Impact of Financial Crisis on Economic Growth in East African Countries

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Abstract

The relationship between financial instability and economic growth has created an interesting area of research for many years. To identify the financial crisis and economic growth in East Africa researcher use Empirical studies and secondary data. Most empirical findings use GMM, VAR, VECM AND FOLS method to found nexus between financial instability and economic growth. The finding reveals that main measurements of financial crisis are Debt crisis, currency crisis, banking crisis and deficit in general while the root causes of financial crisis are structural unstable monetary system, poor governance, unsustainable fiscal system, misbehavior of economic actors as well as Interest system and fiat money system (Monetary), administered price (Governance), volatile food/Fiscal and Behavior are the most dominant variables to cause financial crisis through Inflation and Growth. Empirical evidence shows that Annual credit growth, Nonperforming loan/total loans, capital adequacy ratio ,Liquid assets/short term liability ,Annual growth of M2 and Stock index volatility are early warning indicator of financial crisis and banking crisis. Thus, Structural reforms are needed in monetary system, fiscal system and governance, as well as in international system, which are more fair, just, stable and sustainable. Moreover, behavior of economic actors should be controlled by market conduct regulation and improved by education. To prevent financial crisis, Central Bank and Government advised to minimize budget Deficit, Debt crisis, currency crisis and banking crisis based on early warning indicators in advance before crisis occurred. Since Loan growth rate, NPL and BOP deficit mainly moving together with aggravate financial crisis, FED ought to see macroeconomic variables and restrict loan growth and financing as necessary.

Keywords: Financial instability • Economic growth • GMM • VAR • VECM • Panel data

Introduction

Conceptually, the link between policy stability and growth is quite complex. The reduction in GDP volatility was wide-spread but far from universal of the 77 developing countries for which complete information is available for 1960–2000, about a third (27 countries) experienced more volatile growth in the 1990s than in the 1980s. In the 1990s, large negative shocks accounted for close to one-fourth of total growth volatility, against 14 percent in the 1960s and 1970s while 18 percent in the 1980s. The increasing incidence of growth crises affected not only countries whose growth volatility rose (such as Indonesia, Malaysia, and the Republic of Korea) but also countries whose growth volatility declined (such as Madagascar, which suffered a large drop in GDP in 1991; Mexico; and Ecuador) [1].

Over the 1990s as a whole, the number of developing countries experiencing average inflation higher than 50 percent was no smaller than in the 1980s. The relatively high volatility of real exchange rates partly reflected the high incidence of exchange rate crises. Some countries—notably Argentina, Brazil, Ecuador, Mexico, Russia, and Turkey—reduced inflation rates as the result of exchange rate-based stabilizations. Consequently, they are often hesitant to follow expansionary monetary policy during downturns for fear that it would create inflation and undermine macroeconomic stability (UNCTAD secretarias, 2010).

Early studies for instance, attempted to construct macroeconomic instability index using single variable and found export instability had negative and significant effects on Non-African LDCs over the 1970-1986 period, but the negative effects are insignificant for African LDCs and Sub-Saharan African. Use a sample of 33 African countries over the period of 1972-1987 and show that real Exchange Rate misalignment constitutes to an adverse effect relationship with economic growth [2,3]. There is an asymmetric relationship between macroeconomic instability and financial crisis which is composed of two components: a SMD (stock market development) index and the banking sector development [4].

The influence that financial crisis has on economic growth has been the subject of a number of studies in most developing countries including Ethiopia and SSA. The issue of financial crisis has, for long, been the major concern of policy makers, but still there have been ongoing debates and extensive discussions on measuring the macroeconomic instability. Hence, the question of how financial crisis can be measured has long been the bane of academicians and practitioners. Some author, such as considered the inflation as a proxy variable to measure an unobservable macroeconomic instability [5].

All countries in East Africa had relatively high fiscal deficits, which were projected to decline in 2017 and remain at the 2017 level in 2018 and 2019. The deficits partly resulted from weak domestic resource mobilization in addition to high public investment spending. With average regional domestic saving at 12.8 per-cent of GDP and the investment-to-GDP ratio at 24.2 percent, the domestic resource gap in 2017 stood at about 11 percentage points. The domestic resource gap widened the current account deficit. To address resource gaps, countries generally resorted to external borrowing. External debt ranges from 21.2 percent of GDP in Burundi to about 50 percent in Ethiopia and Somalia. Although these debt levels are not very high, they could be burdensome in relation to the countries' capacity to repay, and they are extremely high (East Africa Regional Resource Center, 2017). Hence researcher interested to study impact of financial crisis on Economic growth in East Africa. Different methods of data Analysis have been used that include trend analysis of Economic growth and financial crisis indicator's specific to bank development index, currency crisis, and deficit and debt crisis including correlation analysis indicated by hectographs and other charts has been used. In addition to this in this study, the empirical review analysis is used in the investigation of the causal relationship between economic and financial growth by utilizing different journals and papers in DC and LDCS. This study aims to analyze how measures of financial crisis by using East African data in different period from the World Bank's database, World Development Indicators, FTSE 100 historical prices archive and from the Office of National Statistics, NBE, AFDB, FRESER INSTITUTE and CSA report of different years that reveals financial crisis early warning and economic growth. The main data for the study collected from federal reserve banks and data for real GDP per capita, credit to private sector, government consumption expenditure and trade openness , inflation , government debt , fiscal deficit for liquid liabilities are obtained from

Economic Data (2016) of the Federal Reserve Banks and African development banks, World Economic Outlook (2016) and World Development Indicators (2016).

Conceptual Framework and Empirical Analysis

There is no full consensus in the literature on the definition of crisis occurrence. For example, while currency crises are commonly defined as episodes of massive exchange rate depreciation, the term 'massive' covers losses of currency value ranging from 15% to more than30% across different studies. The definition of banking crises involves judgment on exposures (e.g. small banking versus systemic banking), and the coding of periods of debt crisis implies judgment on the debt category. Therefore, we start by constructing discrete indices of the occurrence of banking, debt, and currency crises by aggregating the available data sources, which, besides academic studies, include our survey of country experts. Quarterly database captures the occurrence of the main types of economic crisis for a set of 40 EU and OECD countries in 1970–2010. The data demonstrate that determining the exact timing of crises, and in particular the exact end of crises, is a subject of substantial disagreement among the sources surveyed. The mean duration is 15.2 quarters for banking crises, 4.1 quarters for debt crises, and 4.6 quarters for currency crises [6].

From theoretical and empirical point of views, there is a consensus on the negative impact of financial crises on the real economy, but several structural, institutional and economic factors can amplify their impact. Our interest here is to examine these issues in detail. Therefore, the existing knowledge gap along with the very danger of financial crisis initiates this research [7].

Since 2008, there have been more than 100 working papers of IMF and more than 25 working papers of NBER which study global financial crisis and its impacts from many different perspectives. Meanwhile, studies on current global financial crisis from Islamic economic perspective are also plenty but not as many as of conventional economic perspective. The Task Force on Islamic Finance and Global Financial Stability, organized by Islamic Development Bank published a report on Islamic finance and global financial stability (2010), which discusses the elasticity of Islamic finance against global financial crisis [8].

Theory of financial crisis

The theory mostly views the crisis from macro perspective, which has been developed from first-generation model, second-generation model and third-generation model. First-generation model views financial crisis is originated from currency crisis or balance of payments crisis, which is caused by macroeconomic imbalances due to weak economic fundamentals. When the government runs persistent primary deficits, it has to use foreign reserves or borrow continuously. In the long run, this is not feasible, so that the government would have to print more money, which would lead to the collapse of fixed exchange regime. Viewed from Islamic economic perspective, the root causes of first-generation financial crisis are international monetary system based on multiple fiat currency system, interest system, and excessive fiat money. The second generation model is developed based on the drawbacks of the first generation model and suggests the central role of expectations and coordination failure among creditors, so the crisis could occurs independent of soundness of economic fundamentals. The root causes of second-generation financial crisis are expectation, speculation, fractional reserve banking system, leverage system, non-performing loan, troubled financial institutions, and interest system. The emphasizes of second-generation model is banking crisis due to fractional reserve banking system and leverage system, which create fiat money creation ,while the root causes of third-generation financial crisis are international monetary system based on multiple fiat currency system, fractional reserve banking system, leverage system, currency, liquidity and maturity mismatches, interest system, expectation and speculation [9].

From the macro perspective, we need to understand better the relationship between monetary policy, credit and asset prices. Financial crises often follow the bursting of bubbles which associated to the crisis that started in 2007 seems to have been caused by two main factors. Lower interest rate than rate of increase in house prices and global imbalances triggered an abundance of credit. Asian governments and central banks concluded that self-insurance by accumulating reserves was a better way to solve their problem than relying on the IMF. The reoccurrence of financial crises over the centuries suggests that it is unlikely they will be completely prevented in the future. When they do occur what should governments and central banks do? The response of many governments in the current crisis of injecting funds through the purchase of preferred shares is one type of intervention. The justification for intervening is that large financial institutions are "Too big to fail". Current policies of supporting failed institutions create bad incentives for large institutions if they start relying on being saved in future crises. We need to fully analyze and understand the best form of intervention [8].

The Economic risk rating and financial risk rating

The overall aim of the Economic Risk Rating is to provide a means of assessing a country's current economic strengths and weaknesses. In general terms where its strengths outweigh its weaknesses it will present a low economic risk and where its weaknesses outweigh its strengths it will present a high economic risk. Overall, an economic risk rating and financial risk rating of 0.0% to 24.5% indicates a Very High Risk; 25.0% to 29.9% High Risk; 30.0% to 34.9% Moderate Risk; 35.0% to 39.9% Low Risk; and 40.0% or more Very Low Risk. Once again, however, a poor economic risk rating can be compensated for by a better political and/or financial risk rating. The overall aim of the Financial Risk Rating is to provide a means of assessing a country's ability to pay its way. In essence, this requires a system of measuring a country's ability to finance its official, commercial, and trade debt obligations. (International Country Risk Guide Methodology)

Conceptual frame work

Financial crisis has three main different indicators and measurements like debt crisis, currency crisis and banking crisis. Example rapid currency deprecation has made public debt to reach 60 billion of us dollar in November 1997.

Empirical review on debt and deficit as indicator of financial crisis

There are controversial thoughts on the relationship between budget deficit and economic growth: the Keynesian economists argued that there is positive relationship between these two series, the neo classical economists argued the opposite, while, the Ricardian equivalence hypothesis claimed that there is neutral relationship between budget deficit and economic growth in a country [10]. Using a simple dynamic model find that increases in the stock of government bonds, by themselves, do not force up interest rates. Changes in government spending are found to exert a direct influence on income and expected inflation but to have an inverse relationship with expected unemployment argued that there is a threshold level of fiscal deficit which the impact of fiscal deficit on economic growth turns negative while show positive link between finance and growth is not as strong in recent data. According to deficit include printing of money, debt financing and drawing from foreign exchanges reserves accumulated over the years. Only officially reported debt policies, involving declines in the government's official surplus, would generate crowding out The simulations also indicate that crowding out is a slow and surprisingly complex dynamic process whose full dimensions cannot be discerned by consideration of short-term policy effects Fiscal uncertainty also has direct effects on the asset prices consistent with the effect of debt-to-GDP ratio (Table 1). Furthermore, scale uncertainty increases debt valuation through discount rate channel whereas higher debt conversely raises uncertainty because of future scale consolidations [11-15].

Banking crisis as indicator of financial crisis

As in the classic panics of the 19th and early 20th century, there were runs on banks. Academic research proposes two distinct theories to explain the

origins of banking panics. An economic downturn will reduce the value of bank assets, raising the possibility that banks are unable to meet their commitments and liabilities of failed businesses could accurately predict the occurrence of banking crises. In addition, he find that crises result, on average, in a 35% real drop in housing prices spread over a period of 6 years, Equity prices fall 55% over 3 ½ years and Output falls by 9% over two years, while unemployment rises 7% over a period of 4 years. In addition, Central government debt raises 86% compared to its pre-crisis level [8]. Banking crisis also reveals the main indicators of financial crisis and Four Criteria used for selection of banking crisis include: Ratio of non performing assets to total assets in the banking system exceeded 10 percent, the cost of the rescue operation was atleast 2 percent of GDP [16].

Kenya had the most developed banking and financial system in East African region. Its banking sector was the fourth largest in Sub-Saharan Africa behind South Africa, Nigeria and Mauritius. Uganda's banking and financial sector expanded significantly since a moratorium on licensing new banks was lifted in 2005 and Tanzanian economy, had a relatively developed banking sector. The sector was made up of 45 banking institutions and held a combined 75 percent market share of total financial sector assets. After a strong recovery in 2010 following weakness post-global financial crisis, growth in real credit again slowed, easing to just 2.7 percent year on year in September 2012. The Rwandan banking sector recovered from a period of restructuring and of legacy problem cleanup, and now consisted of nine commercial banks: six foreign, one development, three microfinance and one cooperative.

Empirical evidence on financial crisis and economic growth

The GDP loss is more immediate but shorter-lasting in the case of currency crises, with a total cumulative loss of 15%. Dealing with model uncertainty to select the most useful early warning indicators, identified a boom in economic activity, preceded by credit and capital inflows, as the leading indicator of banking and balance of payments crises, recent studies have suggested housing prices or global liquidity as early warning indicators of economic crises. In particular, an increase in the financial uncertainty raises the risk premium and leads to a decline in output, consumption, investment and hours worked (Table 2).

The ongoing global financial crisis, which was triggered by US subprime mortgage crisis since 2007 and has spread to some EU countries, is just a repeat of previous financial crises by using (VECM) found Interest system is the number one determinant of financial crisis with 43.66% share in inducing inflation and 24.85% share in curbing economic growth, followed by administered price (Governance) with 14.41% share in inducing inflation and 5.33%share in curbing economic growth, fiat money(Monetary) with 5.54% share in inducing inflation and 13.49% share in curbing economic growth and volatile food (Fiscal) with 5.79% share in inducing inflation and 9.11% share in curbing economic growth [17-19]. For government debt and deficit on finance-growth nexus, use the VAR model and Deborah found financial system is repositioned for economic growth in developing countries [20,21].The

Table 1. Empirical evidence on macroeconomic determinants of bank performance.

Sectors	Measure	Measurement and signaling properties
Real sector	GDP growth	Negative, or low positive values would indicate a slowdown; excessively high values may show unsustainable growth
	Fiscal position of government	High deficit values relative to GDP can mean unsustainable government indebtedness
	Inflation	Signal structural weakness in the economy and indebtedness. But, low inflation increase risk appetite in the financial markets.
Corporate sector	Total debt to equity	Excessively high levels may signal difficulties in meeting debt obligations
	Earnings to interest and expenses	Excessively low levels of liquidity may signal inability to meet debt obligations
	Foreign exchange	high levels of this ratio may signal difficulties in the corporate sector
	Exposure to equity	
	Corporate defaults	High values can signal future problems in the banking sector
Household sector	Asset,Debt,Income	Net household assets and disposable income can measure households' ability to capture economic downturns
External sector	Exchange rates, reserves Current account	Over-/undervaluation of a currency and shows
		Ability of country to resist external shocks
Financial sectors		Sect oral/regional concentration, systemic focus, Change in Equity Indices and house prices

Table 2. Sources: compiled from different empirical literatures.

Effect on NPLS	Author , model used
Unemployment rate, interest rate, credit growth and exchange rate positive while GDP negative on NPLs in Greece, Ireland, Portugal and Spain	Castro (2012) dynamic panel data
Unemployment rate, interest rate, inflation rate and exchange rate positive while GDP and ROE negative in Euro zone's banking systems	Makri et al. (2014) GMM method
Positive with loan growth and exchange rate and negative with GDP growth rate while inflation is insignificant in Albanian Countries	Ali (2013),OLS Regression
Credit growth and ROA Negative while Capital adequacy ratio positive in the Mena countries	Jellouli (2009) RE model
Priority sector's loan, credit ratio and NIM have a positive while ROA and CAR has negative in Bangladesh	Rahman et al. (2017)
Poor credit analysis and unsound lending practices, lack of focused loan monitoring and follow-up, integrity, and fund diversion in Ethiopian banks	Negera (2012) and Meshesha (2015)
Loan growth, operational efficiency, effective exchange rate, inflation rate and GDP negative while bank size and state ownership positive in Ethiopia	Zelalem Tsige,2013
Positive relationship between NPLs and unemployment in Greek	Nkusu, (Farhan (2012), etal
GDP, Decrease and lag NPLS, Fiscal policy pressure, Unemployment, inflation and debt increase NPL	Vasilis Siakoulis 2017, Dynamic GMM panel datal

economic performance of Malaysia was affected by a series of Asian and 2007 financial crises which reduced Malaysia's exports and increase Non performing loan (22.4%), real economy declined (4.7%), foreign direct investment inflow reduced by 59% compared to 1997. In addition to this, unemployment rate rose from 3.2% in 2007 to 3.7 % in 2008 while, Stock market fell about 39.3% [22]. All three types of economic crisis result in a decline in GDP growth (Table 3) (Figure 1).

To analyze the interactions of banking, debt and currency crises in developed economies and estimate their costs in terms of the real output gap, by using the panel vector auto regression (PVAR) model and found a banking crisis is allowed to have a contemporaneous effect on debt and currency crises, but not vice versa (Figure 2).

Even though trends of economic growth rate shows linear trend for most countries in East Africa, some countries like Somalia and Eritrea shows significant fluctuation in the year 2006-2009. 2008-2009(-12) respectively while highest growth rate of 25 percent was recorded by Somalia in the year 2008-2009 [23-25]. Over all the year Ethiopia reveals highest GDP growth rate from the year 2006-2020 (Figure 3).

Somalia and Eritrea's economic growth rate is negative in the year 2007-2008 about (-15) and Debt to GDP ratio is highest for Sudan and Djibouti over the year 2016 to 2020 and lowest for Ethiopia and Eritrea in east African countries respectively. Eritrea has lowest Debt growth rate while Sudan has the highest growth rate from 2006-2020 which shows that debt GDP ratio positively related to Debt growth rate but in Ethiopia Debt growth rate is medium while Debt to GDP ratio is lowest due to high GDP growth rate (Figure 4). Political crisis Index shows aggregate of low risk economic, social, financial and political crisis index. Low level of index shows countries are worst status of development and highest level shows good status of country of free from crisis (Figure 5).

Before 2006 Botswana has highest index and Kenya has the highest index after 2006 up to day. Republic of Sudan and Somalia has lowest and worst over the year 1996-2018.FDI in east Africa example Djibouti has highest FDI, Debt to GDP ratio and BOP while Eritrea (Figure 6).
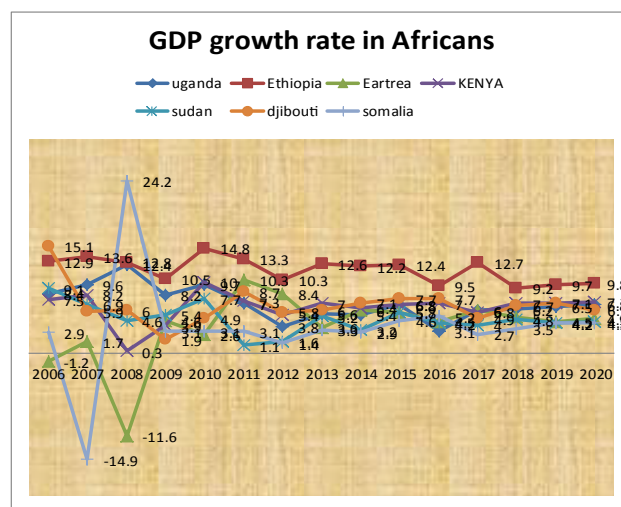

Figure 1. Compiled from different literatures.

Figure 2. GDP growth rate in East African countries from 2006-2020.

Table 3. Empirical Evidence on Financial crisis and economic growth.

| Authors	Sample countries	Type of data and period	Methods	Results
Rioja and Valev (2004a)	74 of DC and LDCcountries	Panel (1961-95) averaged over 5 year intervals	Dynamic panel GMM. 3 regions: low, medium, high financial development	Finance has large positive effect on growth in medium financial development region, smaller positive effect in high financial development region
Rioja and Valev (2004b)	74 of DC and LDCcountries	Panel (1961-95) averaged over 5 year intervals	Dynamic panel GMM. 3 groups: low, medium, high income	Finance has strong positive influence on productivity growth in more developed economies. In low income economies, the effect of finance on output growth occurs through capital accumulation.
Shen and Lee (2006	48 countries of DC and LDC	Panel (19762001)	Pooled OLS Nonlinear inverse U-shaped link between finance and economic growth; Bank development is weak inverse U.	Nonlinear inverse U-Shaped link between finance and economic growth; Bank development is weak inverse U.
Ergungor (2008)	46 DC and LDC Countries	Cross-sections (average 1980-95)	2SLS with Heteroscedasticity consistent SEs	Nonlinear contingent relationship between finance (banking sector) and growth
Huang and Lin (2009)	71 countries verage 1960-95)	Caner and Hansen (2004) IV threshold regression	Nonlinear positive relationship of finance and growth. Positive in low ncome countries than in high income countries.	71 countries Cross-sections (average 1960-95)
Cecchetti and Kharroubi (2012)	50 DC and emerging countries	Panel (5 year non-overlapping 1980-2009)	Pooled OLS with robust SEs	Financial sector has inverted U-shaped effect on productivity growth. Financial sector growth is a drag on productivity growth
Arcand et al. (2012)	>100 DC and LDC countries	Cross-sections and panel (19602010)	Semi-parametric estimations	Finance has negative effect on output growth when credit to private sector reaches 100% of GDP.
Cournède and Denk (2015)	44 develop and LDC countries of OECD and G20	Panel (19652015)	OLS with country fixed effects	Finance beyond 100% of GDP is linked to slower growth for both bank credit and equity capital. Most OECD countries lie above the threshold for credit but below it for stock market capitalisation
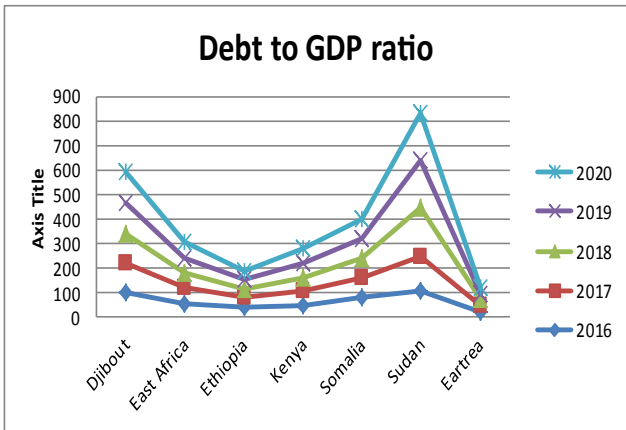
Figure 3. Debt to GDP ratio.

BOP is deficit for all countries in East Africa from the year 2011 to 2020. Eritrea and Sudan has lowest and Djibouti and Somalia have highest BOP respectively even if there is no data for Somalia up to 2012 year (Figure 7).

Loan growth trends in East African Countries over the year 2005-2014. Loan growth rate is decreasing in general mainly in Egypt and Sudan while slightly linear trend for Uganda through the year 2005 to 2014. This will be correlate with increase in BOP deficit which implies loan growth increase BOP deficit hence exacerbate crisis. Debt growth trend increasing in East Africa increasing at increasing rate (Figure 8).

In Ethiopia, growth rate of Debt to GDP ratio, GDP growth rate, BOP deficit, Loan to GDP ratio and NPL increase with moving average in general while Inflation rate have inverted U shape. These indicate macroeconomic variables mainly moving together. In contrast to this Debt to GDP ratio and FDI both decreasing and have positive relationships while GDP and inflation is linearly related over 2010 to 2014 as figure below (Figure 9). From 2010 to 2014, Debt to GDP ratio is decreasing while inflation rate and GDP were
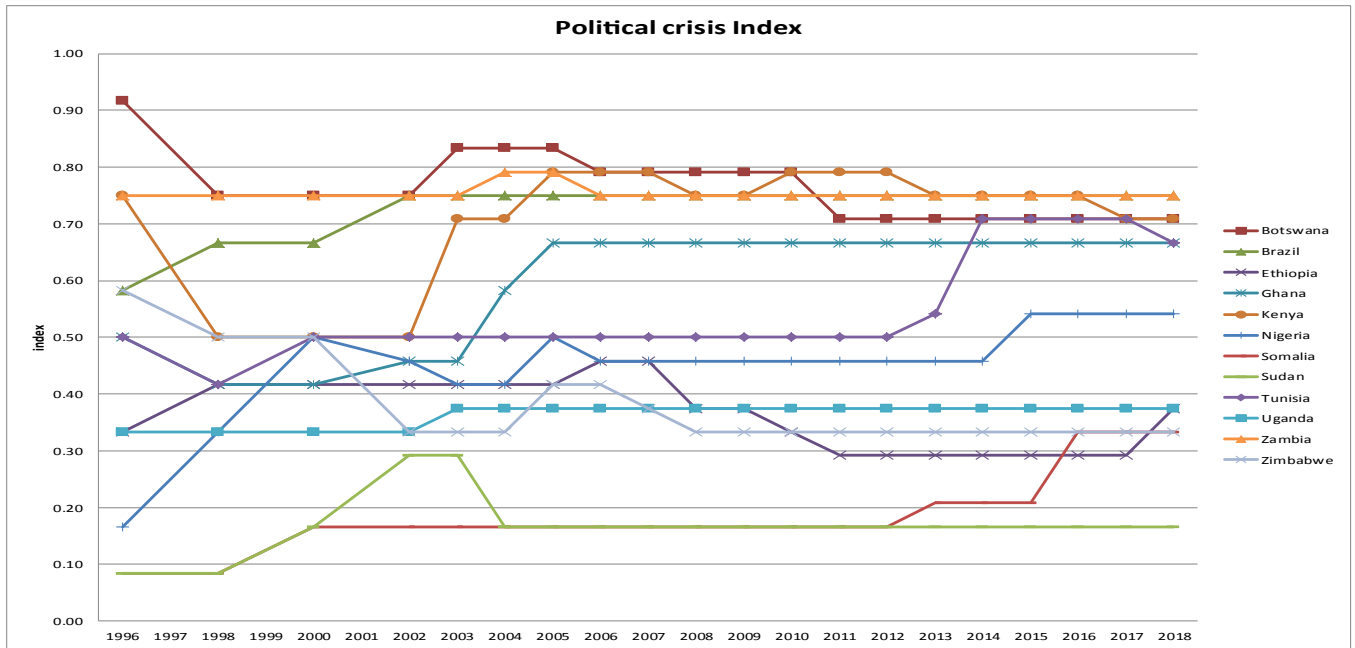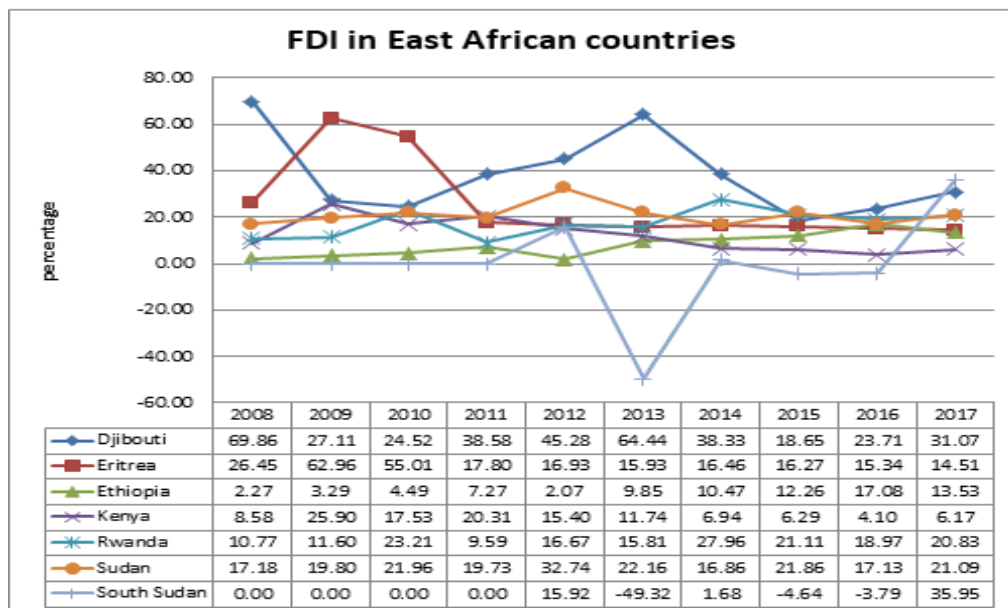

Figure 4. Political crisis index.

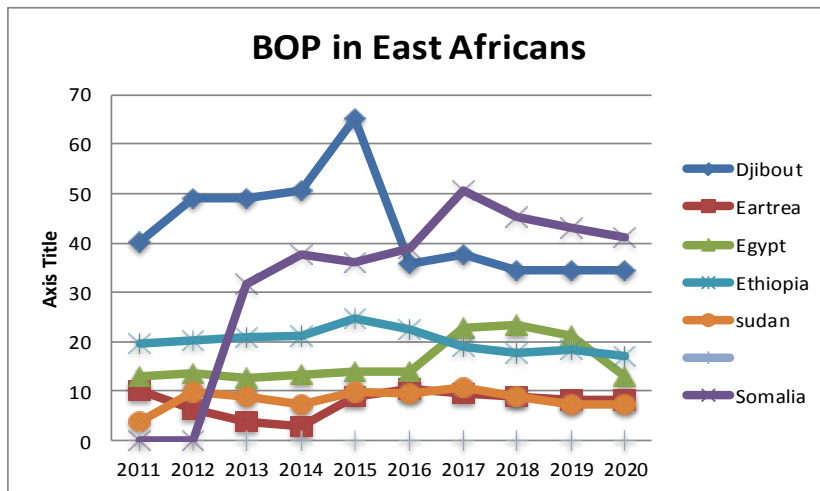**Figure 5.** FDI in East African.

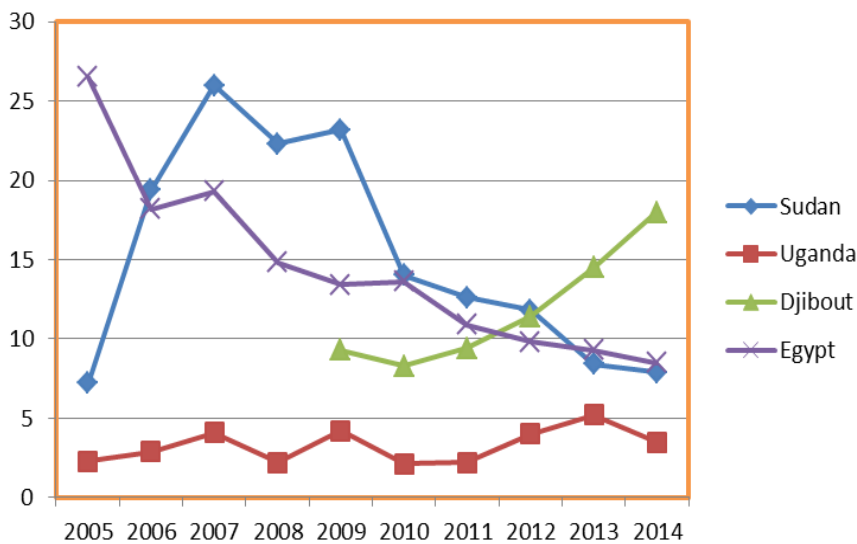**Figure 6.** BOP in East Africans.

Figure 7. Source African development bank 1996-2020.

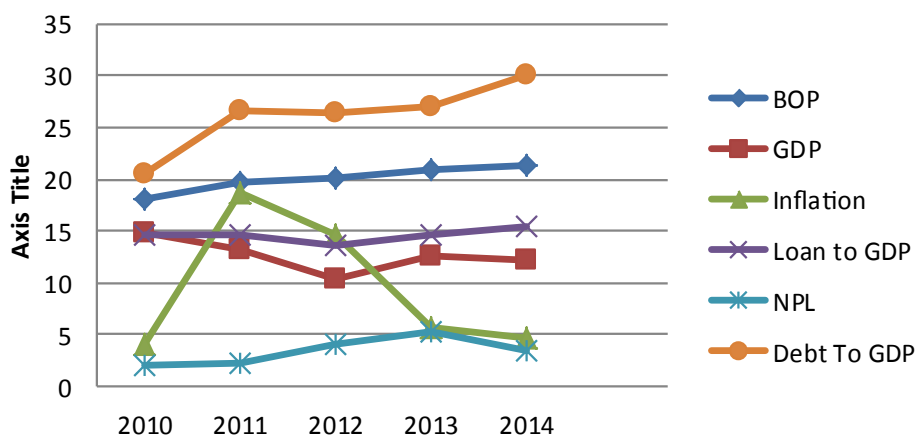# Ethiopian macroeconomic variables

Figure 8. Ethoipian macroeconomic variables.

relatively constant in Eritrea. While increasing GDP, Investment and Gross National saving in Djibouti from 2010 to 2019 (Figure 10). Graph of Djibouti while debt is increasing all RGDP, Gross domestic Investment and National Savings (Figure 11).

In general even though macroeconomic variables are slightly less fluctuating, inflation shows high fluctuation which is increasing in 2011/12 and decreasing in 2010/13/14in average in Ethiopia while BOP,GDP Loan to GDP,NPL shows smooth growth rate, Debt to GDP ratio is increasing over the
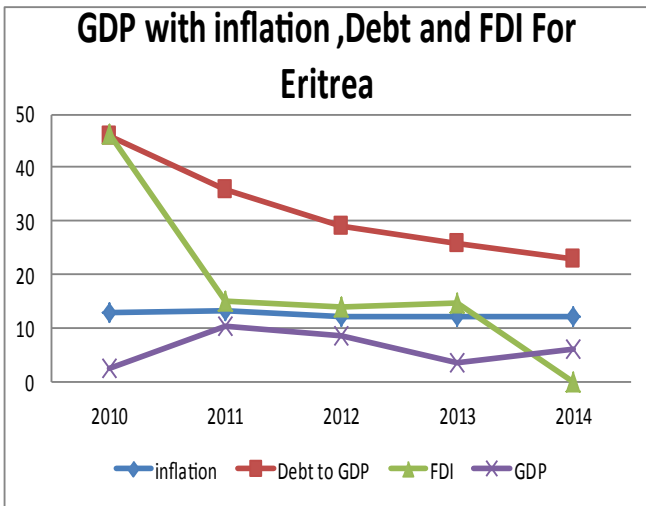
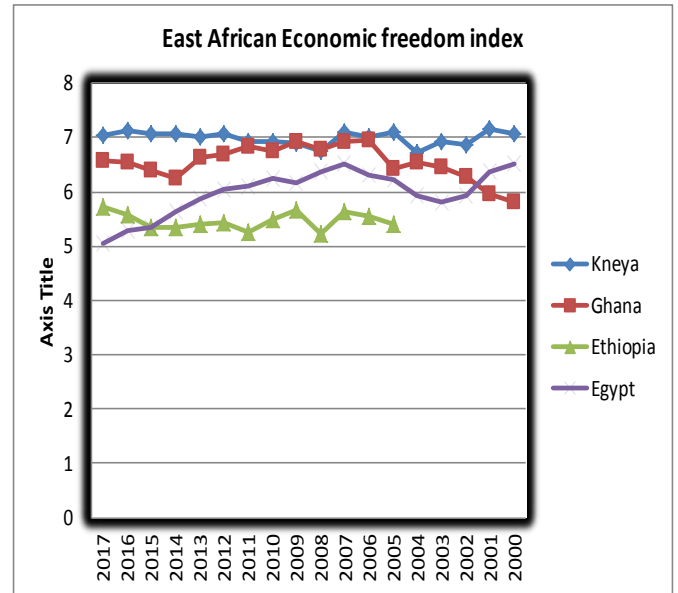**Figure 9.** GDP with inflation, debt and FDI for Eritrea.
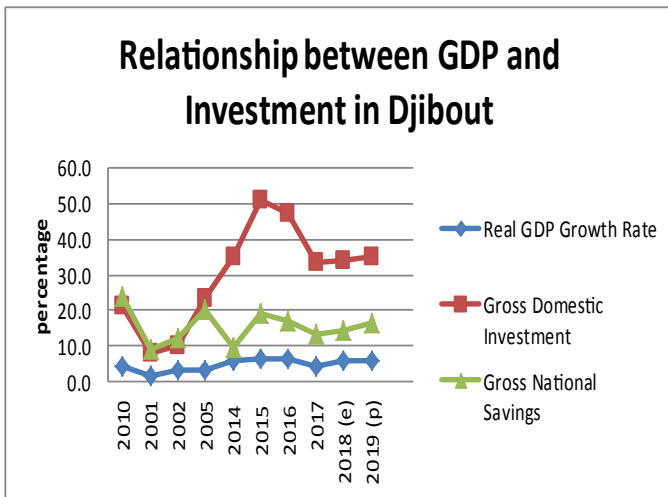

Figure 10. Relationship between GDP and investment in djibout.

Figure 11. Macroeconomic variables correlation.

Figure 12. East African economic freedom index.

Figure 13. Military interference in East Africa.
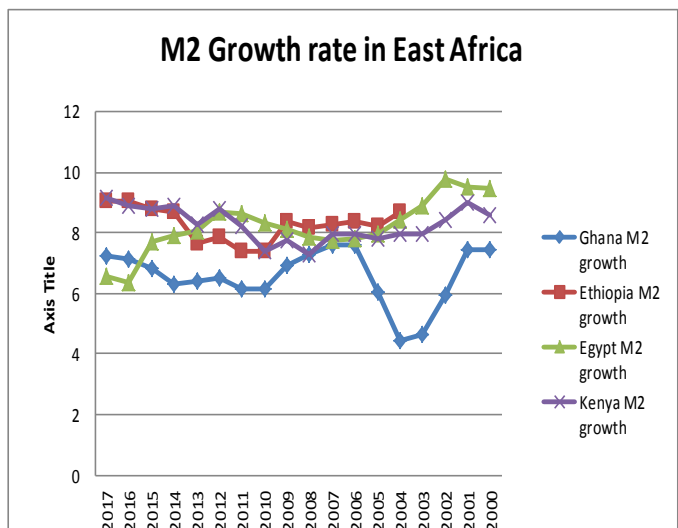

Figure 14. M2 growth rate in East Africa.

year 2010 to 2014 (Figure 12). Kenya has highest Economic freedom index while Ethiopia is the lowest in East African countries from 2000 to 2016 year while Egypt is lower than Ethiopia in 2017 year (Figure 13). Military interference Index in East Africa is also higher in Kenya and lower in Ethiopia from the year 2000 to 2019, while M2 growth rate is highest for Ethiopia (Figure 14). M2 growth rate shows fluctuating for most African countries Inflation rate In East Africa is most volatile macroeconomic variables mainly for Ethiopia and highest in Kenya from 2001 to 2017 (Figure 15).

Conclusion and Recommendation

The main measurements of indicator for financial crisis are Debt crisis, currency crisis, banking crisis and deficit in general. The root causes of financial crisis are structural in unstable monetary system, poor governance, unsustainable fiscal system, misbehavior of economic actors well as in external factor. Interest system and fiat money system (Monetary), administered price (Governance), volatile food (Fiscal), as well as expectation (Behavior) are the most dominant variables to cause financial crisis through Inflation and Growth. In addition Annual credit growth, Nonperforming loan/total loans, capital adequacy ratio ,Liquid assets/short term liability, Annual growth of M2 and Stock index volatility are early warning indicator of financial crisis and banking crisis.

Structural reforms are needed in monetary system, fiscal system and governance, as well as in international system, which are more fair, just, stable and sustainable. Moreover, behavior of economic actors should be controlled by market conduct regulation and improved by education. The share of Islamic finance should be increased, while the share of PLS system in Islamic finance should be increased to improve the stability of financial system in a country adopting dual financial system. To prevent financial crisis, Central Bank and Government advised to minimize budget Deficit, Debt crisis, currency crisis and banking crisis by studying early warning indicators. Since Loan growth rate, NPL and BOP deficit mainly moving together and aggravate financial crisis, FED ought to see macroeconomic variables and restrict loan growth and financing as necessary.

References

1. Loayza, Norman and Victoria V Hnatkovska. "Volatility and Growth." The World Bank. (2004).

2. Liew, Venus Khim-Sen, Racquel Ronald, Chin Hong Pauh and Jerome Kueh "Macroeconomic Instability Index and Malaysia Economic Performance." (2018).

3. Ghura, Dhaneshwar and Thomas J Grennes. "The Real Exchange Rate and Macroeconomic Performance in Sub-Saharan Africa." *Dev Econ* 42(2021)155-174.

4. Liu, Y. "Essays On Economic Uncertainty And Macro-Finance." University of Pennsylvania. (2017).

5. Shahbaz, M. "Linkages between Inflation, Economic Growth and Terrorism in Pakistan." *Econ Model* 32(2013): 496–506.

6. Filip, Fidanoski, Darko Lazarov, Kiril Simeonovski and Sergi Bruno. "Where Macroeconomic and Financial   Instability Meets Economic Growth in Macedonia." Academic Repository. (2018).

7. Babecký, Jan, Tomas Havranek, Jakub Mateju and Marek Rusnak. "Banking, Debt, and Currency Crises Early warning Indicators for Developed Countries." *Econ Stor* 12(2012):44-72.

8. Babus, Ana, Elena Carletti and Franklin Allen. "Financial Crises: Theory and Evidence." *J Elec* 10 (2009):22-35.

9. Thanh, Nguyen Xuan, Vu Thanh Tuanh, Jonathan Pincus and Ben Wilkinson. "The Structural Roots of Macroeconomic Instability". September 2008.

10. Uyi Ehigiamusoe, Kizito, Hooi HooiLean. "The role of deficit and debt in financing growth in West Africa." *J Pol Model* 42(2020): 216-234.

11. Uyi Ehigiamusoe, Kizito, Hooi HooiLean. "The role of deficit and debt in financing growth in West Africa." *J Pol Model*, *42*(2019):216–234.

12. Rousseau, peter L and Paul Wachtel. "What is Happening to the Impact of Financial Depending on Economic Growth". *J Econ Inq* 49(2006):276-288.

13. Policy basics: Deficits, debt, and interest, January 22, (2021).

14. Gilchrist, Simon, Jae W sim and Egon Zakrajšek. "Uncertainty, financial frictions, and investment dynamics." *J Econ Biz* 69(2014):1–58.

15. Kotlikoff, LJ. "Economic Impact of Deficit Financing. Palgrave Macmillan Journals on Behalf of the International Monetary Fund." (2016).

16. Fryd, Edward J. "The Length and Cost of Banking Crisies. IMF Working Paper." March 1, 1999.

17. Kaminsky, Graciela L and Carmen M. Reinhart. "The Twin Crises: The Causes of Banking and Balance-of-Payments Problems." *Am Econ Rev* 89(1999):473–500.

18. Alessi, Lucia and Carsten Detken. "Identifying Excessive Credit Growth and Leverage." *J Financ Stab* 35(2018): 215–225.

19. Ascarya, Ascarya. "The Real Determinants of Financial Crisis and How to Resolve it InIslamic Economics Perspective." *Int J Econ Res* 14(2017):501-531.

20. Afonso, Antonia and João Tovar Jalles. "Growth and Productivity: The Role of Government Debt." *J Int Rev Econ Fin* 25(2013):384-407.

21. Solawon Modupeoluwa Deborah. "Deficit Financing and Economic Growth: an Autoregressive Distributed Lag Approach" *J Edu Soc Res* 5(2018):23-33.

22. Nga, Janice Lay Hui. "Global Financial Crisis and Philanthropy: Malaysian Case." *J Interdiscip* 7(2015):19–31.

23. Canova Fabio and Matteo Ciccarelli. "Panel VectorAutoregressive Models Survey." *J EconStor* 11(2013): 52-67.

24. Kimberly Amadeo. Causes of the 2008 global financial crisis, May 29, 2020.

25. Neanidis, Kyriakos C. "Volatile Capital Flows and Economic Growth: The Role of Banking Supervision." *J Fin Stab 40*(2018):77–93.