A STUDY ON LINKAGE BETWEEN FINANCIAL MARKET DEVELOPMENT AND ECONOMIC GROWTH IN ETHIOPIA

By

Kinato, Masresha Bekele

THESIS

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

MASTERS OF DEVELOPMENT POLICY

2014

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Professor Choi Seulki

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ABSTRACT

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In this study I consider the linkage between financial market development and economic growth from 1971 to 2009 in Ethiopia. Most theoretical and empirical works in the literature suggest that deeper financial market promotes economic growth. I take this hypothesis to the test of conducting descriptive and empirical study using Ethiopia's data. In the empirical analysis I estimate an investment equation applying the Stock Watson Dynamic OLS procedure. The result suggests that the financial development indicator positively and significantly explains investment suggesting that financial development and economic growth have direct and strong relationship. The argument that financial development and economic growth have positive linkages is supported by results of both descriptive and empirical analysis. But the argument that financial development determines economic growth appears to be inconclusive. The Granger causality test result suggests bidirectional influence between financial development and economic growth.

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List of Acronyms and Abbreviations

ADF	Augmented Dickey-Fuller
AIB	Agriculture and Industrial Bank
AIC	Akaike Information Criteria
CBE	Commercial Bank of Ethiopia
DF	Dickey-Fuller
DFID	British Department for International Development
DU	Coefficient of the dummy
ECM	Error Correction Model
EIC	Ethiopian Insurance Company
EPRDF	Ethiopian People's Revolutionary Democratic Front
FPE	Final Prediction Error
GDP	Gross Domestic Product
HSB	Housing and Savings Bank
MEDaC	Ministry of Economic Development and Cooperation
MoFED	Ministry of Finance and Economic Development
MFI	Micro Finance Institutions
NBE	National Bank of Ethiopia
OECD	Organization for Economic Co-operation and Development
OLS	Ordinary List Squares
TGE	Transitional Government of Ethiopia
SBC	Schwarz Bayesian Criterion
WB	World Bank

Chapter One: - Introduction

1.1. Purpose of the study

The objective of this study is to examine the link between financial market development and economic growth as well as testing their causality and clearly identify the way through which financial intermediaries influence economic activities in Ethiopia for the period 1971-2009. Particular emphasis was given to investigate whether financial development causes Economic growth, identifying if Economic growth cause financial development and assess how the financial sector contributes to growth.

1.2. Background

Ethiopia has passed through three politically distinct regimes since 1930: The Imperial Government (1930-1974), The Pre-reform period/ The Derg Regime (1974-1991) and the Post-Reform period (1991-present). The economy was controlled by the state through a series of different industrial development plans since the regime of Haile Selassie Government. From 1974-1991, the socialist government controlled the economy. The post-1991 government transformed the economy to a market-based system which is market oriented system. During the Imperial regime, the government adopted a centrally administered development plans which is believed to have failed due to the government's technical and administrative capabilities. But the efforts made by the Emperor to bring some changes in the country in the 20th century brought some success in limited areas. However as whole, the economic policies adopted by the government must be judged as a failure (MEDaC, 199).

Between1974-1975, the Derg regime undertakes a broad range of social, political, and economic reforms. Unluckily, these reforms also pledged more than they delivered. The government's expenditure was higher than its revenue generation capability which led to the poor performance of the economy (MEDaC, 1999). Extensions of credit to sectors other than the central government grew slowly because of the restrictions on the economic activities of the private sector.

The national plan adopted by the government regulated and directed the activities of financial institutions to only finance the public projects. The Derg policy of expanding the public and socialized sector at the expense of the private sector also proved to be a failure because of inadequate monetary policy which impaired the improvement of the financial sector. Relative stability in macroeconomic situations was achieved at the cost of overall economic growth because of the restriction on private sector participation and low productivity of the social sector (MEDaC, 1999).

In 1991 the EPRDF came to power with a range of reforms that are intended to accelerating economic growth, improving macroeconomic stability, and reducing poverty. The government adopted a market-oriented economic policy which brought about a significant improvement in the operation of the financial sector. Unlike the Derg regime, the financial sector served the private sector and new financial institutions also emerged (Alemayehu, 2006). The financial sector is highly regulated by means of credit restriction, equity market control and foreign exchange control. Furthermore, the banking sector of the country remained lonely from the influence of globalization.

The general understanding of the policy makers in Ethiopia regarding financial liberalization is widely believed that liberalization may result in a loss of control over the economy and may not be economically beneficial (Wondaferahu, 2010).

1.3. Statement of the problem

Exploring the relation between financial development and economic growth has been the focus of academics, policy makers and economists. Despite a wide controversy as to how financial markets contribute to economic growth, there seems consensus now on the roles financial markets play in promoting economic growth (Alemayehu, 2006). But there is no consensus on whether structure of the financial system was important for economic growth. Financial markets regardless of the structure facilitate the working of efficient payment systems, mobilization of savings and the allocation of funds to productive investment channels.

According to the theory of financial repression, financial markets play little role in economic growth (Wondaferahu, 2010). This is happened since the financial sector is over regulated and characterized by ceilings in interest rates and government interventions in credit allocation to priority sectors. In this regard, the advice is to adopt financial liberalization because it improves the efficiency of financial intermediation, channels more funds to productive sectors and increase national savings. Specifically, when interest rate is positive in real terms, it increases financial savings and encourages investment.

The financial structure plays a pivotal role in an economy intermediating the lenders and borrowers by providing a list of options for saving mechanisms with deferring risks and supporting investors in finding fund for financing needs. Financial intermediaries also reduce costs to both savers and borrowers and reduce information asymmetry. They also enhance investment by reducing liquidity risks.

A large body of theoretical and recent empirical literatures recommends that broader, deeper and better operating financial market stimulate higher economic growth (Levine, Loayzz, King, Eck). Ndikumana (2003) studied the importance of financial intermediaries in economic growth and found that they affect economic growth positively and significantly. Other studies such as Robinson (1952) argue that "financial development passively follows economic growth by responding to the increasing demand for funds triggered by prosperity". The argument on the causality of financial development and growth is still on today. Understanding the importance of financial markets in economic development and their causation continues to attract the attention of academics and policy makers. It is particularly important for developing countries to design appropriate polices.

1.4. Research Questions

The study critically investigates the following research questions regarding the link between financial development and economic growth in Ethiopia.

1. Does financial development cause economic growth?
2. To what extent does economic growth boost financial development?
3. Identify the channels through which financial intermediaries affect economic activities?

1.5. Methodology of the Study

In this study the paper is consider the link between financial development and economic growth from 1971 to 2009 in Ethiopia. Most theoretical and empirical works in the literature suggest that deeper financial market promotes economic growth. I take this hypothesis to the test of conducting descriptive and empirical study using Ethiopia's data. In the empirical analysis I estimate an investment equation applying the Stock Watson Dynamic OLS procedure to show the connection between economic growth and financial sector development as well as to show the importance of financial sector development to enhance real economic activities. This dynamic OLS approach has certain benefits over the classical OLS approach and the Johansson Maximum Likelihood procedures and it advance on OLS by coping with small sample and dynamic sources of bias. I collect the data from different sources like MoFED, NBE, WB data base and other different sources.

1.6. Significance of the Study

The study is believed to provide relevant information for policy makers and financial institutions in considering areas of intervention to develop the financial sector and promote economic growth. Knowing the direct association between financial sector development and growth is not sufficient by itself, however if proper policy is to be formulated, this information is going to play a vital role for designing proper policy and fill the knowledge gap.

1.7. Scope of the Study

The study is limited in scope with regard to the issue of examining the interactions between financial sector development and growth as well as testing their causality.

1.8. Structure of the Paper

The paper is consisting of the five major parts. Following the introduction part Section two gives Theoretical and empirical literatures reviewed and review of macroeconomic and financial sector developments of the Ethiopian economy overview. Descriptive study of the linkages of financial sector development and economic growth in section three and empirical analysis is given in sections four. Finally the paper provides brief conclusion in section five.

Chapter Two: Literature Review

2.1 Theoretical and empirical evidences

Huge and growing literatures exist on the link between financial sector development and economic growth. There are two views in economic theory regarding the importance of finance for growth and economic development namely: 1) an efficient financial system is key determinant to economic growth and 2) "financial sector does not matter very much that any correlation between financial development and growth is a result of growth leading development" (Stanley Fischer: 2003). According to different literature, exploring the linkages between economic growth and financial development requires addressing two empirical questions: These are verifying whether financial improvement leads to higher economic growth and identifying the channels through which financial mediators affect economic activities. Most of the Empirical studies have commonly but not fully supported the decision of positive correlation between financial and economic development but failed to establish their direction of causality.

A different kind of evidences arises that support the argument relating to the strong connection between financial development and growth. Many empirical and theoretical works on the role of financial markets suggest "positive relationship between economic growth and financial development" (Khan and Senhadji 2000, Argettry, etal 1997, Kpodar 2008, Kiypta etal 2007). Schumpeter opposed that financial improvement cause's economic development by directing capital to the entrepreneurs with high return projects. It is argued that economic growth is centered at the heart of the process of capital formation which in turn depends on the availability of capital in the economy. In this regard, huge capital investment is needed for the provisions of basic infrastructural and development related facilities, particularly for developing countries. This huge investment itself is determined by domestic and foreign savings. Hence, banks play key role in mobilizing these savings and allocating the required capital for investment and growth.

The causation is ambiguous that in earlier period the level of economic development used to be perceived as determinant of the development of the financial market, but nowadays there is a change in this perception that real economic activities are constrained by weak financial system, implying that financial sector development is one of the pre-requisites for economic growth (Narayana: 2000), Most studies underline on the proposition that economic growth in Sub-Saharan African countries has been hampered by weak and repressed financial systems (Aryeetey 1997).
The view that capital market is the basis for saving mobilization and economic growth is a recent development. The importance of capital market for economic growth is explained on the emphasis towards raising the rate of private domestic voluntary saving and allocates that saving more efficiently through the development and effective use of capital markets. This is in contrast with the widely held view in the 1950‟s and 1960‟s which regarded foreign aid and fiscal policy as the basis for development. Some studies have also found weak connection between financial development and economic growth.

The development of sophisticated financial instruments has helped improve also risks in the economy and rise the efficiency of the investment saving process, implying that the more competent the financial system means the faster economic growth would be.

The scope and complexity of this network largely be determined by on the level of development of an economy.

In the 1960s Raymond Goldsmith conducted a huge cross country empirical study and demonstrated a positive correlation between economic growth and financial development. Patric (1966) studied "financial sector development to growth in the early stages of development but the impact diminishes gradually as the economy develops and the impact of growth on financial sector development predominates". Robert King and Ross Levine (1993) found a positive statistically significant cornelian between GDP per head and proxies of financial development.

Some studies have also found weak connection between financial sector development and growth. A study by Kpodar… etal (2008) identified both positive and negative channels through which financial development affects poverty. "The positive channel is that financial improvement support to reduce poverty by facilitating transactions and allowing the poor to benefit from financial services that increase their income (through interest earned) and enhance their ability to undertake profitable investments and other activities. The negative channel is that volatility arises at various stages of the financial development and it undermines poverty reduction because the poor are generally more vulnerable than the rich to unstable and malfunctioning financial institutions".

A study by British Department for International Development (DFID) in 2004 found that "there is a great deal of evidence to suggest that financial sector development is important for growth and poverty reduction and without it development may be held back even if other conditions are met".

King and Levine (1993) find that "the value of financial depth in 1960 predicts the rate of economic growth, capital accumulation and productivity improvement over the next 30 years". They also find that the connection between the early stage of financial sector development and growth is large.

Other studies find that bidirectional causation of financial sector development and economic growth. However the impact of the sector on growth is more important relative to the other particularly in, developing countries. This recommends that financial sector underdevelopment is more likely to hold growth back in developing countries

Barbara etal (2007) undertook a study on the Ethiopia"s banking sector and found that liberalizing restrictions on foreign bank entry accelerates the efficiency of the domestic banking sector and thereby contribute to long run economic growth. Openness in financial services had positive and significant effects on economic growth. Some studies have also found that higher government ownership of banks was associated with slower subsequent financial sector development and lower productivity growth. It is widely accepted that the private sector must be the engine of growth and that governments must work
to create the right enabling environment for private sector development. By facilitating transactions and making credit, the financial sector is a crucial building block for private sector development. It also plays an important role in reducing risks and vulnerability and increasing the ability of individuals and households to

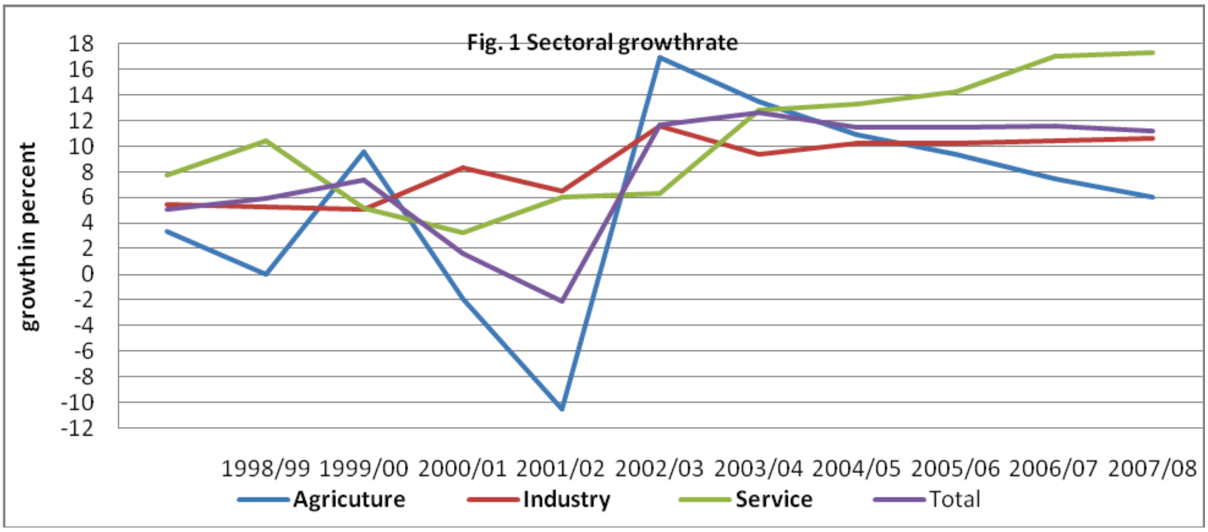
access basic services like health and education thus having a more direct impact on poetry reduction.

2.2 Macroeconomic and Financial Sector Overview

2.2.1 Economic Performance

Rebounding from the 2002/03 drought, there has been strong economic growth in Ethiopia over the past seven years. According to official data, annual real GDP growth in the past six years averaged 11.5% which is much higher than the Sub- Saharan African average of about 6%. Despite the global economic crises, economic growth during 2008/09 was 9.9% and growth in 2009/10 is estimated to be 10.1%. Ethiopia has had a string of good harvests which in turn were results of good rains combined with rises in area cultivated. The bumper harvests in agricultural production underpin activities in manufacturing and services. Increased and sustained public investment in infrastructure has also enhanced economic activities. Looking at the sources of growth we observe that all sectors have revealed significant growths but the growth of the service sector was very strong

Fig.1. Depicts growth rates by economic activities namely agriculture, industry and service sectors. It shows that the growth in the service sector was very strong.



Source: National Bank of Ethiopia Annual Report Various Years

Nonetheless, Ethiopia experienced macroeconomic imbalance in 2008 and 2009. Largely owing to aggressive public investment in infrastructure and credit expansion, the inflation rate reached an historic record high of 64.2 percent in July 2008. Notwithstanding the pressure of international fuel and commodity price shocks in 2008, international reserves of the country fell to all time low of covering about five weeks of imports. The local currency Birr was overvalued. IMF staff report estimated that the local currency was overvalued by above 30 percent in June 2009.

In a bid to restore macroeconomic balance, the government has been pursuing strong policy measures. This includes among others, pursuing tighter monetary and fiscal policy stance, elimination of domestic fuel price subsidy, rationing foreign exchange to importers and significant and stepped exchange rate adjustments. As a result of these measures and good cereals harvest, inflation has sharply tumbled to single digits. General annual inflation rate in June 2010 was 7.3% and food inflation has become zero.

International reserve of the country has increased significantly to a level of covering over two months of imports. The exchange rate of the birr has adequately been adjusted to increase competitiveness of exports and depress conspicuous imports. In the last few years the nominal exchange rate of the local currency against the USD has been depreciated by over 40%. Currently the Birr is traded at the marginal rate of Birr 18.5 to 1USD.

2.2.2 Financial sector development

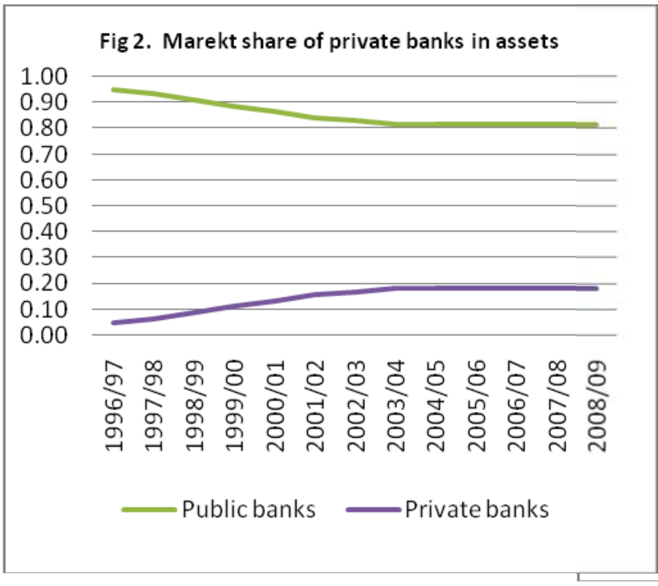
As part of the broader market oriented economic policy agenda, implementation of the financial sector reform begun in the early 1990s. These reforms were geared towards building a sound, competitive and well-functioning financial system that supports sustainable economic growth and development. A series of financial and foreign exchange reform measures have been issued since October 1992. New banking and insurance laws have been issued in 1994. The supervisory role of the central bank was extended to cover microfinance institutions. The banking laws were amended in 2008. Anti-money laundering law was also enacted in 2009.

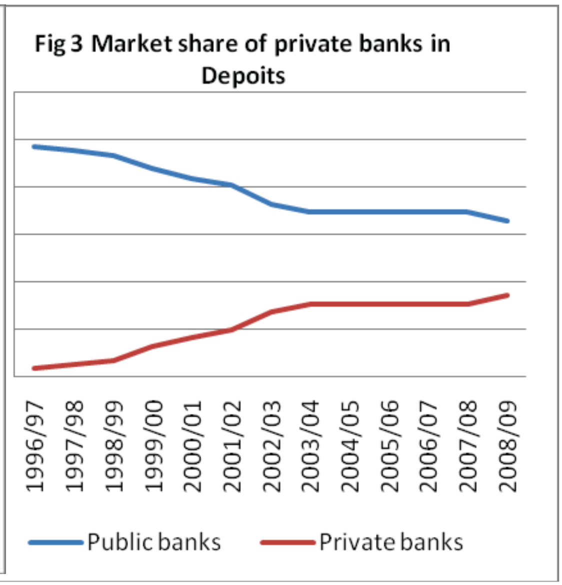
Although its objective was to increase the role of financial markets in resource mobilization and allocation as well as providing sufficient funds to finance private and public investments, a gradual financial sector reform agenda has been pursued. Ethiopia appears to be unique in regards to prohibiting entrance of foreign banks compared to many of its neighboring counties like Kenya, Uganda, Tanzania, and many other developing countries. Moreover Ethiopia‟s financial sector is characterized by dominance of state ownership and low level of development. Unlike in many other countries, there is clear demarcation between government and private banks that no private shares exist in state-owned banks and government has no shares in any private bank. Ethiopia's financial sector remained closed and is much less developed than its neighbors (Kiyoto etal 2007)

Ethiopia’s financial sector is rudimentary and controlled by the banking system. Currently, the sector includes 16 banks, 12 insurance companies, 30 microfinance institutions, over 700 savings and credit cooperatives and a Social Security Authority. There is also unorganized active informal financial market that includes the traditional savings and lending mechanisms such as idir, equb and mahber.

There is informal issuance of shares but there is no security or capital market. Many companies are established by issuing shares in the various sectors of the economy. Money markets are not developed that there is only a thin primary market for treasury bills and weak inter-bank money market. Except government issued bonds, all types of capital markets including stock exchange and equity markets are non-existing. The regulatory and institutional framework for this market is not developed yet

The banking system comprises the National Bank of Ethiopia (central bank), 15 commercial banks (2 state-owned and 13 private), and 1 specialized state-owned bank. These banks currently have 673 branch networks all over the country. But Ethiopia remains under banked that on average over 120,000 people are served by a branch in contrast to less than 100,000 are served by one bank branch in Sub- Saharan Africa. In terms of ownership state owned banks dominate the market.





Source: National Bank of Ethiopia Annual Report

Banking service is concentrated in major cities and towns. As of June 2009 there were 241 (36% of total) commercial bank branches in Addis Ababa only. With regard to ownership structure and concentration, the state-owned banks dominate the market. At end June 2009, public banks controlled 65.7% of loans, 64.5% of deposit liabilities, 42.9% of branch networks and 63.5% of capital. Commercial Bank of Ethiopia claims 46 percent of total banking sector capital and 33 percent of total branch networks. (NBE Reports: 2009). Assets of the banking sector increased from Birr 20 billion at June 1996 to Birr62.5 billion at Jun.

2.2.3 Indicators of Financial Development

The development of the financial sector can be measured using different kinds of indicators. The most commonly used financial development indicators include:

1. Liquid Liabilities to GDP: is financial development indicator which is represented by liquid liabilities of commercial banks (demand, savings and time deposits) to GDP ratio. This gives an alternative to broad money ratio. The argument is that in developing countries the larger share of broad money is currency outside banks which reflects more extensive use of currency than increased use of deposits.
2. Private Credit to GDP: financial credit issued to the private sector by banks and other financial intermediaries divided by GDP. It measures the financial activities of the mediators by directing savings to investors. “Those Countries with higher levels of private credit to GDP have been shown to grow faster” (Beck, Levine and Loayza, 2000, Beck, Demirguc-kunt and Levine 2007).
3. Commercial-Central bank: the ratio of commercial bank assets to the sum of commercial bank and central bank assets.
4. Stock Market Capitalization: the ratio of the value of listed domestic shares to GDP. It shows the size of the stock market compared to the size of the overall economy in the country.
5. Private bond market capitalization to GDP: is the whole amount of outstanding national debt securities issued by private or public domestic entities divided by GDP

These measures however, are not by themselves enough to see the extent of financial development. The findings of Stieglitz (1994) and Dimirquc-Kunt and Levine (2008) emphasize the role of state in shaping the operation of financial systems especially in developing countries.

Chapter Three: Overview of Ethiopian Economy with a Focus on the Financial Sector

3.1 Overview of Ethiopian Economic Growth

Ethiopia's economy is extremely exposed to exogenous shocks due to its reliance on primary commodities and rain-fed agriculture. Agricultural productivity remains low even though agricultural productionhas increased considerably (Mwanakatwe and Barrow, 2010). In recent years, Ethiopia has experienced strong economic growth. This is mainly because of the growing contribution of the service sector and industrial sector to GDP. "On averaged the Real GDP growth rate is 11.2 percent per annum during the 2003/04 and 2008/09 period, placing Ethiopia among the top performing economies in sub-Sahara Africa" (Mwanakatwe and Barrow, 2010).

This GDP growth when compared to the growth rate during the Imperial regime and the Derg regime is quite substantial. During the period 1960 and 1970, for instance, "Ethiopia experienced an annual 4.4 percent average growth rate in per capita GDP. Between 1974/75 and 1989/90, growth decelerated to 2.3 percent (-0.4 percent in per capita terms) "(Alemayehu, 2006). Insecurity induced by the new policy of the regime, war with Somali and the drought that occurred during 1983/84 can be mentioned as a cause of this poor performance. According to Mwanakatwe and Barrow, 2010, Ethiopia's recent growth can be explained by:

- Conducive government policies
- Increased domestic revenue mobilization and aid
- Heavy investment to address infrastructure bottlenecks
- Rise public spending to improve pro-poor growth
- Expansion of exports and remittance

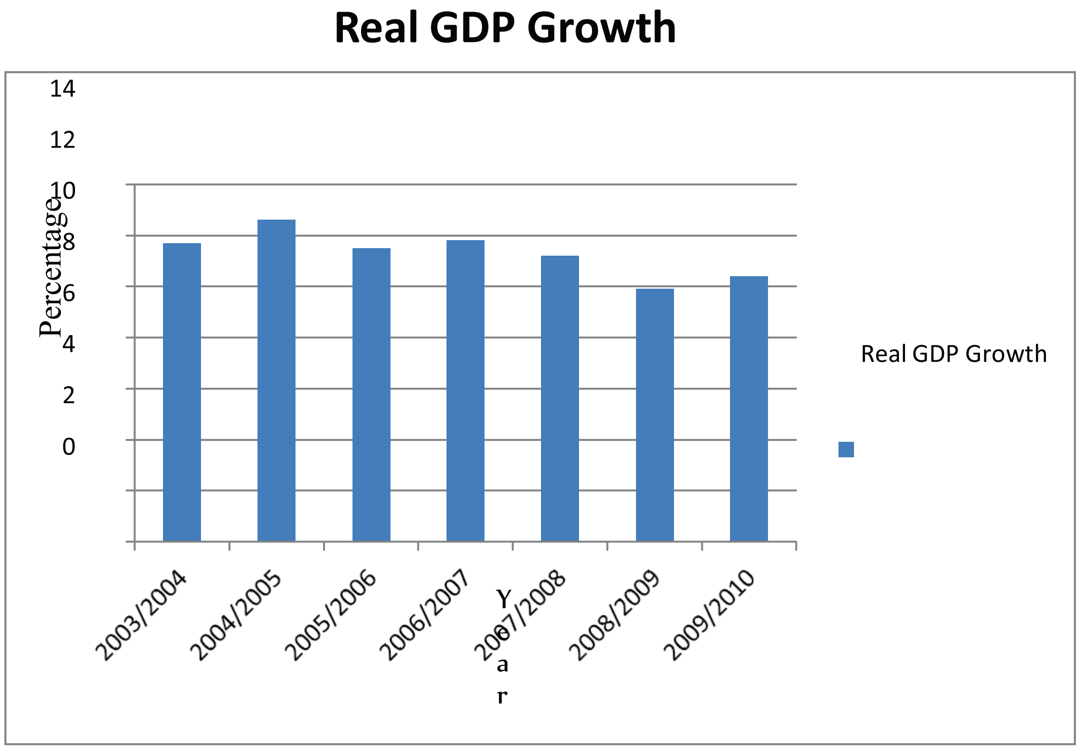


Figure 3.1 Real GDP Growths

Source: National Bank of Ethiopia Annual Report Various Years

3.2 The Development of the Financial System in Ethiopia

3.2.1 The Pre –Reform Period

The pre-reform (Derg) period is characterized by fast growing government expenditure with an unequal growth in revenue. All private financial institution including thirteen insurance companies, two non-bank financial mediators and three commercial banks were nationalized. The government restructured the financial system and formed one commercial bank (CBE), a national bank (NBE), two specialized banks (AIB & HSB) and one insurance company (EIC). AIB was mainly responsible for financing agricultural and industrial projects with medium and long growth period, while HSB used to lend for construction of residential and commercial buildings.

CBE was engaged in trade and other short term financing activities while EIC was the only insurance firm responsible for the provision of all types of insurance services. The Central Bank of Ethiopia (CBE) was granted the power to provide loan and advances to the government whenever revenue falls under expenditure. In addition the NBE was assigned to formulate the credit policy and determine the interest and exchange rate.

It also fixed both deposit and lending rates, administered the allocation of foreign exchange and directly financed the fiscal deficit. Credit to domestic extension was subject to central planning. The limit on direct advance allowed to the government from the NBE increased to 70 percent from 15 percent in 1963 (MEDaC, 1999). These lending strategies of the banks prove that the productive sector was not given priority.

CBE was the dominant bank accounting for more than 90% of the overall deposits mobilized in the country (Alemayehu, 2006). The government on the other hand controlled the financial sector using direct financial instruments such as lowering the interest rate and discriminating the allotment of foreign exchange and credit. The foreign exchange earnings were surrendered to the NBE and the credit policy also favored the expansion of the socialized sector.

Basically the financial sector during 1974-1990 served the state and the development of the socialized sector. According to Prof. Ali I. Abdi (2000), nationalizing the private sector, controlling the saving and lending interest rates and limitation on credit revealed the classical manifestation of financial system which is repressed a state. Financial intermediation and the development of the financial sector were affected due to poor resource utilization of the public sector on side and the performance of this sector at the expense of the private sector.

3.2.2 The Post-Reform Period

In 1991, the Transitional Government of Ethiopia (TGE) took over and restructured the system to a market-based economy. "The government's strategy for financial development is characterized by gradualism" (Alemayehu, 2006).

It reformed the financial sector by granting power to the NBE and strengthening its capacity, granting commercial banks with adequate autonomy to operate within the general financial policy framework provided by the NBE and introduce a competitive bank and non-bank financial sector by allowing the participation of the private sector. In 1994 the private sector was allowed to involve in the banking and insurance business. The number of banks which were active before the 1974 revolution was only 9 with 113 branches all together (Alemayehu, 2006). However during the fiscal year 2009/10 the total number of operating banks in the country reached 15 with 681 branches (NBE, 2009/10). These banks play a crucial role in the expansion of the financial sector. The efficiency of these banks in turn defines the strength of the economy.

Bank branch to population ratio improved from126, 258 in 2008/09 to 117,474 taking total population as 80 million in 2009/2010. At the end of 2009/2010 the share of private banks grew from 57% to 60% as a result of a significant capital injection by the private banks (NBE, 2009/10).

The introduction of private banks in the country gradually led to enhanced banking services, including features as extension of banking hours, electronic banking, ATMs, and better facilities.

These private banks in turn focused on fast growing sectors in order to advance economic growth. But the Ethiopian banking industry is still small despite the increase in the capital base when compared to other African countries (NBE, 2009/10). Although bank branches are expanding at a fast pace, banks are not still accessible to most of the rural area. This can be justified by the high lower balance necessary to open a bank account and the low geographic as well as demographic penetration.

The numbers of Insurance companies in 2009/10 were 12, and their total capital grew by 47.5% to birr 962.4 million with private insurance companies accounting for 65.3%. The number of MFIs by the end of 2009/10 reached 30 and their capital increased by 36.7% to birr 2.4 million (NBE, 2009/10).

Table 1. No. of Bank branch, Total capital in million and Percentage share are in ( )

	2003/04		2006/07		2009/10	
	No. of Bank Branch	Total Capital in Million	No. of Bank Branch	Total Capital in Million	No. of Bank Branch	Total Capital in Million
1. Public Banks						
CBE	172 (48)	1495.4 (47.4)	196 (40.2)	4220.0 (45.6)	209 (30.7)	5532 (42.8)
CBB	21 (5.9)	87.9 (2.8)	27 (5.5)	257 (2.8)	32 (4.7)	229 (1.8)
DBE	32 (8.9)	524.4 (16.6)	32 (6.6)	1865 (20.1)	32 (4.7)	1969 (15.2)
2. Private Banks						
Awash International Bank	31 (8.7)	177.5 (5.6)	43 (8.8)	434 (4.7)	62 (9.1)	721 (5.6)
Dashen Bank	229.9 31 (8.7)	(7.3)	42 (8.6)	612 (6.6)	59 (8.7)	967 (7.5)
Abyssinia Bank	19 (5.3)	208.6 (6.6)	28 (5.7)	419 (4.5)	47 (6.9)	482 (3.7)
Wegagen Bank	25 (7.0)	145.6 (4.6)	39 (8.0)	401 (4.3)	50 (7.3)	828 (6.4)
United Bank	14 (3.9)	96.1 (3.0)	27 (5.5)	359 (3.9)	42 (6.2)	506 (3.9)
Nib Bank	13(3.6)	189.5 (6.0)	25 (5.1)	426 (4.6)	48 (7.0)	723 (5.6)
Cooperative Bank of Oromia	-	-	16 (3.3)	131 (1.4)	37 (5.4)	169 (1.3)
Lion International Bank	-	-	12 (2.5)	134 (1.4)	22 (3.2)	201 (1.6)
Oromia International Bank	-	-	-	-	27 (4.0)	208 (1.6)
Zemen Bank	-	-	-	-	3 (0.4)	121 (0.9)
Buna International Bank	-	-	-	-	3 (0.4)	169 (1.3

Berhan International Bank	-	-	-	8 (1.2)	108 (0.8

Source: Annual Reports of National Bank of Ethiopia (NBE), various years

In 1992, the exchange rate reform took place and the government devalued the currency from 2.07 birr to the dollar to 5 birr to the dollar.

Consequently, the NBE issued directives and established interbank foreign exchange and monetary market in 1998. Since its establishment only 23 transactions worth Birr 259.2 million were transacted with interest rate ranging between 7-11% per year (NBE, 2009/10). The existence of surplus liquidity in the banking system and lack of collateral in the case of private banks has contributed to the poor performance of the interbank money market in Ethiopia. Bills of Treasury market is the single regular main market where securities are transacted on a fortnightly basis. Long term securities are not widely traded except for the occasional issuance of government bonds to finance government expenditure. No secondary market for these securities exists.

Unlike the Socialist Government, which was basically engaged in active participation in the production and distribution activities, the current government shifted its role to creating an enabling environment for the private sector and providing regulatory services. Besides privatization, the government has paved the way for foreign investors. But despite the efforts undertaken by the current government to create a conducive business environment, the flow of private investment, the growth of the private sector, and its participation in the economy have so far been quite low. This is partly due to the repression of the private sector under the Derg regime (World Bank, 2004).

In general the Ethiopian financial system is bank dominated with underdeveloped money and securities market which characterizes the inefficiency of financial intermediation. Financial markets are underdeveloped and currently there is no capital market in Ethiopia. The monetary and financial policy is not firm enough to let the private banks to set good-looking interest rate and to give credit to support the growth of the economy. With the growing number of banks entering the financial system, the financial sector supervision remains low. “Currently there is no foreign bank in the country and the system remains isolated from the effects of globalization while policy makers fear that liberalization will lead to loss of control over the economy” (Wondaferahu, 2010).

Whereas studies show that liberalization has future economic outcome on the financial sector by making the domestic banking sector efficient. One of the advantages of financial liberalization is that it will increase the domestic banks’ competitiveness. The competency of the banking sector can be improved by the privatization of state-owned banks as part of the liberalization process, thereby promoting economic growth.

When we come to the case of Ethiopia, a least developed country less liberalized as a result of under development of the existing financial system. Thus, before perusing financial liberalization, Ethiopia needs to develop policies and strategies that encourage successful financial liberalization and financial development. This is because a strong financial arrangement is important to attract foreign resources and to mobilize savings allocating them to efficient investments. The unimproved financial sector will raise the transaction cost and channel savings of households into physical assets which inturn reduces investment and hence, reduce growth.

3.2.3. Linking financial development and growth in Ethiopia

Financial markets in developed economies mainly refer to the operations of capital market that include both financial and property markets. Financial market refers to money market or short term debt markets while the property market refers to the situation of business incur debt to acquire stocks of materials or goods-in-process or to buy items like mortgage homes. The market for financial assets is well developed and efficiently operating in these economies. In developing countries like Ethiopia, where capital market is non-existing, the scope of financial market is limited to organized financial intermediaries mainly referring to banks and insurance companies. Small sizes of the financial sector coincide with weak legal and institutional financial infrastructure and the banking sector usually dominate the sector (Kawalec and Kluza: 2000)

At an early stage of development a country can function with a relatively unsophisticated financial system particularly if it has decent banks. Building a gleaming stock exchange in a poor country with an in-adequate legal framework and accounting practices is not going to increase the growth rate. As the economy develops the financial system becomes more sophisticated with it. The financial system should be allowed to develop more rapidly relative to per capita GDP than has been the historical norm-- that a modern financial system can increase the efficiency of investment and contribute to growth both by reducing the costs of intermediation and by improving the allocation of risk. Such a system makes it possible for some firms that cannot self-finance to carry out projects that otherwise would not have taken place and this increase output.

Thus a financial system should be a leader in the development process.

Financial development refers to increase in financial services, improvement in efficiency and competitiveness of financial intermediaries, the amount of money intermediated by financial institutions, diversity of financial institutions, the extent of capital allocated by private financial institutions to private sector, etc.

There are different kinds of financial development indicators. In the literature three broad categories of indicators are given. These are monetary aggregates, stock markets, and institutions and structures. In the past several years, there has been notable development in monetary aggregates and institutions in Ethiopia. Domestic liquidity measured by broad money supply increased more than threefold from Birr 29.1 billion in June 2003 to Birr 96.2 billion in March 2010. Capital of banks increased to Birr 11.1 billion in March 2010, loans and advances of commercial banks expanded from 15.1 billion in June 2000 to Birr 53.1 billion in March 2010. Services of microfinance institutions have also substantially increased in the past five years. Their lending shoot up from Birr 1.4 billion in 2003 to over five billion birr in 2009 serving over three million beneficiaries. Over 50% of beneficiaries of microfinance institutions are rural dwellers.

In regards to institutional development there are seventeen banks including NBE and Development Bank of Ethiopia as of March 2010 in contrast to only three in 1994. These banks have over 673 branch networks all over the country today compared to less than 150 branches ten years ago. The number of insurance companies and microfinance institutions reached 12 and 30, respectively from 1 insurance company and no microfinance institution in 1995.

It is argued thus that financial development in Ethiopia in the past several years has contributed to the strong growth in the economy. The empirical analysis will attempt to explore this linkage and causation of the growth.

Chapter Four

4.1. Empirical Analysis

4.1.1 Model Specification and Methodology

Both theoretical and empirical studies suggest that there is positive and significant linkage between economic growth and financial development. Country specific empirical experiments have also showed that financial development directly benefit the poor and contributes to poverty reduction. But there is no consensus in the literature regarding the causation between economic growth and financial development. Whether financial development leads to higher economic growth can empirically be addressed by modeling indicators of financial development to the growth rate of per capita income or investment.

To examine the linkage between economic growth and financial development, this paper will uses following Ndikumana (2003), I model and estimate the following long run investment equation in the case of Ethiopia.

$$\mathbf{Ln}\, \boldsymbol{I} = \boldsymbol{\beta_0} + \boldsymbol{\beta_1}\ \boldsymbol{Ln\, FIN} + \boldsymbol{\beta_2}\ \boldsymbol{Ln\, TRADE} + \boldsymbol{\beta_3}\ \boldsymbol{Ln\ g} + \boldsymbol{ei}$$

Where I, is the gross investment to GDP ratio, FIN is financial development indicator which is represented by liquid liabilities of commercial banks (demand, savings and time deposits) to GDP ratio. This gives an alternative to broad money ratio. The argument is that in developing countries the larger share of broad money is currency outside banks which reflects more extensive use of currency than increased use of deposits. Many researchers believe that it is a better measure of overall size of financial intermediaries and financial depth (financial sector relative to the Economy). TRADE is (export +import)/to GDP ratio which measures openness or degree of liberalization and g is real GDP Per Capita growth. A financial market policy dummy will also be including in the estimated model to capture effects of policy changes and reforms. Impacts of other important variables like size of government, inflation and exchange rate will be controlled in this model. According to economic theory all the coefficients are anticipated to be positive except TRADE which is empirically determined. A model called log linear specification is used to symbolize the long run investment equation because it yields elastic ties in a suitable form and it has been great used in error correction models in several previous studies.

The study will uses annual data covering the period spanning from 1971 to 2008. The data will collect from different sources. National accounts data obtained from the Ministry of Finance and Economic Development reports, monetary data from annual reports of the National Bank of Ethiopia and price data from Central Statistical Agency.

4.1.2 **Econometrics Procedures**

The Stock Watson Dynamic OLS Approach

This dynamic OLS procedure has certain returns over the classical OLS and the Maximum Likelihood procedures of Johansson. It is projected by Stock and Watson (1993). It advances on OLS by coping with small sample and dynamic sources of bias.

The Johansson method is uncovered to the problem that parameter approximations on one equation are exposed by any misspecification in other equations. Thus, DOLS is by contrast a robust single equation approach which corrects for regressor endogeniety by the inclusion of leads and lags of first differences of the regressors and for serially correlated errors by a GLS procedure. This method will be applied to the estimation of similar studies.

Co-integration Tests

The classical regression properties hold only for stationary or integrated of order zero variables. Most economic time series variables are however integrated of order one or I (1) and therefore do not satisfy the OLS assumptions. But where long run relationship exists certain combination of integrated of order one or I (1) variables .are likely to be integrated of zero or I (0) and hence amenable to OLS estimation. In such cases the variables used in the model are said to be co-integrated and OLS estimates of such co- integrated variables may be super consistent in adjusting to their true values more quickly than if the variables had been stationary

The first step is to determine the degree of integration of each variable included in the model. This we do using standard Dickey-Fuller (DF) and Augmented Dickey-Fuller (ADF) tests on a regression of original values. Accordingly, DF and ADF tests were used to detect stationarity of the variables included in the model. Schwarz Bayesian Criterion (SBC) and Akaike information Criterion were also used for selecting the order of argumentation. We found that the first differences of the investment, trade and financial indicator variables are I (1) and per capita income growth was I (0),

To examine co-integration between the variables included in the model we estimated the equation above in OLS. The results are reported in Table 1 below. The ADF test of the residual clearly indicates existence of co-integration. All the coefficients have the expected signs, are highly significant and pass the standard diagnostic tests.

Table 1 OLS estimation of the investment equation

Repressors	**Coefficient (SE)**	**Diagnostic test (LM version (p-value)**
C	0.023 (0.170)	Serial correlation 0.536 (0.765)
LFIN	0.019 (0.519)	Functional form 3.199 (0.053)
LTRA	0.601 (0.090)	Normality 0.112 (0,944)
PCg	0.012 (0.001)	Heteroscdasticy 0.724 (0.633)
R2	0.88	
AR2	0.87	
DW stat	1.65	
ADF Test Statistic	-3.583	
Akaike info criterion	-0.335258	
Schwarz criterion	-0.164637	

Estimation of the model

The Stock Watson Dynamic OLS approach is employed to estimate the dynamic investment equation. Given the data points, two lags and leads of the first difference of each explanatory variable were included in the estimation and insignificant ones were dropped from the model. The result is reported in table 2 below. Coefficient elasticties of long run financial indicator and trade are 0.23 and 0.178, respectively, both are significant and born the expected sign while coefficient of per capita income growth is significant with negative sign. The negative sign is doesn't mean the per capital income in the country is not increased. Rather it implies the increase in income leads to more consumption instead of enhancing investment since consumption is a component of GDP. The result shows economic growth is essential for the development of the financial sector in Ethiopia. This is a major sign that Ethiopia is still a developing country. This scenario is different for developed countries: the more the country is developed, the more the financial development is useful to forecast GDP growth (Hurlin & Venet, 2008) by enhancing investment rather than consumption. Coefficient of the dummy (DU) which captures effects of financial liberalization and policy change is significant and positively explained investment. The DOLS result is robust as indicated by the standard diagnostic tests reported in table 2.

Thus, consistent with theory and most empirical findings, financial development and trade positively explain investment then leads to economic growth.

Table 2 Stock –Watson DOLS estimation result of the investment equation

	Coefficient (SE)	Diagnostic test (LM version (p-value)
C	-1.855(0.221)	Serial correlation 0.306(0.738)
LFIN	0.234 (0.044)	Functional form 167.069 (0.00)
LTRA	0.178(0.058)	Normality 0.76 (0,68)
PCg	0.013 (0.004)	Heteroscdasticy 0.724 (0.633)
DLFIN(1)	0.252(0.094)	
DLFIN(2)	0.328(0.085)	
DLTRA(1)	0.341(0.081)	
Dpeg	-0.009(0.003)	
Dpeg(-1)	-0.008(0.002)	
Du	3.608(0.464)	
R2	0.99	
AR2	0.98	
DW stat	1.70	

Causality Test

The debate is now more on the causation or direction of influence. Most empirical studies argue that financial development triggers investment and economic growth while others argue that financial play passive role to economic growth. Meanwhile other studies support bidirectional influence. Regarding causation of financial development and investment we run test of Granger causality and we obtained the following result

Table 3. Causality Test

Null Hypothesis	Observation	F-Statistic	Probability
LNFIN does not Granger Cause LNI	37	2.23258	0.12369
LNI does not Granger Cause LNFIN		0.61596	0.54640

Granger causality test of financial development and investment seems to suggest that causation is bidirectional. The hypothesis that argues financial development triggers economic growth appears to be disproved and causation turns out to be both directions. .

Chapter Five: Conclusion and Policy Implication

5.1 Conclusions

The purpose of this paper was to explore the long run relationship between financial development and economic growth using Ethiopian data. The mail objective was therefore exploring whether financial development leads to economic growth or not in Ethiopia. Looking at monetary aggregates, institutions and structures as measures of financial development I observe that there has been a significant growth in financial services in Ethiopia in the past several years. Deposit liabilities of banks, number of banks and their branches, amount of loans extended by banks have all been increasing significantly. Financial intermediation increased from 13.7% in 2000 to 21.4 percent in 2009 with annual average growth rate of 14.8%. The contribution of financial services to GDP has also increased from 1.8% to 2.7% in the same period. Official data also show that there has been double digit growth in real GDP. This suggests a positive linkage between economic growth and financial development. The experimental analysis also seems to support this that financial development indicators positively and significantly explain investment and economic growth. But the argument financial development determines growth has not been supported empirically. The empirical result seems to suggest that causation is bidirectional.

Financial systems are still relatively underdeveloped in Ethiopia. However, recent structural and institutional indicators of financial market development paint a relatively more optimistic picture. The financial indicators show that the country has made significant progress in promoting an environment that is conducive to financial intermediation.

Despite notable improvements and growth in financial development, financial services are still inadequate and inefficient that weakens the linkage between financial development and growth. A stable macroeconomic framework promotes constructive connection between financial development and growth and reduces vulnerability to financial crisis. Sound, regulatory framework; strong corporate governance, adoption of standard accounting and auditing practices help enhancing financial intermediation.

Much progress is still needed, however, especially to strengthen the institutional framework for banking regulation, promote monetary policy autonomy, establish government and central bank credibility, develop banking supervision capacity (through investment in technology and human capital), which will create an environment that is conducive to investment and saving. Progress in those areas will not only promote financial market development but will also foster economic growth.

5.2 Policy Implication

Based on the empirical analysis, it is observed that the financial sector has a long-run effect on the economic growth of Ethiopia. Since Ethiopia is dominated by the banking system, the financial sector has to deepen by strengthening the banking sector so as to maintain a sustainable economic growth. Banking development can be strengthening by having a strong regulatory system that strengthens the private sector as it is the engine of economic growth.

Credit to the private investors has to be given high emphasis in order to boost investment thereby reducing foreign borrowing. Financial constraints that are imposed on the private sector should be relaxed and more focus should be on ways to promote private sector development.

Since financial development has an insignificant effect on economic growth of Ethiopia in the short-run, policy makers should focus on long-run policies such as improving the financial markets and introducing capital markets. In the long-run, these policies will have an important outcome on economic growth. In addition, strategies that enable a strong economic growth should be implemented as the growth of an economy would have repercussions on the progress of the financial system.

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