrom, and Tirole, 1993). That is, can influence internal corporate control. Efficient stock exchange markets can solve the principal – agent problem (Jensen and Murphy 1990).

Laffont and Tirole (1988) and Scharfstein (1988) further argue that takeover threats induce managers to maximize the firm's equity price. That is, well-established stock markets can facilitate takeovers to mitigate principal – agent problems and enhance efficient resources allocation.

In 2005, Beckaert et al and Bolbo et al both argued that capital market development raises economic growth and Bolbo went further that capital market raises Egypt economic growth. That is, capital market in Egypt has played a vital role in promoting economic growth.

Securities investment is a veritable medium of transforming savings into economic growth and development and act as a notable feature of economic development for developing countries (Edo, 1995). Further, in 1990, Harry Johnson argued that the conditions for being developed pertain on having large and well functioning stock of capital per head.

An efficient stock market attract strategic investors through financing productive projects that accelerates economic growth, pools domestic savings, mobilizes foreign capital, allocate capital proficiency, diversifying the risk and facilitate the transactions (Mishkin 2001; and Caporale et al, 2004). Likewise, Levine and Zervos (1998), Khan and Senhadji (2000) argued that, the establishment of stock market has played a significant role in the development of banking institutions and economic growth particularly in emerging market economies<sup>6</sup>. They measure banking development in terms of banks loans ratio over private sector and GDP that lead to economic growth. Above all, stock market liquidity can be measured in terms of value of stock transactions in relations to the market size and size of the economy which is positively accelerate the economic growth rate. Before that, Beck and Levine (1994) verified that through econometrics procedures to test the level of independent

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<sup>&</sup>lt;sup>6</sup> Abu Nurudeen, Does Stock Market Development raise economic growth; evidence from Nige ria, The review of Finance and Banking, Volume 01, 2009.

effects of stock market and economic growth in which the results confirms the relationship.

Some academician goes further to argue even on the extent of the stock market versus economic growth. That is, larger stock markets can lower the cost of mobilizing savings in which would enhance investment in the productive technologies (Greenwood and Smith 1997). Indeed, in 2007, Tharawanji confirmed that economies with a strong capital market have less serious business cycle output decrease and lower possibilities of an economic turmoil in relation to less developed capital market.

Alongside, Ben and Ghazouani (2007) observed that financial sector development could have adverse effect on economic growth in which suggested a well functioning of financial sector in the economy. In 1998, Hamid and Sumit observed 21 developing countries for more than 21 years and found out a positive relationship between stock market performance indicators and economic growth, which were directly and indirectly supporting private investment in the economy.

Many studies by researcher's finds that financial development plays a significant role in the long run economic growth of the country due to the existence of positive relationship between financial development and economic growth (Goldsmith, 1969; Shaw, 1973; McKinnon, 1973 and King and Levine, 1993). In 1994, The World Bank found that stock exchange market development does not follow economic development; rather it provides the means to forecast economic growth in the long - run in terms of capital, productivity and per capita income. An increase in banking and stock exchange market development enhances real per capita GDP.

A well-functioning of stock exchange market might be used to measure significant changes in general economic activities using stock market index (Obadan, 1995). On the

other hand, stock exchange market sometimes argued to be complex institutions especially mechanism through which long - run funds of the major sectors of the economy are mobilized, harnessed and made available to other sectors of the economy (Nyong, 1997). Indeed, development of financial capital market, particular stock market provides opportunities for funds mobilizations, efficiency in resources allocations and provisions of information's for appraisal (Inanga and Emenuga, 1997).

The roadmap of development particular developing countries, both Government and private sectors require heavy capital in the long run in order to build new industries and extensions of existing ones to meet the demand of current needs alongside improved infrastructure which should be provided by Government. All this long run capital can be generated by Stock market in a modern economy.

There is a long-term relationship between economic growth and financial market development (Nieuwer et al 2005). That is, stock exchange market development indicators affect country economic growth. Moreover, Chee et al in 2003 demonstrated that stock exchange development had a positive impact on Malaysia economic growth. Also Muhammed et al (2008) argued that there is a long-term relationship between stock exchange and economic growth.

Moreover, there is a positive relationship between stock exchange market development and economic growth of Taiwan, Korea and Japan (Liu and Hsu, 2006). This also confirmed by Francia et al in 2007 that shareholder protection have impact on stock exchange market development and finally lead to economic growth of the country.

Stock exchange market also creates liquidity in the market. It can stimulate economic activities in the economy by making savings for profitable investment possible. As

Bencivenga, Smith and Starr (1996) argued that without liquid capital market there would be no industrial revolutions. In 1994, Obstfeld further argued that a stock exchange market that facilitates risk diversification encourages a shift to higher return investment. That is, provides opportunities for risk sharing in internationally integrated economy in which makes easier for a country to experience economic growth.

In 2008, Capasso uses capital structure to establish relationship between patterns of stock market and long run economic growth. The study reveals strong relationship between stock market and economic growth where by firms preferred equity than debt to mobilize capital. In more evidence for this in 1993, Atje and Jovanovich studies reveal that strong positive correlation between the level of financial development and stock market development versus economic growth.

The relationship between stock market development and economic growth vary according to country's level of economic development with a great effect on developing countries (Filler, Hanousek and Campos, 1999). That is, stock markets facilitate economic development through mobilizations, savings, risk diversifications and liquidity improvements in other sectors.

Therefore, according Abu Nurudeen further argued to those authors who believe that the development of the financial systems (stock market) does contribute significantly to economic growth. This is conversely to Bagehot and Schumpeter; some scholars argue that financial system does not really matter in the growth of the economy. For instance, Gerald Meier and Dudley Seers (1984), Robinson (1952), Lucas (1988) and Stern (1989) believe that financial development does not bring economic growth of the country. Moreover, Stiglitz (1993) argued that stock market liquidity does not provide incentives for acquiring information concerning firms or improving corporate governance. That is, the outsiders are

unwilling to takeover firms because of worse information's about firms than the owners are. In 1988, Mayer argued that new equity issues account for a small fraction of investments. That is, stock market has low ability to raise a capital for economic development of the country.

Besides these views, Shleifer, Vishny, and summers (1986) and Bhide (1993) argued that stock market development might hinder economic growth by promoting counter – productive corporate takeovers. Stock market development motivates more diffuse ownership in which will hinder corporate governance. Furthermore, Singh (1997) argued that stock market might not be important in attaining higher economic growth"<sup>7</sup>.

According to recently studies of financial stock market and economic growth in developing countries in the case of Douala Stock Exchange Market in Cameroon found that Douala Stock Exchange Market still does not affect Cameroonian economic growth (Boubakari Ake and Rachelle Wouono Ognaliguia, 2010).

In 2005, Ted et al observed strong correlation between stock exchange market development and economic growth in India. That is, stock market development before liberation had negative relationship and after liberation had positive relationship with economic growth of the country. Gursoy and Muslumov (1999) and Luintel and Khan (1999) and Hondroyiannis et al in 2005 examined the causal relationship between stock exchange market development and economic growth. That is, there is strong relationship between stock market development and economic growth in developing country.

Moreover, Jecheche Petros from University of Zimbabwe through his case study of

<sup>&</sup>lt;sup>7</sup> Abu Nurudeen, Does Stock Market Development raise economic growth; evidence from Nige ria, The review of Finance and Banking, Volume 01, 2009.

the Zimbabwe Stock exchange market found that there is significant positive relationship between stock market development and economic growth of Zimbabwe. In addition, Adeniyi O. Adenuga in his empirical investigation in Stock market development indicators and economic growth in Nigeria found that the three indicators used to capture stock market developments were all positively related to economic growth. The stock market has helped the Government and Corporate entities to raise long run capital for funding development projects, expanding and modernizing industrial/commercial issues (Nwankwo, 1991)

The financial sector still has some challenges especially on realizing the extent to which the financial sector contribute to economic growth. The main challenge is inefficient of Dar es Salaam stock exchange markets that make the market not contribute to economic growth.

Besides stock exchange market, another sector that holds extra ordinary promise is banking, King and Levine (1993b) observed that banks could spur the rate of technological innovation by selecting those entrepreneurs with the opportunity of establishing successful venture. Bencivenga and Smith (1993) show that solve the corporate governance hindrance through low monitoring costs is promising to reduce credit rationing and hence increase economic growth, therefore, this provide stakeholders of banking sector an opportunity to diversify their portfolio risky projects that will induce society to shifts towards project with promising profits and increase economic growth (Gurley and Shaw, 1995; Greenwood and Javonovic, 1990)

Benvivenga and Smith (1991) also observed that through abolishing liquidity risk, banks might raise efficient resources allocation, and stimulate economic growth. That is, financial system that spur in pooling savings by giving out promising investment instrument and savings channels may have effect on economic development.

# 2.1 Dar es Salaam Stock Exchange Listed Companies

The following is table show the listed companies in the Dar es Salaam Stock exchange market and the listing date and issued shares.

No.	Company Name		<b>Issued Shares</b>	Listing Date
1.	Tol Gases Limited	(TOL)	42,472,537	15 April, 1998
2.	Tanzania Breweries Limited	(TBL)	294,928,463	9 September, 1998
3.	Tanzania Tea Packers Limited	(TATEPA)	17,857,165	17 December, 1999
4.	Tanzania Cigarette Company Limited	(TCC)	100,000,000	16 November, 2000
5.	Tanga Cement Company Limited	(SIMBA)	63,671,045	26 September, 2002
6.	Swissport Tanzania Limited	(SWISSPORT)	36,000,000	3 June, 2003
7.	Tanzania Portland Cement Company Limited	d (TWIGA)	179,923,100	29 September, 2006
8.	Dar es Salaam Community Bank	(DCB)	32,393,236	16 September, 2008
9.	National Microfinance Bank Plc	(NMB)	500,000,000	6 November, 2008
10.	Kenya Airways limited	(KA)	461,615,484	1 October, 2004
11.	East African Breweries Limited	(EABL)	658,978,630	29 June, 2005
12.	Jubilee Holdings Limited	(JHL)	36,000,000	20 December, 2006
13.	Kenya Commercial Bank Limited	(KCB)	2,950,169,143	17 December, 2008
14.	CRDB Bank Public Limited Company	(CRDB)	2,176,532,160	17 June, 2009
15.	Nation Media Group Limited	(NMG)	157,118,572	21 February, 2011
16.	African Barrick Gold PLC	(ABG)	410,085,499	7 December, 2011
17.	Precision Air Services PLC	(PAL)	193,856,750	21December, 2011

#### 3.0 EMPIRICAL STUDIES

Several studies have examined the correlations between financial development and economic growth or development of the countries. More precisely, stock exchange markets and banking development to economic growth, using either cross – country or panel methods. However, empirical approach used experience serious econometric problems. For example, Ordinary Least Square (OLS) regression estimated by Levine and Zervos (1998) are potential influenced by simultaneity bias, and even does not control country fixed effects.

Moreover, Beck, Levine and Loazya (2000) have attempted to limit simultaneity bias using instrumental variables procedures, although it does not take into consideration stock market development in the analysis, also only small group of countries taken into consideration. Furthermore, Rousseau and Wachtel (2000) made some improvement based on previously mistake by introducing panel estimator developed by Arellano and Bond (1991), which have successful abolish both bias resulted from unobserved country effects and simultaneity bias.

However, Alonso – Borrego and Arellano (1999) illustrate that the estimator suffers from finite sample bias and is not very accurate asymptotically. The more recently literature was done by Beck and Levine (2004) using generalized – method of – moments techniques for dynamic panels in an attempt to resolve the statistical weakness of the previous studies. They construct a model of five-year averages to filter cyclical fluctuations and make use of three different versions of the systems panel developed by Arellano and Bover (1995) that have been shown to have a superior performance in terms of both consistency and efficiency. Nevertheless, all of the solutions developed by scholar still have some weaknesses. For instances, one – step estimator require the errors in the homoscedastic, and empirically not supported by assumptions. The two – step estimator is based on the heteroscedasticity –

consistent standard errors, but its finite sample performance is likely to be over – fitting and the empirical critical values of the corresponding test statistic being very different from the asymptotic ones. Thirdly, the modified estimator developed by Calderon, Chong and Loayza (2000) addressing the over – fitting weakness, although its implications is on the loss of an observations.

Thus, the empirical results developed by these estimators are not always consistent. Beck and Levine (2004) were not able to figure out the independent contribution of the stock exchange market and banks to economic growth. Despite that their studies suggesting that financial development as a whole is significant to growth.

Lastly, Bekaert, Harvey and Lundblad (2003) apply instrumental variable estimator, which decreases in pooling OLS under simplifying assumptions on the weighting matrix. The estimator gave particular attention on the financial liberalization, claiming that this is not just alternative aspects of more general financial (banking and stock market development) and hence the equity market liberalization lead to one percent increase in annual real economic growth over a five – year period in a broad cross – section of developed and emerging countries. However, there is some econometric controversial arising from their panel method. For example, the results depend to a certain magnitude on the weighting matrix, whose appropriate definitions is not the same if ones assumes heteroscedasticity across the countries and time, group – wise heteroscedasticity and overlapping observations. Mankiw (2005) show that the choice of interval and generally omitted variables may affects the results. This regression is informative about associations rather than causality.

#### 3.1 Interactive Effects of Financial Development

Since financial development is Tanzania is regarded as a proxy without regard to any other factors in the economy, The Government can start taking care of its external finance, particular financial aid form Donor Countries in taking care of Broad Money Supply in the Economy. Moreover, Government should tight of financial management across all sector of the economy.

Moreover, financial development has impacts on remittance, where a country with well-established financial institution can encourage more remittance from nationals abroad in making massive investment in their country. With the presence of strong financial institution like Dar es Salaam Stock Exchange can encourage the inflow of funds from nationals living in foreign countries.

Furthermore, financial development comes with massive investment in the country that is an increase of inflow of foreign and domestic investors in the country. This will reduce the problem of foreign currency shortage and make Tanzania Shilling stronger in international money markets. In addition, it encourages international trade in the sense that more Tanzanian products will be sold out in foreign countries.

Financial development stimulates size of the firm through borrowing money from financial institutions. In turn, this will increase the size of the firm from small scale enterprises to larger scale enterprises.

On the other hand, financial development can bring capital flight in the country if were not properly taken care. Capital flight can interacted by controlling money through effective fiscal and monetary policy in discouraging the outflow of money in foreign financial institutions looking for higher interest rate and incentives.

#### 4.0 THEORETICAL FRAMEWORK

#### 4.1 Theory

Theories provide that economic growth come from two channels: growth in the quantities of factors of productions or increase in the efficiency with which those factors of productions are utilized (De Gregorio 1996). That is, economic growth is stimulated through increases in capital accumulations (investment) and the efficiency of the investment (technological innovation).

The economy that encourages savings would motivate investment (capital accumulation). The efficiency of investment including total factor productivity growth, accumulations of other factors of production which exclude physical capital, and hence not included in standard measures of investment such as human capital, organizational capital and information's. Financial development has a dual effect on economic growth. Alternatively, development of domestic financial markets may increase the efficiency of capital accumulation. In turn, these financial intermediations contribute to raise savings rate as well as investment rate.

Imperfect capital market prevents savers from easily entrusting their savings to entrepreneurs and firms. Through disseminated information on firms and prospective investment projects is not only costly to individual investors, but it would also result in duplication of efforts. Moreover, individual will encounter high cost of monitoring and controlling borrowers. That is, small investors will be motivated to free – ride on large investors who have more incentives to pay the cost of screening, assessing, monitoring and controlling firms. Lastly, investors are unwilling to give up control over their savings over a long period (liquidity risk). That is, investors face idiosyncratic risk of individual investments.

In the absence of tools to diversify these risk, investors might be unwilling to give up control of their saving.

The abolishment of transactions and information costs will enhance financial systems to primary functioning to provide better allocation of the resources, across space and time, in an uncertain environment (Merton and Bodie, 1995, p. 12). To organize the vast literature on financial and economic activity, Levine (1997) breaks this primary function into five basic functions. Specifically, financial systems:-

- (i) Facilitate the trading, hedging, diversifying and pooling of risk,
- (ii) Allocate resources,
- (iii) Monitor managers and exert corporate control,
- (iv) Mobilize savings and
- (v) Facilitate the exchange of goods and services

Levine (1997) illustrates that every financial activities may influence economic growth through two channels namely capital accumulation and technological innovation. That is, capital accumulation, models uses either capital externalities or capital goods and constant returns to scale used but without reproducible factors to generate steady – state per capita growth (Romer 1986; Lucas 1988 and Rebelo, 1991). In these models, function undertaken by the financial system is influencing growth through the rate of capital formation.

The financial system influence capital accumulations by changing the savings rate or reallocating savings among various capital technologies. For the case of technological innovation, a growth models focuses on the invention of new productions process and goods

(Romer, 1990; Grossman and Helpman, 1991; Aghion and Howitt, 1992). That is, growth models focus on the function undertaken by the financial system that influences the growth by changing the rate of technological innovation.

Through undertaking those activities illustrate above, financial system will provide an opportunity to increase savings and investment, foreign inflows, and ensure finance is allocated to the best (most productive) projects. That is, financial sector development boosts long run growth by increasing the amount of capital in the economy (including human as well as physical capital, through investment in education and health, as well as in machinery and tools), and through its impacts on the rate of technological progress.

#### 5.0 RESEARCH DESIGN AND METHODOLOGY

#### 5.1 Research Design

Many scholar and researcher use cross – sectional regression viewed with causation (Levine and Renelt, 1992). Cross – sectional method control the potential robustness of the results with respect to country specific effects and time related effects. Therefore, this study use the case study method to empirically analyzes the correlation and causality between Dar es Salaam Stock exchange market and banking development and economic growth in Tanzania.

#### 5.2 Methodology

This study employs the Granger – causality test to examine the hypothesis that banking sector and stock market development have an impact on economic growth in Tanzania. Specifically, the null hypothesis is tested by the banking sector and stock exchange market does not Granger – cause economic growth. That is, if the banking sector and stock exchange market Granger – causes economic growth, then the banking sector and stock exchange market development helps better prediction economic growth. The methodology supported by Beck and Levine (2004) in which economic growth data for annually to abstract and focus on the economic growth. Theory that being used put more attention on the long-term relationship between stock exchange market and banking sector vs economic growth.

Finally, the Granger Causality test is carried out to figure out the direction of causality between the stock exchange market and banking sector performance to economic growth.

#### 5.3 Model

Beck and Levine (2004) used an eclectic model in examining the relationship between financial development (stock market and banking development) and economic growth.

This study uses Beck and Levine (2004) to measure stock exchange market and banking performance use the market capitalization as a measure of market liquidity and domestic credit to private sector respectively to measure financial development in Tanzania. However, other models estimate that market, which is illiquidity, will cause disincentives to the long-term investments since it is comparatively difficult to sell or buy ones stake in the companies. Conversely, the more liquid stock exchange market decrease disincentives to long term investment, because liquid stock exchange market provide a ready exit – option for investors. This encourages more efficient resources allocation and growth (Levine, 1991; Bencivenga; Smith and Starr, 1995).

This study also uses Market Capitalization Ratio (MCP), which is the value of the listed shares divided by GDP. That is, although its theory does not suggest its mere listing of shares that will influence resources allocation and growth. Moreover, Levine and Zervos (1998) illustrate that market capitalization is not good predictor of economic growth.

Arestis, Demetriades and Luintel (2001) guided to measure economic growth and utilize GDP per capita (RGDP) as a measure of national output and economic growth indicator (World Bank, WDI 2005)

To evaluate the strength of the independent link between stock exchange market and banking sector performance to economic growth.

As a measure of economic growth, this study use annual GDP growth rate as in previous studies. For stock exchange market, we use one measure: the growth in the stock exchange market capitalization (MCP) and for banking sector measure, we employ domestic credit to private sector (PRIVY) as measure of banking.

This study uses the following lag – regression model:

$$Y_{t} = \alpha_{1} + \Sigma \beta_{1i} Y_{t-i} + \Sigma \varphi_{i} X_{t-i} + \varepsilon_{1t}, \tag{1}$$

and 
$$X_t = \lambda_1 + \sum \beta_{1j} Y_{t-j} + \sum \phi_j X_{t-j} + \varepsilon_{2t}$$
 (2)

Where

Y = GDP grow rate

 $\alpha$  and  $\lambda$  = exogenous factors

**X** = Either market capitalization or Private credit

In addition,  $\beta$  and  $\phi$  are vectors of coefficients on the variables in X and F respectively and  $\epsilon$  is an error term.

In testing whether either the banking sector or the stock exchange market Granger – causes economic growth in our equation, we test whether economic growth Granger – causes either banking sector or stock market based on regression.

#### 6.0 EMPIRICAL RESULTS

The table shows that, there is uni – directional causality between Private domestic credit to private sector (PRIVY) and GDP growth rate running from GDP growth rate at 5% significant level. There is also uni – directional causality between market capitalization (MCP) and GDP growth rate running from market capitalization at 10% significant level. Further, there is uni – directional causality between market capitalization (MCP) and Private domestic credit to private sector (PRIVY) running from market capitalization at 10% significant level. Thus, uni – directional causality runs from financial development (stock market development and banking development) to economic growth.

Following the results in the table, we therefore reject the null hypothesis that:

- 1. Stock market development does not lead to economic growth in Tanzania
- 2. Banking development does not lead to economic growth in Tanzania
- 3. Banking sector does not contribute much higher than the stock exchange market to economic growth

#### PAIRWISE GRANGER CAUSALITY TESTS

Sample: 1989 – 2011

Lags: 1

Null Hypothesis	Obs	F - Statistic	Probability
MCP does not Granger Cause PRIVY	13	0.01078	0.91934
PRIVY does not Granger Cause MCP		0.86820	0.37340
GDPPC does not Granger Cause PRIVY	22	12.3324	0.00233
PRIVY does not Granger Cause GDPPC		0.50254	0.48699
GDPPC does not Granger Cause MCP	13	0.26002	0.62117
MCP does not Granger Cause GDPPC		0.08921	0.77130

#### 7.0 CONCLUSION

This study sought to explore the impact of stock exchange market and banking development to economic growth. It empirically examined the effects of banking development proxy and stock exchange market performance indicators on economic growth. It is found that, banking development is associated with economic growth, but also banking sector contribute much higher to economic growth than stock exchange market.

Furthermore, since GDP growth rate enter the Private domestic credit significantly, the findings suggest that Growth rate does not cause Private credit for economic growth. Therefore, due to the empirical results, banking sector should provide soft loans to small-scale joint business and farmers to increase their economic activities and hence formalized sector to enable them finance their business from stock exchange market. The study also finds that banking development is a supply – leading. The strong, positive link between banking development and economic growth test results suggest that banking development indicator is an integral part of the growth process. Thus, the Government policy should put much emphasize on measures to improve the banking development in order to provide financial services including soft loans to the poor and farmers to lift them out of poverty while at the same time banking development should go together with land reform including provision of property rights to formalize informal sector in to economy.

#### 7.1 Recommendation

First, emphasize should be given to sound macroeconomic environment in order stimulate the development of the banking and financial sector as whole. Macroeconomic instability including high inflation retards economic activities and even brings the problem of informational asymmetries in the economy and hence weak financial system. Emphasize should be on low and controllable rates of inflation to stimulate the growth of banking sector and financial development as whole and hence economic growth. Both stock exchange market and banking attract strategic investors to invest in a country where there is a low inflation in order to realize the full potential.

Financial Institution as whole should also be improved, including not only banking sector, but also insurance corporations, stock exchange markets, central banks autonomy and social security funds in order to increase the investment in banking sector efficiency and accountable supported by law and order so that to realize fast economic growth.

Making the Bank of Tanzania autonomy in order to work more independently in policies formulation and not likely be influenced by political pressure on proposing monetary policy. That is, including regulation and supervision of the banking sector and financial system as whole in order to plays a vital role in stabilizing macroeconomic environment.

Lastly, increase provision of public knowledge about the functioning of the banking services in order to promote the development of banking institutions in Tanzania. Knowledge about banking activity can be provided through regular and intensive education programs. This can help increase the public knowledge of the banking services in the economy. Banking knowledge should be provided at the individual and firms level so that the country can unlock growth potential of the large amounts of financial wealth, which exists outside the banking system.

### 7.2 Suggestions for future Research

Further research could be done to enhance knowledge on financial development and economic growth in Tanzania, such as the impact of financial system on economic growth, the role of banking and stock exchange market on economic growth and the impact of the development of financial institutions such as insurance and mutual funds on economic growth.

#### **REFERENCES:**

- Abu Nurudeen, Does Stock Market Development raise economic growth; evidence from Nigeria, The review of Finance and Banking, Volume 01, 2009.
- 2. Bank of Tanzania; Banking Supervision //www.bot -tz.org
- Government of the United Republic of Tanzania. (2009). Economic Survey 2009. <a href="http://www.tanzania.go.tz/economicsurvey1/2009/THE%20ECONOMIC%20SURVEY">http://www.tanzania.go.tz/economicsurvey1/2009/THE%20ECONOMIC%20SURVEY</a>
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   <a href="https://www.tanzania.go.tz/economicsurvey1/2009/THE%20ECONOMIC%20SURVEY">https://www.tanzania.go.tz/economicsurvey1/2009/THE%20ECONOMIC%20SURVEY</a>
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   <a href="https://www.tanzania.go.tz/economicsurvey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVEY</a>
   <a href="https://www.tanzania.go.tz/economicsurvey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/THE%20ECONOMIC%20SURVey1/2009/
- 4. Raghuram G. Rajan and Luigi Zingales, Financial Dependance and Growth, The American Economic Review (1998).
- Tanzania Financial Sector Adjustment Programme Report (August, 2000), African Development Fund.
- 6. Ernst & Young, Tanzania Banking Sector Performance Review: May, 2012.
- 7. V. Bruno and R. Hauswald, The Real Effect of Foreign Bank, (2009).
- 8. Beck, T., Levine, R. and Loayza, N. (2000). "Finance and the sources of Growth".

  Journal of Financial Economics.
- 9. Bencinvenga, V. and Smith, B. 1991, "Financial Intermediation and Endogenous Growth". Review of Economic Studies.
- Goldsmith, R. 1969. "Financial structure and Development". New Haven: Yale University Press.
- Greenwood, J. and Jovanovic, B. 1990. "Financial Development, Growth and the Distribution of Income. Journal of Political Economy
- 12. Beck, T., Demirguc Kunt, A. and Levine, R. 2007. Finance, Inequality an

### **APPENDIX**

Pairwise Granger Causality Tests Date: 12/01/12 Time: 11:19 Sample: 1989 2011

Lags: 1

Null Hypothesis:	Obs	F-Statistic	Probability
MCP does not Granger Cause PRIVY PRIVY does not Granger Cause MCP	13	0.01078 0.86820	0.91934 0.37340
GDPPC does not Granger Cause PRIVY		12.3324	0.00233
PRIVY does not Granger Cause GDPPC	<u>.</u>	0.50254	0.48699
GDPPC does not Granger Cause MCP MCP does not Granger Cause GDPPC	13	0.26002 0.08921	0.62117 0.77130