Global Journal of Management and Business Research: C
Finance
Volume 14 Issue 2 Version 1.0 Year 2014
Type: Double Blind Peer Reviewed International Research Journal
Publisher: Global Journals Inc. (USA)
Online ISSN: 2249-4588 & Print ISSN: 0975-5853

Assessment of the Performance of Ethiopian Financial and Economic Environment

By Abebaw Kassie
University of Gondar, Ethiopia

Abstract- The financial system plays a pivotal role in economic activities in any country. Thus it is vital to determine the status and assess the financial health of the financial system and take corrective policy measures continuously. The objecitve of the paper is to evaluate the status of financial and banking system in Ethiopia. Descriptive statistical tools like percentages, growth rates, mean values and comparisons using ANOVA and Kruskal-Wallis tests have been used. Ethiopian financial sector in general and the Banking Sector in particular is performing well from year to year in terms of assets, deposits, loans and equities owned in the study period. Financial intermediation has increased during the study period as measured by Total Financial Assets to GDP, Financial System Deposits to GDP, Loans to GDP and Loans to Deposits. Ethiopia can be characterized as a least developed economy registering highest rate of economic growth. The financial sector is not that much developed in Ethiopia. Hence, the financial system needs to be developed to support the economy well.

GJMBR-C Classification : JEL Code: G00

Assessment of the Performance of Ethiopian Financial and Economic Environment

Abebaw Kassie

Abstract- The financial system plays a pivotal role in economic activities in any country. Thus it is vital to determine the status and assess the financial health of the financial system and take corrective policy measures continuously. The objecitve of the paper is to evaluate the status of financial and banking system in Ethiopia. Descriptive statistical tools like percentages, growth rates, mean values and comparisons using ANOVA and Kruskal-Wallis tests have been used. Ethiopian financial sector in general and the Banking Sector in particular is performing well from year to year in terms of assets, deposits, loans and equities owned in the study period. Financial intermediation has increased during the study period as measured by Total Financial Assets to GDP, Financial System Deposits to GDP, Loans to GDP and Loans to Deposits. Ethiopia can be characterized as a least developed economy registering highest rate of economic growth. The financial sector is not that much developed in Ethiopia. Hence, the financial system needs to be developed to support the economy well.

I. Introduction

The financial system plays a pivotal role in economic activities in any country. Thus it is vital to determine the status and assess the financial health of the financial system and take corrective policy measures continuously. This study aims at evaluating the status of financial and banking system in Ethiopia.

Ethiopia is the second most populous Sub-Saharan African country with estimated population of 91, 730,000 (The World Bank, 2012). Ethiopia's economy is based on agriculture, which accounts for 46% of GDP and 85% of total employment (The Fact Book, 2012). Basically the financial system of Ethiopia constitutes banks, insurance companies and microfinance institutions. The financial system is growing in terms of number of banks, insurance companies and microfinance institutions and their branches during the study period dramatically especially with the private sector category.

The Ethiopian financial system is bank dominated which is reflected in terms of share of assets (around 95 percent), deposits (97 percent), loans and advances (94 percent) and equity (77 percent) of the financial sector on average. The absolute size of the banking sector is increasing dramatically from year to year in terms of assets, deposits, loans and equities owned. However, its relative dominance is getting reduced marginally in the study period. On the other hand, the relative size of microfinance institutions (MFIs) on the above parameters was improving in the study period. Ethiopian financial system is undeveloped as it is significantly lesser as measured using financial system deposits to GDP, private credit by all banks to GDP, bank deposits to GDP, and bank loans to bank deposits taking the average world financial development measures as the benchmark.

The banking sector in Ethiopia is undeveloped as one bank branch serves around 148,992 persons in 2007 (the total population of the country is 73,750,932 as per 2007 census, Central Statistical Agency of Ethiopia, 2007 and total bank branches on June 30, 2007 was 495) and unfairly distributed as nearly 40 % of all the bank branches are located in the capital city and one branch serves around 14, 419 persons in the capital city (the number of branches in the capital city was 190 on June 30, 2007), total population of 2,739,551 of the capital city as per 2007 census, Central Statistical Agency of Ethiopia, 2007) which constitute around 4 percent of the country's total population.

Generally, considering the annual average branches which are located in the capital city only constitutes 37.44 percent of all bank branches. This clearly shows that the banking sector in Ethiopia is not only undeveloped but also unfairly distributed.

The banking sector is performing well with respect to deposits, loans and advances, total assets and capital and reserves across the study period considered. The significant components of investments made by the banking sector comprises of treasury bills and government bonds. The amount of investment made in the form of treasury bills improved significantly across the time periods considered in the study. But the rate of growth of investment in the form of government bonds is moderate during the time period considered. The amount of resources mobilized in the form of demand, savings and fixed deposits is very much improved across the study period. This shows that one of the very purpose of banking business, financial intermediation, is increased significantly during the periods considered in absolute terms.

The Commercial Banking Sector in Ethiopia from 2001 to 2008 has made tremendous progress with respect of transferring the amounts of resources mobilized and in mobilizing the resources from different actors in the economy as the size has improved across

Author: Assistant Professor of Accounting and Finance, University of Gondar, Ethiopia. e-mail: abebawkassie@gmail.com

the period. The commercial banking sector is performing well with respect to deposits, loans and advances, total assets and capital and reserves across the study period considered.

Ethiopian commercial sector is highly concentrated. Generally, public sector banks hold a majority of assets, deposits, loans and advances and equities. Though there is a declining trend in recent times because of the expansion of existing private banks and opening of new banks, the majority of the business of banking is controlled by Commercial Bank of Ethiopia, a state owned Commercial Bank in Ethiopia, even now.

The relative proportion of ownership of assets, deposits, and loans and advances granted by private sector is improved during the study period as compared to their public counterparts. There is a very good improvement in managing loans and advances by public sector commercial banks as they are able to reduce their nonperforming loan ratios at a dramatic low level though not up to the standard even in the recent year of study. The level of NPL of public banks revealed low performance as compared to their private counterparts.

As the banking sector is dominated by commercial banking, most of the resources are used to finance domestic and international trade. A majority of the loan is provided to the private sector followed by public enterprises. And significant amount of loan was provided by the Commercial Bank of Ethiopia, a state owned commercial bank although its relative share in the total balance of outstanding loan balance across the time period considered is reducing.

II. Need for the Study

The financial system of a country plays a crucial role in the economic development of the country through the process of capital formation. The financial system through financial intermediation garners the scattered savings of the economy and avails them for investment in the economy. The capital formation depends upon the intensity and efficiency with which these activities are carried on. The effective mobilization of savings, the efficiency of financial intermediaries, channelization of these savings into most desirable and productive forms of investment are almost connected and have a great bearing on the contribution of capital formation to economic development. This is precisely what the financial systems do by acting as a link between the savers and the investors. In addition, financial system plays significant activities like providing entrepreneurial talent and stabilizing the economy. It also provides the means of payment and a variety of stores of value.

In this regard it is vital to appraise the financial soundness and performance of the financial sector so that ensuring proper support of the financial system to the whole economic environment is possible, and realization of the set and aspired objectives, will be facilitated.

The present study is initiated by the following gaps: Review of literature shows that considerable work has been done on economic environment, financial sector and banking system conditions in other countries. However, no comprehensive work has been carried out in Ethiopian context.

Against this background, knowledge of the financial and banking sector situations is very important to achieve the objectives stability and growth of the banking sector, financial system and to the economy. As there were no extensive studies made on such issue, the present study is conducted to address it.

III. Research Objective

The financial system plays a pivotal role in economic activities in any country. Thus, it is vital to assess the status of the financial system and determine the health of the financial system and take corrective policy measures continuously. The main objective of the study is to gain a thorough understanding as to the financial environment and to evaluate the status of financial and banking system in Ethiopia

IV. Research Question

Given the objective of this study under consideration, the study will address the following main questions: Can the status of the financial structure and the banking system in Ethiopia be rated at its satisfactory level? What is its status in comparison with other countries in the world?

V. Data and Methodology

a) Data

The data used to analyze the status of macroeconomic environment, financial sector and banking systems are obtained from annual reports of National Bank of Ethiopia (the Central Bank in Ethiopia) and the financial development and structure database of the World Bank. The study period include from 2001 to 2011.

b) Methodology

To evaluate the status of financial and banking system in Ethiopia, descriptive statistical tools like percentages, growth rates, mean values and comparisons using ANOVA and Kruskal-Wallis tests have been used. Comparisons of economic and financial systems are made between Ethiopia and some selected countries. The base of selection of countries for comparison is income groups and geographic regions of countries.

VI. Comparison of Economic and Financial Systems Across Countries

The base of selection of countries for comparison is income groups and geographic regions of countries. As per The World Bank Classification economies are divided among income groups taking in to account 2011 gross national income (GNI) per capita, calculated using the World Bank Atlas method. The groups are: low income, $995 or less; lower middle income, $ 995 to 3945; upper middle income, $ 3,946 to 12,195; and high income, $ 12,196 or more. Thus, Ethiopia, Kenya and Uganda are selected in low income, Sub Saharan Africa region; India and China are selected in middle income, Asia region; Japan is selected in high income, Asia region; The United Kingdom is selected in the high income, European region and The United States of America is selected in high income, North American region.

The economic development indicators used for the selected countries include: GDP per capita (current US$), GDP growth (annual %), Gross savings (% of GDP), Gross capital formation (% of GDP) and Inflation, consumer prices (annual %). And financial sector indicators considered include: Bank capital to assets ratio (%),Bank nonperforming loans to total gross loans (%),Domestic credit provided by banking sector (% of GDP), Interest rate spread (lending rate minus deposit rate, %) and Real interest rate (%). Brief description of the variables used for the analysis is given below. The definitions are based on The World Bank: World Development Indicators.

VII. Economic Development Indicators

1. GDP per capita (current US$): GDP per capita is gross domestic product divided by midyear population. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars.
2. GDP growth (annual %): Annual percentage growth rate of GDP at market prices based on constant local currency.
3. Gross savings (% of GDP): Gross savings are calculated as gross national income less total consumption, plus net transfers.
4. Gross capital formation (% of GDP): Gross capital formation (formerly gross domestic investment) consists of outlays on additions to the fixed assets of the economy plus net changes in the level of inventories. Fixed assets include land improvements (fences, ditches, drains, and so on); plant, machinery, and equipment purchases; and the construction of roads, railways, and the like, including schools, offices, hospitals, private residential dwellings, and commercial and industrial buildings. Inventories are stocks of goods held by firms to meet temporary or unexpected fluctuations in production or sales, and "work in progress." According to the 1993 SNA, net acquisitions of valuables are also considered capital formation.
5. Inflation, consumer prices (annual %): Inflation as measured by the consumer price index reflects the annual percentage change in the cost to the average consumer of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly.

VIII. Financial Sector Development Indicators

A financial sector in an economy is critical to its overall development. Banking systems and stock markets enhance growth, the main factor in poverty reduction. Strong financial systems provide reliable and accessible information that lowers transaction costs, which in turn bolsters resource allocation and economic growth. The following indicators are considered:

1. Bank capital to assets ratio (%): Bank capital to assets is the ratio of bank capital and reserves to total assets. Capital and reserves include funds contributed by owners, retained earnings, general and special reserves, provisions, and valuation adjustments. Capital includes tier 1 capital (paid-up shares and common stock), which is a common feature in all countries' banking systems, and total regulatory capital, which includes several specified types of subordinated debt instruments that need not be repaid if the funds are required to maintain minimum capital levels (these comprise tier 2 and tier 3 capital). Total assets include all nonfinancial and financial assets.
2. Bank nonperforming loans to total gross loans (%): Bank nonperforming loans to total gross loans are the value of nonperforming loans divided by the total value of the loan portfolio (including nonperforming loans before the deduction of specific loan-loss provisions). The loan amount recorded as nonperforming should be the gross value of the loan as recorded on the balance sheet, not just the amount that is overdue.
3. Domestic credit provided by banking sector (% of GDP): Domestic credit provided by the banking sector includes all credit to various sectors on a gross basis, with the exception of credit to the central government, which is net. The banking sector includes monetary authorities and deposit money banks, as well as other banking institutions where data are available (including institutions that do not accept transferable deposits but do incur

such liabilities as time and savings deposits). Examples of other banking institutions are savings and mortgage loan institutions and building and loan associations.

4. Interest rate spread (lending rate minus deposit rate, %): Interest rate spread is the interest rate charged by banks on loans to prime customers minus the interest rate paid by commercial or similar banks for demand, time, or savings deposits.
5. Real interest rate (%): Real interest rate is the lending interest rate adjusted for inflation as measured by the GDP deflator. Inflation, GDP deflator (annual %) is inflation as measured by the annual growth rate of the GDP implicit deflator shows the rate of price change in the economy as a whole. The GDP implicit deflator is the ratio of GDP in current local currency to GDP in constant local currency.

IX. Comparison Across Countries

The comparisons are made between Ethiopia and other countries. Differences among other countries for the parameters considered were not discussed for delimitation of the scope of the study. Comparisons are made using one way analysis of variance when parametric tests are met and a non-parametric test of Kruskal-Wallis of were used if the parametric assumptions are violated.

Test of normality using Kolmogorov-Simirnov is made and GDP per capita, LOGGDPG (GDP growth rate transformed using log transformation), Gross capital formation, inflation, bank capital to assets, Bank nonperforming loans to total loans, domestic credit provided by the banking sector to GDP and real interest rate are found to be normal.

Test of homogeneity of variances are made using Levene statistic and all of the variables are found to be heterogeneous. All variables are measured in terms of ratio scales and the values are independent.

Thus, GDP per capita, LOGGDPG (GDP growth rate transformed using log transformation), Gross capital formation, inflation, bank capital to assets, Bank nonperforming loans to total loans, domestic credit provided by the banking sector to GDP and real interest rate are found fit for parametric tests and one way analysis is used to test the equality of means among the countries considered. This is further confirmed using robust test equality of means using Welch and Brown-Forsythe statistic. And after the differences in means are tested, a post hoc multiple comparison of Games-Howell is used to identify in which categories those differences existed.

The Savings to GDP parameter is not fit for parametric test, a nonparametric counterpart of one way ANOVA which test of Kruskal-Wallis has been used and the post hoc analysis is made using Mann-Whitney test. And the data available to analyse interest rate spread was not sufficient and it was not considered in the comparison.

a) Economic Variables

i. *GDP per capita (current US$)*

There is a significant difference of GDP per capita among countries considered, $F(7, 56) = 280.74$, $p < .05$. And the GDP per capita of Ethiopia (USD178) is significantly lesser than even from low income countries. This shows that Ethiopia has a very big potential for growth. And the government should craft development strategies and open every possible opportunity for investment to further enhance economic growth.

ii. *GDP growth (annual)*

There is a significant difference of annul GDP growth rate among countries considered, $F(7, 56) = 14.55$, $p < .05$. Ethiopia has significantly greater annual growth rate (9.18 percent) from high income countries (the United States, United Kingdom and Japan). And there was no significance difference in the growth rate of low and middle income countries taken for comparison. This shows that Ethiopia is growing at par with fast growing countries like India and China hence, Ethiopia's growth rate could be judged as satisfactory.

iii. *Gross savings (% of GDP)*

There is a significant difference of gross savings as compared to GDP growth rate among countries considered, $F(7, 56) = 47.45$, $p < .05$. Ethiopia has significantly lesser gross savings to GDP from middle income countries (India and China); Japan from high income categories and significantly higher gross savings from United States. Thus, Ethiopia has low savings as compared to middle income countries. Savings are key for development by creating capital for investment, thus Ethiopia needs to improve its activity in this dimension to enhance further the economic growth.

iv. *Gross capital formation (% of GDP)*

There is a significant difference of gross capital formation as compared to GDP among countries considered, $F(7, 54) = 90.59$, $p < .05$. Ethiopia has significantly higher capital formation from Kenya from low income countries; United States and United Kingdom from high income countries and significantly lesser capital formation from middle income countries (India and China). At early stage of development, capital formation is a key for development, thus Ethiopia needs to improve its activity in this dimension to enhance further the economic growth.

v. *Inflation, consumer prices (annual %)*

Although there is a significant difference of inflation among countries considered, $F(7, 56) = 3.92$, $p < .05$, none of them were significant against Ethiopia. Hence there is no significant variation of the inflationary environment on average during the study period with the countries taken in to account for comparison.

b) Financial Development Variables

i. *Domestic credit provided by banking sector (% of GDP)*

There is a significant difference on domestic credit provided by banking sector in relation to GDP in the economies considered, $F(7, 56) = 792.65$, $p < .05$. Ethiopia had significantly greater domestic credit percentage of GDP with 46.89 percent from Uganda in the low income countries and significantly lesser percentage from all middle and high income countries taken in to account for analysis. And there was no significant variation among Ethiopia and Kenya. Generally we can characterise the financial system of Ethiopia as undeveloped and the financial development could be highly related with the level of economic development of a country. That is, countries which have high financial development had high economic development and vice versa. Hence, countries should develop their financial system to enhance economic growth.

ii. *Bank capital to assets ratio (%)*

There was a significant difference of capital to assets ratios among countries considered, $F(7, 52) = 44.47$, $p < .05$. Ethiopia has significantly lesser capita asset ratios from low income countries with 5.67 percentage (Kenya and Uganda) and significantly higher capital assets ratio from United States from high income countries. There was no significant difference from middle income countries.

Though it is very difficult to compare the capital adequacy ratios of different countries as there is different treatment of bank capital in different economies, this is an important measure to evaluate the bank's ability to generate the cash flow necessary to make interest payments on outstanding debt. Thus, these ratios are used extensively by analysts outside the firm to made decisions concerning the provisions of new credit or the extension of existing credit arrangements. It is also important for management to monitor the firm's use of debt financing.

In the USA, leverage ratios are usually calculated as the ratios of tier-I capital to adjusted assets. Tier-I capital is the sum of equity and reserves less intangible assets and adjusted assets is calculated as the difference between total assets and intangible assets. Banks are needed to maintain a minimum leverage ratio of 5 percent in order to be considered well capitalized (International Finance Corporation, 2009).

Concerning the capital adequacy measure by bank capital to asset ratio, Ethiopia's position (5.67 percent) could be satisfactory as it is almost at par with middle income countries and significantly higher from United States. This could be resulted from differences in regulatory authority directives. Thus, harmonized capital adequacy norms should have to be strengthened and implemented in all the countries to help banks to remain in business for long.

iii. *Bank nonperforming loans to total gross loans (%)*

There was a significant difference of nonperforming loan ratios of the banking sector among countries considered, $F(7, 56) = 13$, $p < .05$. Ethiopia had significantly higher NPL ratio from Uganda in the low income category and from all high income counties (United States, United Kingdom and Japan). There was no significant difference from middle income countries and Kenya from low income countries. This shows that the efficiency in managing loans and advances is significantly lesser in Ethiopia as compared with Uganda from low income countries and all high income countries. And there is no significant difference in loan management between Ethiopia and middle income countries.

This could result from proper management of loans and advances as evidenced by high income countries and restricting loans and advances granted by the financial system as evidenced by Uganda. Uganda has the lowest financial development level as measured by domestic credit provided by the banking sector to GDP with 8.84 percent of GDP whereas the grand average was 141 percent of GDP. Thus, low income and middle income countries should have sound credit granting policy so as to improve the quality of their assets maintained in their balance sheet. This further improves the amount of resources that should have to be tied up to protect the potential loss from uncollectability and hence can be used for other productive purposes.

iv. *Real interest rate (%)*

Although there was a significant difference in real interest rate in the economies considered, $F(7, 56) = 7.14$, $p < .05$, none of them were significant against Ethiopia. The real interest rate that is paid by the depository institutions is not significantly different in Ethiopia from other countries taken in to account.

In summary, in the context of the parameters of economic and financial indicators following main points are addressed. Ethiopia can be characterized as a least developed economy registering a highest rate of economic growth. The financial infrastructure needs to be developed so that deposit mobilization and capital formation will be improved. This, in turn, has an important effect to increase the economic growth. Hence, the financial system needs to be developed. The capital requirement of Ethiopian banks is satisfactory. Thus, there is no risk of inability to meet any potential loss that may be encountered by the banking sector. But the regulatory authority (The National Bank of Ethiopia) should strengthen the regulatory norms and update to the current practices that is implemented by countries which have sound banking sector. Though the asset quality is improving in recent years, it needs to be improved further to meet the international and national standard or norm or practice. This will protect the financial sector from incurring operational losses and failing.

X. Conclusions

Concerning the parameters of economic and financial indicators, the following main points are addressed. Ethiopia can be characterized as a least developed economy registering highest rate of economic growth. The financial infrastructure needs to be developed so that deposit mobilization and capital formation is improved. This, in turn, has an important effect to increase the economic growth. The financial sector is not that much developed in Ethiopia. Hence, the financial system needs to be developed to support the economy well. Though the asset quality is improving in recent years, it needs to be improved further to meet the international and national standard or norm. This will protect the financial sector from failing and losses. The capital requirement of Ethiopian banks is adequate. Thus, there is no risk of inability to meet any potential loss that may be encountered by the banking sector. But the regulatory authority (The National Bank of Ethiopia) should strengthen the regulatory norms and update to the current practices that is implemented by countries which have sound banking practices.

References Références Referencias

1. Aarma, A., Vainu, J. & Vensel, V. (2008). Bank Performance Analysis: Methodology And Empirical Evidence: Estonian Banking System, 1994-2002. *Journal of Economic Literature.*
2. Central Intelligence Agency (US). Retrieved on December 20, 2012 from https://www.cia.gov/library/publications/the-world-factbook/geos/et.html
3. Demirguc-Kunt, A. & Huizinga, H. (1999). Determinants of commercial bank interest margins and profitability: Some international evidence. *World Bank Economic Review, 13, 379-408.*
4. Field, A. (2005). *Discovering Statistics Using SPSS*. (2^{nd} eds).Sage publications United Knigdom.
5. Fries, S., Neven, D. & Seabright, P. (2002). Bank performance in transition economies, *The William Davidson Institute at the University of Michigan Business School: William Davidson Working Paper Number 505, September 2002.*
6. Gitman J. L. (2006). *Principles of Managerial Finance*. (11^{th} Ed.). Pearson Education.
7. Koeva, P. (2003). The Performance of Indian Banks during Financial Liberalisation. *IMF Working Paper, WP/03/150.*
8. Malhotra, N. K. (2007). *Marketing Research*: *An Applied Orientation*. (5^{th} ed.). Georgia Institute of Technology. Pearson Education.
9. Warsaw Report. (2007). Summary evaluation of the financial situation of polish banks. *Division* of *Banking System Analyses in the GINB Office of Banking System Analyses.*