# Effect of Capital Account Liberalization on Financial Development in Kenya

Wesley Okoth Otieno, Prof. Florence Memba and Dr. Tobias Olweny Jomo Kenyatta University of Agriculture and Technology, Kenya

#### Abstract

Financial liberalization has been part of financial reform packages in many countries as stabilization for financial development tools of respective economies. One of these countries is Kenya which has been undergoing various financial sector reforms since 1980 to improve economy mainly on the ease of financial sector, equity market and capital account. This research was conducted to establish the effect of financial sector liberalization on financial development in Kenya in relation to various financial liberalization effects and measures adopted from 1985 to 2018. The principal component analysis method was used in the calculation of the index required data for all the years since the liberalization process started in Kenya to calculate the financial liberalization index required for the study period. The research first identified events dates of major policy changes or reforms and their effect on financial development and population of study were from various financial sector institutions operating in Kenya. The Secondary data was sourced from Central Bank of Kenya reports and statistical bulletins. The findings revealed that, capital account liberalization facilitated financial development. The study recommended that, in a bid to promote capital inflows and enhance better risk-sharing, there is a need to reform financial rules, strengthen the banks and promote the business sector.

Date of Submission: 17-04-2022 Date of Acceptance: 02-05-2022

# I. Introduction

Both financial theory and practical experience suggest that financial liberalization can stimulate economic development. Until the 1980s, extensive government intervention was the norm in the financial markets of developing countries. inflows of foreign capital were strictly controlled. Over the last twenty years, however, many developing countries persuaded by both the theoretical arguments made in support of liberalization and the experience of many of the rapidly growing countries have begun to liberalize their financial markets by abolishing these types of controls (Pill, 1997)

In developing countries like Kenya, domestic financial sector was liberalized along with capital account in the 1970s, when controls were re-imposed that remained in place until the late 1980s (especially capital account controls) when a liberalization wave took place in Asia and then in Latin America. By the early 1990s, the domestic financial sector and stock market had been jointly deregulated in developing countries which predates capital account liberalization, which only commences in the early 1990s. In early 1970s, Government intervention in the determining of the price and allocation of credit was termed as 'financial repression' by McKinnon and Shaw. Barriers to entry to financial sector, state control of banking sector, government ownership of banks and restrictions on capital flows.

Caprio et al., 1999, Proponents of financial liberalization argue that financial repression is the cause for lower growth rates that otherwise would be higher if open market would decide the flow of capital to projects. Therefore Assumed costs associated with repression are described as follows

- (1) deteriorating growth rates for countries with high levels of financial repression;
- (2) increased dependence on external financing because of negative real interest rates which results in capital flight;
- (3) reduced monitoring and financial resource allocation functions of financial intermediaries as the result of state allocation of financial resources to inefficient state-owned enterprises;
- (4) increased risk for external crisis, as the result of deteriorating fiscal balances, increased external financing or money printing.

# **Statement of the Problem**

The issue of importance in this study is whether the level of financial sector development of a country depends on adoption and implementation of financial liberalization measures which has been identified to be strategic to financial development as postulated by the Financial Development Report 2012 which says that improvement efforts need to be driven by national level reforms so as to ensure that appropriate financial

DOI: 10.9790/487X-2405010110 www.iosrjournals.org 1 | Page

systems are in place which helps in improving the economy as a whole. Kenya planning blue prints, vision 2030 identifies the financial sector as one sector which can spur economic growth and investment as it projects to double rate of financial access, depth, stability and efficiency.

In light of theory and evidence on empirical studies (Odhiambo 2003, 2004a, 2008, Pill 1997, Perron 1989, Ngugi et al.2009, ) indicates that the effective of financial institutions markets affects national saving rates, the allocation of those savings, financing decisions, and economic growth which influences the interest rates, capital market, foreign exchange rates and financial institutions of countries, which leads into the question, is the financial systems restrictions imposed by the government adversely affects economy financial development?

The problem that this study seeks to address is how embracing and execution of capital liberalization measures affect financial sector growth and its impact on Kenya economy growth over the period 1985-2018 considering the role of central bank major policy interventions to establish its independence and avoid being vulnerable to government influences and inadequate supervision in regulation and determination of financial access and credit creation if are policy or market determined. Therefore, it is against this backdrop that this research work was conducted to address the research gap to know if there is effect of capital account liberalization measures on financial development in Kenya in the face of financial crisis.

#### **Specific Objectives**

The specific objectives are:

- a) To determine the influence of capital account liberalization on financial development in Kenya.
- b) To ascertain the moderating effect of business risk on the relationship between financial development and Capital account liberalization.

#### **II.** Literature Review

#### **Legal Theory of Financial Development**

According to La Porta et al (1997, 1998, 2000a), the legal policy view highlights the importance of some macroeconomic policies, role of legal institutions in facilitating and explaining differences in financial liberalization and financial development in promoting financial development.

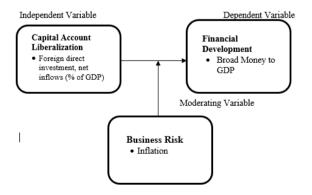
# **Institution Theory of Financial Development**

By applying the settler mortality hypothesis of Acemoglu *et al.* (2001) to financial development, Beck *et al.* (2003) address how institutions matter for financial development. Greenwood and Jovanovic (1990) and Saint-Paul (1992) document that as the economy grows, the costs of financial intermediation decrease due to intensive competition, inducing a larger scale of funds available for productive investment.

#### **Financial Intermediation Theory**

According to Andrieş (2009, the financial intermediation theory analyses the functions of financial intermediation and how they influence an economy, therefore highlighting the roles of financial intermediaries, their controls, supervision and impact of financial intermediaries' regulation to stimulate an economy.

### THE CONCEPTUAL FRAMEWORK



#### Variables and Measurement

Variables	Proxy	Measurement		
Independent				
Capital Account	CAPACT	•	Foreign direct investment	
Moderating			•	
Business Risks	BR	•	Inflation, GDP deflator (annual %)	

DOI: 10.9790/487X-2405010110 www.iosrjournals.org 2 | Page

Dependent				
Financial Development	FD	•	Broad Money to GDP	

#### **ANALYSIS**

**Table 4.1 Descriptive For Study Variables** 

Stats	FD	CL	BR	
N	34	34	34	
Min	26.68	1.312	0	
Max	43.25	18.4	1	
Mean	36.4	8.217	0.206	
p50	36.74	6	0	
Sd	4.341	5.048	0.41	
Kurtosis	2.568	2.074	3.116	
Skewness	-0.57	0.553	1.455	

FD = Financial development measured using broad money as percentage of GDP

CAL = Capital account liberalization measured using Foreign direct investment, net inflows (% of

GDP)

BR = Business Risk as measured using inflation rates

In all the three variables were utilized in this study to achieve the research objective both the independent and dependent variables. From table 4., the number of observations used in this study are 34 in number, that means covering the period between January 1985 to December 2018 and this shows that all the intended data was collected and analysed as per the study objective. It also shows that the mean total of financial development as a measured using broad money as a percentage of GDP stood at 36.4 having the highest percentage being 43.25 and lowest being 26.68 with variability of 16.57 and a standard deviation of 4.341 and a skewness of -0.57. on capital account liberalization as measured using FDI, net flows (% of GDP) shows that the mean statistics of 0.812 having maximum of 3.457 and a minimum of 0.05 hence a standard deviation of 0.867 and skewness of 1.571

Further, the study provided summary statistics for transformed data. The data was converted to their natural logs to deal with the problem of large numbers and eliminate heteroscedasticity.

In table 4.2 shows that all the variable measures which represents both the dependent independent variables and moderating variables have been tested. From the table 4.2, the mean broad money was having natural log of 3.587 with a standard deviation of 0.125, capital account liberalization mean being -0.807 with a standard deviation being 1.322 and business risk mean being -0.501 and a standard deviation of 1.266.

**Table 4.2: Descriptive statistics** 

	ln_FD	ln_CAL	ln_BR
Mean	3.587	-0.817	-0.501
Median	3.604	-0.751	-0.357
Maximum	3.767	1.241	1.668
Minimum	3.284	-5.356	-2.303
Std. Dev.	0.125	1.322	1.266
Skewness	-0.792	-1.144	-0.209
Kurtosis	2.823	5.446	1.756
Jarque-Bera	3.597	15.888	2.440
Probability	0.166	0.000	0.295
Sum	121.967	-27.765	-17.028
Sum Sq. Dev.	0.516	57.689	52.862
Observations	34.000	34.000	34.000

Notations:

ln\_ - Natural log of

ln\_FD - Natural log of financial development ln\_CAL - Natural log of Capital account Liberalization

In BR

- Natural log of business risk

#### 4.3 Diagnostic Test

To determine the suitability of the panel data for statistical analysis, various tests were conducted. These tests that were carried out to establish if the panel data fulfilled the cardinal requirement of classical linear regression analysis include: visual plot test, normality test, multicollinearity test, panel unit root test, Heteroscedasticity test, serial correlation test.

#### **4.3.1 Normality Test**

Skewness and Kurtosis values were used to study how well the data was distributed and skewness measures the extent to which distribution deviates from symmetry. Data may be skewed positively or negatively. Data which is skewed is said not to be normally distributed. However, Kurtosis measures flatness of the curve. For a normal distribution, the values of skewness should be equal to zero but values ranging between -1 to +1 are acceptable.

Table 4.2 shows that the Jarque-Bera values for financial development (3.6), and business risk (2.4) are all closer to zero meaning they are normally distributed. Capital account liberalization had a Jarque-Bera value of 15.9 **which is far from zero meaning** that capital account liberalization was not normally distributed.

#### 4.3.2 Serial correlation Test

It has been alluded that it is a common practice to treat the term serial correlation and autocorrelation simultaneously (Gujarati, 2013).however, for the purpose of this thesis, the study adopt autocorrelation as defined by Kendall and Buckland (1971) as "correlation between members of series of observation ordered in time (time series) or space (cross section data)".

**Table 4.3 Serial correlation Test** 

Breusch-Godfrey LM test for	autocorrelation		
F-statistic	1.341419	Prob. F(2,18)	0.2864
Obs*R-squared	4.02111	Prob. Chi-Square(2)	0.1339
H0: no serial correlation			

The output of table 4.3, The Breusch-Godfrey LM test confirms that there was no serial correlation in the error correction model since the probability chi-square value of the observed Squared 0.1339 was greater than 0.05 therefore we accept the null hypothesis that there is no serial correlation in the model.

# 4.3.3 Heteroscedasticity test

Heteroscedasticity means that previous error terms influence other terms and hence violating the statistical assumption that the error terms have a constant variance but, homoscedasticity suggests that the dependent variable has an equal level of variability for each of the values of the independent variables (Garson, 2012).

Breusch- Pagan-Godfrey Heteroscedasticity test confirms that there was no heteroscedasticity in the error correction model since the probability chi-square value of the observed R.squared 0.8922 was greater than 0.05 therefore we reject the null hypothesis that there is heteroscedasticity in the model.

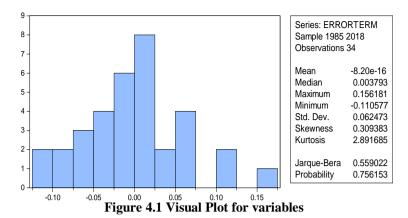
**Table 4.4 Heteroscedasticity test** 

Heteroscedasticity Test: Breusch-	Pagan-Godfrey		
F-statistic	0.383252	Prob. F(10,20)	0.9395
Obs*R-squared	4.985122	Prob. Chi-Square(10)	0.8922
Scaled explained SS	2.659792	Prob. Chi-Square(10)	0.9883

#### 4.3.4 Visual Test

According to Green (2008), Visual plot helps to visualize the trend of the panel regression variables and the importance of visual test is to help stochastic mechanism or the statistical or the data generation process as applied in the study. The visualized plot in Figure 4.1 indicate that the observations were random, and out of 34 observations, a mean of the observation was -8.20 with a median of 0.003793 and a standard deviation of 0.062473 and a probability of 0.756153. The residual (error correction term) also had a probability value of 0.85 which is greater than 0.1 meaning that the residual was normally distributed.

DOI: 10.9790/487X-2405010110 www.iosrjournals.org 4 | Page



# 4.3.5 Stationarity Test

Unit root was tested with ADF test. In case the computed test statistic is more than the critical value at 95% confidence level then the hypothesis of a unit root is rejected. capital account liberalization was found to be stationery at 95% confidence level because the ADF test statistics were smaller than the MacKinnon critical value at 5 percent level of significance.

**Table 4.5 Stationarity Test** 

ADF test	Variable	Test Statistic	1% critical value	5% critical value	10% critical value	P-value
At Absolute Level		• • • • • • • • • • • • • • • • • • • •	-3.646342	2024024	-2.615817	0.00.5
	FL	-2.689559		-2.954021		0.0865
	CAL	-5.217191	-3.646342	-2.954021	-2.615817	0.0002
	FD	-1.701082	-3.646342	-2.954021	-2.615817	0.4214
First Difference	FD	-6.451518	-3.653730	-2.957110	-2.617434	0.000
	BR	-5.542075	-3.653730	-2.957110	-2.617434	0.0001

# 4.3.6 Error Correction Term (residual) unit root test

Reliability of research variables should be examined before analyzing and testing hypotheses. The reliability of the research variables means that the mean and variance of variables has been constant during different years. As a result, using these variables in the model does not cause False-regression. According to the theory that if our data contains time-series data sets, the first step is to test whether if the data set is stationary on a particular type of testing. Meanwhile, regarding the number of observation which is the time series data set that is used in this study only ten years (annually data), meaning that it is sufficient number to test the stationary (Eviews User's Guide, 2005). Unit root test has been conducted using Fisher's unit root test based on augmented Dickey-Fuller tests. This test defined under the null hypothesis,

Ho: All panels contain unit roots

Ha: At least one panel is stationary

Results of variable reliability test in table 4.6 show that the p-value of all variables is less than 5%, and the research variables are reliable; therefore, the null hypothesis of having unit root is rejected.

Table 4.6 Fisher type for testing unit root

			Statistic	p-value
FD	Inverse chi-squared(80)	P	224.67	0.00
	Inverse normal	Z	-7.35	0.00
	Inverse logit t(204)	L*	-8.45	0.00
	Modified inv. chi-squared	Pm	11.44	0.00
CAL	Inverse chi-squared(80)	P	285.69	0.00
	Inverse normal	Z	-10.22	0.00
	Inverse logit t(199)	L*	-11.71	0.00
	Modified inv. chi-squared	Pm	16.26	0.00
BR	Inverse chi-squared(80)	P	204.42	0.00
	Inverse normal	Z	-5.54	0.00

DOI: 10.9790/487X-2405010110 www.iosrjournals.org 5 | Page

Inverse logit t(204)	$L^*$	-6.91	0.00	
Modified inv. chi-squared	Pm	9.84	0.00	

#### 4.3.7 Multicollinearity

The use of multivariate hypothesis test is based on the assumption of no significant multicollinearity between the explanatory variables. Thus, to investigate the existence of multicollinearity, the variance inflation factors (VIFs) for each of the explanatory variables are computed as depicted table (4.7). The variance inflation factor (VIF) is commonly used to identify the presence of multicollinearity. If VIF is bigger than 10 this means that there is a problem with multicollinearity (Gujarati, 2003). The mean VIF as reported from table (4.7) is 1.370, which is lower than ten (10), a number that is used as a rule of thumb as an indicator of multicollinearity problems (Field, 2000). Thus, these results support the lack of presence of multicollinearity in the research model.

**Table 4.7 Multicollinearity** 

Variable	VIF	1/VIF
FD	1.590	0.629
CAL	1.340	0.748
BR	1.140	0.879
Mean VIF	1.357	

#### 4.3.8 Autocorrelation

One of the fundamental assumptions of Linear Regression Model is that the covariance between the error terms over the time is equal to zero, or the error terms are not correlated with each other (Brooks, 2010). If, however, the error terms are correlated, it creates the problem of autocorrelation or serial correlation, which leads to making the standard error biased. Hence, the standard OLS estimators no longer remain the minimum variance ones. Serial correlation causes the standard errors of the coefficients to be smaller than they actually are and higher R-squared. This follows that a diagnostic test is required to check for the presence of serial correlation after each standard OLS regression of the analysis. The graphical method is commonly used as a first-hand method to judge the presence of autocorrelation. But to confirm the presence of autocorrelation a formal statistical test is required to be applied. This study applied Wooldridge test to test for autocorrelation. From the findings in table 4.8, null hypothesis of no serial correlation cannot be rejected at 5% level of significance.

**Table 4.8 Autocorrelation Test** 

Wooldridge test for autocorrelation	In	panel data
H0: no first-order autocorrelation		
F(1, 39) = 0.001		
Prob > $F = 0.9798$		

Source: Research Data, 2020

#### 4.4 Model misspecification

Assessment of diagnostic properties of the estimated model continues with testing omitted variable bias using the Ramsey RESET test. RESET is a general test for the following types of specification errors: • Omitted variables; i.e. does not include all relevant variables. • Incorrect functional form; indicating that some or all variables should be transformed to logs, powers, reciprocals or in some other way. • Correlation between X and the error term, which may be caused, among other things, by measurement. Error in, simultaneity or the presence of lagged values and serially correlated disturbances (Gujarati, 2004 p.282). In essence, under such specification errors, least squares estimators will be biased and inconsistent, and conventional inference procedures will be invalidated. The Ramsey RESET test does not reject the null hypothesis, at any conventional level of significance (1%, 5% and 10%), that the model does not have a problem of potential omitted variable bias (p=0.1149). The results of the Ramsey RESET test in table 4.9 show a p-value higher than the threshold of 5% ((P>F) = 10.10 > 0.05). So, we fail to reject the null hypothesis and we can conclude that there is no omitted variables bias in our results.

#### **Table 4.9 Model Specification**

Ramsey RESET test using powers of the fitted values of FD

Ho: model has no omitted variables

F(3, 386) = 10.10

Prob > F = 0.1149

## 4.5 Correlation Analysis

According to Mugenda and Mugenda (2003) correlation technique is used to analyze the degree of the relationship between the variables while Kothari (2014) states that correlation is the measure of the relationship or association between two continuous variables and also suggests that the value of correlation coefficient ranges between -1 and +1 and that a correlation coefficient of +1 indicates that two variables are perfectly in a positive linear relation while a correlation of -1 indicates a perfect linear negative relationship between two variables and a correlation coefficient of 0 indicates no relationship between two variables.

Table 4.10 Correlation Matrix

	Tubic III	Correlation Matter	
	LN_FD	LN_CAL	LN_BR
LN_FD	1		
LN_CL	0.394		
LN_CAL	0.343	1	
LN_BR	0.754	0.337	1

In accordance with the results in the table 4.10, the correlation coefficients of capital account liberalization (0.34) signify weak positive correlations with financial development. Business risk had a coefficient of 0.75 signifying a moderately high correlation with broad money.

#### 4.6 Panel cointegration Test

The panel cointegration test in empirical research provides the researcher with a mechanism to determine the long run relationship among the study variables (Baltagi et al. 2005). For the test to be carried out for both the primary and moderating variables against the hypothesis is set thus:

H<sub>0</sub>: No cointegration among variables

H<sub>1</sub>: Variables are cointegrated

Table 4.11 Cointegrating equation used to generate the error correction term (ECT)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LN_CAL	0.010908	0.010355	1.053419	0.3018
C	3.192947	0.184364	17.3187	0
R-squared	0.750586	Mean dependent	t var	3.587271
Adjusted R-squared	0.683436	S.D. dependent	var	0.125093
S.E. of regression	0.070382	Akaike info crite	erion	-2.26743
Sum squared resid	0.128795	Schwarz criterio	on	-1.90829
Log likelihood	46.54629	Hannan-Quinn o	criter.	-2.14495
F-statistic	11.17777	Durbin-Watson	Durbin-Watson stat	
Prob(F-statistic)	0.000002			

#### 4.7 Granger causality Test

One importance of the application of distributed log models is to provide evidence about the direction of causality in economic relationship (Studenmund, 2017). Such a test is useful when we know the two variables are related but we don't know which variables cause the other to move. Granger causality, or precedence, is a circumstance in which one-time series variable consistently and predictably changes before another variable (Granger, 1969). Granger causality is important because it allows the researcher to analyze which variable precedes or "leads" the other.

Table 4.12 shows that the data was lagged by two periods before the error correction to see whether changes in the independent variables in the previous periods would have implications on broad money in the subsequent years.

**Table 4.12 Engle-Granger Error Correction Model (ECM)** 

Variable	Coefficient	Std. Error	t-Statistic	Prob.
D_CAL	0.014631	0.004007	3.651633	0.0016
D_CAL(-2)	0.017496	0.004848	3.608819	0.0018
ERRORTERM	0.319346	0.141589	2.255443	0.0355
C	-0.00346	0.006824	-0.507209	0.6176
R-squared	0.785852	Mean dependent var		0.006926
Adjusted R-squared	0.678778	S.D. dependent var		0.064805
S.E. of regression	0.036729	Akaike info criterion		-3.49906
Sum squared resid	0.026981	Schwarz criterion		-2.99022
Log likelihood	65.23538	Hannan-Quinn criter.		-3.33319
F-statistic	7.339323	Durbin-Watson stat		1.473938
Prob(F-statistic)	0.000086			

# $H_{ol}$ : Capital account liberalization has no significant effect on financial development in Kenya.

Capital account liberalization as measured by foreign direct investment had a coefficient of 0.014 and a significant probability value 0.0016 which is significant at 1 percent level of significance. Also, the calculated t (3.652) is higher than the critical t (1.96). Consequently, the null hypothesis that capital account liberalization has no significant effect on financial development in Kenya is rejected. This means that foreign direct investment corrects for disequilibrium in broad money at the rate of 0.01 percent in the same year. Foreign direct investment lagged by two years had a coefficient of 0.02 and a significant probability value of 0.0018 which is significant at 5 percent level of significance. This means that foreign direct investment corrects for disequilibrium in broad money at the rate 0.02 percent in a period of two years. In line with the results, Larrain et al. (2017) confirmed that capital account liberalization decreases the dispersion in the return to capital in the sectors with high financial dependence. The authors further suggested that the opening of the capital accounts leads to a 15% closure of the gap in dispersion between sectors eliciting high and low financial independence. In a similar vein, Klein and Olivei (2008) show that capital account liberalization promotes financial development. Moreover, in a study on the nexus between regional integration and tax revenue in the East African Community, Nyanzi et al. (2016) concluded that, that given the deleterious nature of capital account liberalization, cautiously designed capital control policies are likely to increase the collection of revenue in East Africa. The study however did not establish a direct link between capital account liberalization and financial development. Besides, Noria et al (2018) ascertained that uncertainty discourages FDI inflows into the Mexican manufacturing sector. Notably, not much has been done in the literature regarding the influence of capital account on financial development. The study therefore contributes key insights on the positive link between capital account liberalization and financial development in Kenya.

# 4.8 A Hierarchical Bayes Error Correction Model to Explain Dynamic Effects of business risk

The hypotheses were tested using hierarchical regression analysis, in which the variables are entered in successive blocks (Table 4.13). It should be noted that the moderating effect is significant if the change in the determination coefficient is significant. In this regard, empirical evidence indicates that an increase of more than 1 percent can be considered significant and therefore indicates the existence of a large moderating effect

The results indicated a negative and significant moderating effect of business risk on the relationship between capital account liberalization and financial development in Kenya ( $\beta$ = -0.19;  $\rho$ <0.05). Results also indicated that after introducing business risk, the relationship between capital account liberalization and financial development declines. It appears that capital inflows following financial liberalization are most often speculative and may not lead to long-run investment in the face of business risks.

Table 4.13 A Hierarchical Bayes Error Correction Model to Explain moderating Effects of business risk

	ECM1	ECM2	
FD	Coef.(Se)	Coef.(Se)	
_cons	1.26(2.28)	50.97(.13.33)**	
CAL	0.67(.13)**	0.37(.14)*	
BR		(-0.53(.37)	
CAL_BR		-0.19(.09)*	

DOI: 10.9790/487X-2405010110 www.iosrjournals.org 8 | Page

R-sq:	0.56	0.6244
R-sq∆	0.53	0.0044
Wald chi2(3)	360.54	487.71
Prob > chi2	0.00	0.00

Notes: \*, \*\* and \*\*\* indicate statistically significant at 1%, 5% and 10% significance level respectively. Also, standard errors and p-values are reported in ( ) and [ ] respectively

### III. Summary, Conclusion And Recommendations

# **Summary of Findings**

The primary objective of the study was to establish the effect of financial sector liberalization on financial development in Kenya. The study period was between 1985 and 2018. The study utilized data from the Central Banks statistical bulletin for several years and the World Bank development index. Basing on the findings in the previous chapter, financial development measured by broad money to GDP had an average natural log of 3.587 while business risk at a mean of -0.501. Furthermore, the mean broad money was having a natural log of 3.587.

Also, after highlighting the profile of trend in financial sector liberalization and financial development in Kenya, diagnostic tests were performed. To start off, normality test indicated that the assumption of normality was met. Besides, there was no presence of heteroscedasticity. As well, there was no serial correlation, as indicated by the Breusch Godfrey test. Besides, the ADF unit root test indicated that capital account liberalization was found to be stationery at level.

The vulnerability of Kenya economy, which present constraints to growth and financial development can be attributed to the relying heavily upon external trade and foreign investment to overcome inherent scale and resource limitations hence living the nation vulnerable to external economic shocks. Since domestic inflation is largely influenced by landed prices of imported goods, ranging from food to capital goods results to findings of fixed exchange rate regime. Uncontrolled inflation strangles financial growth, hurting entire populace and international trade hence high inflation creates higher business risk resulting into various relationship like: Unstable growth creates risk for investors and investors require compensation for risk.

#### 5.2.1 Effect of capital account liberalization on Financial Development

In addition, capital account liberalization positively influenced the financial development in Kenya. Consequently, the null hypothesis was rejected and the alternative accepted which was that there is a significant relationship between capital account liberalization and financial development.

# 5.2.2 Moderating Effect of Business Risk on the Relationship between Financial Development and Financial Sector Liberalization

Besides, the moderation results indicated that business risks negatively moderate the relationship between capital account liberalization and financial development in Kenya.

# 5.3 Conclusion

#### 5.3.1 Effect of Capital Account Liberalization on Financial Development

However, capital account liberalization positively influenced the financial development in Kenya. The findings imply that capital account liberalization facilitates portfolio diversification for both foreign and domestic investors, thereby contributing to financial development. As well, it appears that the financial institutions in Kenya are appropriately regulated and supervised such that they meet the requirements for capital account liberalization. Consequently, the results align with the neoclassical approach, which elucidated that the liberalization of the capital account is likely to contribute to the development of the domestic financial sector (Summers,2000). It appears, however, that the gains of capital inflows may not lead to long-run financial development in light of business risks.

# 5.2.5 Moderating Effect of Business Risk on the Relationship between Financial Development and Financial Sector Liberalization

Besides, the enhanced development in the equity market could be attributed to freeing capital accounts.

#### 5.4 Recommendations

The study has shed light on the positive link between capital account liberalization and financial development in Kenya. It is therefore vital for the country to ensure there is a stable macroeconomic framework as a prerequisite for capital account liberalization. There is also a need to develop both the private sector and the institutional environment. Furthermore, in a bid to promote capital inflows and enhance better risk-sharing, there is a need to reform financial rules, strengthen the banks and promote the business sector. In so doing, the positive contribution of capital account liberalization on financial development is enhanced.

#### 5.5 Limitations of the Study

The study contributes to significant insights on the effect of financial sector liberalization on financial development in Kenya. Nevertheless, the study suffers from some weaknesses. First, the study relied on annual time series data for empirical investigation, which has the potential to reduce the accurateness of the parameters. As such, quarterly data is most appropriate. However, since quarterly data is not readily available, annual data was utilized. Secondly, the study only relied on capital market liberalization as measures of financial liberalization. Though these proxies are most appropriate in the context of the study, other proxies could be utilized, such as constructing a financial liberalization variable basing on the observed changes in policy. Nevertheless, given the challenges associated with the utilization of policy changes, the proxies utilized by the study were most appropriate in measuring financial liberalization.

#### 5.6 Further Research Recommendations

The study contributes vital insights on the effect of financial sector liberalization on financial development in Kenya. There is thus need for further research to ascertain the validity of the study findings. As evident, in the literature, few studies have highlighted the benefits of capital account liberalization on financial development. It is essential to conduct further research in this field to compare financial development, pre- and post-financial liberalization in Kenya. Also, the study recommends future studies on the influence of microeconomic determinants on the link between capital account liberalization and financial development.

## References

- [1]. Acemoglu, D., Johnson, S. & Robinson, J.A. (2001). Reversal of fortune: Geography and Institutions in the making of the modern world income distribution. MIT Working Paper 01/38 (Cambridge, Massachusetts: MIT, department of economics).
- [2]. Andries, M. Alin (2009). Theories regarding financial intermediation and financial Intermediaries- a survey. Faculty of economics and public administration, Vol.9, No. 2(10)
- [3]. Andries, A. M., & Capraru, B. (2013). Impact of Financial Liberalization on Banking Sectors Performance from Central and Eastern European Countries. *PLoS ONE*, 8(3), e59686. doi:10.1371/journal.pone.0059686
- [4]. Andries AM, Capraru B (2013). Impact of financial liberalization on banking sectors performance from central and eastern European countries. PLoS ONE 8(3): e59686. doi:10.1371/journal.pone.0059686
- [5]. Central Bank of Kenya. Bank supervision annual report, (various issues).
- [6]. Central Bank of Kenya. Monthly economic review, (various issues).
- [7]. Central Bank of Kenya. Quarterly economic review, (various issues).
- [8]. Central Bank of Kenya. Quarterly statistical bulletin, (various issues).
- [9]. Greenwood, J., & Jovanovic, B. (1990). Financial Development, Growth, and the Distribution of Income. *Journal of Political Economy*, 98(5, Part 1), 1076-1107. doi:10.1086/261720
- [10]. Gujarati, D.N. (2013). Basic econometrics,  $5^{th}$  ed. The Mc Graw -Hill Companies
- [11]. Pill, H. & Pradhan, M. (1997). Financial liberalization in Africa and Asia. Finance and Development, 34(2), 07-10.
- [12]. Nyanzi, J., Bosco, Babyenda, P. & Mayanja, J.B. (2016). Regional economic integration and tax revenue: East African Community. Journal of Economic Integration, Vol. 31, No. 4 (December 2016), pp. 932-967.
- [13]. Odhiambo N.M. (2008). The Impact of financial liberalisation in developing countries: experiences from four SADC Countries. Published Research. OSSREA
- [14]. Odhiambo, N. M. (2003). Interest rate reforms and investment efficiency: The case of two Sub-Saharan African countries. *Savings and Development Quarterly* 27(3):317-335.
- [15]. Odhiambo, N. M. (2004a). Financial Liberalisation and Economic Growth in Sub-SaharanAfrican Countries: Dilemmas and Prospects. Unpublished PhD (Economics) dissertation, University of Stellenbosch, South Africa.
- [16]. Odhiambo, N. M. (2008). Financial depth, savings and economic growth in Kenya: A dynamic causal linkage. Economic Modelling, 25(4), 704-713. doi:10.1016/j.econmod.2007.10.009
- [17]. Porta, R. L., Lopez-De-Silanes, F., Shleifer, A., & Vishny, R. W. (1997). Legal Determinants of External Finance. *The Journal of Finance*, 52(3), 1131. doi:10.2307/2329518
- [18]. La Porta, R., Lopez- de- Silanes, F., Shleifer, A., & Vishny, R. (1998). Law and Finance. Journal of Political Economy, 106(6), 1113-1155. doi:10.1086/250042
- [19]. La Porta, R., Lopez de Silanes, F., Shleifer, A., & Vishny, R. W. (2000). Investor Protection and Corporate Governance. SSRN Electronic Journal. doi:10.2139/ssrn.183908
- [20]. The Organisation for Economic Co-operation and Development (OECD). (2006)
- [21]. Ozkok, Z. (2017). Financial Harmonization and Industrial Growth: Evidence from the European Union. *Journal of Economic Integration*, 32(2), 244-282.doi:10.11130/jei.2017.32.2.244
- [22]. Ngugi, R. W. & Kabubo, J. W. (1998). Financial Sector Reforms and Interest Rate Liberalization: the Kenyan experience. AERC Discussion Paper No. 72.
- [23]. Ngugi, R., Amanja, D. & Maana I. (2009). Capital market, financial deepening and economic growth in Kenya. Accessed 12 September 2009.
- [24]. Ngugi, R.W (2000). Financial reform process in Kenya: 1989-96. African Development ReviewVol.12: 55-77
- [25]. Ngugi, R.W. & Agoti J. (2007). Microstructure elements of the bonds markets in Kenya. Paper presented at the conference African economic conference: Globalization, Institutions and Economic Development in Africa (13<sup>th</sup> November).
- [26]. NSE. (Various Issues). Rules and regulation manual. Nairobi: NSE
- [27]. Zivengwa, T., Mashika, J., Bokosi, F. K., & Makova, T. (2011). Stock Market Development and Economic Growth in Zimbabwe. *International Journal of Economics and Finance*, 3(5). doi:10.5539/ijef.v3n5p140