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COLLEGE OF BUSINESS AND ECONOMICS
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**Effects of political Instability on commercial bank's performance in
the case of selected sub-sahara Africa countries**

By: GetachewMolla

**A master's Thesis Submitted to the School of Graduate Studies of
Addis Ababa University in Partial Fulfillment of the Requirements
for the Degree of Master of Sciences in Economics (Developmental
Economics)**

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Addis Ababa, Ethiopia

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Declaration

Addis Ababa University

The undersigned certify that they have read and now recommend to the Addis Ababa University to accept the final thesis submitted by Getachew Molla, entitled “the effects of political instability on commercial bank’s performance in selected sub-saharan Africa cuntries.” in partial fulfillment of the requirements for the award of a Master’s Degree in (Development Economics).

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The undersigned certify that they have read and now recommend to the Addis Ababa University to accept the thesis submitted by Getachew Molla, entitled “The Effect of political instability on commercial bank performance in selected SSA.” in partial fulfillment of the requirements for the award of a Master’s Degree in (Development Economics).

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ACRONYMS

AIB :	Awash bank
APT:	Arbitrage pricing theory
BS:	Bank Size
CBoS:	Commercial bank of sudan
CBE:	Commercial bank of Ethiopia
DB:	Dashen Bank
DV:	Deposit Volume
FDI:	Foreign direct investing
GDPgr:	Gross domestic Product growth rate
INF:	Inflation
KYC:	knowing your customer
LDCs:	Least developing countries
NIM:	Net interest margin
NPL:	Non-performing Loan
LDR:	Loan to Deposit Volume
PIS:	Political instability
ROE:	Return on equity
SSA:	Sub-Saharan Africa
WDI:	World Development Indicator

Abstract

This paper evaluates the effects of political instability on commercial bank performance in case of selected sub-saharan African countries for the period 2016-2023. In order to test the proposed relationship a sample of under listed top three banks at the each countries was utilized. The study employed secondary data collected from annual audited financial report for each banks and world bank. In addition, macro economic variables including political instability indicators was gathered through world development indicators databases. The study was used fixed effect panel model to accomplish the proposed objectives. Diagnostic tests such as heteroskedasticity, cross sectional independence, serial correlation and multicollinearity test was performed before employing FE model. The result of fixed effect model indicate that ROA is significantly and negatively affected by political instability during the period of study, this mean there is a posetive relationship between political stability and bank performance. Internal determinants of commercial banks are very crucial and singnificant. Loan to deposit volume, bank's size, and deposit volume, have a positive and significant impact on bank's performance, where as non-performing loan have a negative and significant effect on bank performance. However, macroeconomic variable are insignificant. The study contributes knowledge in the field of political instability and bank profitablity for sub-Saharan African countries and all africa. As a result, this paper will provide a significant enhancement to the theoretical literature, the industry, and policymakers.

Key words: poltical instability, bank performance, return on asset, sub-saharan Africa

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

It is well known that the financial industry, and notably the banking sector, is one of the key factors driving the expansion of the global economy (Mohyuldin et al., 2017). In actuality, a sound banking system is the key component of a prosperous and thriving economy (Levine, 1997). Bank sectors in financial institution are playing a great role in the sustainability of country's economy in all aspects. Financial institutions are modern brokers that connect the individuals/groups with excess capital and the individuals with financial shortage. Thus, banks are playing fundamental role by keeping effective and efficiency of financial system. According to Cristina et al., (2009) development of financial service contributes to growth in various ways. According to Muhammed & Irfan, (2015), development of financial institution is expressed by GDP growth rate, its savings rate, and advances to deposit ratio.

Banks play crucial role in finding out the flow of financial markets that keep up the success of economic progress in a country. Thus, this is very essential in SSA countries that are characterized by financial shortage that hurt the situation of capital investment. According to Tesfaye (2014), financial institutions especially banks play a significant role by involving themselves as a middleman role which accelerate investment and economic growth in a countries economic development. This suggests that financial industry received deposit from peoples, supply credit to the individuals with capital shortage that in turn benefits economic operations. Sustainability and financial health of the industry is fundamental parameter in the banking system which is the most influential industry of any economic activity.

There are convincing indicators that effective and efficient banking financial system is a vital indicator of economic growth. In fact, there are a few existing academic findings examined on the effects of political instability on economic growth and banking performance. Rodrik (1991) founded that political instability has a significant negative dominance on the country macro-

economic factors. Briniand Jemmali (2016) argues that the instability of a country political environment increases the default risk and affects the banks financial development.

For a society to function in a well-organized way, political stability is crucial. Regardless of their economic standing, all nations need a stable sociopolitical climate in order to advance in improving and developing the standard of living for their citizens. Political instability, on the other side, hinders economic development, discourages investment, spurs illegal capital flight, and breeds worry about the future. Conventionally, political environment have significant influence on the bank's performance and the instability of the country macro-economic condition. Political instability slows economic growth (Abeyasinghe, 2004) and discourages investment (Mbaku, 2016).

Ethiopia has been suffering its worst economic collapse and humanitarian crises brought about the intensification of conflict since 2020. Following the intensified conflict and the subsequent order of the national bank, the banking sector faced greater challenges, branches located in tigray region are closed, deposit are decreased, foreign currency was declined, increasing inflation all over the country and continues in other region till now (UN.2020). This was happened in Ethiopia and also the conflict was experienced on neighboring countries of Ethiopia like south Sudan, Sudan, Kenya Somalia. Therefore, the study assessed the effects of political instability on bank performance in sub-Saharan Africa.

1.2 Statement of the problem

The major distress financial institution in moment's fiscal situation is to uphold stability and be ascertaining that they're resistant to external shocks and simultaneously being sensible and sound from outside (Dakito, 2015). According to Gyimah-Brempong and Traynor (1999), the main characteristic of political instability and conflict is the unpredictability of the environment in which investments are made, which lowers returns and disincentives to save and invest. Investors need high interest rates from an investing standpoint to make up for their insecure and unsafe investments in an unstable economy. This interest rate lowers the bank's performance and interest margin unless, investors and businesspeople may choose to save their currency at home or in another more convenient location, which could make banks less liquid. The main customer worry is a result of political unrest and conflict. Customers of the bank withdraw more money

and deposit less money under these situations, which lowers the Bank's interest margin. In addition to that continuous political conflict leads to decrement of foreign currency remittance and this on the other hand pull back one step of bank performance (profitability).

Petria et al. (2013) used data from the EU banking system for the years 2004–2011 to assess bank performance and its decisive factors. The study divided the elements that affect bank performance into internal and external components. Internal factors are those that are unique to a bank and may include credit risk, liquidity risk, managerial effectiveness, and business diversity. Macroeconomic variables such as market structure/dominance and growth in output are influenced by external influences. Obamuyi (2013) examined factors influencing bank profitability (performance) in developing nations using data from 20 Nigerian banks from 2006 to 2012. The authors included capital, bank size, and expense management as bank-specific variables, as well as the GDP growth rate and interest rate as macro-economic variables. Brini and Jemmali (2016) examined the relationship between political instability for Tunisian commercial bank stability. GARCH and E-GARCH models were applied on the data for the period 2009-2012. The result showed that the Tunisian banking system were more stable during the political stability period and vice versa. Furthermore, conflict and instability of political environment on economic growth was examined by Azez (2013) in Iraq. The result of study founded that political instability had a significant impact in declining economic growth as well as increase the inflation percentage.

While there is in-depth literature investigation, the effects of political uncertainty and violence, unexpectedly there have been some studies on their effects on the likelihood of banking performance. The one is “the effects of dispute and political disagreement on banking crises in LDCs”. The paper present solid substantiation that conflicts and political instability are indeed associated with higher likelihood of systemic banking heads. Similarly “the effect of the political uncertainty on bank’s performance: evidence from Iraq” showed that there is a negative and significant correlation between political instability and bank performance during ISIS period. While the study on the “effect of political instability on commercial bank profitability” using empirical evidences from Ethiopian commercial banks. The study concluded that political instability affects bank performance positively. Therefore, there is controversy results were

concluded from different countries though other factors are influenced and this is one of the gap why this study was raised.

There was study on “impact of the internal conflict on financial performance in South Sudan: the study examine the previous literature and inclusion on ways through which the South Sudanese conflict continued from 2013 to 2018 has stumble the growth of the infant financial industry, with implications on the business sector and financial inclusion. Most of the South Sudanese people were out of financial system who have right to participate on the country's historical legacies, the study found that the internal conflict has worsened many indicators of financial inclusion, including by closure of bank branches and constraining household access to credit.

The ongoing conflict in Sudan posses crucial problem to the banking system, which was already summarized as unstable ahead of the conflict. One third of the total bank takes 25 % of banking system capital have capital adequacy ratios below the regulatory 12 % minimum requirement. A 2021 CBS financial asset evaluation and bank-by-bank resilience assessment announced, significant levels of distress mandating reorganizing the banking sector through liquidation and/or merger and acquisition. The five largest banks are highly concentrated in city branches account for 55 percent of the sector’s total assets. More than half of the bank branches are placed only in two states: Khartoum (44 percent) and Gazira (11 percent), while the remaining 16 states have 45 per cent of the total bank branches.

Ethiopia became socially, economically, and politically unstable since the coming of new prime minister as widespread displacement, mass executions, assassinations of high-ranking government officials, kidnappings of citizens and university students, as well as disputes between the state and federal governments, were commonplace. The majority of the past studies in SSA investigated the impact of political instability on economic growth, foreign direct investment, security market, and economic performance but there was no study directly on relationship between political instability and banks performance. As a result, this study is the first, and there is a need for more research and information on SSA commercial banks to inform policy decision for sector development and offer a through empirical analysis of the effects of political instability on the likelihood of the banking sector following a political crisis. Therefore, this study is expected to fill the gap in the literature by thoroughly analyzing the potential effects of political instability on banking performance in sub-Saharan African countries.

1.3. General Objective

The main objective of the study examines the effects of political instability on bank's performance in sub-Saharan African countries

1.3.1 Specific objective

To assess the association between political instability and banking performance in sub-Saharan African countries.

To examine the effects of bank-specific variable on banks performance in sub-Saharan African countries.

To analyze the relationship between macro-economic variables and bank performance sub-Saharan African countries.

1.4 Research question

How are conflict and political instability affect commercial banking performance in SSA?

How do bank-specific variable affect the performance trends of commercial bank in SSA?

How do macro-economic variables affect to commercial bank Performance in SSA?

1.5 Hypothesis of the study

H1: Political instability has significant negative effect on bank performance during the period 2016-2023. (-)

H2: Bank specific factors has a significant effect on bank performance during the period 2016-2023.

H3: Macro-economic variable has insignificant effect on bank performance during the period 2016-2023.

1.6 Scope of the study

This study covers only selected six state owned and thirty nine private banks for fifteen countries due to the availability of the data. However, the study is limited to incorporate the concept of root causes of political uncertainty, rather it defined to examine the effects of political conflict on bank performance. Due to the multifaceted nature of political uncertainty it is a complex construct like factors of political change, civil unrest and disagreement. Aggregating all factors that affect performance depends on its form of protest is skipped. Provide general result across

SSA could be problematic because different countries may not experience uniform effect of political uncertainty on bank performance. Generally the study focus on investigating the causal relationship between macro economic factors and bank performance rather than examining each macro economic indicator, due to the sensitivity nature of the indicators from the general macroeconomic point of view.

1.7 limitation of the study

This study would explore the possible ways through which assessing the effects of political instability on bank performance in case of some selected sub-saharan Africa. In order to realize this relationship, the researcher was aimed to incorporate atleast half of the sub-saharan African countries but due to availability of the data it could not been impossible. In addition to that some variables data like non-performing loan is not easily found rather it asked further process and taken approximated value from general over views. Generally why the researcher limited only for 8 years is due this availability of the data.

1.8 Significance of the study

This paper primarily uses in the field of different activities in variety ways. This study contributes the banking performance of sub-Sahara Africa countries provide scientific analysis of financial sector. Certainly, ideal issue provides expertize for individuals/groups in wealthy and undeveloped countries. This study will provide significant benefit to: Governments, international organizations, banks, and researchers. The study is valuable for researchers and previous literature by giving evidence of the effects of political instability and violence on a specific bank performance.

It is crucial, the implication of the study for financial sector to providing for the body of knowledge in sub-Saharan Africa. Generally, the study contributes for other academics as starting point anyone interested on the field of similar topic.

1.9 Organization of the study

The paper has summarized as chapter one introduction, chapter two is empirical and theoretical literature review respectively. Similarly chapter three methodologies, data type and model specification presented. In the fourth chapter descriptive analysis, trend of macro-economic indicators and econometrics result analysis are presented. Finally, chapter five presents the conclusion and policy recommendation of the study.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1 THEORETICAL LITERATURES

2.1.1 History of banks in sub-saharan Africa

Banks in SSA were launched during colonial times (pre-1960s) to support trade and economic activities of colonial powers. These banks are primarily served the interest of European settlers and business enterprises, with limited focus on the indigenous population. Bank performance during colonial era was tied to the stability and profitability of colonial trade, with little regard for local development. While, after independence, many SSA countries looking for indigenize their banking sectors. Government established state-owned banks to promote economic development, provide loan to selected sectors, and decrease foreign control. However, inflation, conflict and political instability, weak governance, political interference, and limited financial infrastructure often hurt bank performance. The 1980 economic crises, leading to financial sector loss due to non-performing loans, mismanagement, and weak regulatory frameworks. After that structural and adjustment programs (SAP) launched by the international monetary fund (IMF) and world bank, forced reforms such as financial liberalization, privatization, and restructuring financial sector. While there structural reforms improved efficiency in some countries, at the end reduced credit to vulnerable sector and maintained inequality in financial access. Since 2000s economic reforms were fostered performance of banking service in SSA, due to the rise of pan-african banks (like standard bank, ecobank), regional integration effort, technological advancements.

Today banks in SSA have become more resilient and advanced, with increased capitalization and adoption of financial new technologies like mobile banking, internet banking especially countries like Kenya, Nigeria, south Africa and Ethiopia. However, challenges specially global economic shocks (e.g. COVID-19) digital disruption climate change, continue to undermine bank performance in several countries.

It is known that financial sector particularly commercial banks is the back bone of economic growth by accelerating service of banking in SSA. Indeed, as noted by Beck and Cull (2013),

banking service in SSA has experienced high improvement in the previous two decades. African banking service and financial landscape have changed due to the expansion of pan African banking group connection with upgrade in institutional and regulatory capacity and related financial liberalization with the elaborating indigenous banking service as whole. After the restrictive and distorted policy of the state, institutions have dramatically changed the way of providing banking service by creating stable environment, banks build up external shock resistance in SSA in the last twenty years. In actuality, following the global financial crisis, banking service in developing countries are resisted by designed their strategies, even they are influenced by cross-border trade rule.

Gradual financial system improvement is on the way to meet its mission in SSA as compared to European countries which deep financial analysis was experienced. Some of obstacles of financial growth includes no comfortable market environment, capital shortage, justice enforcement system and poor credit facilities. The proliferation of mobile based banking the expansion of pan African banking parties have the potential to significantly change the landscape of banks in SSA are some of recent improvements, but have introduced other challenges for banking sector.

Historically, banking sector in Ethiopia has around 100 year's old. According to Fasil and Merhatbeb (2012) and Maury (2014) report bank of Abyssinia is the first bank in Ethiopia since 1905. The bank was established by the consent of the two countries government, emperor Minilik II and government of Egypt. The bank was liquidated in 1931. After the coming of emperor Haile Selassie, the name changed to bank of Ethiopia and began its operation in 1932. Later on, the bank of Ethiopia is changed to commercial bank of Ethiopia and national bank of Ethiopia in 1963, (Fasil & Merhatbeb, 2012). Here the idea of split into commercial and national was their primary objective under consideration.

As publications showed that countries around the world pay high amount of value for violence and terrorism. The value of political motivated violence is unpleasant especially in LDCs. The IEP report (2012) showed that the effects of political instability and violence is \$ 9.6 Trillion. Countries GDP percentage rate and containment cost per capita is the ground of their rank from

162 countries. According to the evidence cost of violence and containment cost per capita Ethiopia incur significant amount instability and unrest expenditure from the listed countries.

2.1.2 Theories on bank performance

2.1.2.1 Financial intermediation theory

FIT generally emphasizes the role of financial institution such as banks in facilitating the flow of funds from depositor to borrowers. In the context of the title, it may offer insights into how conflict and political instability could affect the intermediation process and consequently, bank performance. It suggests that banks in the economy play a crucial role in allocating funds to productive place but due to political instability and conflict, credit availability may be affected and potentially leading to reduced economic activity as businesses face challenges in obtaining financing service. The theory also under considers the behavior of conflict and political instability on depositors confidence, leading to shifts in deposit pattern, such as liquidity risk (withdraw rise during uncertain time) (Gertler, M., & Kiyotaki, N, 2015). In summary, financial intermediation theory provides a lens through which it analyzes how political instability may disrupt the traditional role (back bone of the economy) and function, of banks in financial system. This disruption could manifest in change to lending behavior, interest rate dynamics, depositor confidence, investment choice and risk management practice, all of which can collectively influence the overall performance of banks in the context of political instability.

2.1.2.2 Systematic risk model theory

SRM is exposure of the overall market operation or particular area market structure. Systematic risk, defined as non-diversifiable risk, volatility risk, or market risk, it influences the whole market regulation, rather one particular company.

SRT is the interruption of market flow by making uncertain of future defined by Financial Stability Board (FSB) that is (i) resulted from a deterioration of the whole economy or parts of the financial service (banks); and (ii) has the potential to have serious negative consequences all over for the productive sector. It is market-wide risk that affects the whole macro-economic factors like, economic recession, inflation/deflation, interest rate change and natural disaster.

Systematic risk is unpredictable and impossible to completely eradicate once. Designing the correct strategy to allocate assets is a preferable method than holding a diverse portfolio of asset. It is associated with the notion that certain factors like political conflict, interest rate, economic recession those affect on the given market (firms, industries).

the model includes recessions and continuous wars are major changes, due to these and similar factors it results higher non performing bank loans, higher inflation, interest rate changes and low investment. Changing in those factors can hurt the whole market and could not be mitigated by changing positions within a portfolio of public equities. Therefore, by the SRM model unpredictable and impossible to avoid risk which is known as political instability and conflict have serious negative consequence on the financial sector (banks).

2.1.2.3 Capital asset pricing model (CAPM)

The model is a fundamental theory in finance that established relation between the expected return on asset and probability of market risk developed by William Sharpe in 1964. The concept of the model is expected value of expected returns directly proportional to the risk free rate plus asset's exposure to market risk premium. CAPM is one of the most well-known financial model that incorporated country risk, systemic risk and political risk. The only source of market risk is itself the market portfolio. The model used beta (β) to measure the amount of systematic risk an asset has in relation to overall market. It can be calculated as the expected return of an asset is estimated by the risk free rate plus the product of the asset and expected market return minus the risk free rate. If the value of beta is greater than one indicates that the asset is more volatile than the market whereas a beta value is less than one it is less volatile.

Country risks are usually measured the risk ratings provided by rating agencies (International Credit Risk Guide (ICRG, 2017)). The domestic markets of individual countries experienced overall risk of a country. The three components of country risk are the political risk, financial risk and economic risk (ICRG, 2017), and due to undiversifiability it affects the progress of investment decision in a country. Type of political risk include government instability, socioeconomic environment, investment history, endogenous and exogenous factors, corruption, military in politics, politics in religion and vice versa, law and order, interethnic conflict, government transparency, and administrative efficiency (Muzindutsi et al. 2020). Kirikkaleli (2020) explained as political risk is the power of economic and financial risk. For example, political instability and conflict diminished policymakers' and government's service, accordingly the soundness of the economy and the financial sector are affected by inappropriate and incompatible economic policies. Consequently, this study focused on political-risk effect as a proxy for country risk.

The model summarized as the relation between expected return of asset and market risk (Stoke) (Sharpe, 1964; Lintner, 1965). CAPM is relevant theory when the expected returns of asset are considered as a measure of performance and political risk considered as a form of market risk.

2.1.2.4 Arbitrage pricing theory (APT)

Arbitrage pricing theory (APT) of Ross (1976) attempts to define the correlation between the return on asset and numerous macro-economic variables (e.g. political instability). Unlike CAPM which relies on a single market risk, APT incorporates multiple factors, making it more flexible and applicable to many scenarios. Similarly, by using returns to measure performance, the open-ended nature of APT risk factors implies that political risk can be added to the risk factors such as credit risk which ended by non-performing loan. Thus, the APT is directly applicable as a theory for the topic under study. Alternatively, there was a connection between efficient and effective political authority and financial growth in theoretical literature, (Ashraf et al., 2018). Financial development of a nation depends upon the political history of the country, as noted by Roe (2006). At the same time, Keefer (2007) posited that the nation's political structure is comparatively significant in threatening a developed banking institution. The supporter of this theory suggested that politically stable countries are developed and strong in financial status (Roe & Siegel). Consequently, studies (Bordo & Reusseau, 2006; Quintyn & Verdier, 2010; Girma & Shortland, 2008) have explained that financial development is determined by stable political environment, accountability of government officials and democratic features of a nation.

2.1.2.5 The inverted U-curve theory

The theory was first introduced by Norwegian sociologist Sverre Lysgaard in 1955. This theory explained that when a bank becomes extremely large after it reaches at peak that optimal point it began to decline due to imbalance between its expense and income earned. Huge financial institutions are more exposed to financial loss due to the fact that information is asymmetric, borrowers have detailed information whereas credit institutions have not enough information about their customers to minimize nonperforming loans below standard point. As a result, financial institutions are collapsed their customers, to minimize unexpected expense and in turn saved their deposits to other investments. This results in cost savings which leads to higher profits. This means that, a large bank will target mega projects that benefited from its collective return rather than diversified on a lot of customers without customer knowing analysis. In contrast to this theory, the

size of bank becomes too large, profit of bank will go parallel become large due to economies of scale. This means with limited resource and capital can constrain their ability to compete with larger banks. As a result, small banks tend to have lower profitability and efficiency. Similarly, according to bank capital theory, banks can create bank flow precisely because deposits are unpredictable and disseminate to the proposed investor. Tomorrow is unpredictable makes makes deposits excessively volatile, creating a role for outside bank capital. If bank capital is large diminished the likelihood liquidity crisis of financial stress but also reduces liquidity creation. Optimal bank capital structure trades off effects on liquidity creation, costs of bank distress, and the ability to force borrower repayment

2.2 Bank performance

Bank performance can be explained as the capacity to achieve its financial goal or plan and maintain sustainable and sound profitability. Income yielding from the total resource of a bank showed that they are used resources effectively and efficiently (European Central Bank, 2010). Nassreddine, G., Fatma, S. & Anis, J, (2013) stated as performance of banks is determined by internal and external factors. Alternative name of internal determinants are microeconomic determinants or inherent performance indicators. The macro-economic and variables related to legal environment are placed to be uncontrolled factors of bank performance. Internal determinants such as efficiency, size, liquidity, capitalization, quality of credit, control and degree of asset diversification, available deposits balance, governance and market share. There are extrinsic determinants of performance are growth rate of GDP, tax, market structure/concentration, maturity of the banking sector, inflation and political instability. To evaluating bank profitability, efficiency and growth, we have to use financial and non financial indicators. There is diversified measures to determine the bank performance. Basically, researchers widely used measurements metrics of performance indicators are return on asset (ROA), return on equity (ROE) and net interest margin (NIM). All of the three indicators are grouped into traditional, economic and market based measures. Return on asset, interest margin, return on equity and cost to income ratio are the most frequently used from traditional measures.

2.3 Determinants of bank performance

General determinants of commercial bank are divided into two categories the internal and external factors that affect performance of conventional banks. Here we are only focused on targeted variables included in the model. Key measure of bank performance that affect profitability, risk management , growth and efficiency are classified in two external and internal determinants.

2.3.1 The external determinants

Macroeconomic factors of banks, such as GDP growth, political instability (also moderate variable), socioeconomic situation, inflation, and interest rates influence on performance. This paper focused on some selected internal and external factors of banks in SSA, which may provide the variation in accomplishment during the economic collapse. This is worth taking a moment to examine these external determinants in order to present a complete picture as possible of the literature on the subject under study (determinants of bank performance)

2.3.1.1 Political instability

Political instability is defined by various individuals. Political instability is defined as: unstable governments, political disagreement, and communities within a country is likely to result from overthrowing the existing government using power or targeting existing government officials to a comparatively high likelihood of forceful clear out Fosu (2002). Unstable government power is a situation in a country's political condition in which break down the pattern of regulatory institution, and the anticipated snort/umbrage between incumbent authorities is replaced by forceful political uncertainty (Morrison & Stevenson, 1971). According to Arriola (2009), there are different types of political instability such as, ethnic conflict, agrarian uprising, street rebellion, coups d'état, and civil wars. Morrison and Stevenson (1971) defined three theoretical aspect of uncertainty in political condition: elite conflict, engaging in attempted or successful ousting of the existing political authorities by rebellion or the threat of revolution; communal uprising, engaging ethnic groups in revolution with existing authorities or reorganize of communal society of the existing government officials with their supporters and involving mass conflict and violence with the country administration in aggressive effort to restructure the power dissemination and the policy goals within a country. According to TI anti-corruption help desk report (2013) economic (resource) and political (power) factors of a country environment is

trigger of its political disagreement of political authorities. Disagreement between elites are outcome of instability in sub-Saharan because they can intensify led to other mass forms of conflict. Political instability is also serious cause that affects profitability of the banking sector. Countries law and political environment has been changed due to instability and political conflict. Political risk refers to the probability that changes in the political situation and country law that can also influence the value of the investments. Because of the following reason, political risk is worry for international investors or we can say foreign direct investing (FDI). First, foreign investment are highly exposed for volatility than domestic one due to they are familiar with more laws and market regulations of country. Next, domestic investors have to detail understand of their own government behaviour and economy condition better than an international investor. They have a better predicting tomorrow and know how their domestic market works, and are more likely to forward looking their political and legal structure that they would miss foreigners. The most known consequence of political violence that influence banks are diminishing asset, which means that lost value of their investments, and limited asset, meaning that they can't transfer their fund out of the country. Because of government political risk, there will be endless effects because political uncertainty refers to just about any changes to the business environment.

First conflict and political uncertainty results exposed for political risk and this in turn caused uncertain political authority impact on both micro-economic and macro-economic activities of the country (Yalcinkaya, Celik & Huseyni, 2017). Generally, authors concluded that, political disagreement affects the business environment and financial sector of the economy. The dual outcomes of political instability on banks are: it causes political volatility and decrease deposit, raise interest rate and at the same time it raises the cost of credit and decrease the demand for credit.

2.3.1.2 GDP growth

Economic growth of countries that measured by gross domestic product, it has a positive effect on banks performance. During the period of high economic growth, there must be raised deposit of bank investment, which increased on hand credit that provides interest income, and hence raise the performance of banks. Most authors reached a conclusion on positive relationship between GDP growth and return on asset variables. The result of the studies of (Gul, I & Zaman, 2011;

Kosmidou, Tanna & Pasiouras, 2008; Moges, 2017; Rahman, Hamid & Khan, 2015; Sanlisoy et al., 2017; Yahya et al., 2017) show that GDP growth rate positively and significantly affect bank profitability.

2.3.1.3 The inflation

The first author to address the issue of inflation was Revell (1979). He found that performance of banks are a function of its operational expenses: meaning that expenses of bank increase faster than anticipated inflation, they have inverse relationship between them. If the expected value of the inflation does not meet, expense are increase faster than its price of selling the result will be negative, unexpected outcome. In the contrary, if the increment of inflation is lower, as a result positive effect is expected. Similarly, Molyneux & Thornton (1992) found political uncertainty and bank performance are significantly and positively correlated.

According to Naceur and Kandil (2009) explained: primary objective of commercial banks is supply credit and in the response they earned interest. Hence main regulation of banks is based up on supply of loans (bank offer credit) and borrower demands loan availability (may be individuals and companies). Therefore due the prevalence of price of goods and services demand for credit decrease because it increases tomorrow uncertainty about investment. Thus, the continuous increment of inflation leading to eroding the real value of asset and this wrapped up gives rising long term liabilities, operational expense. Finally drop in demand of credit lead to a decline in lending and therefore a decrease in performance and concluded negative impact.

2.3.2 The internal determinants

2.3.2.1. Bank Size

The impacts of bank size on bank performance, like different other variables, is widely contested among scholars. They can be categorized into three categories; those who claim that bank size has a significant positive effect on bank performance, the second category those who claim that have an adverse effect on performance, and the third category claims, that has no essential impact on performance. When we begin the research under taken in the first categories, they found an advantageous effect on bank performance (Short, 1979; Smirlock, 1985; Bikker & Hu, 2002, and Pasiouras & Kosmidou, 2007). They provide different justifications for their findings, due to economies of scale, large banks can raise their capitals at lower prices.

Under the second category of studies by Stiroh and Rumble (2006), point out the negative impacts of bank size and indicates that large bank size is difficult to administering it. Furthermore, the researchers shows that the bank size might be the result of unsustainable development strategy that sacrificed profits and their performances. Kasman (2010), found that, bank size has significant and negative effect on the value of the margin of net interest while analyzing a panel of 431 banks from 39 countries.

2.3.3.2. Volume of bank Deposits

A common measure used to analyze a banks liquidity is the ratio of its total loans to its total deposit. The impact of bank deposit on banks performance is difficult to determine in advance. In dead, having level of deposit can enhance banks performance, since deposits are trustworthy funding as well as cheaper than money borrowed, a large amount of deposits in particular to enhance performance. The study by Olokoyo (2011) on Nigerian banking found that the volume of deposit has highest influence on commercial banks credit, and any changes will result in a significant change in loans and advances. As a result, banks should work harder to organize their deposits effectively that they can achieve their profitability goals in addition to maximize their multiplier impacts. This indicates that generating deposits is essential to the survival of Nigerian banks as a whole.

3.3.2.3. Loan to Deposit Ratio (LDR)

Since credits indicates the banks main goal, they are the most significant banks performance factors for commercial banks in financial statements. Assuming holding all other variables constant, high rate of deposit translation into loans, the higher rate of interest income, and the higher profitability. As a result of positive relationship between loan deposit ratio and profitability of banks (NIM) is expected. According to Sufiant F. & Chong, R. (2008) found that higher LDR increases banks performance since banks provide loans which offer higher returns than the other assets. However, when an increasing loans leads to increasing funding requirements, the loan ratio could have a negative influence on the profitability of the banks (Alexiou and Sofoklis, 2009, Ana et al., 2011).

2.3.2.4. Non-performing loan

NPL are an important credit risk indicator since they have a direct impact on the banking industry and predict the likely hood of losses. The amount of NPL plays an important role in

ensuring the stability of a country's banking industry. Thus, NPLs not only indicate credit risk taking but also affect bank performance, potentially causing financial and economic pressure (Khan et al., 2020). As a result, an increase in NPL might put at risk the banking industry future stability and consistency, as well as having an indirect effect on the actual economy. As a result, decreasing NPL is an essential goal for increasing financial markets and encouraging economic growth, and an intensive evaluation of credit risk must be conducted to reduce losses in the loan providing process (Mahyoub & Said, 2021).

2.4 Determinants of Bank performance in sub-Saharan Africa

Most literatures classify the determinants of bank performance in two or three ways that also affect banking industry. The existing empirical literatures indicates that the studies on banking sector has focused mainly on developed and a certain developing countries, with less thought given to SSA. Bank performance has been studied in respect to bank specific, sector specific, and macroeconomic aspects. Whereas the result of bank specific and macroeconomic variables are obvious and point to a one-side impact on banks performance, the results for industry specific indicators are mixed and in most instances, no significant impact to explaining bank behavior.

The factors that affect Ethiopian banks performance are studied different researchers. Researchers investigate the factors that affect the performance of banks in Ethiopia. The study conducted by Tesfaye (2014) on the factors that affect the performance of Ethiopian banks, he conducted into account internal and external factors unique to banks that utilized between 1990 and 2012. The proxy of return on assets served as a representation of the banks performance. He concludes that bank specific (internal) factors accounted for the majority of the difference in profitability. These includes capital, asset size, liquidity, loan, deposit, and interest rate spread, and others. This was one of the reason to conduct this study, which found that the commercial bank's unique factors rather than other external ones like political instability and conflict determine its performance.

Shifa (2019) examines the determinants of commercial banks profitability in Ethiopia, on the time period between 2007 to 2016, return on asset was regressed on business mix indicators, risk aversion index, management effectiveness, liquidity risk, bank size, external factors, ownership, market concentration, and GDP. The result indicates that, in addition to properties, additional

external factors have a substantial impact on the return on asset. GDP and market concentration were statistically insignificant impact to determining return on assets of commercial banks of Ethiopia. According to Sime et al. (2020) return on asset and return on equity as a dependent variables, on financial performance, management efficiency, customer deposit, capital adequacy, and loan-to-deposit ratio are related to bank's financial performance.

The study by Bushashe (2023) investigates the factors that influencing private banks performance in Ethiopia. The study conducted on the time interval from 2010 to 2021 by using causational research methodology. The result indicates both sector specific factors and external factors have negative impact on banks performance. However, the internal factors have a positive impact on bank performance and banking sectors. Additionally, industry specific factors were positively mediate the correlation between bank specific factors and bank performance. Bank and industry specific factors were not affected by external factors.

Violence and political unrest can be correlated to an increased risk of systematic financial risk of banks. Theoretically, there are different routes through which political unrest and violence may leads to bank crisis. These include decreased bank deposit and liquidity, higher banks non-performing loan, and low economic growth of a country.

2.4 Empirical literature

There are varieties of studies the effects political instability and violence on the economy is increasing from time to time. Gates et al. (2012) found that conflicts hinder progress in improving life expectancy, access to clean water, decreasing poverty, hunger and infant mortality, creating development gaps and threatening the United Nations Millennium Development Goals (MDGs). The long-lasting conflicts on development outcomes were also investigated by Ghobarah et al. (2003). Depetris Chauvin and Rohner (2009) result indicates that the countries which has exercised political unrest and conflict, manufacturing industry were highly affected, while natural resources were over exploited during this period.

Even if the study about the effects of political uncertainty on the banking sector was limited, the following are related concepts. Rother et al. (2016) stated that conflicts turn down the financial sector performance and shrinking banks' capacity to keep continuity of financial intermediation

and transaction method, but they did not conclude by empirical evidence and currently, IMF (2019) approved that both private and companies were not obtaining credit service because of continues political conflict and uncertainty. Huang (2019) examined the effects of conflict in power struggle on growth of banking sector on a panel of 49 countries over 1960-2004. As a paper result, the struggle between political authorities distorted the activities of any banking operation consequently led to inefficiency of resource utilization, shrinking banks balance sheet, misallocation of bank asset and ineffectiveness of management operation. Hasanov and Bhattacharya (2019) investigated the impacts of political factors on the likelihood of a banking crisis using a sample of OECD countries. As a study, bankruptcy during the time of financial crisis is a result of the probability of powerless government authority and high government violence. For instance, in 1995, during the civil war in Sierra Leone, around half of banking sector loans were non-performing loan (NPLs) and a license of one of the banks was suspended in 1994. Gobat and Kostial (2016) asured that the Syrian conflict deeply affected the banking sector by reduced deposit and assets runs, and increasing NPLs from less than 5% to over 35 % during the period 2010-2013.

In the case of Ethiopia, there was a few topics dealing with the likelihood of the banks performance. A study conducted by (Alene, 2020) divided as internal factors of bank determinants are capital adequacy ratio, bank size, deposit volume, credit risk, and cost of funds where as external factors includes inflation rate, real economic growth rate, exchange rate, and industry-specific factors (lending rate). Econometrics analysis method was used to explore the data for the period from 2005 to 2019. The findings revealed as bank-size, capital adequacy ratios and deposit ratios are positively and significantly associated with the likelihood of Ethiopian commercial banks. One of internal explanatory variable of bank sector is its liquidity status. Liquidity has a significant and negative correlation with a bank's performance (measured by NIM). Finaly, lending interest rate is the last significant variable, it has a significant negative effect, whereas the rest macro-economic variables haven't a significant influence on ROA, ROE & NIM.

In fact, different studies have discovered that conflict and disagreement between political authorities often lead to worsened governments' fiscal activities. Authors (Von Hagen and Ho,

2007; Reinhart and Kaminsky, 1999; Dornbusch *et al.*, 1995) identified as banking sector crises was as result of after government officials crisis and its fiscal activities resulted to draw a literature. According to this literature, bank sector crises has been occurred often after a fiscal crisis. Ofcourse, the consequence weakened fiscal status is also cause a financial bankruptcy due to the linkage between exposure of banks' direct portfolio and balance sheet account (Caprio and Honohan, 2008; Caruana and Avdjiev, 2012). the possible consequences of debt defaults on the economy lead to stagnant growth, high non-performing loans (Gertler and Kiyotaki, 2010). Fiscal strain/constraint weakens the government's potential to settle its debt, which can result an unpaid arrears to business organization, small-scale enterprizes and banks that is rising banks' non-performing loans. In addition that, banks often held government debt as collateral to safeguard large-scale financing. However, the eligibility of collateral depends on risk of government condition and decrease banks' financial strength and raise bank vulnerabilities (Popov and Van Horen, 2013).

As mentioned above, although there is limited observed documents on the relation between bank performance and political instability, there is a common agreement that political instability consequences political uncertainty/risk (the stability of business environment could experienced political uncertainty in a nation) and reduces saving, deposit, investment, economic growth (Chawdhury, 2015; Gyimah-Brempong & Traynor, 1999; Mbaku, 2016; Sanlisoy, Ayden & Yalcinkaya, 2017; TI, 2013). Sanlisoy *et al.*, (2017) analyzed the consequence of political risk on bank performance for a panel model of turkey banks. The result of the study found negative and statistically significant relationship between political instability and bank performance. Obalade *et al.*, (2021) conducted on relationship between political risk and banking sector performance in nigeria. The results show the impact of political risk on bank performance depends on performance of return on asset. In particular, political risk was found to be negatively related to banks' return on invested capital and positively related to worsening non-performing loan.

(Yahya *et al.*, 2017), Examine the impact of political instability and macroeconomic and bank-specific factors on Islamic banking profitability in the context of Yemen. The results reveal that the capital adequacy ratio is a negative and insignificant effect on ROA and ROE. In addition,

the result shows that company size, asset management, liquidity, and deposits have a significant and positive impact on banks' profitability; GDP, inflation (IR), and political instability have a significant positive impact on Yemen banks' profitability. Another study (Jadah, et al., 2020) investigated the impact of political instability on bank performance, during the ISIS era (2009-2013) before the Islamic State of Iraq and Syria and during ISIS. The results show a significant negative correlation between political instability and bank performance in the ISIS era. Bushashe (2023) studies the factors affecting Ethiopia's private bank performance. The study employed a causational research design and data from 2010 to 2021. The result shows that industry-specific factors and external factors have a significant negative effect on bank performance. Internal factors have a significant positive effect on bank performance and the banking industry. Besides, industry-specific positively mediate the relationship between bank-specific factors and bank performance. The external factor does not affect bank and industry-specific variables.

What are factors that determine profitability of commercial banks of Ethiopia studied by Elshaday, Kenenisa & Mohammed (2017). A sample of eight banks was chosen from sixteen commercial bank for the subject under study. Effects of bank size on financial performance was found to have positive and statistically significant for Ethiopian commercial banks. As a result bank size is one of main factors that affect profitability of commercial bank in the way of shrinking or boosting (due to economies of scale) during the period of a study.

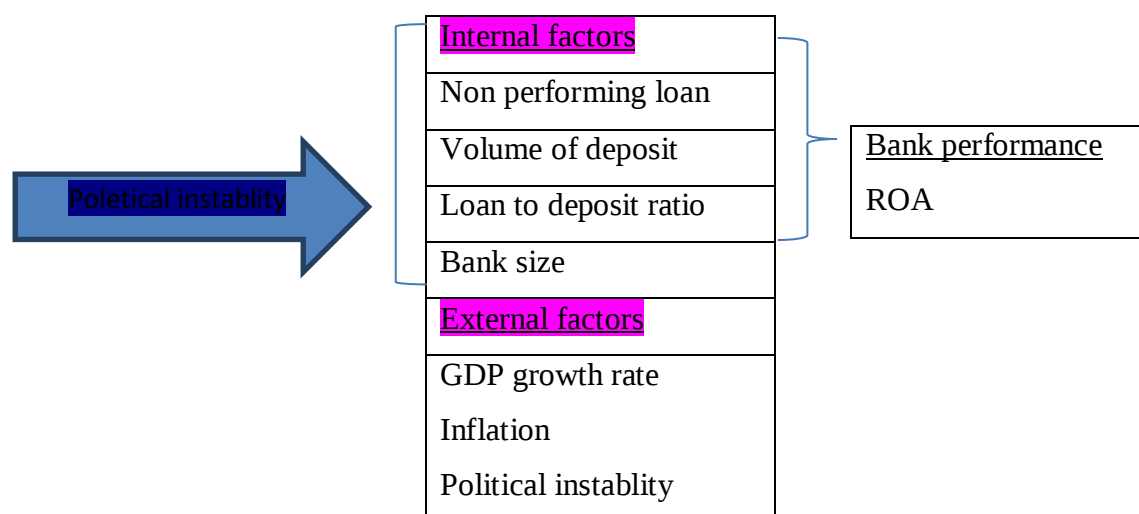
The most pervasive problem in the globe, particularly in the third world, is political instability and conflict. According to the World Bank's 2016 World Governance Index assessment, Ethiopian banks' performance steadily deteriorated between 2012 and 2016. Return on Asset (ROA) was 5.39% in the report, and it fell to 3.75% in 2016. Similar to return on equity (ROE), declined from 75.26% in 2012 to 54.08% in 2016. The political stability index during that time was low, indicating Ethiopia's lagging political stability. In addition to that, in fact, the political crisis is getting worse than the previous period data. Therefore, the fundamental query is whether this continues political unrest and conflict affect bank performance in Ethiopia.

2.5 Conceptual framework

Factors of bank performance- generally, factors that examine bank achievement compared with their plan it can be classified as internal bank specific variables and macro-economic variables.

In this section the dependent variable is bank performance, macro economic variables or external variable, and bank specific variables are presented, accordingly.

Karanasos and Tan (2011), Aisen and Veiga (2013), Ali et al. (2013), Behailu A (2019), Mengistu N (2020) found that political instability and bank performance have relation. These researches identified that bank performance to be the dependent variable and political instability was identified as independent variable. In most of these works ROA and ROE were used as a proxy to measure performance. Political instability can also be represented using different proxies political stability and absence of violence index, political violence index, civil unrest indicator, government stability index, economic policy uncertainty index, regime change events and historical incident data. All control variable under the study are GDP growth rate, inflation rate, deposit volume, loan to deposit ratio and bank size which represented by natural logarithm of the value of total asset. The relationship of the variable supported by theoretical basis (i) one is agency theory: states political instability and unrest reduce trust and increase agency conflict within bank authority, in turn impact on bank performance. Second, (ii) institutional theory postulate that weak institutions in politically unstable environment exacerbate risks and inefficiencies in banking operations. Third, risk management framework theory describe as how macroeconomic and bank-specific variables can exacerbate the effect of political instability. Graphical presentation of conceptual framework



Source: own construction (2024)

CHAPTER THREE

DATA AND METHODOLOGY

Introduction

When we discuss about methodology, there is a need to choose possibilities and give sensible argument about method or technique we employ for the study. We have to give reasons for applying why one is selected out of several methods or techniques in the study. We have to reason out for rejecting other methods from using in examination, by the researcher.

The chapter basically focused on what, why and how the entire study was done and also issues such as data sources, definitions of variables, method of data analysis, model specification, and estimations procedures covered in this chapter.

3.1 Data source

Here the main objective of the study is to assess the effect of conflict and political instability on bank performance using empirical evidence from sub-saharan African commercial banks. Due to the nature of the internal factors of the banks, the necessary data used to achieve the targeted objective are secondary data source collected from different organization such as individual bank annual audited report, world development indicator (WDI) and world bank.

Table 1: measurement of variable

Variables	Symbols	Operationalisation (measurement)
Return on assets (bank profitability)	ROA	ROA = Return to Total assets
Independent variable		
Political instability	PS	"The probability of political stability and/or absence of politically-motivated violence, including terrorism"

Control variable		
Bank size	BSIZE	BS = the natural logarithm of the Total Assets
Inflation rate	INF	INF = Annual Inflation rate
Deposit Volume	DV	DV = Deposit To Total Asset
Non Performing Loan	NPL	NPL = Non Performing Loan to Total Loan Portfolio
GDP growth rate	GDPgr	GDPgr= Annual GDPgrowth rate
Loan-to-Deposit Ratio	LDR	LDR = Loan-to-Deposit Ratio

3.2 Method of Data Analysis

The study focused on the effects of political instability on bank performance in sub-saharan Africa. Thus, in this study both descriptive and econometrics techniques are employed to analyse the relationship between variables. Panel econometrics model is fitted to estimate the effects of the various explanatory variables on the measure of bank performance in SSA. Panel econometric model technique gives clear and compelling conclusion by taking advantage of more information such as cross-section and time series data.

3.3 Research design

The choice to be made about what, when, how much and by what means to address research forms is a research design. Research design is an overall strategy and framework to answer the specific objective of the study. It includes the methods, procedures, and techniques used to gather data and hypothesis test, essentially acting as a roadmap for the entire research objective. It considered a brief conclusion of the activities starting from formulating the hypothesis through the final analysis (C.R. Kothari 2004).

In this study, the appropriate research design is correlation design (which means causal research design) and supported by descriptive analysis for context and background. The main objective of

the study is to assess the effect of political instability on bank performance in sub-Saharan Africa countries. To do so, correlation research design is preferred, to briefly examine the effects of the independent variable on the dependent variable. As Nicholas (2011), Correlation design is mainly applied when the relationship among thought to be investigated. Indeed, it depends on the result which is correlation between variables may be positive, negative or none.

3.4 Population of the study

The targeted population of study was all sub-Saharan African countries commercial banks which had been operating during the period of study 2016 to 2023 but, due to unavailability of audited financial statement on their respective website, the study covered forty five commercial banks which three of them are in Ethiopia (CBE, AIB & DB) and the rest forty two commercial banks are the rest SSA namely Kenya, Sudan, Uganda, Rwanda, Nigeria, Tanzania, South Africa, Ghana, Malawi, Zambia, Namibia, Botswana, Zimbabwe, Cameroon

3.5 Model Specification

Choice of the all variables under study and analysis of empirical presentation was based on the theoretical understanding and knowledge about the relationships between variables. Model specification refers to building up of statistical model and functional form used to investigate relation between variables. How do measure bank performance? There are many key performance indicators (KPIs) that banks, credit unions and other financial institutions should employ. Here under listed indicators are used to accurately evaluate performance of banks and other business organizations.

1. Return on asset is (ROA): is the main metric of performance indicator that measure profit of banks generated from all its asset. ROA is the percentage of a bank's net income relative to banks total assets. If the value of ROA is high, the bank generates more income from its asset using more effective ways of asset allocation.
2. Return on equity (ROE): is one of basic metric that measures the return on average equity for a bank performance.

3. Net interest margin (NIM): is a financial metric that measures how well a bank or financial institution generates interest income from its assets compared to the interest it incur to lenders/depositors. It's calculated by dividing a bank's net interest income (interest income minus interest expense) by its total earning assets

Return on asset is preferred for this study due to its broadimplication like comprehensive measure (it take into account overall efficiency of asset utilization) and sensitive to operational change (external factors i.e PIS)in measuring profitability and financial performance. In the study conducted by (Sime et al., 2020) return on assets (ROA) and return on equity (ROE) as dependent on financial performance variables while bank specific factors like non-performing loan, customer deposit, capital adequacy, and loan-to-deposit ratio are related to bank's financial performance.

The specific regression model is presented as follows:

$$ROA = f(PINS, BSIZE, GDPG, INF, NPL, LDR, DV) \dots\dots\dots(1)$$

$$ROA_{it} = \beta_0 + \beta_1 PINS_{it} + \beta_2 BSIZE_{it} + \beta_3 GDPG_{it} + \beta_4 INF_{it} + \beta_5 DV_{it} + \beta_6 LDR_{it} + \beta_7 NPL_{it} + \epsilon_{it} \dots\dots\dots (2)$$

Where:

ROA = Return on Assets

PIS= Political Instability

BSIZE = Bank Size (Log of Total Assets)

GDPG = GDP Growth

INF = Inflation

DV = Deposit Volume

LDR = Loan-To-Deposit Ratio

NPL= NonPerformingLoan

β_0 = Intercept or constant

$i = 1, 2, 3, \dots, 15$ indicating the number of banks that will be used for the study

$t = 1, 2, 3, \dots, 10$ indicating the time period that will be used for this study (2016- 2023)

β_{1-7} = Coefficient of independent variables.

ε_{it} = The error term

3.5.1 Definition of the variable

Bank performance (ROA) –in this study the main objective is investigate the effect of political instability on bank performance by using evidences from panel of sub-Saharan african countries. Bank performance is our dependent variable investigated in this study. Although many bank performance indicators are there, return on asset is (ROA) preferred for this study because of its broad implication in estimating profit and financial performance. In this study, the performance of banks are measured by its own return on assets (ROA) which explained as a ratio calculated by dividing total income by total assets, reflects that how well a bank's management is in transforming bank's investment resources to economic profits (Taşkın, 2011)

$$ROA = \frac{\text{net profit after tax}}{\text{total asset}} * 100\%$$

Political instability (PI) - is one of the determinants of macro-economic variables that influence bank performance (Gyimah-Brempong & Traynor, 1999; Yahya et al., 2017). Components of political violence includes: civil war, government instability, social and economic conditions, investment profile, internal and border conflict, uncertainty in business environment, corruption, unseparate power in politics and religious power, unlawful government authority, ethnic conflict, undemocratic accountability and powerless bureaucracy quality.

According to the world bank report (WGI, 2016), political stability and absence of violence/terrorism index measures the likelihood of political instability and/or politically-motivated violence, including terrorism.

Bank size (BSIZE) –indeed there are many estimators of bank size are available, logarithmic of bank's total assets is selected as preferable one. Authors such as Moges, (2017); Rahman, (2015); Sanlisoy et al., (2017) stated that bank performance and bank size has significant positive relationship. In contrast, Kosmidou et al. (2008) founded that there was negative and significant relationship between bank performance and bank size.

GDP growth rate (GDPgr) –refers to the total money value of all goods and services produced and sold within a country during a specific period of time. According to the conclusion of these studies (Gul, Irshad & Zaman, 2011; Kosmidou, Tanna & Pasiouras, 2008; Moges, 2017; Rahman, Hamid & Khan, 2015; Sanlisoy et al., 2017; Yahya et al., 2017) found that GDP growth rate positively and significantly affect bank performance.

Inflation rate (IR) - is the percentage change in the price of goods and services over time. It's calculated by comparing the price of a basket of goods and services in one period to the price of the same basket in a previous period. Inflation rate is measured by the consumer price index. Davydenko (2010); Kosmidou et al. (2008); Vong and Chan (2006) found that inflation rate has positive and significant effect on bank performance. However, Rahman (2015) argued that inflation rate negatively and significantly effect on bank performance. Other studies (Alper & Anbar, 2011; Moges, 2017) found that there was no significant correlation between political instability and bank performance.

Loan-to-deposit ratio (LDR) - calculated as the proportion of total loan to bank total deposit, denotes bank's available liquid assets that can be used to cover its loan or ability to settle its bankruptcy and payment for customer. On the other hand, it is source of bank revenue that can be increase income of the bank by making bank operations easy and affordable interest for its customers. Basically, the ideal calculation loan-to-deposit ratio is 80% to 90%. A 100% of LDR means all bank deposit received are given loan to bank borrowers. According to Pandia (2012), the loan to deposit ratio showed that how much a bank has allocating money deposit to provide loans to its customers. This shows that how well a bank is allocated its efficient resource utilization and it is effectively attracting and maintaining customers. Some studies have shown that LDR has a positive and significant effect on ROA (Alphonse et al 2015). This is because banks earn interest income from loans, which increases their profits and Other studies have

shown that LDR has a negative effect on ROA related to liquidity risk. For example, Christaria and Kurnia (2016) found that LDR has a strong negative influence on ROA.

$$LDR = \frac{\text{total loan}(\text{credit})}{\text{total deposit}(\text{third party fund})} * 100\%$$

Deposit volume - The total amount of money deposited by customers in a bank, including saving account, current account, and fixed deposit. It is key determinants of bank performance as provided the primary source of funds for lending and investment. The study by Olokoyo (2011) on Nigerian banking found that the volume of deposit has highest influence on commercial banks credit, and any changes will result in a significant change in loans and advances.

$$Dv = \frac{\text{total deposit}}{\text{total asset}}$$

Non-Performing Loan (bank's asset quality) - is defined as credit risk or clearly refers to a loan that is failed to repay the loan due to deliberate or external factors that is beyond the ability of the borrower that may unlikely to be paid back in full or are loans that have not received payments for at least three months. NPLs are worn away a bank's interest income, leading to financial bankruptcy and reduced ability to grant loan for its customers.

According to (Hariyani, 2010) the value of non-performing loans stated that how the bank management are manage credit risk by making kyc analysis provided by banks. So the more the value of NPL ratio, the poor the credit quality of a bank (low return on asset) will be, where the possibility of getting bankruptcy.

$$NPL = \frac{\text{total non - performing loan}}{\text{total loan outstanding}} * 100\%$$

3.6 Econometrics model

The basic focus of the study is examine the effects of political instability on bank's performance in sub-Saharan African countries. Panel econometrics model is longitudinal data set, consists of repeated survey on the same units, such as individuals, homes, businesses, countries, or any other set of organizations that remains consistent over time. In the social sciences, panel data in social science comprises of data obtained from the same individuals or units at numerous times in time,

is frequently utilized to assess theories of individual and group change. According to (Baltagi, 2021) a panel data set is contains repeated observations over the same units collected over agiven period of time. The presence of repeated observations on the same individual allows researchers to specify and estimate more complicated and more realistic models than a single cross-section or a single time series would do. The advantages of using panel data includes(i) controlling for individual heterogeneity, (ii) provide more informative data, more variability, less correlation between the variables, high degrees of freedom and more efficiency, (ii) able to study the dynamics of adjustment, (iii)are superior to recognize and measure impacts that are not easynoticeablein pure cross-section or pure time-series data, (iv) gives us to build and involved more complicated behavioral models than purely cross-section or time-series data. (Menard, 1991) panel data is different from other types of longitudinal data such as cross-section and time serie data. Data consisting of observations gathered on various variables for a single unit at multiple points in time; and "time series" data consisting of observations collected on several variables for a single unit across time. Panel data are different from the fact that they consists measures of the same variables from multiple individuals observed repeatedly in several time (Gujarati, 2003). Compared to cross section analysis, panel analysis has a number of advantages. The following are a few of them:-First, because of unidirectional causation is not proven in many analyses, one of the key motives for evaluating panel data is try to discover the causal ordering between the variables of interest. Second, in cross-sectional analysis, measuring variables at a single time point makes it difficult to establish temporal order and so rule out the possibility that co variation between X and Y is caused by Y or through a reciprocal causal link. However, in panel studies, observing X and Y through time on the same units allows the researcher to construct particular models that must satisfy the time precedence criteria, that is, where earlier values of one variable may affect subsequent values of the other. Third, when reciprocal causation is hypothesized, the panel analyst can estimate non-recursive models with feedback effects between variables with fewer restrictive assumptions than in the cross-sectional case. Panel data can also be used to account for the effects of external variables that may cause the relationship between x and y to be partially or completely false. Fourth, because the analyst can use the additional observations across time to estimate both causal effects and measurement

features of the variables, measurement error models can be estimated with panel data with fewer restrictive assumptions than in the cross-sectional setting.

The base of the model argument is that it to estimate the relationship between two or more independent variables and one dependent variable. Since using a panel fixed effect model, the study can control country specific effects (government quality, legal system) and time specific effects (like global shock). Before regression analysis, several diagnostic tests i.e. multicollinearity test, hausman test, serial correlation test, and heteroskedasticity test will apply. The fixed effect panel model will be use to investigate association between variables. Representing the variables as y and x, it will show how y varies with changes in x. Consideration must be given in identifying the functional association between x and y. Attention for the way of being certain about capturing ceteris paribus relation between y and x is needed. A simple equation is

$$Y_{it} = \alpha + X_{it}'\beta + u_{it}$$

Where Y represents dependent variable (ROA, i at time t), and X represents independent variable for unit i at time t; α was constant term, β was coefficient which represents slope of predictor variables, and u was the error term (scalar). While i denote cross-sections (each countries banks), t represents time-series dimensions (years).

Here is why the researcher choose fixed effect panel model instead of other model is :-

- Theoretical justification: the fixed effect model is designed to control for unobserved heterogeneity that is constant over time within entities (banks). First it removes the influence of time-invariant characteristics (for example, cultural, legal, or institutional difference across banks/countries) that may bias our results if it is missed. Secondly it focuses on the within-entity variation (within banks), which is critical for analyzing the relationship between changes in political instability and ROA over time.
- Hausman statistical test result: the hausman test is used to stasticaly decide between fixed effect and random effect are preferred which mean if the test indicates that the individual effect (bank-specific traits) or (bank-specific heterogeneity) are correlated with the explanatory variable, the fixed effect model is appropriate.

- Avoiding of pooled ols bias: pooled ols model does not account for unobserved heterogeneity and it assumes that all observations are independent. Thus, in panel data (bank nested within countries), this assumption is unrealistic. Therefore, using pooled ols would result in biased and inconsistent estimates and wrong conclusion because it ignores both the panel structure and unobservable fixed effect and/or time effect.
- Validity to the study design: the study examines the effects of changes in political conflicts across countries and banks and other explanation for return on assets. The fixed effect model is better suited to capture these dynamic changes over time, while random effect or pooled ols would dilute this focus.
- It is not the researcher's primary goal: here the primary goal is to measure the immediate effects of political instability on return on asset and direct relationship between political instability and return on asset, thus dynamic model is unnecessary. Second if dynamic model such as GMM introduce lag of dependent variable is significantly influence current ROA, it is not the researcher focus and also it is data-intensive and may not perform well with limited time period.

3.6.1 Fixed effect model

Fixed effect model in panel data is a statistical model that assumes each unit has its own fixed intercept, rather than stochastic conditions. In panel model, where longitudinal observation exist for the same subject, fixed effect represents the subject-specific means. Fixed effect model are a powerful tool for causal inference. Standard regression models result in biased estimates of causal effects when there are unobserved confounders, whereas fixed-effects panel regression provides unbiased estimates when modeling causality because of the use of individuals' within-individual variation.

Here are some assumptions of the fixed effect model:

- The causal effect is constant over time and across all entities (banks)
- The relationship between the dependent variable and explanatory variable is linear
- Individual-specific effects are correlated with the independent variables which is inverse of random effect model

FE estimation builds on the error components model :

$$Y_{it} = \beta x_{it} + \alpha_i + \epsilon_{it}.$$

Here, Y_{it} denotes the observed outcome of individual i at time t , x_{it} is the $(1 \times K)$ vector of covariates of that individual measured at the time, and β is the corresponding $(K \times 1)$ vector of parameters to be estimated. The error term of this model is split into two components. The α_i are stable individual-specific characteristics which not only are often unobserved by the researcher (e.g. cognitive ability, genetics, personality), but also are very often related to the covariates. Therefore, the α_i are unobserved effects capturing time-constant individual heterogeneity. The second component ϵ_{it} is an idiosyncratic error that varies across subjects and over time. The intercept α (person-specific intercepts) that is standard in any regression models is dropped here due to collinearity with the person-specific errors α_i .

3.7 Diagnostic tests

In panel econometrics model analysis, before estimating the empirical model analysis, one has to do a diagnostic tests to ensure that the regression is not spurious. A regression is said to be not spurious when the test diagnostics show promising result while the regression analysis has no meaning (Gugarati, 2003).

a) Endogeneity test

It is a method for determining if there is endogeneity, or a correlation between an error term and each variable, in a model. Endogeneity can occur when an unobserved individual variable affects both the treatment and the outcome. Some endogeneity tests include:

Durbin-Wu-Hausman (DWH) test

DWH test is a statistical hypothesis test used to evaluate the consistency of an estimator in econometrics. It's also known as the Hausman specification test. The null hypothesis is the independent variable are exogenous.

b) Cross-sectional dependence test

A cross-section dependence test in a fixed panel model is a statistical test that determine if the units in a cross-section are correlated. It can be caused by unobserved common factors, such as technological change, world price, or risk-free interest rates. It can lead to inconsistent and biased

estimators. The null hypothesis of perasan's cross-sectional dependence is the residual across the banks are not correlated.

c) Autocorrelation test

In regression analysis we assume that there is no serial correlation among the error terms meaning that the error terms from period (previous year) are not correlated with the error terms from adjustment time periods. Durbin-watson test for fixed effect panel model is used to test the serial correlation between the error terms. The null hypothesis of the durbin-watson test is that the residuals are not serially correlated.

d) Heteroskedasticity test

The heteroskedasticity test enables us to check whether the variance of the error term is constant over time. For fixed effect panel econometrics model we use modified wald test to investigate whether the assumption of homoscedasticity of the error terms is satisfied or not. The null hypothesis of wald test is all the explanatory variables in the model have no joint effect on the dependent variable. If the null hypothesis is rejected, it indicates that at least one of the coefficient is significantly different from zero this in turn violates the assumption of the model.

e) Multicollinearity test

Multicollinearity test used to looking out the correlation of each explanatory variable used in the regression model. The existence of perfect multicollinearity can cause many predictor variable do not have a significant effect on dependant variable and unreliable coefficient estimates although the coefficient of determination is high. Thus, it tests how well one independent variable can be represented by the other independent variable.

f) Hausman test

The hausman specification test is named after James Durbin, De-min Wu, and Jerry A. Hausman. The purpose of hausman test is to determine whether random effect model or a fixed effect model is more appropriate in a given dataset. The null hypothesis of the hausman test is that the preferred model is random effect, while the alternative hypothesis is fixed effect that better fits for the panel data. If the null hypothesis is not rejected, then the efficient estimator under this study is supported by the data. If the null hypothesis is rejected, then misspecification is detected and neither estimator is supported by the data.

CHAPTER FOUR

4. DATA ANALYSIS AND DISCUSSION

Introduction

The previous chapter presents the research design and methodology employed to achieve the objective of the study and also to test the hypothesis of the research. Basically, this chapter analysis the effect of political instability on bank performance in sub-saharan Africa using annual data from 1916-2023. The researcher collected necessary data from national bank of Ethiopia (NBE), audited annual report and also World Development Indicator (WDI).

4.1. Descriptive Statistics

Table 4.1 below showed detailanalysis of descriptive statistics of bank's performance and its determinants, with regarding their mean, standard deviation, minimum, and maximum values. There are 360 total observations spanning 45 banks over 8 years of time period from 2016 to 2023.

Table 2:Summary of Descriptive statistics of bank's performance and its determinants

Variable	Obs	Mean	Std. dev.	Min	Max
ROA	360	2.368417	1.472241	-5.34	7.66
PS	360	-.5938889	.9033311	-2.5	1.2
GDPgr	360	3.323083	3.893597	-12	11.9
INF	360	26.4516	70.6348	-1.5	557.2
BSIZE	360	8.028608	1.777935	5.16	12.12
DV	360	.7311439	.2710134	.0580856	4.5
LDR	360	.6978248	.2716661	.1238148	3.516753
NPL	360	5.142639	4.145137	.03	27.6

Source: Authors Computation

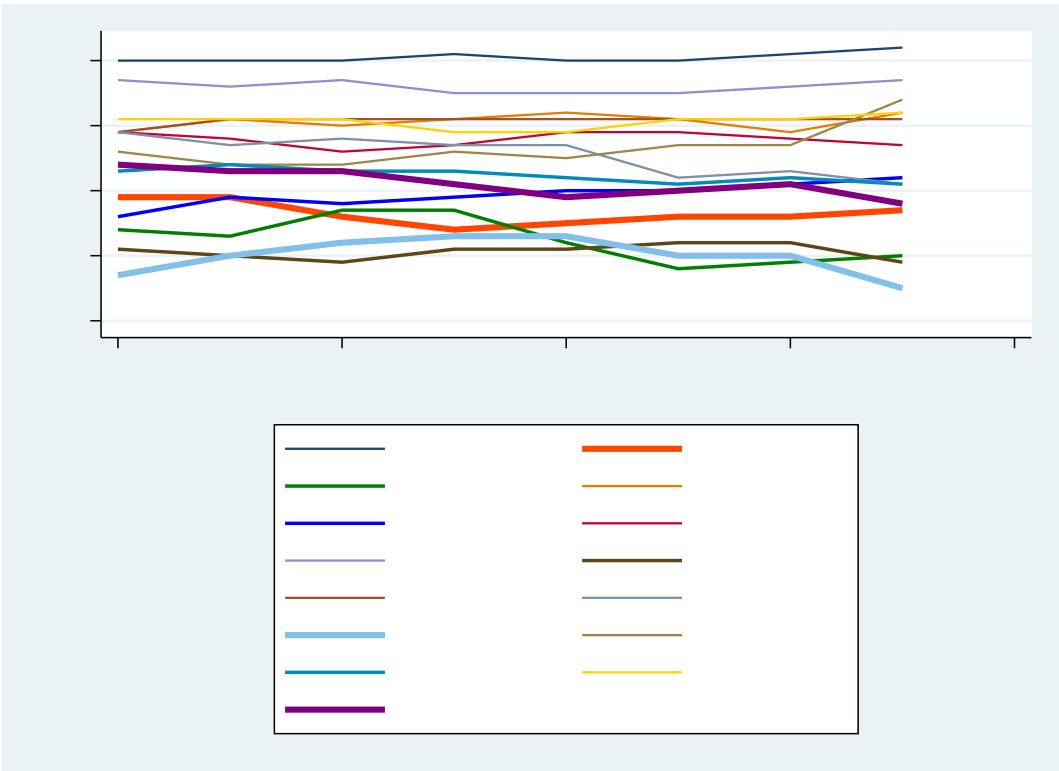
From the table 4.1 above the value of political stability and absence of terrorism index ranges between a minimum value -2.5 and maximum value 1.2, which results its mean -0.59 and standard deviation 0.90. A negative value of mean indicates the trend of political situation in sub-Saharan Africa have a significant variation, which influences a bank's performance by

affecting economic stability, and a higher standard deviation shows there is high variability of political stability across countries.

The average rate of ROA is low, which shows a modest performance of banks that indicates banks are generating a small return relative to the assets, and a negative minimum value indicates some banks may face losses, which could be caused by political stability of a country.

In general, table 4.1 describes that, banks size and economic growth rate in sub-Saharan Africa countries have been explained by large amount of values respectively over this study period. In addition to this, inflation and political stability and absence of terrorism have higher standard deviation with respective to their mean, which indicates that, sub-Saharan Africa have experienced higher variations of inflation and political stability and absence of terrorism across a countries. Inflation rate have experienced the lowest level of inflation rate -1.5 and the highest value of 557.2 percent in the study period of 2016-2023.

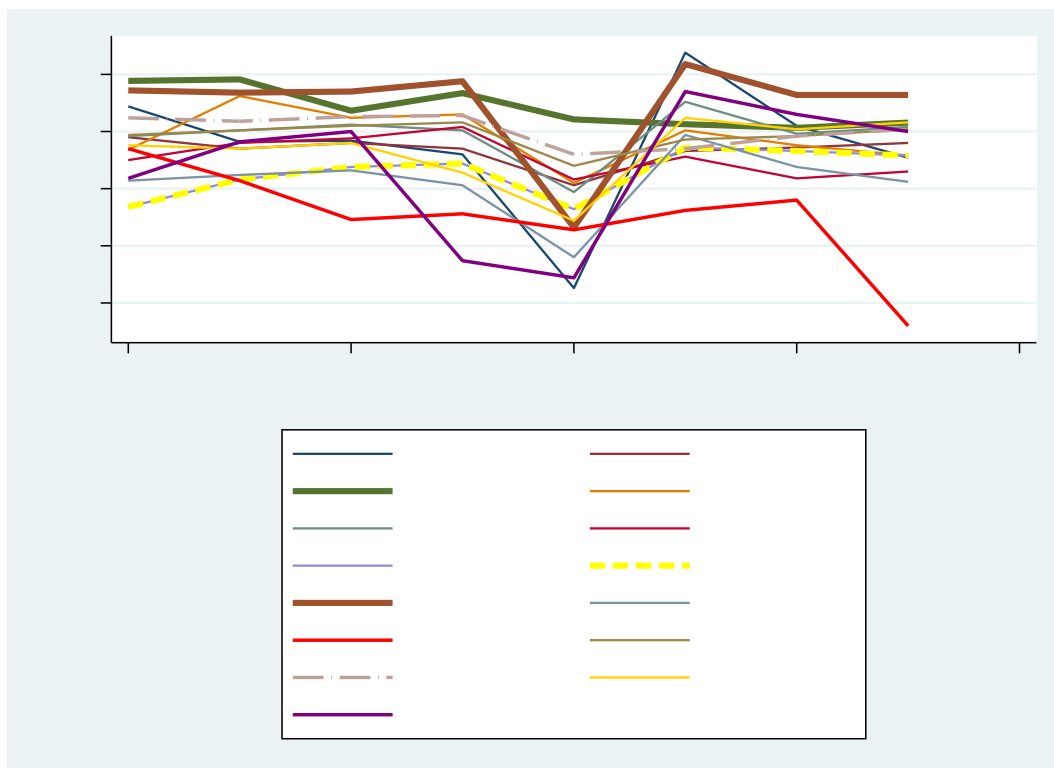
Figure 1 :trends of political stability and absence of terrorism across a countries



Source; Authors computation (2024)

Figure 1 shows trends of political stability and absence of terrorism across a countries in sub-Sahara Africa countries from 2016 to 2023. The general trends of political stability and absence of terrorism shows some fluctuations over the study periods, which indicates generally low stable political environment across many of the countries. A country Botswana and Namibia shows a higher political stability with compared to other countries included in this study. In contrast, Ethiopia, Nigeria, and Sudan were experienced higher fluctuation political instability respectively due to ongoing political unrest and internal security challenges which hinder effective governance. In addition to this cameroun also experienced declining political stability around 2019, which linked to internal conflicts. Most likely, Rwanda, Ghana and Zambia were experienced relatively stable political stability, indicating the consistency of governments despite internal and regional challenges.

Figure 2: trends of GDP growth rate across countries

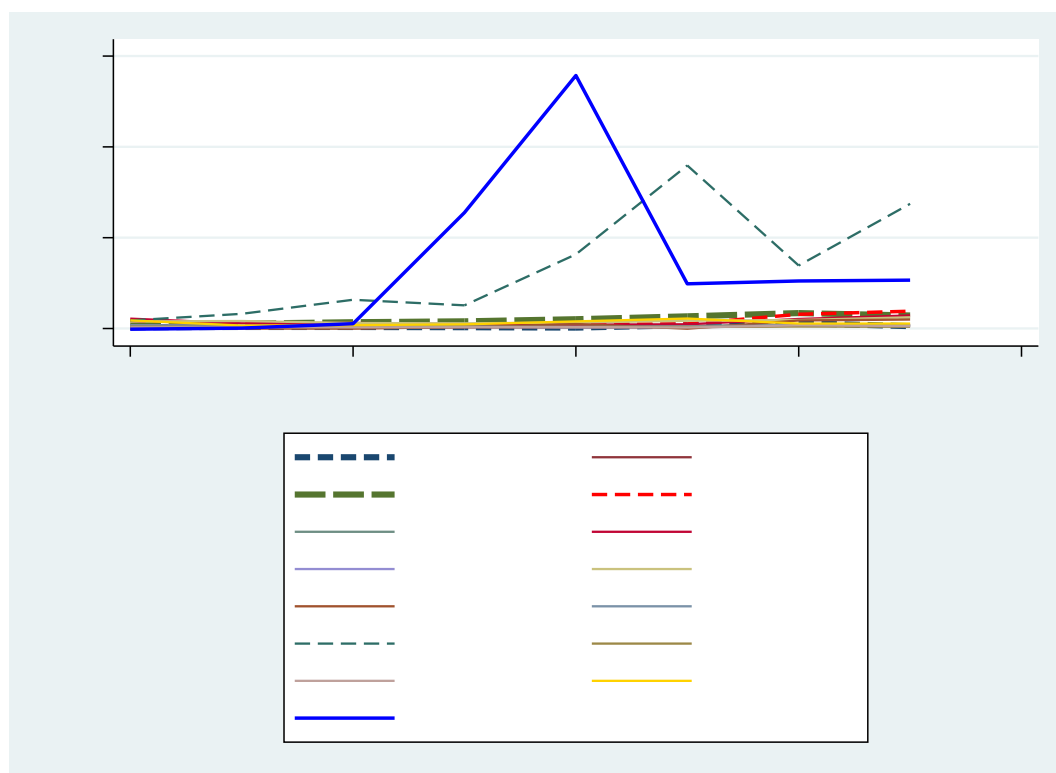


Source; Authors computation

Figure 2 indicates, trends of GDP growth rate across sub-Saharan African countries from 2016 to 2023, with a notable fluctuations. Many of countries were experienced a significant

changes(economic recession) in their economic growth rate, particularly in 2020 which is due covid 19 crisis. Uganda and Tanzania indicated relatively stable economic growth rate in this study period. However, Ethiopia has initially strong economic growth rate but fluctuated between 2017 and 2019 and declined after 2019, reflecting the effects of internal conflicts but relatively to other under study contries it is stable. In contrast, Sudan experienced a sharp declining after 2022, which reflects the result of countinuesinternalconflict and political unrest of a country.

Figure 3 :trends of inflation rate across countries



Source; Authors computation (2024)

Figure 3 indicates the trends of inflation rate across sub-Saharan African countries from 2016 to 2023, notably, Zimbabwe and Sudan experienced higher inflation rate during 2020. This is due to global economic shocks (remember that the great recession period covid 19) combined with the government's miscalculations led to Zimbabwe's collapse into hyperinflation in 2020. Similarly in Sudan due to covid 19 global economic crisis inflation reached hyperinflation during the beginning of 2021.

4.2 Diagnostic Test

4.2.1 Test of Endogeneity

To identify whether the regressor or independent variables are exogenous or endogenous, the researcher used Durbin Score test and Wu-Hausman test.

Ho: The regressor or independent variables are exogenous, meaning there is no correlation between independent variable and error term.

H1: The regressor or independent variables are endogenous, meaning that the independent variables are correlated with the error term.

Table 3 :Endogeneity Test

Tests of endogeneity
H0: Variables are exogenous
H1: variables are endogenous
Durbin (score) $\chi^2(2) = 4.69295$ ($p = 0.2595$)
Wu-Hausman $F(2,354) = 2.33784$ ($p = 0.2651$)
Source: Authors Computation (2024)

Table 3 shows that the result of endogeneity test obtained from STATA. The value of test statistic for both Durbin Score and Wu-Hausman test for bank's performance model are greater than the critical value of 5% level of significant. Therefore, it's important that the null hypothesis could not be rejected and the conclusion is that, independent variables are not endogenous for bank's performance model.

4.2.2 Cross-section Dependence Test

To identify whether the residuals are correlated across the banks or not, the researcher used Pesaran's cross-section dependence (CD) test. These cross-section dependence is a problem in macro level data and can lead to bias in test results (Baltagi, 2021). The null hypothesis of Pesaran's cross-section dependence is the residuals across banks are not correlated/ the residuals are cross-sectionally independent.

Table 4 : Pesaran’s cross-section dependence (CD) test for bank’s performance

ROA cross section independence
Pesaran's test of cross sectional independence = 1.683, Pr = 0.0898
Average absolute value of the off-diagonal elements = 0.362
Source: Authors Computation (2024)

From Table 4 the p-value is greater than 5% significant level. This suggests, there is no evidence to reject the null hypothesis that, the residuals across banks are not correlated or the residuals are cross-sectionally independent. Therefore, the Pesaran’s that the panel data does not suffer by cross-section dependence.

4.2.3 Multi-collinearity Test

Table 5 : Multi-collinearity Test

Variable	VIF	1/VIF
INF	1.46	0.682611
GDPgr	1.37	0.728090
PS	1.26	0.791723
BSIZE	1.23	0.810313
DV	1.04	0.960989
NPL	1.09	0.919446
LDR	1.06	0.943432
Mean VIF	1.22	

Source: Authors Computation (2024)

To check the presence of multi-collinearity between independent variables or not Variance Inflation Factor (VIF) was used. The result shown from Table 5, all the VIF values of all

independent variables are less than 10 and thus they are retained in the model. Therefore this indicates there is no multi-collinearity problem in the model.

4.2.4 Heteroskedasticity Test

Table 6 : Heteroskedasticity test

Breusch–Pagan/Cook–Weisberg test for heteroskedasticity

Assumption: Normal error terms

Variable: Fitted values of ROA

H0: Constant variance

$\chi^2(1) = 55.24$

Prob> $\chi^2 = 0.0000$

Source: Authors Computation (2024)

To test heteroskedasticity, the Breusch–Pagan/Cook–Weisberg test was used. From table 6, there is heteroskedasticity problem in the model at 5% level of significance, since there is no evidence to reject the null hypothesis. In general, the model has a problem of heteroskedasticity. To fix this problem, the researcher used robust standard errors to estimate the coefficients in the model and to control the heteroskedasticity problem in the model.

4.2.5 Autocorrelation Test

Based on the Wooldridge test we have the following hypothesis

H0: No first order autocorrelation Vs. H1: There exist an autocorrelation

The presence of autocorrelation is tested using Wooldridge test of autocorrelation. According to the result on table 4.6, P-value of bank's performance is greater than 5% level of significance. This indicates that there is no first order autocorrelation on bank's performance model. Therefore, there is no first order autocorrelation in bank's performance.

Table 7 : Autocorrelation test

Wooldridge test for autocorrelation in panel data
H0: no first order autocorrelation
$F(1, 44) = 3.956$
Prob> F = 0.0529

Source: Authors Computation (2024)

Table 8 : Correlation Matrix

Variables	ROA	PS	GDPgr	INF	BSIZE	DV	LDR	NPL
ROA	1.000							
PS	0.1063	1.000						
GDPgr	0.1200	0.1536	1.000					
INF	0.1166	-0.2844	-0.4770	1.000				
BSIZE	-0.0915	-0.3355	0.1301	0.0735	1.000			
DV	-0.0127	-0.0747	-0.0641	-0.0226	-0.1045	1.000		
LDR	-0.1453	0.0816	-0.0116	-0.1378	-0.0376	-0.0306	1.000	
NPL	-0.1554	-0.0066	-0.0036	-0.1255	-0.1570	-0.0454	-0.1337	1.000

Source: Authors Computation (2024)

Table 8 correlation matrix provides the strength and sign of the relationship between the bank performance (ROA) of commercial banks in selected sub-Saharan African Countries and independent variables and between independent variables. Political stability and absence of terrorism (PS), GDP growth rate (GDPgr), and inflation rate (INF) have low positive relationship with bank's performance (ROA). Conversely, banks size (BSIZE), loan to deposit ratio (LDR), deposit volume (DV), and Non-performing loan (NPL) have negative relationship with bank's performance (ROA), which suggests that higher bank's size (BSIZE), higher loan to deposit ratio (LDR), deposit volume (DV), and increased non-performing loan (NPL) are associated with low bank's profitability (ROA) of commercial banks in selected sub-Saharan African Countries.

4.3 Model Specification

Based on the objective of the research and research question, the panel data model FE and RE model for the analysis are more preferred than other panel data models. Why FE and RE models

preferred choice are FE model is more precise to account for the unobserved time invariant factors (banks specific characteristics) that affect bank's performance, and capture heterogeneities across banks, and RE model embodies unobservable disturbances that account for individual differences.

To assess the empirical evidence on the effects of political instability on commercial bank's performance in case of some selected sub-Saharan Africa countries, panel data econometrics, particularly fixed and random effects models are used. As discussed in the previous section, panel data model examines group (individual specific) effect, time effect, or both in order to deal with heterogeneity or individual effect that may or may not be observed. These effects are either of fixed or random effect. Fixed effect examines when intercepts vary across a group, whereas random effect deals differences in error variance components across individual or time period. The main difference between fixed and random model is the role of dummy variables. A dummy variable parameter is a part of intercept in fixed effect and error component in random effect model (Park, 2011).

Bruesch and Pagan Lagrangian multiplier test is used for checking the presence of cross section correlation or not, or panel effect or not, and for the choice of preferred model between pooled OLS and RE model (Torres-Reyna, 2007 & Park, 2011).

H0: Variances across banks is zero/ no panel effect/OLS is appropriate

H1: Variances across banks is different from zero/has panel effect/ RE is appropriate

Table 9 : Bruesch and Pagan Lagrangian multiplier test

Breusch and Pagan Lagrangian multiplier test for random effects		
ROA[banks,t] = Xb + u[banks] + e[banks,t]		
Estimated results:		
	Var	SD = sqrt(Var)
ROA	2.167494	1.472241
e	.9329224	.9658791
u	.8376411	.9152274
Test: Var(u) = 0		
	chibar2(01) =	177.44
	Prob > chibar2 =	0.0000

Source: Authors Computation (2024)

From Table 9Bruesch and Pagan Lagrangian multiplier test P-value is 0.0000, and significant at 5% level, so there is random effect/variances across banks is different from zero.

In order to select either of FE or RE model, the author have been used Hausman specification test. Hausmanexamines, the selection between FE and RE models based on the inter-variance and intra-variability. FE model was selected if Pro.>chi-square is greater than 5% level of significance, unless RE model is preferred.

H0: The preferred model is RE Vs. H1: The preferred model is FE

Table 10 : Hausman Specification test for model selection

Test of H0: Difference in coefficients not systematic	
chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B) =	57.89
Prob> chi2 =	0.0000

Source: Authors Computation (2024)

Table 10 indicated that Prob>Chi-square of Hausman test is less than 5% level of significance. Therefore, FE model is preferred rather than RE model for this research.

4.4 Result and interpretation

In this section, the study discusses on the result of appropriate econometric model in case of sub-Saharan African countries. Based on table 4.9 above, the preferred estimation is fixed effects model. Regarding to the estimation results, the analysis shows the effects of political instability on commercial bank's performance in case of some selected sub-Saharan Africa countries for 45 banks from 15 countries over 360 observations.

In the FEM, the most relevant R^2 , explaining the variation in the dependent variable is within group; which is 20.5 percent; indicating the model contains variables that could determine the variation in the dependent variable. The F-test indicates that the null hypothesis of the fixed effects coefficients are zero or individual-specific effects do not contribute significantly to the model, is rejected which indicates that at least one independent variables has a significant impact on banks performance in selected Sub-Saharan African countries, and the FE model provides a robust estimate.

Table 11 : results of FE model

variables	Coef.	Robust Std.err.	t	P > t	[95% Conf. Interval]	
PS	.7945653	.3061499	2.60	0.013**	.1775607	1.41157
GDPgr	.0332893	.0234605	1.42	0.342	-.0139923	.0805709
INF	.0018094	..0018835	0.96	0.163	-.0019866	.0056054
BSIZE	1.269009	.4475326	2.84	0.007*	.3670661	2.170951
DV	.4155111	.2056388	2.02	0.049**	.0010732	.8299489
LDR	.7390652	.2386559	3.10	0.003*	.2580859	1.220045
NPL	- .0503676	.0281115	-1.79	0.080**	-.1070226	-.0062873
cos	- 8.067072	3.712725	-2.17	0.035	-10.89668	-5.23746

sigima_u		2.5679552
sigima_e		0.96587908
Rho		0.87606175
R-squared	Within	.2050
	Between	.0230
Overall		.0020
F-test F(7, 44)		6.52*

Source: Authors Computation, coefficient with *5% significant, **10% significant

From table 4.10, the coefficient of political stability and absence of terrorism have a positive (0.79) value and significant impact on a commercial bank's performance in selected sub-Saharan African countries at 5% significant level. This mean that, political instability negatively affects bank performance in sub-saharan Africa. A one percent change in political stability and absence of terrorism is associated with approximately a 80 percent increase in the commercial bank's performance holding all other variables constant. This is due to the fact that stability of political invironment of countries experienced better bank performance or profitability. On the other hand, unstable political environment hinder the profitability and obstacle for banking objectives. This finding is in line with a previous studies such as Rother et al., (2016), Huang (2019), Hasanov and Bhattacharya (2019), Gobat and Kostial (2016), Chawdhury (2015), Mbaku (2016), and Sanlisoy, Ayden &Yalcinkaya (2017) they found that political instability and absence of terrorism have negative and significant impact on bank's performance. This the positive and significant impacts of political stability and absence of terrorism on bank's performance (ROA) in sub-Saharan African countries indicates that, bank's should have confidence in a situation of political certainty only by adjusting banks strategies and policies. However, Mengistu N., (2020), Yahya et al. (2017), and Campos et al., (2012) that political instability and presence of violence has a positive contribution for bank's performance, which contrast this finding

Bank's size, and deposit volume, have a positive and significant impact on bank's performance, in sub-Saharan African countries. Banks size shows positively and significantly affect bank's performance at 5% level. A 10 percent change in bank's size is associated with a 12.7 percent increase in the commercial bank's performance holding all other variables constant. This result is

similar with a previous study findings, such as Shifa (2019), Alene (2020), Moges, (2017), Rahman, (2015), and Sanlisoy et al. (2017) found that bank size has positive significant impact on bank's performance. In contrast, Kosmidou et al. (2008) founds that bank size have negative impact on bank's performance. And also, deposit volume, has a positive and significant impact on bank's performance at 10 percent level.

Loan-to-Deposit Ratio and Non-Performing Loan have a positively and negatively affect bank's performance, respectively at 5 percent level. A 10 percent change in loan-to-deposit ratio is associated with a 12.7 percent increase in the commercial bank's performance holding all other variables constant. Moreover, 10 percent change in non-performing loan exhibit's, 0.5 decrease in the commercial bank's performance holding all other variables constant. The result of non-performing loan has in line with a study by Hariyani (2010), which is a negative impact on bank's performance.

However, GDP growth rate (GDPgr), and inflation rate (INF) variables were not statistically significant effect on the commercial bank's performance in selected sub-Saharan African countries in this study period.

CHAPTER FIVE

Summary, Conclusion and Recommendation

5.1. Summary of Major Findings

The main objectives of this study was aimed to assess the effects of political instability on commercial bank's performance in the case of some selected 45 bank's from 15 sub-Saharan Africa countries. The study covered between 2016 and 2023 the top three bank's from each country. Fixed effects model was chosen based on theories, appropriate model specification and by using test results. Accordingly, the following key findings were derived from the analysis.

Political stability and absence of terrorism has a positive and statistically significant effect on bank's performances measured by ROA. It indicates that stable political environment plays a vital role to increase bank's performances. Bank's size, deposit volume, and loan-to-deposit ratio have also positive and significant effect on bank's performance. In contrast, non-performing loan has negative and significant effect on bank's performance.

However, GDP growth rate, and inflation rate variables were not statistically significant effect on the commercial bank's performance in selected sub-Saharan African countries.

5.2. Conclusion

How political instability affects the overall bank's performance in general have been a source of debate among economists and an issue for empirical study in applied research.

In conclusion, the assessment of the effects of political instability on commercial bank's performance in the case of some selected 45 bank's from 15 sub-Saharan Africa countries reveals key findings. Political stability and absence of terrorism, bank's size, deposit volume, and loan-to-deposit ratio plays a vital role to increase commercial bank's performance in sub-Saharan African countries. In contrast, non-performing loan has negative and significant effect on bank's performance, and GDP growth rate, and inflation rate have no significant effect on bank's performance. Overall, these findings emphasize the importance of stable political environment, higher banks size, increasing deposit volume, loan to deposit ratio are a key issues of increasing bank's performance. These demonstrates commercial banks engage different expansion strategies that affect bank's performance.

5.3. Recommendation

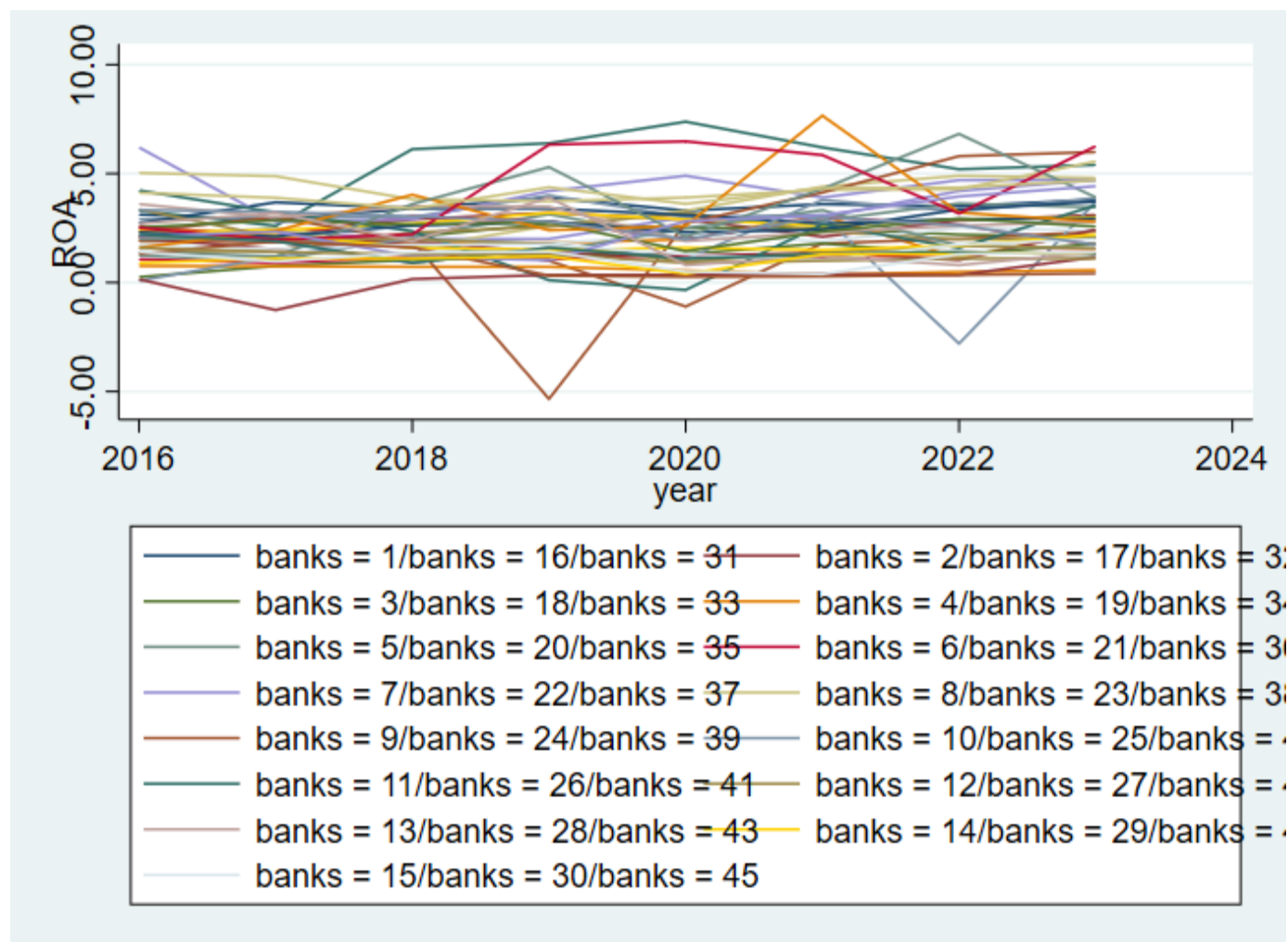
Based on the findings, the study has recommendations to banks management teams, policy makers, investors in banking sectors.

- Government should have prioritize policies and strategies to reduce political instability. Political stability creates a conducive environment for investment and banking operation, reduce risks, and fosters economic growth, which can positively effect on bank performance.
- Banks should emphasize more on significant internal factors or determinants that impact profitability of banks.
- Banks should have give primary motive on enhancing regulatory and risk management frameworks related to political instability consequence.
- In bank industry, non-performing loan during instability period is distress thus, they must give more attension because of negative consquence .

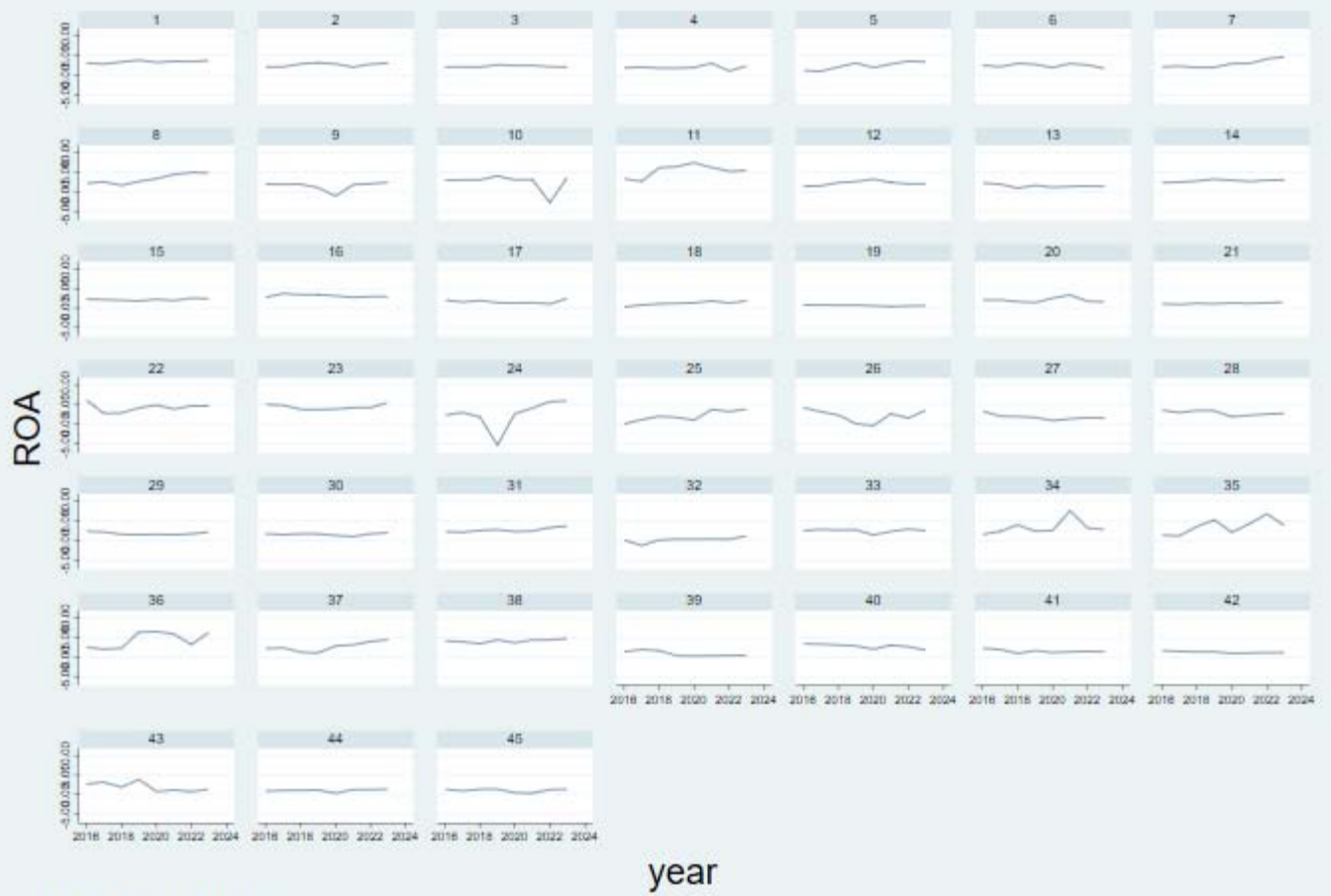
- Further research should explore the long term effect of political instability on banking sector development, using alternative econometrics model.
- Researchers can analyze the effect political instability on bank's performance by exploring the individual political instability variables .

Appendex

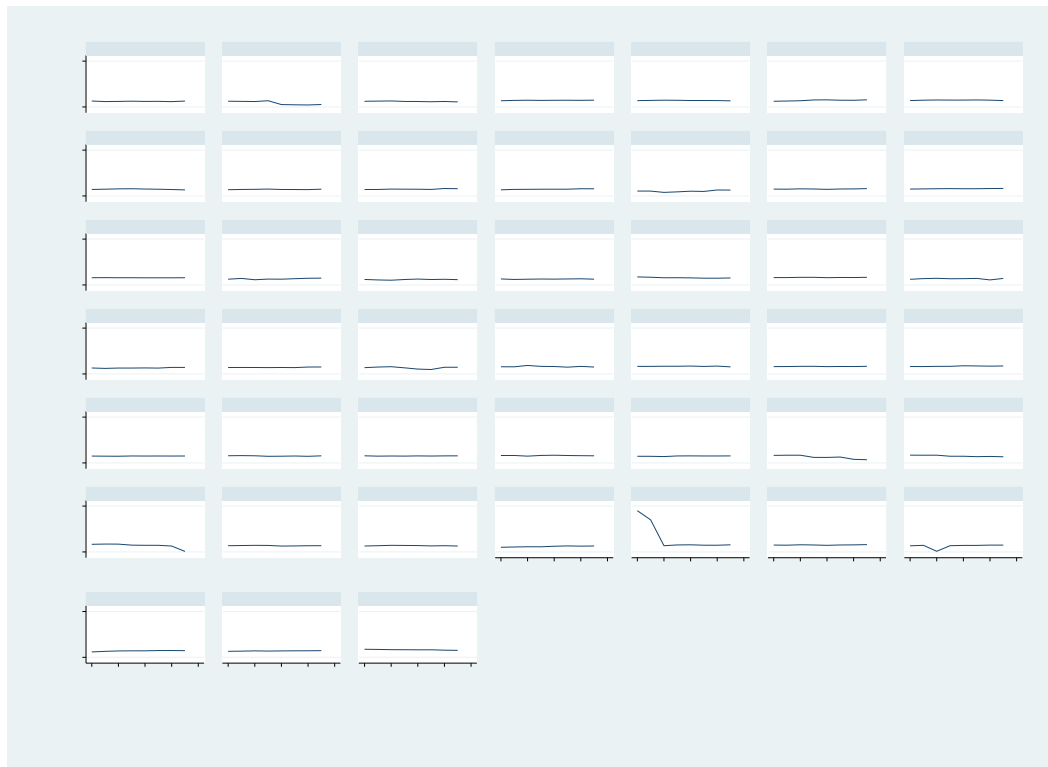
Appendex 1. Trends of return on asset together



Appendix 2. Trends of ROA for individual banks



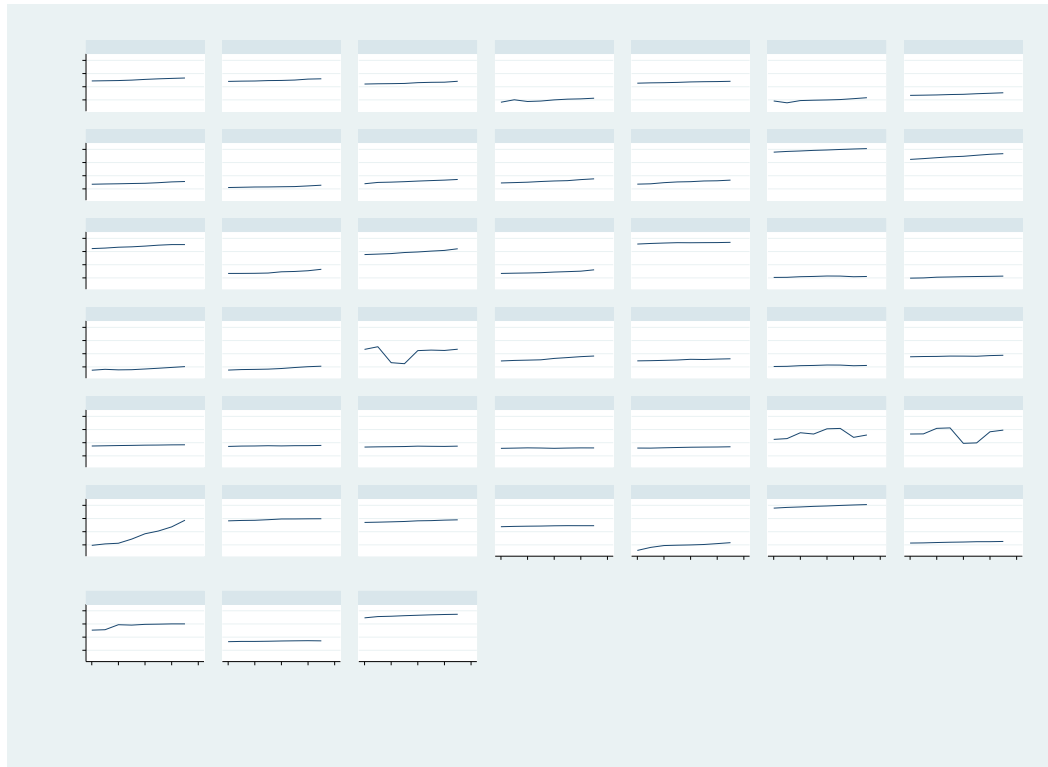
Appendix 3. Trends of individual bank volume of deposit



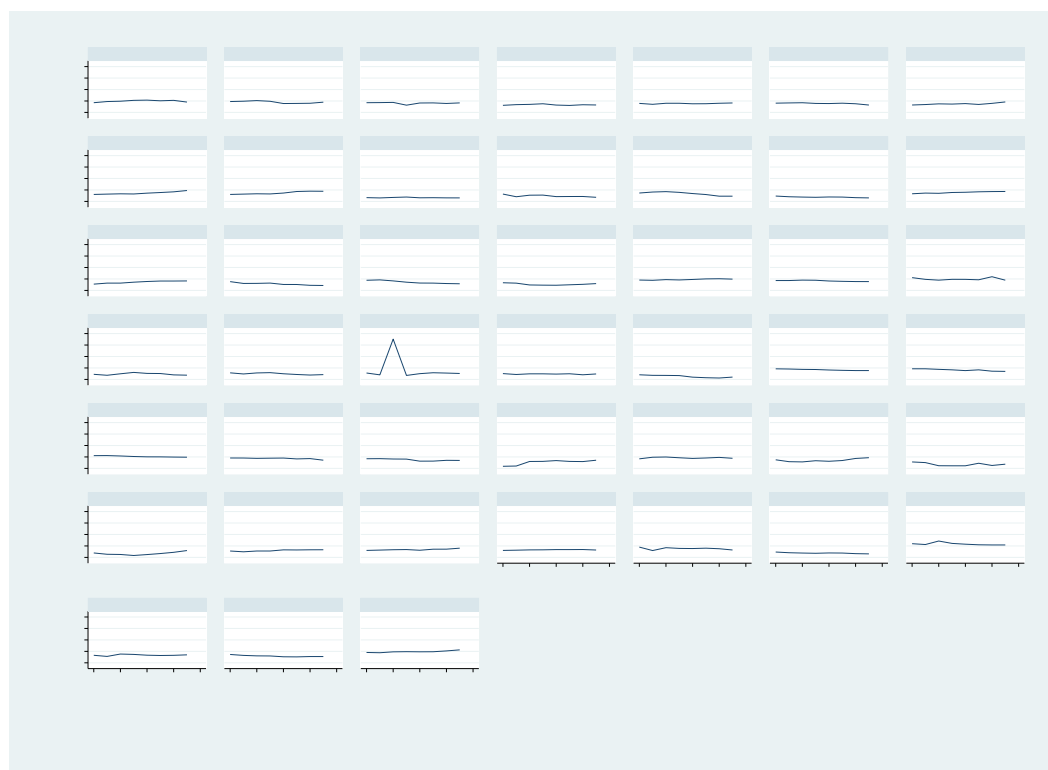
Appendix 4. Trends of NPL for individual bank during the period of study



Appendix 6. Trends of bank size during period of study for individual bank



appendex 7. Trends of loan to deposit during period of study for each banks



Note: Bank code and its representation

Bank	bank code
Bank of kigali of Rwanda	1
Bpr of Rwanda	2
I and M bank of Rwanda	3
Equity bank of Kenya	4
Cooperative bank of Kenya	5
Commercial bank of kenya	6
Nmb of Tanzania	7
Crdb of Tanzania	8
Nbc of Tanzania	9
Gcb of Ghana	10
Eco bank of Ghana	11
Absa of Ghana	12
Commercial bank of Ethiopia	13
Awash international bank Ethiopia	14

Dashen of Ethiopia	15
Zenith bankNigeria	16
Acces bank of Nigeria	17
First bank of Nigeria	18
Standard bank of south Africa	19
First rand bank of south Africa	20
Absa bank of south Africa	21
Standard bank of Malawi	22
National bank of Malawi	23
First capital bank of Malawi	24
Zenaco bank of Zambia	25
Standard character of Zambia	26
Firstrand bank of Zambia	27
Fnb bank of Namibia	28
Windhock bank of Namibia	29
Standard bank of Namibia	30
First bank of Botswana	31
Standard character of Botswana	32
Absa bank of Botswana	33
Nmb bank of Zimbabwe	34
Cbz bank of Zimbabwe	35
Stanbic bank of Zimbabwe	36
Stanbic bank of Uganda	37
Contentary bank of Uganda	38
Standard character of Uganda	39
Kcb bank of Sudan	40
Commer bank of Sudan	41
Ahli united bank of Sudan	42
Bank of Africa of Cameroon	43
Ecobank of Cameroon	44
Union bank of Cameroon	45

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