

**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**

**Capital Markets Integration in Developing Countries: Lessons for  
Ethiopia**

Yabsira Dereje

A THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF  
SCIENCE IN ACCOUNTING AND FINANCE

**ADDIS ABABA, ETHIOPIA**

**November, 2022**

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Advisor: Temesgen Worku (PhD)

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**Signature page**

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## **Acronyms and Abbreviations**

AABE=	Accounting and Auditing Board of Ethiopia
AAU=	Addis Ababa University
ARII=	African Regional Integration Index
ASEAN=	Association of South East Asian Nations
AU=	African Union
BVRM=	Bourse Regional de Valuers Mobiliere
CMPIT=	Capital Market Projects Implementation Team
COMESA=	Common Market for East and Southern Africa
COSSE=	Committee on Stock Exchange
EAC=	East African Community
IFC=	International Finance Corporations
IFRS=	International Financial Reporting Standards
IOSCO=	International Organization of Securities Commissions
MIP=	Minimum Integration Program
NBE=	National Bank of Ethiopia
RECs=	Regional Economic Communities
SADC=	Southern African Development Community

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## **Abstract**

*This study aimed at drawing lessons from the capital market integration experiences of East African Community (EAC) and Association of South East Asian Nations (ASEAN), and recommending to Ethiopia. To do so, the study raised research questions on the capital market integration experiences of the two Regional Economic Communities (RECs), the possible long run and short run relationship between stock traded value and other explanatory variables such as liberalization, macroeconomic factors, and regulatory qualities, and finally what lessons Ethiopia can learn from EAC and ASEAN experiences. To address these questions, the study used a convergent parallel mixed research design, which used both qualitative (document and audio-visual data review) and quantitative (panel ARDL) methods. The data of the study were entirely secondary data. As such, the study found out that the regional capital market integration in EAC and ASEAN states is consolidating from time to time and amelioration in members' financial system and crisis prevention capacity, especially in ASEAN, was observed; there is also a statistically significant long run relationship between stock traded value and macroeconomic variables and regulatory qualities, and lessons such as the necessity of capital market integration or cooperation, especially with RECs like Common Market for Eastern and Southern Africa (COMESA), prudent macroeconomic policies and regulatory frameworks were drawn for Ethiopia. Finally, the study wrapped up recommending the necessity of participating in regional cooperation and integration of stock markets and reconsidering the viability of Ethiopia's macroeconomic policies and regulatory frameworks through the lenses of liberalized financial system.*

**Key Words:** Capital Market Integration, Developing Countries, EAC, ASEAN, Ethiopia

## **CHAPTER ONE: INTRODUCTION**

### **1.1. Background of the Study**

The development of capital market has a significant effect on the economic growth of several developing states in Africa and Asia. In this regard, Enisan & Olufisayo (2009), in their study on seven sub-Saharan African states, argued that stock markets have the potential to exceed economic growth in considered African states. Similar results were also found in the case of ASEAN states (Siti Muliana, 2017). However, stock markets, unless they are managed cautiously, could also entail crises.

Due to an ever-increasing financial globalization of our world, the financial activities of the developed and emerging stock markets are interlinked. Whether or not this financial globalization intricate merits or demerits to developing countries is a point of debate among scholars in the area. Among the proponents of financial globalization, Mishkin (2008) and Schumkler (2003) stated that even if the possible threat of financial crises is evident to developing states financial globalization has the capacity to bring betterment in an overall financial system if it is wisely managed.

The complex nature of capital markets poses an expected challenge to developing countries across the world. Mentionable among these impediments are the existence of unconducive macroeconomic and business environment, inefficiency of financial institutions' quality and infrastructure, bureaucratic inconveniences in listing and issuance, lack of knowledge and transparency in capital markets, and exaggerated transaction costs (Songwe, 2014 & Soumare, Kanga, Tyson, & Raga, 2021). The above-mentioned pitfalls accompanied with the sheer negligence by international financial organizations and financial stability board to cherish technical and financial assistance to developing states, especially SSAs, aggravated the underdevelopment of capital markets in developing countries (Songwe, 2014).

Taking the challenges faced by developing countries' capital markets in to account, a plethora of regional initiatives have been instigated across different developing states in Africa, Asia and Latin America. Regional capital markets integration is financial integration within a region or Regional Economic Communities (RECs henceforth) may be characterized as a market or institutional

driven process of extending and deepening financial interrelationships (Onyuma, 2006 & Soumare et al, 2021). As various studies mentioned, integration of capital markets has a lot of bonanzas, of which facilitation of free movement of capital across a region and investment opportunities, enhancement of marketability of securities, support to domestic exchanges and decrease in transaction and operational costs are worth noting (Onyuma, 2006). Soumare et al (2021) also enumerated merits of capital markets integration such as enlargement of markets, betterment of financial infrastructures, financial service offerings' diversifications, escalation in capital markets efficiency and innovation, and amelioration in macroeconomic variables. In this discourse of stock market integration in developing states, the issue of timing also raised. Al-Nasir & Hajilee (2015) argued that the integration attempt of emerging capital markets should be a long-term plan.

In Africa, different RECs have instituted regional stock markets. For instance; in South Africa, SADC has set up Committee on Stock Exchange (COSSE); in West Africa, the Bourse Regionale De Valuers Mobiliere (BVRM) was established by eight francophone states in 1998; and in East Africa, East African Communities (EAC) has organized the East African Member States Securities Regulatory Authorities (EASRA) (Onyuma,2006). In Asia, the capital market integration is also exercised by members of ASEAN as a remedy to the possible recurrence of financial crises as of the 1997 Asian Crises. This Asian REC commenced the idea of instituting ASEAN Economic Community in 2015 (Binh & Park, 2014). To conclude, developing countries in Africa and Asia are involved in to the regional integration of capital markets to reap the opportunities it creates and to use the shield it brings to combat possible crises.

Coming to the case of Ethiopia, it has ratified capital market proclamation the scrutinization of the drafted proclamation on capital market in 2020 (Capital Market Proclamation, No\_1248/2021). Ethiopia is not eccentric to the very notion of stock market since Emperor Haile Sellassie I had set up stock exchange. According to J.D. Von Pischke (1968), as cited by Asrat (2003) and Jetu (2014), the then stock market was forerunner to the country and was fairly achieved some success. Namely, provision of organized markets for companies, workable trading and practices, and smoothly operating market mechanism. On the other hand, it also faced challenges associated with small market capitalization and minimal effect on the economy, limited general public participation, and investors' hesitation to take part in stock trading. Currently, a great number of researchers, for example Abebe (2006), Asrat (2003), Yidnekachew (2006), and Haileberhan

(2021), have emphasized the necessity of stock market in Ethiopia. However, the very question of ‘what should be done by the upcoming Ethiopian capital market authority to emerge as one of the successful capital markets in Africa?’ is yet to be investigated more. This study, as explained in depth in the next section, attempted to draw a success lesson from the capital market integration experience of ASEAN and EAC member states.

## **1.2. Statement of the Problem**

In the current era of globalized world, regional approach to financial systems and capital markets is viewed by a great number of developing states as a remedy to cope up with the well-established, developed and sophisticated capital markets all over the world. This is mainly due to the demand to alleviate efficiency and capacity related deficiencies of developing countries by taking advantage of capital market induced economies of scale and scope, liquidity, financial innovation, easy access to financing options, better risk-return frontiers and enhanced macro-economy (Lee, 2000). Realizing the pivotal role that capital market integration plays, African union through its Minimum Integration Programs (MIPs) incorporated capital markets as one of the integration areas (AU,2009). Accordingly, many African RECs have been actively engaged in regional capital markets integration, such as BVRM in West Africa, EASRA in East Africa, and COSSE in South Africa are few of them (Onyuma, 2006). With regard to African stock markets, researchers such as Ampomah (2011) and Ncube & Mingiri (2015), argued that African stock markets are highly marginalized in the global capital markets.

The Ethiopian government, most recently, approved a proclamation on capital market, though the country’s stock market history traced back to the 1950s and culminated in the mid-1970s (Asrat, 2003 & Jetu, 2014). Several studies have been conducted both long before and after the 2021 capital market proclamation and the focuses largely were to make a scholarly justification on the viability and necessity of instituting capital market, taking the possible challenges and prospects in to account. To mention some of such studies, Abebe (2006), Asrat (2003), Yidnekachew (2006), Ruecker (2011), Bereket (2020) and Haileberhan (2021) suggested the establishment of stock market in Ethiopia after assessing challenges, opportunities, financial environments and pre-requisites. Beside this, other studies investigated prospective capital markets of Ethiopia through the lenses of legal perspectives. For instance, Jetu (2014) recommended that well-designed regulation should be taken in to account as the absence of clear framework would entail

undesirable outcome on the country's economy. Mekdes (2020) concluded that the upcoming capital market would have a complementary and competitive interrelation with Ethiopian insurances and banks, respectively. Finally, Henok (2012) carried out a study that drew lessons from selected African countries' stock market experiences and recommended to Ethiopian stakeholders.

In general, this study, unlike its predecessors, focused on the regional integration aspects of capital markets based on the experience of selected African and Asian states. Looking at the upcoming Ethiopian capital market in light of regional capital market integration, this study is different compared to its predecessors. Thus, the research gap of this study is that the possibility of Ethiopian capital market development via exploiting the benefits of regional integration has never been investigated before.

### **1.3. Objectives of the Study**

The general objective of this study is to assess and draw lessons from the capital market integration experiences of African and Asian states to Ethiopia. Specifically, its objectives are:

- to assess the capital market integration experiences of selected African and Asian RECs (EAC & ASEAN).
- to examine the relationship between capital market development and other variables such as liberalization, macroeconomic factors, and institutional qualities in considered developing states.
- to identify what should be done by Ethiopia to be successful in capital markets vis-a-vis regional integration.

### **1.4. Research Questions**

The basic research questions of this study are:

1. What are the experiences pertaining to rationales to integrate, challenges, prerequisite requirements and crisis surviving mechanisms of selected RECs in Africa and Asia?
2. What are the short and long run relationship between capital market development and other variables such as liberalization, macroeconomic factors, and institutional qualities in considered developing states?
3. What lessons can Ethiopia learn from its alike states' capital market integration?

### **1.5. Scope of the Study**

The study was delimited geographically and thematically. Thus, it focused on the capital market integration experiences of EAC and ASEAN member states and pointing out what Ethiopia should learn from them. Thematically, it is restricted to the stock market aspects of capital market development and integration in developing countries of the above-mentioned RECs' member states.

### **1.6. Significance of the Study**

The study is valuable to the stakeholders, such as NBE, the upcoming Capital Market Authority, and investors, of capital market in Ethiopia by providing them with insights pertaining to the possible advantages of regionally integrating with experienced and emerging stock markets of Africa. It is also a good agitation to researchers to see the upcoming Ethiopian stock markets in light of regional integration lenses.

### **1.7. Limitation of the study**

The study has passed through different challenges, one of which is failure to meet key informants in person. Besides, the infant nature of capital market in Ethiopia made data availability difficult. Further More, the absence of data on most member states of EAC and ASEAN was another drawback of not only this study, but of the whole developing countries' financial information transparency. To this effect, the study used only six countries from the two RECs of the study. This study, therefore, tackled the above-mentioned pitfalls through using alternative means of data obtaining mechanisms and through utilizing a model that best fits the time span and section nature the data.

### **1.8. Organization of the study**

The study is organized in to five chapters. The first chapter presents the “Introduction” that explains the problem and the procedures of the investigation in general and give direction. The second chapter encompasses “Literature Review”, in which concepts and related theories discussed in depth and be used in the investigation for the analysis of the data. The third chapter discusses the “Methodology” and presents the methods and techniques employed for the study. The fourth chapter is the “Results and Discussions”. The last chapter is “Conclusions and Recommendations”, which summarize the data sequentially with the research questions to prove

that they are properly answered with the actual data and makes concluding remarks, and forwards some policy implications and suggests some areas of further research as reflection.

## **CHAPTER TWO: LITERATURE REVIEW**

This chapter consists of working definitions, theoretical and empirical literature reviews, and conceptual framework of the study.

### **2.1. Operational Definitions of Concepts**

To understand the contextual usage of terms, phrases and concepts of this study, the following operational definitions are crucial.

#### **2.1.1. Financial Globalization**

Financial globalization is sometimes used interchangeably with the notions of financial liberalization and integration. For instance, according to Prasad et al (2003), financial globalization is an increasing interconnection of universal countries via border-crossing flow of finance. Another concept of financial integration refers to country's interaction to the global capital markets. A more detailed explanation states that financial globalization is the process through which financial markets and institutions all around the world are gradually allowing agents and companies from any state to purchase securities, lend and borrow money, and conduct any other financial transaction. Financial services are given globally in a completely financially globalized world, regardless of the creditor's or investors' or debtor's or issuer's country of origin. In this view, financial liberalization is a requirement for financial globalization to loosen restrictions that make cross-border movement more difficult, and financial integration is one facet or manifestation of financial globalization, among several others (Schmukler, & Abraham,2017).

#### **2.1.2. Capital Markets**

The term "capital market" refers to a location where major players such as security issuers, investors, securities exchanges, eligible counter parties to eligible contracts, and securities depository and clearing companies exchange various types of securities such as stocks (equities), bonds, derivatives, and other types of securities (Eric Banks, 2010).

To be more vivid; the essence of financial instruments like stock, bond, derivative and other securities are discussed here after. Financial instruments are tools for reducing the risk of business problems caused by economic changes like rising interest rates, rising oil prices, rising inflation, or fluctuating foreign exchange rates. Cash, ownership interests, or a contract between two entities are all examples of financial instruments. The first entity is compelled to deliver cash or another financial instrument to the second entity, or to exchange financial instruments on unfavorable

terms. The second entity has the right to receive cash or a financial instrument from the first entity, as well as the right to exchange financial instruments with the first entity on favorable conditions. Accounts receivable and bonds payable are examples of simple financial products (Mooney, 2008).

Share of stock, also called corporate stock, is a symbol for a portion of a corporation's ownership. Each unit is assigned a certificate by the owner of a share of stock; units of the same type of stock have the same value. A bond is a fundraising instrument in which the borrower pledges in writing to repay the amount borrowed with interest (on a prescribed pattern that includes interest payments and the principal amount) at the conclusion of the bond. The interest payment is calculated using the stated rate of interest, often known as the coupon rate. Moreover, derivative financial instruments are complex financial instruments whose value is determined by an underlying asset, such as commodities or bonds, or by an indicator, such as interest rates or the Dow Jones Industrial Average. A derivative is a contract in which one party owes the other a payment, the amount of which is contingent on the underlying price or value. The payment amount could be influenced by the underlying price going above a given threshold, or by the value of a quantity of the underlying item changing (Mooney, 2008).

### **2.1.3. Regional Integration**

Regional Integration refers to a deliberate agreement between countries to remove or at least reduce business obstacles and/or collaborate on monetary and fiscal policy. Economic integration can be divided into seven stages, according to experts. A preferential trading area, a free trade area, a customs union, a single market, an economic union, an economic and monetary union, and finally full economic integration are the terms used. Economic integration is commended for lowering trade costs, improving access to goods and services, and addressing inflation-related issues among members of the integrated entity, as well as improving employment rates and friendly political ties. Opponents of the proposal, on the other side, have attacked it for forcing member nations to switch from nonmembers to members in their trade partnerships (Marinov, 2014).

According to the African Union's (2016 & 2019) ARII report, regional integration is the totality of region-wide inter-linkage and/or collaboration among member nations of RECs in main areas such like commerce, infrastructural facilities, production ventures, unlimited movement of citizens, and at last financial and macroeconomic activities.

Regional integration, despite its merits, is not free of obstacles though. As it has been noted by several studies, regional integration has multifaceted impediments in developing countries. African regional integration has run into a number of roadblocks, to speak of the obstacles. Insurgencies, civil conflicts, and political instability are a few of these challenges. In addition, this creates uncertainty for those who wish to engage in a variety of economic activities (Abdi & Seid, 2013; Thobejane & Biniyam, 2018; Gardachew, Kefale & Antigegn, 2019; & AUC, 2019).

The second category of barriers to regional integration of many RECs in Africa has to do with a lack of competence for implementing and carrying out policies and strategies. This issue arises from the member nations' inability to finance their integration projects, the economic and capacity disparities among them, and the minimal or nonexistent infrastructure links between them (UNECA&AU,2006; Thobejane & Biniyam,2018; AUC, 2019).

Failure to coordinate operations, plans, policies, and strategies across the entire region falls under the third broad category. Both intraregional and inter-REC encounters with this issue are possible. According to several studies (Alemayehu & Haile, 2002; UNECA & AU, 2006; Thobejane & Biniyam, 2018; AUC, 2019), there was also insufficient cooperation between RECs and other institutions, such as AUC.

The last but not the least category is the absence of committed and devoted leadership and governance in the region. Regional integration demands politically determined leaders that give priority to the region-wide growth and developmental ventures. Another issue in this regard is multiple memberships, which affects a country's commitment to one REC's developmental agenda of integration (Abdi & Seid, 2013; Alemayehu & Haile, 2002). As Abdi and Seid (2013) stated, most East African countries are members of IGAD and among them almost all except Somalia are members in COMESA, Kenya and Uganda are also part of EAC, and Djibouti, Eritrea, Somalia, and Sudan are members in CEN-SAD.

#### **2.1.4. Capital Market Integration**

Capital market integration is the process of connecting rather than segmenting capital markets, resulting in market risk and price convergence. Global capital market integration is both a driving force behind globalization and a defining feature of the increasingly globalized economy (Bach, 2013).

## **2.2. Theoretical Literature Review**

### **2.2.1. Theories of Regional Integration**

Regional integration has three well-known theories. These are liberal intergovernmentalism, neo-functionalism, and post-functionalism.

#### **I. Liberal Intergovernmentalism**

From the intergovernmentalism point of view, regional integration is viewed as the coming together of leaders to address various types of bottlenecks. The collaboration of governments in a certain region or geographical area determines the thematic scope, success depth, and extent of the regional integration. In other words, integration is induced by the coexistence or competition of autonomous states. Thus, each government represents and stands for its country's national interest. To this effect, any idea of integration is contingent upon the extent to which each government is willing to work cooperatively. Another crucial attribute of intergovernmentalism, as explained by the realists, is the fact that the sovereign existence of the state is not compromised (Schimmelfennig, 2018; & Hooghe & Marks, 2019).

In a nutshell, the notion of intergovernmentalism relies upon the establishment of a system that assures win-win situations in safeguarding states' preferences and ensuring fair distribution of integration benefits and bargaining power (Schimmelfennig, 2018).

#### **II. Neo-functionalism**

Unlike the intergovernmentalism theory, neo-functionalism does not believe in the capacity of governments to handle the integration processes. This theory is rather fond of the managing capabilities of 'transnational corporations' and 'supranational institutions' in molding the form of integration as per their interests. Accordingly; institutions make their focus on socio-economic aspects of regional integration, and then the initial integration schemes are supposed to spread to other integration areas. Finally, the well-reinforced socio-economic integration is expected to pave the way for fully developed political integration, which is to be spearheaded by supranational institutions. Members of a particular group or supranational organization should have to hand over their sovereign power to the transnational entity. In general, the neo-functionalism notion of regional integration heavily relies upon the concepts of "spillovers" and "path-dependency", which

broadened and deepened the essence of integration further than the liberal intergovernmental bargaining does (Schimmelfennig, 2018; & Hooghe & Marks, 2019).

### III. Post-Functionalism

Post-functionalism is based on multi-level governance, in which authority is spread across several geographical and functional jurisdictions. This theory calls for the formation of regional alliances based on certain functional domains, such as military and security alliances, economic alliances, and so on. Regional integration is expected to emerge from people's perceptions, shared identities and cultures, and self-determination. However, proponents of this theory believe that regional integration is highly politicized and that there is a stalemate between regional integration of institutions and collective self-determination of existing national communities, which is thought to cause retardation and even disintegration in a specific region (Schimmelfennig, 2018; & Hooghe & Marks, 2019).

## **2.3. Empirical Literature Review**

### **2.3.1. Financial Globalization and Capital Market in Developing Countries**

The issue of whether or not financial globalization is pivotal to developing countries still remains the point of argument among scholars. For instance, Mishkin (2005) argued that financial globalization induced a myriad of benefits such as improvement in financial systems due to spill-overs in technology and financial management knowhow, and enhancement in accessibility of capital, increasing liquidity and decreasing cost of capital. The total effects would be an economic growth. However, Mishkin (2005) also recognized the possible pitfall: financial crises, of financial globalization if there is mal-practice and deficiency in management of the liberalization act. Likewise, Schmukler (2003) stated that even if financial globalization has undesirable outcomes in the short-run on developing states, its net effects in the long run is positive.

In the current debatable financially globalized world, how do African capital markets are performing? In this regard, Ncube & Mingiri (2015) found out that there has been betterment and growth in African stock markets despite the existence of evidence on segmentation. Similarly, Ampomah (2011) also asserted that a plethora of African stock markets, with the exception of South Africa, are segmented from global markets. Hence, as a remedy to the financial globalization-induced challenges, regional integration is recommended. In compliance to this,

Prasad, Rogoff, Wei & Kose (2005) concluded that financially well-integrated states are more likely to grow economically than the less integrated ones.

### **2.3.2. Capital Market and Economic Growth in Developing Countries**

The positive impacts of capital market on the economic growth of developing countries have been championed by many researchers. To name some of them, Enisan & Olufisayo (2009) found that stock markets indeed have positive impacts and long run relationship with economic growth of SSA countries. But they emphasized that the merits of economic growth are highly contingent upon cautiously established regulatory and macroeconomic policies. Similarly, developing states also showed remarkable economic growth as a result of development in stock markets and banks (Siti Muliana, 2017). However, still many scholars suggested the fulfillment of some preconditions before sparking capital markets to reap its benefits. In this regard, Chaisrisawatsuk (2006) stressed that prior to establishing capital market, there has to be money and long-term bond markets in a given country.

### **2.3.3. Rationalization of Capital Market Integration**

The very rationale behind regional integration is to pool the resources of member states of a certain RECs and to create a synergistic force that can foster their competitiveness in various economic ventures (UNECA & AU, 2006). The necessity of capital markets' integration is also stems from the same logical ground as any other forms of regional integration. For instance, Lee (2000) explained that regionally integrated capital markets are very important as they entail efficiency in capital market and financial systems, which further manifested in the improvement of financial innovation and macroeconomic performance, easy access to capital, finance and security market, and greater liquidity and returns. Apart from fostering the whole financial system, capital market integration has far-reaching benefits on various actors in the financial systems. For instance, according to Carretta & Nicdini, (2006), Varadi & Boppana (2009), & Polato & Floreani (2010) as cited by Dorodnykn (2014); capital market integration helps investors and other stock market operators to take advantage of integration-induced economies of scope and scale; it gives transparency and efficiency to financial intermediaries and issuers; and it facilitates portfolio diversifications and liquidity of assets to investors. Besides, Hooy and Goh (2007) also projected the merits of stock markets integration from the perspective of efficient market hypothesis, to which such integration provides efficient information. Likewise, Adelegan (2008) concluded that

regional cross-listing has had a highly positive impact on the stock market development of thirteen sub-Saharan states, including some EAC members. Furthermore, it was claimed in the aforementioned study that participating countries outperformed those that do not in terms of an overall financial system improvement and efficiency.

#### **2.3.4. Determinants of Capital Market Development and Integration**

The trajectories of stock market development revolved around two major categories. The first line of development which determines the progress of capital market is related to economic factors. In this regard, Sin-Yu & Bernard (2017) pinpointed aggregate economic factors; such as development of money market (banking sector), rate of exchange and inflation and real income progress, as influencers of stock market development. In addition to what have been mentioned by Sin-Yu & Beranrd (2017), other determinants like Foreign Direct Investment (FDI), economic growth, and savings were noted by Tsaurai (2018). The second category is characterized as structural and institutional factors. The availability of sound legal and regulatory frameworks pertaining to stock market are projected as essential preconditions to lay a good system that can protect investors and ensures the appropriate governance of corporations. Besides, structural changes of economic systems in to free market; which attributed by financial liberalization, infrastructure development and trade openness also affect the development of capital market. This in turn fosters the integration of stock markets in a certain region. (Sin-Yu & Teulon, 2017 & Tsaurdi, 2018). A more comprehensive list of potential factors is provided by the Committee on the Global Financial System (CGFS), which identifies a stable macroeconomic environment, market autonomy, supportive legal environment, effective regulatory regime, efficient and robust market infrastructures, well-developed disclosure standards, wide and diversified investor base, openness to international investors and issuers, and deep complementary markets as determinantal factors to escalate the development of global financial markets (CMPIT, 2022).

As it has been justified in the preceding section, capital markets integration has a multitude of merits on the amelioration of financial system. Hence, it is wise to probe on what factors affect the capital market integration. In this regard, four categories of determinants of stock market integration can be seen. These are features of stock market, basic macroeconomic factors, capital market related information, and institutional measurements. Foremost, basic characteristics of stock market such as financial development, dividend yields and volatility of the stock market are

found to be influential factors that impacted the integration of the market (Hooy & Goh, 2007; Guesmi & Teulon, 2014). Secondly, macroeconomic determinants, which consist of changes in the rates of interest spread, inflation and exchange. Thirdly, the integration of stock market is greatly influenced by information related to capital market. For instance, information on market liquidity, variations on different rates, various premiums on market, term, default and credit; and dividend yields. Finally, the availability of good institution with sound regional integration frameworks, harmonized financial policies, trade openness and liberalized systems are prominent factors (Hooy & Goh, 2007; Dorodnykh, 2014; Guesmi & Teulon, 2014).

### **2.3.5. Capital Market Liberalization in Developing Countries**

According to Obstfeld & Taylor (2004), the current global financial market integration marginalizes many developing nations, who as a result were unable to generate any foreign currency flow other than in the form of debt or so-called development aid. They emphasized that legal and administrative barriers to the free flow of private capital are the root of the majority of issues facing growing nations. Following the 1990s, financial systems in emerging governments underwent widespread reform and liberalization. The issue of whether or not to liberalize capital market is one of the most debatable discourses in financial globalization. For some scholars, opening up of domestic markets has an economic benefit in facilitating growth and bringing improvements in the financial system. Others still argue that the demerits of capital market liberalization outweigh its merits, especially in developing countries.

The proponents of unrestricted capital markets argue that such liberalizing act would enhance economic growth and standards of living, reduce unemployment, and facilitates allotment of capital from developed to emerging economies (Kose & Prasad, 2020). Likewise, Schmler (2008), though he convinced in the possible risk of financial crises, believed that the net benefits of capital market liberalization surpass its possible demerits as it facilitates the development of financial sectors and advantage of risk diversification and the increased availability of financial options for borrowers and investors.

The opponents of capital market liberalization, on the other hand, forwards several justifications to prove that unfettered capital market is rather harmful to developing countries. In this regard, Stiglitz (2004), Ocampo, Spiegel & Stiglitz (2008), and Frenkel (2008) blamed capital market liberalization as the main cause of financial and economic crises. The pro-cyclical capital flows

would induce interest and exchange rate risks, capital account volatility, macroeconomic instability, volatile consumption and uncertainty. Furthermore, Charlton (2008) & Ocampo, Spiegel & Stiglitz (2008) criticized capital market liberalization for its anti-poor outcomes, such as affecting poor's access to insurance, bargaining positions and credit availability.

In general, the pros and cons of liberalized capital markets are highly contingent up on some basic preconditions, whose absence and presence cause problems and benefits, respectively. For instance, Kose & Prasad (2020) suggested a well-designed domestic policies and regulatory frameworks with strong institutions. In addition, governments' cautious monitoring of capital markets and necessary interventions, such as price, quantity and prudential regulations, are vital measurements to follow up and mitigate the effects of liberalization (Frenkel, 2008; Ocampo, Spiegel & Stiglitz, 2008; & Kose & Prasad, 2020). Another extreme recommendation is capital market segmentation, which is expected to bring stable demand for domestically denominated assets, decrease foreign borrowing related risks and allow governments to handle the macro economy better (Ocampo, Spiegel & Stiglitz; 2008).

#### **2.4. Overview of Global Financial Crises and Their Impacts on Developing Countries**

Financial crises are not a strange event as the world has been experiencing them for more than a century. Mentionable among them are the Tulip Mania of 1637, the South Sea bubble, the land booms of 1920s and 1980s, the US stock market crash of great economic depression of 1929, the stock market crashes of 1987 and 2000s, the Asian crisis of 1997/8, and the recent global financial crises of 2007/8 (Sornette, 2003, & Jickling, 2009).

This study and many other empirical studies focused on the 1997/8 Asian crisis and the 2007/8 global financial crises. A plethora of justifications were delivered with regard to the possible causes of financial crisis. According to Sinclair (2012), Asian financial crisis of 1997/8 was the pinnacle of a surge in East Asia that resulted in what was later revealed to be imprudent short-term lending and hazardous currency pegs to the US dollar. In this regard, reckless regulation, rampant fraudulent act and corruption were pointed as a driving factor. Likewise, Thakor (2015) enumerated various external factors and market incentives, such as political factors, fragmented regulatory structure, growth of securitization and OTD model, financial innovation, monetary policy, global economic developments, and diversification fallacy. These factors in turn precipitated the housing price bubble, which finally induced financial crisis.

A more generalized work on the causes of financial crisis was conducted by Jickling (2009); that mentioned imprudent mortgage lending, housing bubble, global imbalances, securitization, lack of transparency and accountability in mortgage finance, deficient rating agencies, deregulatory legislation, shallow banking system, failure of risk management systems, financial innovation, complexity in financial instruments, excessive and unregulated leverage, and others.

Developing countries' economies have been impacted by global financial crises either directly or indirectly. Depending on their exposure to assets related to subprime mortgages, banks of developing countries directly faced the contagious financial crises outcomes. Likewise, crisis-induced abatement of revenue from exporting commodities and tourism, and the diminishing flow of foreign currencies from aids, investment and remittances (Baily, Litan & Johnson; 2008). Apart from these, the experiences of East Asian developing countries portrayed the fact that the Asian financial crisis (1997-98) intensified their regional financial cooperation zeal and resulted in the establishment of CMIM and ASEAN+3 Macroeconomic Research Organization (AMRO) (Grimes, 2012). The consolidation of Asians' financial integration makes a logical sense as well-integrated states have the capacity to ensure the flow of capital from developed states, the capacity to mitigate possible financial crisis through collaborative effort (Prasad et al, 2005).

## **2.5. The Overall Status of Ethiopian Stock Market**

During the imperial period, Ethiopia had basically a subsistence economy, which later on the government had attempted to transform it in to agro-industrial economy, even if the plan failed to bear the desired outcomes. In the 1960s and early 1970s, Ethiopia had a stock market. For instance, in 1897 Emperor Menelik II sold shares in France to raise a portion of the 40 million francs required to build the Ethio-Djibouti railway line. Abyssinia Bank, the country's first bank, launched its stock in 1906 in Addis Ababa, New York, Paris, London, and Vienna. Between 1960 and 1974, there was a boom of share firms, and shares were exchanged by the National Bank of Ethiopia through the Addis Ababa share Dealing Group (Daily, 2017 & Yonas, 2019). Addis Ababa Bank, Ethiopia abattoirs, Bottling Company of Ethiopia, Indo Ethiopian Textiles, HVA Ethiopia, and Tendaho plantations were a few of the share firms whose shares were traded on the open market at that time (Daily, 2017). Then, the military government of Derg seized power and setup its own planned economic system and nationalized the country's private and public economic resources. After the downfall of Derg, the Transitional Government of Ethiopia, the later FDRE,

came to power and began a debatable free market economic system (Eshetu, 2004). Ethiopia could not launch capital market under the regime of EPRDF. Following the coming to power of Prime Minister Abiy Ahmad, however, tangible activities are being undertaken, including the enactment of the Capital Market Proclamation Number 1248/2021.

The idea of whether or not Ethiopia should start a stock market has become a debating issue. Those who are in favor of its establishment argued that favorable conditions such as Ethiopia's strong ties with the international economic system and its relatively larger economy than many other African states with stock market, availability of local companies with readiness to be listed in stock exchange, and possible technical aid from World Bank and World Trade Organization. On the other hand, opponents of stock market establishment in Ethiopia mentioned poor regulatory system and institutions, unfavorable financial infrastructure, unreliable accounting information, poor media coverage and training to human resource, and very limited technological capability as a justification to their argument (Yonas, 2019). At this point of time, the focus of Ethiopian government, scholars and other stakeholders should not be whether or not to set up capital market. The focus of scholars and stakeholders should be on what has to be done once the stock market is established as a plethora of research had been conducted on its viability, challenges and prospects.

Through the formation of numerous commissions and teams, such as the Capital Market Project Implementation Team (CMPIT), and collaboration with other organizations both domestically and abroad, NBE is working to establish a fully functional capital market system in Ethiopia. Melese Minale, who is a macroeconomic consultant to NBE and leader of the Capital Market Project Implementation Team (CMPIT) of NBE, has put it as follows:

*We are creating a statutory provision, establishing a governing agency for the stock market, building capacity at the regulatory and ecosystem levels, and establishing important market institutions. The mission of building the Ethiopian Securities Exchange (ESX) was taken over from the NBE by the Ethiopian Investment Holding (EIH) and Financial Sectors Deepening (FSD) Ethiopia after they signed an agreement. The group is putting the Ethiopian Capital Market Authority, which will oversee the ESX, into place. The regulatory framework is the other issue we are focusing on. Over 10 directives, fifteen rules, and additional guidelines are now*

*being written. Once the authority is established, the officials will have all the tools they need to authorize and start constructing the environment right away. Discussions with stakeholders about those drafts have already begun. By offering scholarships to specialists who would staff the stock market ecosystem and by identifying potential stock market candidates, we have started the process of creating capacity. In addition to establishing a roadmap for the development of the capital market, we are also developing a strategy to involve the general public in a methodical manner and working with development partners on measures to promote financial inclusion, including financial journalism (Ashenafi, 2022).*

The CMPIT crew has already created a road map for the growth of the capital markets that is built upon four pillars. It starts by focusing on the growth of the bond, equities, and other markets. Second, both soft and hard market-infrastructure development is taken into account. Thirdly, emphasis is placed on capacity improvement across institutional, human, and financial ecosystems. Last but not least, it included macroeconomic, financial, tax, and other policy evaluations (CMPIT, 2022). Pertaining to Ethiopia’ hope for capital market integration with East African countries, it has the opportunity to engage in the IGAD and COMESA as it is member state to them. However, as various performance reports demonstrated IGAD is not/ has not been doing well in multifaceted regional integration initiatives, except for peace and security related matters. Therefore, for regional capital market integration purpose, Ethiopia more likely to be benefited from engaging in COMESA’s financial integration endeavors to take lessons and experiences on the regulatory framework, technology and other requirements to successful capital market undertakings. The following table shows which REC is better in financial integration in Africa and which REC is worth joining for a better capital market performance.

Table 2.1: Regional Financial and Banking Harmonization of African RECs.

	EAC	ECOWAS	COMESA	SADC	ECCAS	IGAD	AMU	CEN-SAD
Capital Account Liberalization	Yes	Yes	Yes	Yes	No	No	No	No

Regional settlement and payment system	Yes	Yes	Yes	No	No	No	No	No
Harmonization and Regulation of the banking system	Yes	Yes	Yes	Yes	No	No	Yes	No
Regional stock exchange regulatory authority	Yes	No	Yes	Yes	No	No	No	No

Source: AUC (2018) as presented by AU (2020)'s African Multidimensional Regional Integration Index (AMRII) Report.

As the above table illustrates, EAC, COMESA and SADC had met all the four requirements listed. Fortunately, Ethiopia as a member state of COMESA can take the advantage of regional stock market arrangement in the REC.

According to African Union's ARII reports, Ethiopia's relative share of financial integration performance is presented as follows:

Table 2.2: Financial and Macroeconomic Integration (FMI) of Ethiopia in IGAD & COMESA for 2016 & 2019.

2016's FMI result		2019's FMI result	
Score	Rank	Score	Rank
COMESA		COMESA	
0.162	17/19	0.554	3/19
IGAD		IGAD	
0.168	5/8	0.853	1/8

Source: AU (2016) and AU (2019) reports of African Regional Integration Index

The above table portrays an amelioration in Ethiopia's performance in 2019 as it is compared to its 2016 score in FMI in both RECs: IGAD & COMESA.

For regional capital market integration to be successful, the first step, among other things, is liberalization of the financial system. In this regard, Ethiopia is starting few initiatives to liberalize its financial system.

## 2.6. Conceptual Framework

The capital market paths of developing countries are very crucial to take a valuable lesson for a newly established capital market, such as Ethiopia's. An extensive study has been conducted on the challenges, prospects, and viability of stock markets in Ethiopia. Unlike many of these studies, this study's concept focused on what Ethiopia can do to take advantage of the financially globalized world by using regional integration as a shield to possible anomalies. Hence, the argument of this study is that capital market integration determinants; which can be categorized as macroeconomic factors (such as inflation, interest rate spread, & exchange rate), institutional and regulatory qualities and capital market liberalization (for example, trade & capital account openness) affect capital market development, which represented by stock traded value of developing countries. The stock market development of countries can be determined by its size, which can be evaluated by market capitalization or annual income, and by its liquidity or stock traded value. Hence, this study used stock traded value as a proxy variable to the stock market development.

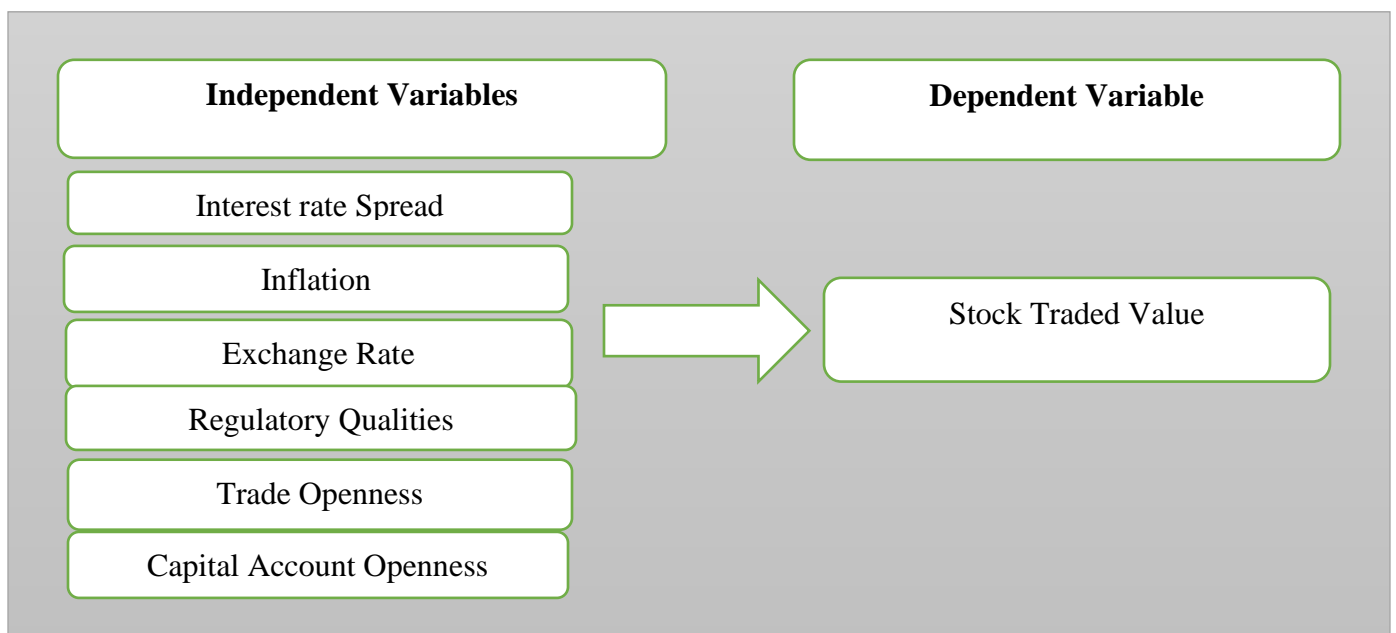


Figure 2.1. Conceptual Framework Source: Author's own work based on (Hooy & Goh, 2007; Guesmi & Teulou, 2014; Dorodnykh, 2014; Sin-Yu & Teulon, 2017; & Tsaurdi, 2018)

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1. Description of the Study Areas**

This study encompassed three major areas. While the RECs of Asia and Africa: ASEAN and EAC were intentionally selected due to their remarkable experience in capital market integration, Ethiopia was chosen to take lessons from its alike developing countries as it's new to the complex system of capital market. Besides, the fact that these two RECs made up of developing countries like that of Ethiopia make their experience more logical and most likely applicable to the Ethiopian circumstances. In other words, the current experiences and frameworks of developed nations may not fit in to the newly established capital market of Ethiopia. Thus, taking developing countries capital market development and integration track in to account is necessary.

#### **3.1.1. ASEAN**

As it has been mentioned earlier, ASEAN stands for Association of South East Asian Nations and it consists of ten member states, namely Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam. This community is structured with economic, political, security, and socio-cultural communities. Among the cooperation and integration areas of ASEAN, one is financial integration, which is spearheaded by ASEAN Finance Ministers and Central Bank Governors (AFMGM). While the finance ministers of ASEAN under AFMGM strive for collaboration in fiscal and financial issues, the heads of Central Banks work for financial and monetary tranquility.

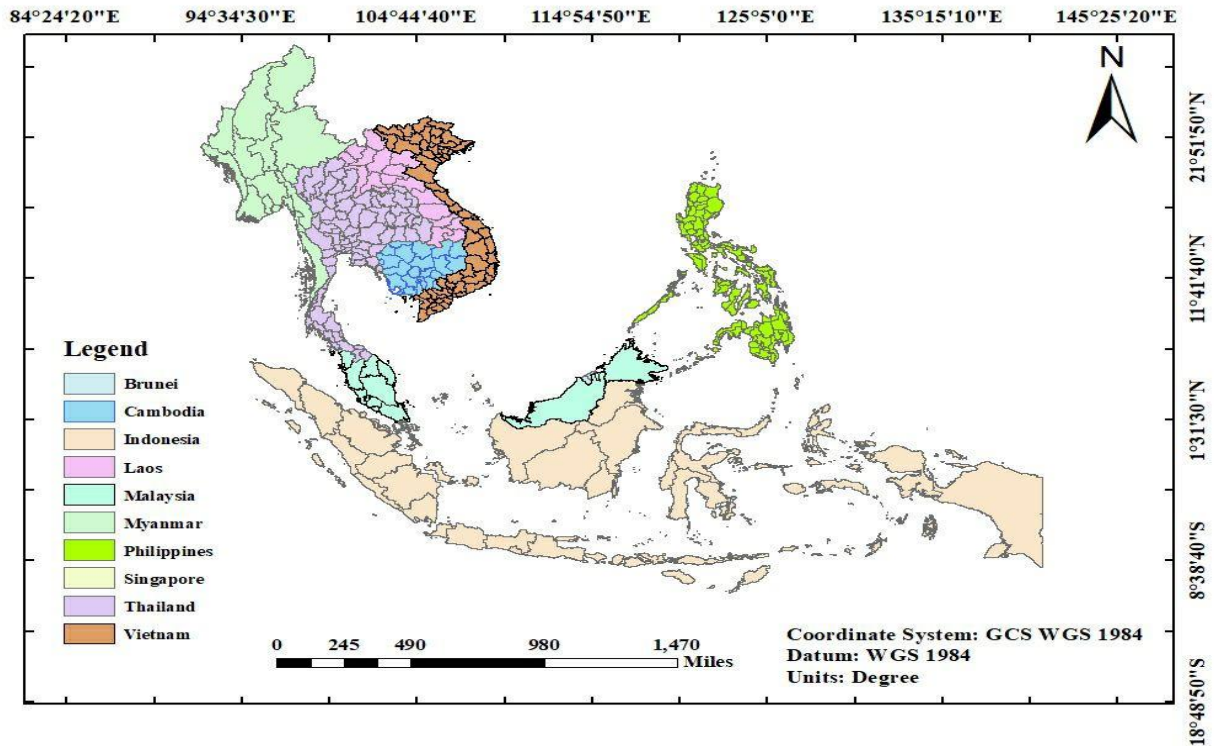


Figure 3.1. Map of ASEAN Member States

Source: [https://gadm.org/download\\_country.html](https://gadm.org/download_country.html)

### 3.1.2. EAC

East African Community is one of the fastest growing RECs in Africa. It has seven member states, namely Democratic Republic of the Congo, Republic of Burundi, Republic of Kenya, Republic of Rwanda, Republic of South Sudan, Republic of Uganda, and United Republic of Tanzania. This community has a custom union, common market, monetary union, and political federation. Of these integration areas, common market and monetary union are directly related to capital markets as the common market aimed to secure liberalized market, including free movement of capital, and the monetary union planned to create region-wide monetary union and common currency through harmonization of various financial policies. Currently, EAC has stock exchanges with 110 listed companies.

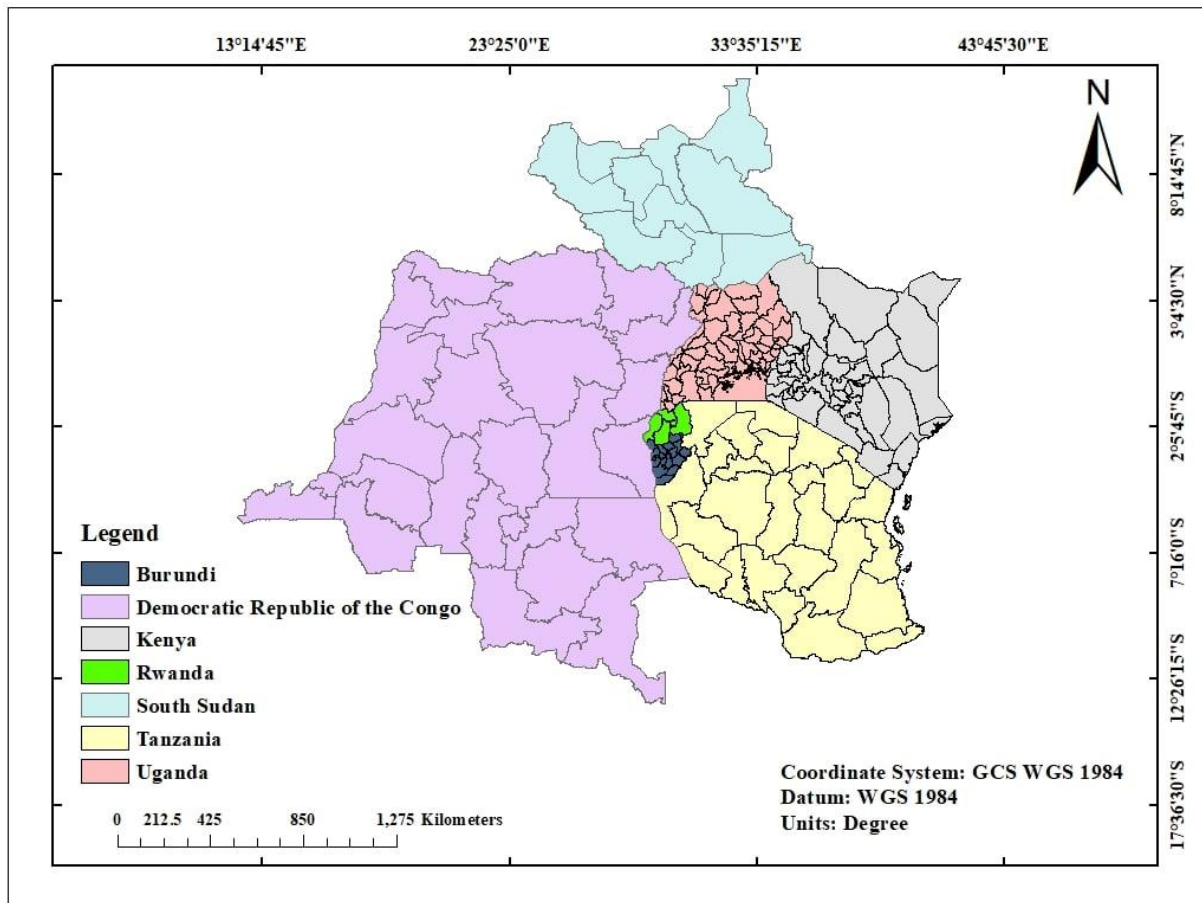


Figure 3.2. Map of EAC Member States

Source: [https://gadm.org/download\\_country.html](https://gadm.org/download_country.html)

### 3.1.3. Ethiopia

Ethiopia, a country on Africa's Horn, is entirely within tropical regions and is rather small, with identical north-south and east-west proportions. Ethiopia is the Horn of Africa's largest and most populous country. Besides, it is bordered on the north by Eritrea, on the northeast by Djibouti, on the east by Somalia, on the south by Kenya, and on the west by South Sudan and Sudan (Marcus, Mehretu, & Crummey; 2021).

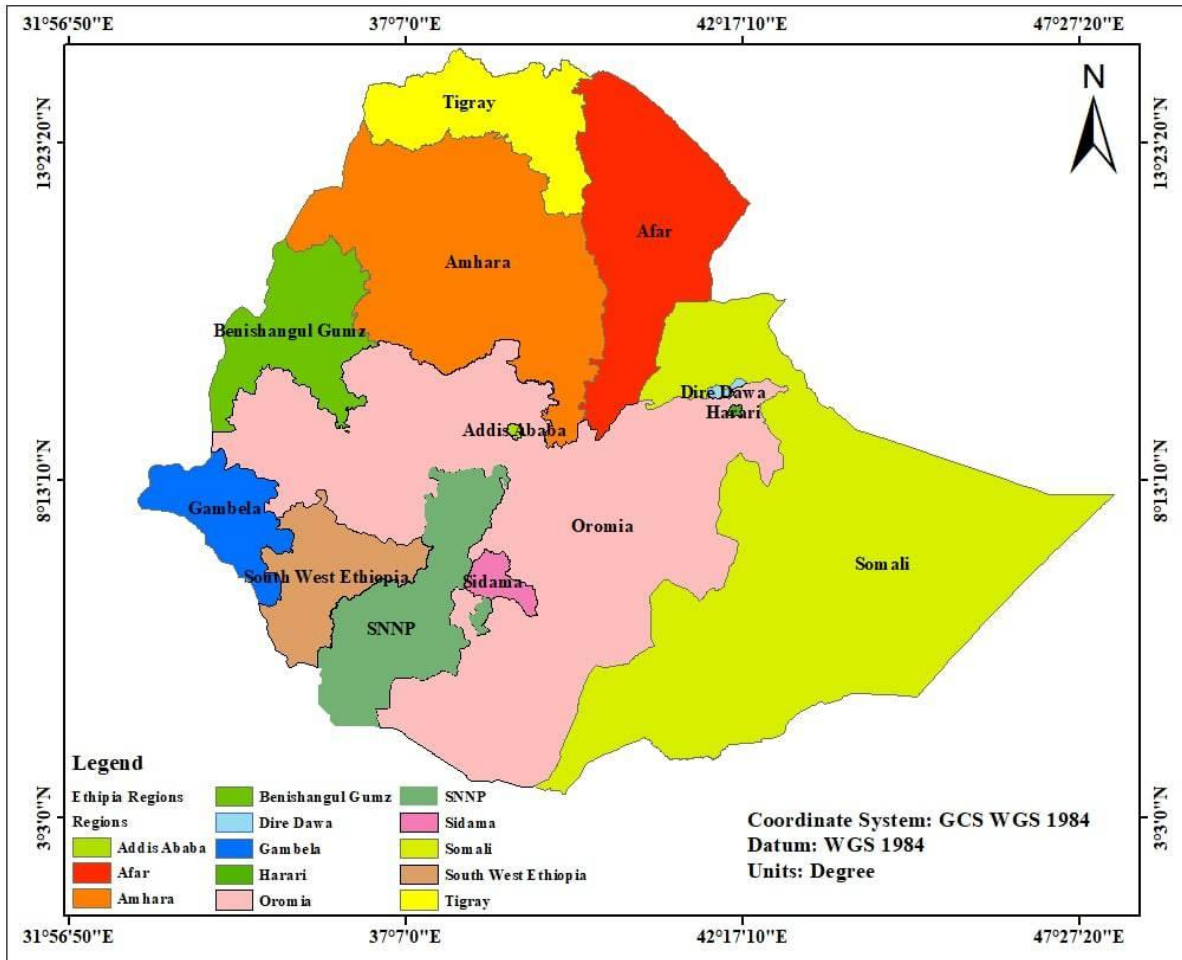


Figure.3.3. Map of Ethiopia

Source: <https://data.humdata.org/dataset/cod-ab-eth>

Speaking of financial sectors, Ethiopia currently has about 27 banks, 18 insurance companies, and 41 micro finance institutions under the supervision of National Bank of Ethiopia (NBE). Within NBE, there is an institute called Ethiopian Institute of Financial Studies (EIFS). Having a history that traced back to 1966, EIFS has been expanding its services from banking related trainings to the broader spectrum of 48 courses on financial studies: Banking, Microfinance, Finance, and Management Development. EIFS is a pioneer institute in delivering financial trainings. (NBE, 2022). In 2010, EIFS in collaboration with Frankfurt School of Finance and Management worked on several capacity building projects (NBE, 2022).

NBE is striving to come up with a full-fledged capital market system in Ethiopia through organizing various commissions and teams, such as Capital Market Project Implementation Team (CMPIT), and in corroborating with other entities in Ethiopia and abroad.

The country has been implementing International Financial Reporting Standards (IFRS) since 2014 (Financial Reporting Proclamation No\_847/2014) with the institutionalization of Accounting and Auditing Board of Ethiopia (AABE) in the same year as an independent public body (Regulation No\_332/2014).

Among eight RECs recognized by AU, Ethiopia is a member of COMESA and IGAD. With regard to the notion of financial integration, COMESA is way better than IGAD in undertaking initiatives in regional capital market integration (African Union, 2022). Therefore, Ethiopia has the opportunity to collaboratively work on its capital market development through aligning with COMESA members.

## **3.2. Research Philosophy, Approach and Design**

### **3.2.1. Research Philosophy**

This study's four research paradigms: Ontology, Epistemology, Methodology, and Axiology, were seen through the lens of a pragmatic research philosophy. Ontologically, the research saw reality as both objective and subjective, depending on its nature, while epistemologically, it addressed both positivism and interpretivism (Johnson & Onwueguzie, 2004; & Khatri,2020). The study's methodology and axiological foundations were covered in a separate part later in this chapter. However, to give some clue, the study's methodology ascribed to a combination of qualitative and quantitative research elements, and ethical concerns were also addressed.

As noted by Johnson & Onwueguzie (2004), pragmatism exists in the intersection of contradictory extremes, allowing researchers to employ a variety of methodologies and to judiciously harvest the bounty of mixed research approaches. The argument for choosing this philosophy is that it allows researchers to handle research issues in the most flexible way possible while also allowing them to avoid the drawbacks of opposing methods.

### **3.2.2. Research Approach and Design**

This study is characterized by a mixed research approach as it aimed to integrate qualitative and quantitative research types of research. Specifically speaking, the study is attributed by a

convergent parallel mixed method design as it in parallel collected, analyzed and interpreted both qualitative and quantitative data, and reported them in an integrated manner (Creswell, 2014). The rationale behind choosing the above-mentioned design was to best address the research questions and objectives of the study, and above all for complementarity and triangulation purposes. As Schoonenbom & Johnson (2017:119) stated the extent of qualitative and quantitative data may vary and, in this study, the share of the two approaches is “QUAN + qual” meaning it is an “deductive-simultaneous design where, the core component is quantitative and the supplemental component is qualitative”.

### **3.3. Sources and Tools of Data Collection**

#### **3.3.1. Sources**

This study was entirely depended on secondary data, which was collected from various reports, documents, researches, and books of financial and related organizations in global financial institutions, Ethiopia, Africa and Asia, such as African Union (AU), Common Market for East and South Africa (COMESA) , South African Development Community (SADC), East African Community (EAC), Association of South East Asian Nations (ASEAN), International Finance Corporations (IFC), International Organizations of Securities Commission (IOSCO), and World Bank’s development and governance indicators.

#### **3.3.2. Tools**

The tools that were materialized by this study are:

##### **A. Document Review**

Document review was an important tool of data gathering for this study. Since the very objective of this study is to take lessons from the capital market integration experiences of African and Asian developing countries; reviewing the reports, documents, books and indices of various RECs from Africa and Asia, international and continental organizations such as AU, COMESA, SADC, EAC, ASEAN, IFC, IOSCO, and World Bank was worth undertaking.

##### **B. Audio-visual Materials Review**

This study also utilized audio-visual sources. To be more vivid, audio-visual materials consist of sources that “may take form of photographs, art objects, videotapes, website main pages, e-mails,

text messages, social media text, or any forms of sound” (Creswell, 2014:240). Hence, the study used websites of ASEAN, COMESA, EAC and World Bank.

### **3.4. Sampling Procedures**

The study utilized 25 years of data from 1996 to 2020 for selected six countries. Namely, Indonesia, Malaysia, Philippines, Thailand, Singapore, and Kenya. The rationale behind selecting an African and Asian countries has been justified under 3.1. Even if ASEAN and EAC encompassed ten and eight member states within them, the study included only five countries from Asia and only Kenya from Africa. This is due to the unavailability of data for the rest of members on the sources. Further More, most variables’ data are not available before 1996. Hence, the study used data from 1996 mainly for extracting balanced data.

### **3.5. Data Analysis Methods**

Complying to the attributes of convergent parallel mixed method design, the study carried out the data analysis task of qualitative and quantitative data simultaneously. To deal with the qualitative data analysis, the study used a thematic coding system whereas the quantitative part was analyzed using descriptive statistics, trend analysis and econometric analysis using Excel 2010 and STATA Version 14. For the quantitative or Panel ARDL analysis section, the study followed seven basic steps. These steps were specification of the model, descriptive statistics, correlation analysis, unit root test, optimal lags selection, Hausman test, and finally estimation of the model.

### **3.6. Model Specifications and Variable Descriptions**

#### **3.6.1. Model Specifications**

This study used a panel data ARDL model mainly because of its interest in the group of countries in the RECs rather than individual states. This model is selected due to the unavailability of data in most developing countries where very short and fragmented data are prevailed. Among various panel data variants, this study employed a heterogeneous dynamic panel data model as it consisted small N (number of countries) where N is less than T (number of years); and included lagged dependent variable as a regressor. In addition, there must be a long-term link between the variables of interest; this necessitates that the coefficient on the error-correction term be 0 and -2, but not lower than -2. This is one of the fundamental conditions for the validity, consistency, and effectiveness of this methodology. Further More, the error correction model's resultant residual must be serially uncorrelated, and the explanatory variables may be regarded as exogenous, which

is a crucial supposition for the consistency of the PMG estimates. The ARDL (p,q) delays for the dependent (p) and independent variables (q) are included in the error-correction form to satisfy these requirements.

As it was presented in the conceptual framework, this study planned to investigate the effect and short- and long-term relationship between capital market development, which represented by value of stock traded, and explanatory variables such as macroeconomic variables (inflation and exchange rate), institutional and regulatory qualities, and financial and economic liberalization (trade and capital account openness). This is illustrated in the following model:

Stock traded= f {inflation, trade openness, regulatory qualities, capital account openness, interest rate spread, exchange rate} \_\_\_\_\_ (1)

The generalized ARDL model (p,q) of the study is articulated as follows:

$$y_{it} = \sum_{j=1}^p \delta_i y_{i,t-j} + \sum_{j=0}^q B_{ij} x_{i,t-j} + \varphi_i + e_{it} \text{_____} (2)$$

Where  $x_{i,t-j}$  is a  $k \times 1$  vector that are allowed to be purely I(0) or I(1) or cointegrated,  $\delta_{it}$  is the coefficient of the lagged Dependent Variable called scalars,  $B_{ij}$  is a  $k \times 1$  coefficient vectors,  $\varphi_i$  is the unit-specific fixed effects,  $i$  is number of countries (1...N) ,  $t$  is number of years (1...T),  $p, q$  are optimal lag orders, and  $e_{it}$  is error term.

Re-parameterizing the above model as Error Correction Model (ECM) would give the following model:

$$\Delta Y_{it} = \theta_i [y_{it-1} - B_i' X_{it}] + \sum_{j=1}^{p-1} \xi_{ij} \Delta y_{it-j} + \sum_{j=0}^{q-1} \beta'_{it-j} + \varphi_i + e_{it} \text{_____} (3)$$

Where  $\theta_i$  is  $-(1- \delta_i)$ , signifying group-specific speed of adjustment coefficient (expected that  $\theta_i < 0$ ),  $B_i'$  is vector of long-run relationships,  $[y_{it-1} - B_i' X_{it}]$  is the Error Correction Term,  $\xi_{ij}, \beta'_{i,j}$  are the short run dynamic coefficients.

Equation (3) can be estimated by estimators such as Mean Group (MG), Pooled Mean Group (PMG), and Dynamic Fixed Effects (DFE). In order to correct the bias caused by heterogeneous slopes in dynamic panels, Pesaran, Shin, and Smith (1995) propose the Mean Group (MG) model. The MG estimator, on the other hand, provides the long-run parameters for the panel by averaging

the long-run parameters from ARDL models for individual countries. The primary distinguishing feature of the first estimator (PMG) is that while the long-run slope coefficients are constrained to being homogeneous across nations, the short-run coefficients, including the intercepts, the speed of adjustment to the long-run equilibrium values, and error variances, are allowed to be heterogeneous country by country (Pesaran, Shin, and Smith, 1997). The DFE estimator is very similar to the PMG estimator; however, in the long term, it restricts the co-integrating vector's coefficient to being the same for all panels. The DFE model additionally requires that the short-run and speed of adjustment coefficients be equal. Panel-specific intercepts are possible using a dynamic fixed effect model. While accounting for intragroup correlation, DFE also calculates the standard error. This study used MG as per Hausman test and PMG together. PMG can be good estimator and its usage can be logical as it's a consistent and efficient estimator with respect to the long-run slope homogeneity assumption, which in study makes a lot of sense due to similarity of economic and financial development status of selected developing countries. Besides, the 25 years period span of the study made a sole dependence on MG estimator difficult since it reduced MG's degree of freedom. Hence, considering PMG was found to be relevant in this study. Moreover, MG is less informative of commonness among countries in the model.

### 3.6.2. Variable Descriptions

This study, with the aim of investigating the long and short run relationship between dependent and independent variables, used stock traded value as dependent variable representing stock market development, and other explanatory variables such as inflation, trade openness, regulatory quality, capital account openness, interest rate spread, and exchange rate.

Table 3.1. Description of variables

Name	Unit	Definition	Source
Stock Traded	Ratio	The value of share traded is the total number of shares traded, both domestic and foreign, multiplied by their respective matching prices.	WDI, World Federation of Exchanges Database
Inflation	Ratio	The annual percentage of change in the cost to the average consumer of	WDI, IMF, International

		acquiring goods and services. $(CPI_t - CPI_{t-1})/CPI_{t-1}$	Financial Statistics and data files
Trade Openness	Ratio	$(Exports + Imports)/GDP$	World Development Index (WDI)
Regulatory Quality	Index	Annual Index from -2.5 to 2.5 to portray the ability of a certain government to formulate and implement good policies and to create enabling environment.	World Governance Index (WGI)
Capital Account Openness	Index	the binary dummy variables that codify the tabulation of restrictions on cross-border financial transactions reported in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER)	Chinn & Ito Index of KAOPEN (Updated in 2021)
Interest Rate Spread	Ratio	Lending rate minus deposit rate	WDI, IMF, International Financial Statistics and data files
Exchange Rate	Ratio	Local currency units to US \$	WDI, IMF, International Financial Statistics and data files

### 3.7. Ethical Considerations

This study complied to the necessary ethical requirements such as acknowledgement of all sources obtained from secondary sources both with proper citations and references. Above all, all concepts and ideas extracted from other scholars' works were properly paraphrased to avoid possible plagiarism. Since the study did not utilize interview or questionnaire, the issue of confidentiality, consent and anonymity are not worth-worrying cases.

## **CHAPTER FOUR: RESULTS AND DISCUSSIONS**

### **4.1. Introduction**

This chapter encompasses the overall attributes of capital markets integration in Africa (EAC) and Asia (ASEAN), econometric findings on the short and long run relationship between capital market development and selected determinant variables, assessment of Ethiopian stock market in light of the notion of capital market integration, and the lessons that Ethiopia can learn from the experiences of EAC and ASEAN member states.

### **4.2. General Overview of Selected RECs' Capital Markets**

This study took data and lessons from two selected RECs: EAC from Africa and ASEAN from Asia. Hence, here below are the capital markets structures, policies, frameworks and experiences of the abovementioned RECs.

#### **4.2.1. Capital Market Integration in EAC**

As it has been vividly stated before, EAC has four main areas of integration. Namely, Custom Union, Common Market, Monetary Union and Political Federation (EAC, 2022). For scholars like Lutwama (2011), capital market integration should precede EAC's monetary union efforts and added that there should be well designed institutional and regulatory frameworks along with a technique to stabilize the financial sectors.

There is a big difference among the RECs of Africa in their achievement and commitment to the regional integration cause in general and to financial integration in particular. According to AU (2016 & 2019), the African Regional Integration Index (ARII) consists of regional trade, infrastructure, production, free movement of people, and macroeconomic and financial integration. Among these dimensions, macroeconomic and financial integration composed of regional convertibility of national currencies and inflation rate differential in the 2016 ARII report, and additional indicator called number of bilateral investment treaties in force. Hence, the macroeconomic and financial integration of Africa is portrayed as follows.

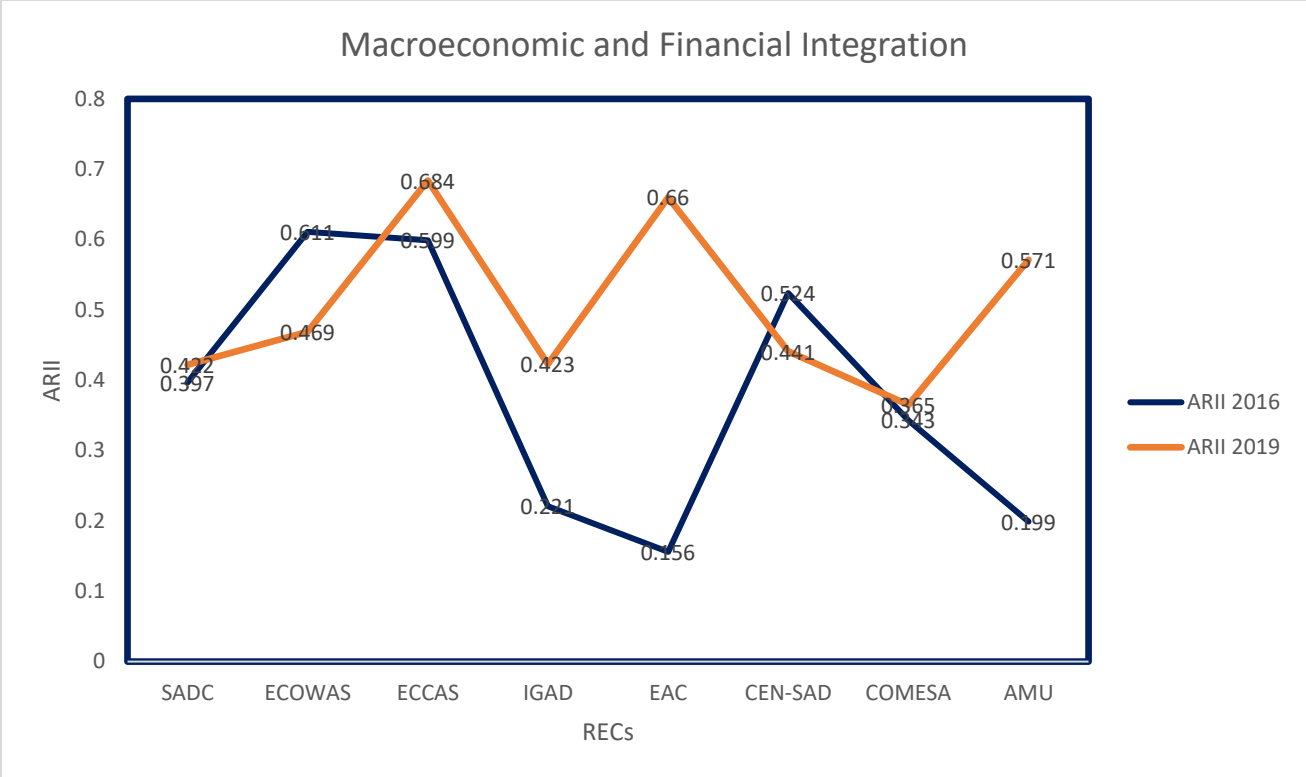


Figure 4.1. Macroeconomic and Financial Integration of African RECs in 2016 and 2019

Source: Prepared by the author based on AU (2016 & 2019)

Since the focus of this study is on EAC, Figure 2.1 shows that EAC had improvement in 2019 in macroeconomic and financial integration from its own 2016 performance moving from 0.156 to 0.66. And also, it was the second-best performing African REC in this considered integration area next to ECCAS.

The capital market experiences of EAC traced back to the last years of colonial rule with the initial three member states: Kenya, Tanzania (the then Tanganyika) and Uganda. To this effect, the Nairobi Stock Exchange (NSE) was the pioneer, and with the eventual disintegration of EAC in 1977, Tanzania and Uganda also instituted Dares Saalam Stock Exchange (DSE) and Uganda Securities Exchange (USE) in 1990s, respectively. With the inclusion of the Rwanda Stock Exchange (RSE) in 2011, EAC possessed four functional stock exchange with 110 listed companies. EAC is currently transformed in to a computerized Automated Trading System (ATS) for an efficient stock trading system in the region (EAC, 2022)

Speaking of the rationales behind EAC's capital market integration, one of the major reasons is the fact that individual members' stock market is illiquid and has 1% share in the GDP. Hence, collaborating in a region basis and using the synergistic resources to improve the efficiency, liquidity and competitiveness of their financial markets is found to be essential. That is why EAC through East African Securities Regulatory Authorities (EASRA) is striving to bring East African markets to the regional integration table, instead of pursuing a separate country level approach (Muthoni, 2008 & Atenya, 2019). According to the EAC (2022), the rationales behind the regional capital market cooperation are the following. The primary goal of regionalizing EAC capital markets is to make them more appealing to both issuers and investors, resulting in market expansion. The establishment of a single EAC capital market would provide domestic investors with more options and domestic issuers with the ability to raise larger quantities of capital from a broader range of investors, allowing the economy and jobs to grow. The creation of one efficient and reliable EAC capital market infrastructure is intended to improve not only issuer and investor transaction capacity, but also reliability and scale economies, resulting in higher cost-efficiency. The combination of a larger and deeper market, as well as increased transaction efficiency and dependability, could enable the country to attract more foreign portfolio investment than previously.

The journey of capital market integration is not free of challenges. Mentionable among the pitfalls are policy, legal and regulatory frameworks, macroeconomic factors, absence of political commitment to the cause and multiple membership several RECs (Muthoni,2008). Muthoni concluded that the absence of "political goodwill" is the main reason that is impeding the capital market integration in EAC.

To actualize a regionally integrated capital markets, EAC has organized a sub-committee called the Capital Market Insurance and Pension Committee (CMIPC). To further reinforce its goal of capital markets integration, EAC created two bodies for stock regulators and participants: East African Securities Regulatory Authorities (EASRA) and East African Stock Exchange Association (EASEA), respectively. To these effects, EAC currently is able to practice cross-listing. And such regional cross-listing, according to Adelegan (2008), has shown a high positive effect on stock market deepening of thirteen sub-Saharan states, including some EAC members. Moreover, the

above study asserted that countries with region-based cross-listing have outperformed those did not take part.

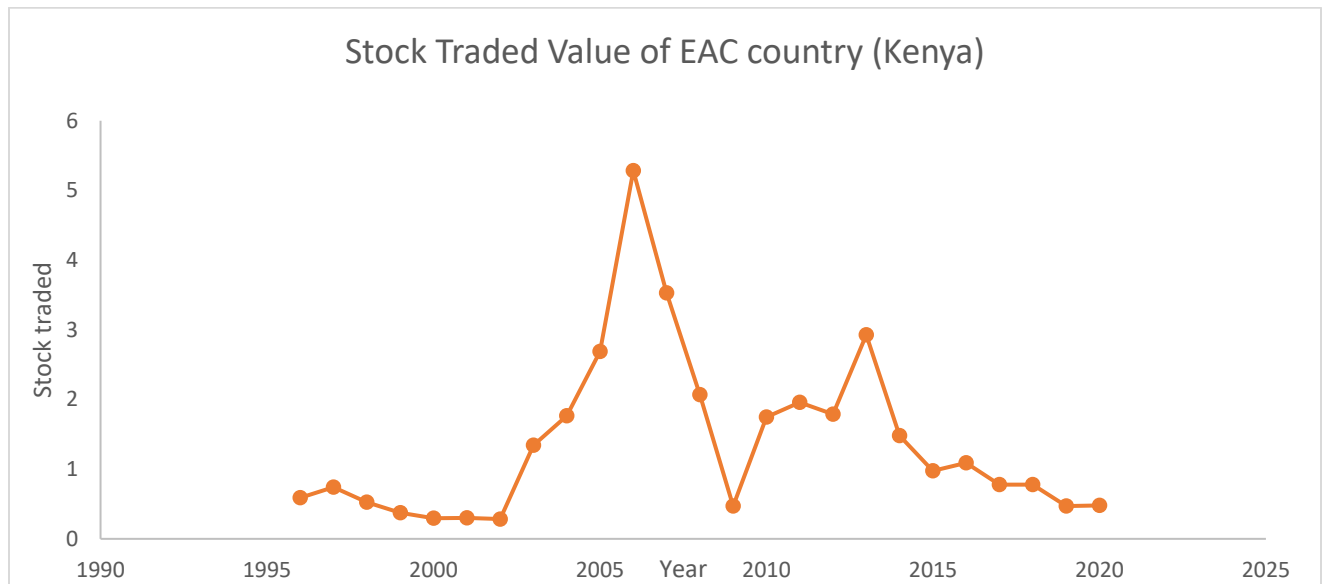


Figure 4.2: Stock Traded value of EAC Member: Kenya (1996-2020)

Figure 4.2. shows the liquidity of Kenya's stock market trend over the last 25 years. Accordingly, it portrayed a steady growth from 2002 to 2006, after which the trend fell drastically till 2009. Kenya's stock market has been in a sharp fall during the 2007/2008 financial crises. This is a good manifestation that the global stock market contagion or spill-over effects on African., or particularly Kenyan stock market. Besides, the trend shows decline in 2019 and 2020. This is mainly attributed to the COVID-19 related crisis (Anyanw & Salami, 2021). Hence, the above figure's connotation corresponds with what has been stated in literature review part of 2.4., which narrates the vulnerability of developing countries' financial and economic practices with collapse of global financial systems.

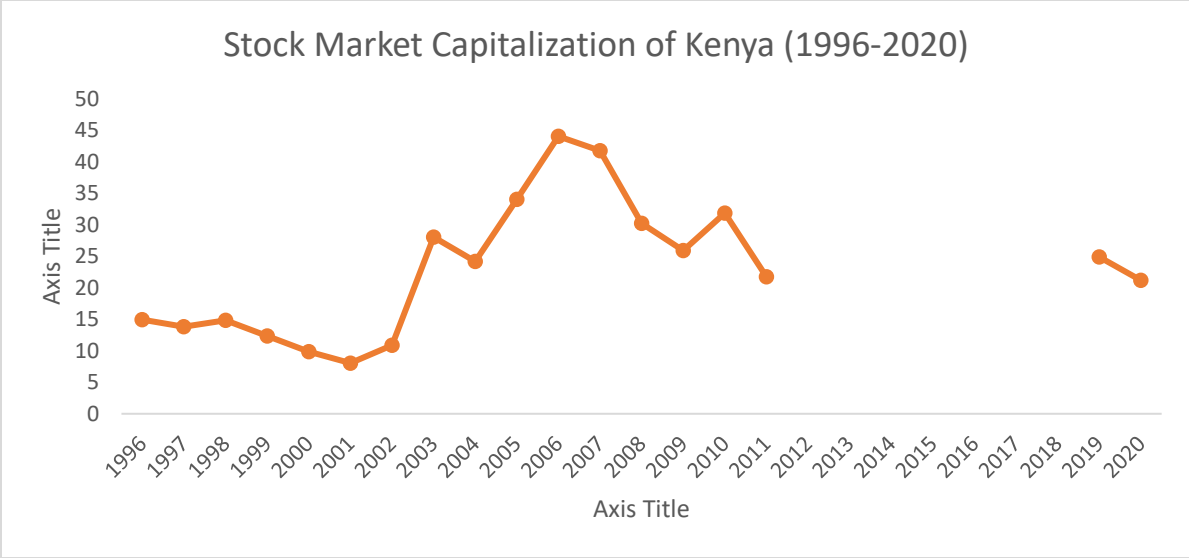


Figure 4.3: Stock Market Capitalization of EAC Member: Kenya (1996-2020)

The above figure demonstrates the size of Kenyan stock market within the study period (1996-2012), and thus, it affirms that it has been growing bigger in the pre-financial crises period (2007/2008) and began to crumble afterwards. Once again this reveals the fact that the Kenyan market was affected by the global financial crises. But, due to the scanty nature of data on EAC member states, including Kenya though it’s relatively better, the trend cannot cover the whole study period. Similarly, the issue of global crisis’ spill-over effects mentioned in section 2.4. is also evident on Kenya’s stock market capitalization. The catastrophic effect of COVID-19, as described by Anyanw & Salami (2021) and Kusumahadi & Permana (2021) is visible this figure too.

**4.2.2. Capital Markets Integration in ASEAN**

Conceived in 1960s, ASEAN has been striving to achieve full financial integration through various mechanisms. The occurrence of the late 1990s Asian Crisis led to the establishment of ASEAN Surveillance and the 2003 ASEAN financial integration roadmap, which has three major goals of developing the region’s capital markets and liberalizing their financial services and capital accounts (Jamal & Jun, 2020).

Regional capital market integration in ASEAN has experienced a great momentum following the outbreak of the late 1990s Asian financial crisis, which can be noted as a driving factor for the reinforcement of regional approach to capital market development in Asia (Yang, Kolari & Min,

2003; Yu, Fung & Tam, 2010; Park, 2013, & Shimizu, 2014). Apart from financial crisis prevention motive, the ASEAN's have a driving cause such as supporting their economic growth, boosting the financial tranquility through ensuring liquidity of domestic capital markets, and ameliorating the effectiveness of their monetary policy (Amamiya, 2019). As Kapinguria et al (2014) stated capital market integration can be taken place at national, regional and universal level. In light of this, Park (2013) investigated the intensity of either regional or global financial integration was prevalent in Asia, and found out that most Asian countries are more inclined to integrate with developed financial markets of international stages than their nearby regional markets.

Over the last decade, Asians have been exerting efforts to strengthen their regional integration through various region-wide undertakings. Among those region-wide programs, committees and frameworks to facilitate financial integration and cooperation are the ASEAN Capital Markets Forum (ACMF), the ASEAN Insurance Regulators' Meeting (AIRM), the ASEAN Forum on Taxation (AFT), the ASEAN Banking Integration Framework (ABIF) and Asia Securities Industry and Financial Markets Association (ASIFMA) (Jamal & Jun, 2020). But still the task of financial integration is not fully accomplished as some member states lagged behind both in maturity and integration (Park, 2013). As Robiyanto (2017) founded that only the Indonesia, Kuala Lumpur, Thailand and Singapore's stock exchanges were well integrated. This finding triggers a question of why newly emerging ASEAN members were outperformed by the relatively well--developed ones in the same REC? In this regard, Park (2013) & Mobarek & Mollah (2016) pointed out that intra-regional disparity in economy, technology, government policies, institutional quality and the capital market imperfection by itself have diverted the flow of capital in to the capital scarce states of the region.

Recognizing the complexity and seriousness of unfettered capital markets such as risks pertaining to macroeconomy and financial stability, and capital flow reversal, ASEAN established certain requirements as a threshold conditions. Foremost, member states or potential members should work on improving their financial markets, quality of their institutions, setting up good governance, well designed macroeconomic policies, and trade integration. This is to make sure that states have the necessary preparation on ensuring the efficiency and stability of their financial

system. In addition, potential members shall develop a crisis prevention and resolution strategies to avoid pre-mature engagement (ADB, 2013).

Once countries have attained the required maturity in their financial system, ASEAN as a REC demands the capital account liberalization. What must be noted here is that ASEAN and other researchers realized that deregulating the capital market has its own advantage and possible contagions. Establishing a system that can take advantage of the benefits and monitor the drawbacks is where effectiveness of financial system lies. With regard to the financial system liberalization, ASEAN set rules on which its liberalization relied up on the principle of “ASEAN minus X”, respecting the interests of members’ national policy objectives, allowing flexibility of devising a timeliness and liberalization preconditions by members, complying to international standards of financial regulations and preparing for combating possible risks emanated from opening up the market (ADB, 2013).

The collaborative efforts in finance also evident in various activities of ASEAN+3, which means ten members and three other Asian states: China, Japan and Republic of Korea. This ASEAN+3 arrangement has three major cooperation areas. The first one is the Chiang Mai Initiative (CMI), which started in 2000 to tackle finance related global risks. CMI reformed itself in 2010 and became Chiang Mai Initiative Multilateralization (CMIM) so as to reinforce the region’s crisis management capabilities, including the IMF de-linking plan. The second major initiative is ASEAN+3 Macroeconomic Research Office (AMRO). This body has a task of controlling and following up the region’s overall economic conditions and assisting the CMIM’s decision making activities. As Park (2017) pointed that CMIM has a weakness of assuring financial wellbeing of the region as it works on a pledge funding basis. Thus, Park (2017) suggested what he thought an effective regional financial arrangement called Reserve Fund Facility to ensure an automatic lending through upfront funding. The last but not the least initiative is the Asian Bond Markets Initiative (ABMI), which has been striving to develop local currency denominated, more accessible and well-functioning regional bond markets through establishing the Credit Guarantee and Investment Facility (CGIF) (Jamal & Jun, 2020).

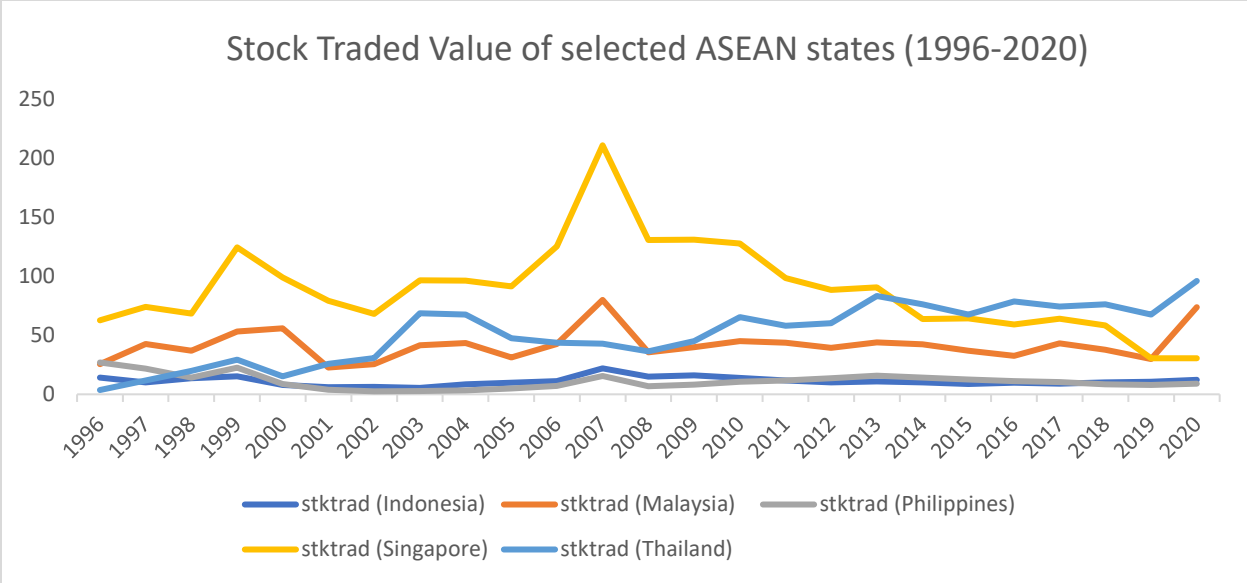


Figure 4.4: Stock Traded Value of Selected ASEAN States (1996-2020)

Source: Prepared by the author based on the data obtained from World Development Indicators (WDI)

Figure 4.4 shows the liquidity of ASEANS stock market and implies that their stock markets liquidity is relatively better in 2007 and 2008 compared to the late 1990s Asian financial crises. But this does not necessarily mean that the 2007/8 global financial crisis have no impact on ASEANS at all. Rather the trends of most states, except Thailand, show a consistent decline after 2007 till 2009. As the 2.4. section of the literature review indicated the 1997/8 crisis was devastating for Asians and they afterwards consolidated their regional capital market integration. Due to this, the later crisis of 2007/8 was not as catastrophic as the previous one for ASEAN. Most recently, the 2019 unexpected COVID-19 induced crisis also affected the Asians stock markets (Adnan, 2022).

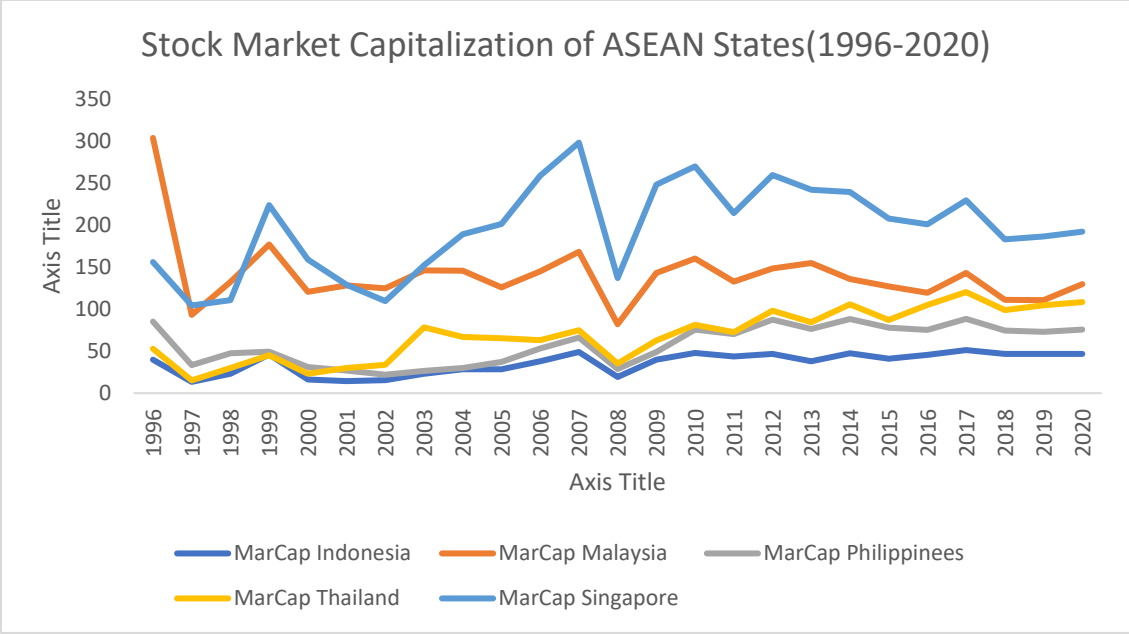


Figure 4.5. Stock Market Capitalization of selected ASEAN States (1996-2020)

Source: Author’s own work based on WDI data

Concerning the market size of ASEANS, figure 4.5 illustrates that there has been shrinkage in the size of stock market in the aftermaths of late 1990s Asian financial crises and the 2007/8 global financial crises. But trends show speedy recovery the years followed that catastrophe. This figure’s illustration also corresponds with what has been stated about the two crises in 2.4. of literature review. Specially, the post 2007/8 crisis recovery of ASEAN was attributed to their CMIM, AMRO and other risk management mechanisms. Further More, the trends show decrease in 2019, during which the famous pandemic entailed crisis on global financial system and of course on the ASEANS too (Adnan, 2021, & Kusumahdi & Permana, 2021).

**4.3. Panel ARDL Results**

This section deals with the basic steps of estimating panel ARDL results on the relationship between the stock market development of considered study states and explanatory factors, such as macroeconomic issues, institutional and regulatory qualities, and liberalization of accounts. As presented here below, those basic phases are model specification in 3.6, descriptive statistics to check the availability of sufficient standard deviation to explore the variations in the data, correlation analysis to make sure that explanatory variables are free from multicollinearity, unit root tests to assure the stationarity of variables as it is crucial to know the effect of time factor on

the value of variables, optimal lags selection to identify the ideal lags to get the appropriate ARDL result instead of taking the default lags, Hausman test to select the best estimator among MG, PMG & DFE for the model, and estimation of the model based on PMG estimator at last.

Table 4.1: Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
stktrad	150	34.37074	36.10114	.2843073	210.7243
infltn	150	4.683464	5.963058	-1.138702	58.45105
changetope~s	144	-.0089645	.1286601	-.7913392	.4303825
changeregl~y	144	.0010417	.0999421	-.25	.29
kaopen	150	.4933333	.9177348	-1	2
intratspr	150	4.733944	2.862491	-6.9125	16.19583
changeexgr~e	144	85.55735	699.1867	-2158.472	7104.242

Source: Author's own computation based on the WDI's data

The above table depicts the characteristics of the dependent and independent variables in number of observations, mean, standard deviation, minimum and maximum parts. For this study, however, it is evident that the standard deviation is enough to explore the variations in the data.

Table 4.2: Correlation Matrix

	stktrad	infltn	change~s	change~y	kaopen	intrat~r	change~e
stktrad	1.0000						
infltn	-0.3553	1.0000					
changetope~s	-0.0292	0.2158	1.0000				
changeregl~y	0.0079	-0.0990	-0.0392	1.0000			
kaopen	0.2420	0.1361	0.0360	-0.0925	1.0000		
intratspr	-0.2906	0.0023	-0.0342	0.0821	0.3658	1.0000	
changeexgr~e	-0.0808	0.5941	0.2934	-0.1132	0.0170	-0.2946	1.0000

Source: Own computation based on the data from WDI

Table 4.2 shows that the variables are free of multicollinearity problem as none of them associated one another at equal to 0.80 or greater. This is an assurance that the explanatory variables are not

a perfect or exact representation of one another. Hence, the variables are good to go for further econometric analysis.

Table 4.3: Im, Pesaran & Shin, and Levin-Lin-Chiu's Unit Root Test of Variables Stationarity

	Level (I(0))		First Difference (I(1))	
	Im, Pesaran & Shin	Levin, Lin & Chu	Im, Pesaran & Shin	Levin, Lin & Chu
Stock traded	-2.7171*	-1.812		
	0.0033**	0.0350		
Inflation	-2.5252	-2.8066		
	0.0058	0.0025		
Trade Openness	-8.7323			-9.3066
	0.0000			0.0000
Regulatory Quality	-5.0576			-4.4278
	0.0000			0.0000
Capital Account Openness		-4.247	-8.7323	
		0.0000	0.0000	
Interest Rate Spread		-3.1549	-5.0576	
		0.0000	0.0000	
Exchange Rate	-1.7426			-9.4836
	0.0000			0.0000

\* Statistics

\*\* P-value

Source: Author's own computations based on WDI data

As table 4.3 shows, this study's variables are stationary at level and first difference. Im, Pesaran & Shin (IPS)'s test reveals that all variables are stationary at level, except capital account openness and interest rate spread, which are also stationary at first difference. Levin-Lin-Chiu's test is used when there is strongly balanced data. Hence, in the LLC test indicated result, trade openness, regulatory quality, and exchange rate are stationary at I (1) while the rest are stationary at I (0). For panel ARDL estimation to be run, the data should be stationary at level and first difference,

but not at second level or I (2). Hence, the above unit root tests reveal the fact that the data is efficient to move on to the next step.

Table 4.4: Panel ARDL results of PMG, MG, & DFE estimators

	(PMG)	(MG)	(DFE)
	D.stktrad	D.stktrad	
<hr/>			
ECT			
Inflation	3.416*	4.368	2.186
	(0.028)	(0.401)	(0.067)
Trade openness	31.55	51.67	25.82
	(0.337)	(0.368)	(0.525)
Regulatory quality	-83.92*	-52.92*	-4.048
	(0.012)	(0.022)	(0.931)
Capital account open	4.561	22.17	-8.999
	(0.381)	(0.226)	(0.347)
Interest rate spread	-5.430*	-15.82*	0.473
	(0.036)	(0.039)	(0.848)
Exchange rate	0.0234	37.01	-0.0167
	(0.922)	(0.304)	(0.152)
<hr/>			
SR			
ECT	0.280*	0.535***	0.408***
	(0.020)	(0.0000)	(0.000)
D.inflation	-0.178	0.949	0.362
	(0.866)	(0.128)	(0.383)
D.tradeopenness	-1.488	6.217	-4.220
	(0.919)	(0.638)	(0.687)
D.regulatory quality	-6.263	-9.427	1.412
	(0.068)	(0.231)	(0.916)
D.capital accountope	8.584	7.514	-5.283
	(0.376)	(0.383)	(0.248)
D.interest rate sprd	0.524	4.068	1.615

	(0.933)	(0.266)	(0.306)
D.exchange rate	-36.39	2.201	-0.00202
	(0.308)	(0.477)	(0.442)
_cons	-16.74*	-27.92	-11.24
	(0.035)	(0.060)	(0.069)
<hr/>			
<i>N</i>	138	138	

P-value in the parentheses

\*  $p < 0.05$ , \*\*  $p < 0.01$ , \*\*\*  $p < 0.001$

Source: Authors own computation based on WDI data

Table 4.4. reveals that the model under PMG estimator shows a statistically significant negative long-run relationship between stock traded value on one hand, and regulatory quality and interest rate spread on the other hand, while inflation shows a statistically significant positive relationship. This is a good manifestation of the fact that macroeconomic factors and institutional and regulatory qualities have a statistically significant relationships with the liquidity of stock market. In the short-run, however, only the constant term shows significance and a relatively better significant short-run relationship with regulatory quality.

Pertaining to the MG estimator, the model demonstrates a significant negative long-run relationship between the capital market variable (stock traded value) and macroeconomic variable (interest rate spread) and regulatory quality. However, there is no sign of significant short-run relationships between the variables in general. The Error Correction Term (ECT) represent the speed of adjustment to the equilibrium. Accordingly, the ECT portrays a significant, but positive ECT, which signifies divergence to the long-run equilibrium.

Table 4.5: Hausman Test between PMG and MG

```
. eststo:hausman pmg mg, sigmamore
```

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) pmg	(B) mg		
infltn	3.416377	4.36769	-.9513135	.
changetope~s	31.54645	51.67268	-20.12622	.
changeregl~y	-83.91987	-52.92421	-30.99565	.
kaopen	4.560909	22.1741	-17.61319	.
intratspr	-5.430356	-15.82316	10.3928	.
changeexgr~e	.0234368	37.01206	-36.98862	.

b = consistent under Ho and Ha; obtained from xtpmg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtpmg

Test: Ho: difference in coefficients not systematic

```
chi2(6) = (b-B)' [(V_b-V_B)^(-1)] (b-B)
          = 87.39
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)
```

Source: Author's own computation based on WDI data

As the above table stata output indicates, the decision is failing to reject the following null hypothesis.

H<sub>0</sub>: MG & PMG estimates are not significantly different. (PMG is more efficient)

H<sub>a</sub>: Null is not true

Since the p-value is less than 0.05, the decision cannot reject the null hypothesis. In other words, this particular test affirms the appropriateness of MG over the PMG estimation. The next test should be between MG and DFE estimators.

Table 4.6: Hausman Test between DFE and MG

```
. hausman mg dfe, sigmamore
```

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) mg	(B) dfe		
infltn	4.36769	2.185742	2.181948	1.738611
changetope~s	51.67268	25.81531	25.85737	.
changeregl~y	-52.92421	-4.04829	-48.87592	.
kaopen	22.1741	-8.998633	31.17273	.
intratspr	-15.82316	.4733004	-16.29646	1.882475
changeexgr~e	37.01206	-.0166696	37.02873	14.62086

b = consistent under H<sub>0</sub> and H<sub>a</sub>; obtained from xtpmg  
 B = inconsistent under H<sub>a</sub>, efficient under H<sub>0</sub>; obtained from xtpmg

Test: H<sub>0</sub>: difference in coefficients not systematic

```
chi2(6) = (b-B)'[(V_b-V_B)^(-1)](b-B)
          = 39.56
Prob>chi2 = 0.0000
(V_b-V_B is not positive definite)
```

Source: Author’s own work based on WDI data

Table 4.6’s P-value, which is 0.0000, illustrates that MG is again found to be better estimator of the model.

H<sub>0</sub>: DFE & MG estimates are not significantly different. (PMG is more efficient)

H<sub>a</sub>: Null is not true

The decision is to reject H<sub>0</sub> or use MG if the P-value is less than 0.05, which in this case is 0.0000. Thus, this study’s panel ARDL model would be estimated using the MG model along with PMG due to the long-run slope homogeneity assumption of this study and insufficient period (25 years) to entirely rely on MG estimator. Hence, both estimators used parallelly.

#### 4.4. Lessons for Ethiopia

This part deals with the very essence of this study. i.e., drawing lessons from the regional stock market integration of developing countries from Africa and Asia with specific focus on EAC and ASEAN.

From both EAC and ASEAN states experience, Ethiopia can grasp a lesson that regional integration or cooperation in capital market in capital market is very crucial for less experienced and emerging markets. The advantage includes an advisory and technical supports from experienced capital markets on how to establish a capital market, specifically stock exchange and authority and others details, and what regulatory frameworks should be in place to manage and supervise the market. In this regard, an initiative, according to Melese Minale, are being undertaken by the Ethiopian government to work collaboratively with the Kenya-based Financial Sectors Deepening (FSD Africa). Besides, working with Africa based institutions, such as FSD Africa, Ethiopia needs to devise a strategy to engage in a regional stock market integration or cooperation by cautiously investigating a REC that is worthy of joining or engaged with. By worthy joining, what it means is that most African RECs have practical priority areas of integration (such as IGAD for Peace and Security), though all rounded integration is what they striving for theoretically. Hence, it is wise to identify RECs with financial integration enthusiasm. With respect to RECs, Ethiopia can learn a lot from COMESA and EAC countries' regional integration initiatives.

Another vital lesson is the necessity of building firm knowledge base on capital market in particular and financial system in general. In this regard, the Ethiopian government or NBE should work in coexistence with both local and foreign academic institutions to incorporate capital market-oriented programs in universities' curriculums. Besides offering scholarships for professionals in abroad, there should be commitment to establish an endogenous financial academic and research centers is a must to do task for sustainable and smoothly running financial system. The beginning of some undertakings, such as the opening of new post-graduate programs in Financial Economics and Corporate Finance with Investment specialization, by AAU are great initiatives. This is due to the fact that local scholars can work on the policies, regulatory frameworks, and strategies that best suit the socio-economic and political circumstances of their regions, rather than solely importing World Bank's guidelines and which in most cases did not fit developing countries. A good example here is the ASEAN's AMRO and CMIM.

With regard to liberalization, the experiences of ASEAN and EAC suggest openness, which is stated as the backbone of multifaceted integration efforts. As it has been stated in the literature review part, there is no consensus among scholars on financial liberalization. One thing evident,

however, is that it has both merits and demerits. Accordingly, for Ethiopia to take advantage of openness, it has to establish an overall capacity to handle an unfettered capital market since such acts are known for exposing emerging markets to financial atrocities. Thus, liberalization is stock market integration is “necessary evil”. Given the recent financial liberalization interest of Ethiopian government through allowing foreign banks and other sectors like telecom, it is expected for Ethiopia to take lessons from the success and failure of African and other emerging markets on how to handle liberalization and to what extent it has to be unregulated.

Speaking of regional integration theories, liberal intergovernmentalism heavily relies on the commitment and good will of political leaders to the regional causes. In addition, in this regional integration system, political leaders do not compromise with their political sovereignty for the sake of regional integration. In the second theory of neo-functionalism, the task of regional integration is given to transnational or supranational institutions. Here governments are expected to hand over some of their power to the institutions to effectively operate on the regional integration efforts. At third, the post-functionalism dictates the multi stage governance of regional integration based on selected functional areas, rather than striving for an all-rounded integration scheme. In light of the above three theories, there is no clear line of integration in most of African RECs. For instance, IGAD as its name indicates is following the intergovernmental features of integration, but most of its members show zeal to it for peace and security matters. That means, even if IGAD consider itself as an intergovernmental regional community, its members, using their ultimate power, utilized it as a post-functional organization that specialized on particular domain. Thus, Ethiopia as a member state of IGAD & COMESA has to evaluate the regional integration motives of RECs before engaging in the regional stock market integration or cooperation.

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS**

### **5.1. Summary**

Aimed at answering its specific objectives of assessing the capital market integration experiences of EAC & ASEAN, probing the relationship between capital market development and explanatory variables, reviewing the financial status quo of Ethiopia, and drawing lessons from developing countries to Ethiopia; this study raised four basic research questions. These are:

1. What are the challenges, prerequisite requirements and crisis surviving mechanisms of selected RECs in Africa and Asia?
2. What are the short and long run relationship between capital market development and other variables such as liberalization, macroeconomic factors, and institutional qualities in considered developing states?
3. What lessons can Ethiopia learn from its alike states' capital market integration?

The first question was addressed through document review and trend analysis on the two RECs: ASEAN and EAC. Accordingly, the assessment revealed that both RECs have a relatively better performances and experiences in region-based capital market integration.

The second question was dealt with the panel ARDL's MG & PMG estimators, and it asserted that the capital market development's proxy variable: stock traded value., has a statistically significant Long Run relationship with macroeconomic variables, such as inflation, interest rate spread, and institutional and regulatory qualities, but not in the Short Run.

The third question was answered through assessing various documents, official websites, newspapers and blogs. Accordingly, the overall status of Ethiopian financial system, as per scholars' opinion and government's decision, is ready to commence stock market. Besides, progress has been shown as Ethiopia, through EIH, FSD Africa, NBE's CMPIT, is working on establishing Ethiopian Stock Market (ESX), capital market authority and liberalized financial system, and cooperating with regional financial groups such as FSD Africa.

The last question was addressed through critically examining the findings of the preceding three questions. In doing so, lessons such as the necessity of regionally cooperated and/or integrated stock market, especially with well-performing RECs like COMESA, the importance of

emphasizing on macroeconomic factors, and institutional regulatory qualities for capital market development, were drawn.

In a nut shell, the study shows the importance of integrating stock market on a region base, and focusing on macroeconomic policies, regulatory and institutional qualities for development of emerging countries like Ethiopia's stock market.

## **5.2. Conclusion**

The data from the EAC and ASEAN demonstrates that they have strengthened regional capital market integration over the past ten years in order to benefit from it. In a similar vein, the Panel ARDL results reveal a statistically significant long-term association between stock traded value and macroeconomic variables as well as institutional and regulatory qualities. Therefore, it is more prudent for Ethiopian stakeholders to consider the potential for profiting from regional stock market cooperation and integration as well as the requirement to place adequate emphasis on macroeconomic aspects and regulatory features.

## **5.3. Recommendations**

Depending on the stated findings, this study forwards the following recommendations to the Ethiopian stock market stakeholders, especially to NBE's CMPIT.

- Though the benefits of regional stock market integration have been mentioned by scholars, Ethiopia needs to investigate the challenges that impedes African RECs regional integration from reaping its bonanzas. So that it is possible to take advantage of it. In this regard, identifying the viable REC for stock market integration is worth considering as some RECs prioritize on focus areas other than financial integration.
- Ethiopia shall commence its regional stock market endeavor from simple steps such as bilateral or multilateral memorandum of understandings on capital market with experienced African or other countries, or partial integration.
- NBE or the future capital market authority should reconsider the compatibilities of macroeconomic policies, regulatory frameworks, and risk management or crisis prevention practices from the perspective of liberalized financial system.
- Since integrating with the global and regional stock markets has a contagious effect, the Ethiopian government plan of liberalizing the financial sector has to be cautiously handled under a certain pre-condition by considering the capacity of the country to engage and

compete with the experienced stock market all over the world. In other words, the pros and cons of segmentation and integration of stock market should be given due attention.

- The Ethiopian stakeholders in general and NBE and the upcoming Capital Market Authority in particular shall work on fulfilling preconditions for regional capital market integration. Such as harmonizing policies, frameworks, accounting standards and disclosure requirements (including working on successful implementation of IFRS), and stock listing requirements.
- Finally, the study suggests for further study on the possibilities of manipulating regional capital market integration for Ethiopia's emerging market.

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**Declaration**

I, Yabsira Dereje, hereby certify that the research was done only by me and was not presented for any other reason. It was put together in compliance with Addis Ababa University's academic norms, and all sources are properly recognized.

Signature \_\_\_\_\_

Date \_\_\_\_\_

## Appendix

### STATA outputs

```
. xtunitroot llc stktrad
```

```
Levin-Lin-Chu unit-root test for stktrad
```

```
Ho: Panels contain unit roots      Number of panels =      6  
Ha: Panels are stationary           Number of periods =     25
```

```
AR parameter: Common                Asymptotics: N/T -> 0  
Panel means:  Included  
Time trend:   Not included
```

```
ADF regressions: 1 lag
```

```
LR variance:      Bartlett kernel, 9.00 lags average (chosen by LLC)
```

---

	Statistic	p-value
Unadjusted t	-5.2739	
Adjusted t*	-1.8120	0.0350

---

```
.
```

```
. xtunitroot llc infltn
```

```
Levin-Lin-Chu unit-root test for infltn
```

```
Ho: Panels contain unit roots      Number of panels =      6  
Ha: Panels are stationary           Number of periods =     25
```

```
AR parameter: Common                Asymptotics: N/T -> 0  
Panel means:  Included  
Time trend:   Not included
```

```
ADF regressions: 1 lag
```

```
LR variance:      Bartlett kernel, 9.00 lags average (chosen by LLC)
```

---

	Statistic	p-value
Unadjusted t	-6.4001	
Adjusted t*	-2.8066	0.0025

---

```
.
```

```
. xtunitroot llc topenness
```

```
Levin-Lin-Chu unit-root test for topenness
```

```
Ho: Panels contain unit roots      Number of panels =      6  
Ha: Panels are stationary           Number of periods =     25
```

```
AR parameter: Common                Asymptotics: N/T -> 0  
Panel means:  Included  
Time trend:   Not included
```

```
ADF regressions: 1 lag
```

```
LR variance:      Bartlett kernel, 9.00 lags average (chosen by LLC)
```

---

	Statistic	p-value
Unadjusted t	-2.0219	
Adjusted t*	1.1034	0.8651

---









```
. xtunitroot ips regltryqlty , lags (1)
```

```
Im-Pesaran-Shin unit-root test for regltryqlty
```

```
Ho: All panels contain unit roots          Number of panels =      6
Ha: Some panels are stationary             Number of periods =     25

AR parameter: Panel-specific              Asymptotics: T,N -> Infinity
Panel means:  Included                    sequentially
Time trend:   Not included
```

```
ADF regressions: 1 lag
```

	Statistic	p-value
W-t-bar	-1.3233	0.0929

```
.
. xtunitroot ips changeregtryqlty , lags (1)
```

```
Im-Pesaran-Shin unit-root test for changeregtryqlty
```

```
Ho: All panels contain unit roots          Number of panels =      6
Ha: Some panels are stationary             Number of periods =     24

AR parameter: Panel-specific              Asymptotics: T,N -> Infinity
Panel means:  Included                    sequentially
Time trend:   Not included
```

```
ADF regressions: 1 lag
```

	Statistic	p-value
W-t-bar	-5.0576	0.0000

```
. forval i=1/6{
```

```
2.
```

```
. ardl stktrad infltn changetopenness changeregtryqlty kaopen intratspr changeexgrate if(ccode=='i'), maxlag(2 2 2 2 2 2)
```

```
3.
```

```
. matrix list e(lags)
```

```
4.
```

```
. di
```

```
5.
```

```
. }
```

```
. xtpmg d.(stktrad infltn changetopenness changeregltryqlty kaopen intratspr changeexgrate), lr(st
> qlty kaopen intratspr changeexgrate) ec(ECT)replace mg
```

---

Mean Group Estimation: Error Correction Form  
(Estimate results saved as mg)

---

D.stktrad	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
ECT						
infltn	4.36769	5.196556	0.84	0.401	-5.817373	14.55275
changetopenness	51.67268	57.35396	0.90	0.368	-60.73902	164.0844
changeregltryqlty	-52.92421	23.0494	-2.30	0.022	-98.10021	-7.748207
kaopen	22.1741	18.31389	1.21	0.226	-13.72046	58.06866
intratspr	-15.82316	7.64698	-2.07	0.039	-30.81096	-.8353518
changeexgrate	37.01206	36.01692	1.03	0.304	-33.5798	107.6039
SR						
ECT	.5351149	.0917821	5.83	0.000	.3552252	.7150046
infltn						
D1.	.9488398	.6229696	1.52	0.128	-.2721582	2.169838
changetopenness						
D1.	6.217363	13.21324	0.47	0.638	-19.68011	32.11483
changeregltryqlty						
D1.	-9.426515	7.866156	-1.20	0.231	-24.8439	5.990867
kaopen						
D1.	7.514114	8.61328	0.87	0.383	-9.367606	24.39583
intratspr						
D1.	4.068161	3.654453	1.11	0.266	-3.094436	11.23076
changeexgrate						
D1.	2.200691	3.093355	0.71	0.477	-3.862173	8.263555
_cons	-27.92197	14.8665	-1.88	0.060	-57.05978	1.215841