Macroeconomic and Institutional Determinants of Stock Market Development in Emerging Economies

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Abstract

Stock market development in developing economies has experienced inadequacies in maintaining its steady growth rate. Empirical evidences linking stock market development in emerging countries to economic growth has been inconclusive. This research therefore empirically estimated the macroeconomic and institutional determinants of stock market development in 43 emerging economies using Generalized Method of Moment Estimation. The data used for the analysis were collected from World Development Indicator and Transparency International for a period of 1996 to 2011. The result shows that banking sector development, income, inflation and foreign direct investment are the macroeconomic determinants of stock market development in emerging economies while the only significant institutional indicator was political stability. The Hansen's J test of over identifying restriction was used to check for the correct model specification. The result tends to significantly validate the estimated model with the GMM procedure. To promote stock market development in emerging markets, foreign direct investment and banking sector development should be encouraged by appropriate policies. It is again recommended that political stability as the key institutional indicator of stock market development needs to be revisited and positive policies implemented to foster stock market development in emerging economies. This will add significant value to the economy of the emerging countries and the world at large.

Keywords: GMM Estimator, Hansan J test, market capitalization, Emerging economies, stock market.

1 Introduction

Stock market is an integral part of country's financial system where money and securities are traded. It has been viewed as a market where most elements that gear the development of a nation's economy are operating with one another (Isiaq and Philip, 2011). Emerging market economy is a nation's economy that is progressing toward becoming advanced, as shown by some liquidity in local debt and equity markets and the existence of some form of market exchange and regulatory body. Emerging markets are not as advanced as developed countries but maintain economies and infrastructures that are more advanced than frontier market countries (Investinganswers, 2011). Emerging markets generally do not have the level of market efficiency and strict standards in accounting and securities regulation to be on par with advanced economies (such as the United States, Europe and Japan), but emerging markets do typically have a physical financial infrastructure, including banks, a stock exchange and a unified currency. Investors seek out emerging markets for the prospect of high returns, as they often experience faster economic growth as measured by GDP. Investments in emerging markets come with much greater risk due to political instability, domestic infrastructure problems, currency volatility and limited equity opportunities, as many large companies may still be "state-run" or private. Also, local stock exchanges may not offer liquid markets for outside investors (Levine, 1991). The recent financial crisis encountered by the stock market made many industrialized economies to suffer a significant decline in economic activity, and one can safely say that the volatility of stock markets is the most important factor in the economic growth in not only developed economies but also developing economies. The establishment of stock market has played a significant role in the development of banking institutions, particularly in

emerging market economies (Levine and Zervos, 1998). Consequently, the factors that determine the stock market development in these emerging economies become paramount. Hence the gap this research work stands to fill.

2 Literature Review

Results of previous studies on the use of Generalized Method of Moment Estimation on stock market development have centered on the positive effect of stock market on the economy. Yartey (2008) examined the institutional and macroeconomic determinants of stock market development using GMM estimation of panel data of 42 emerging economies. He finds that macroeconomic factors such as income level, gross domestic investment, banking sector development, private capital flows, and stock market liquidity are important determinants of stock market development in emerging market countries. He also showed that political risk, law and order, and bureaucratic quality are important institutional determinants of stock market development in emerging countries.

Obamiro (2005) investigated the role of the Nigerian stock market in the light of economic growth using GMM. He reported a significant positive effect of stock market on economic growth. He suggested that government should create more enabling environment so as to increase the efficiency of the stock market, and to attain higher economic growth. Garcia and Liu (1999) investigated empirically using GMM estimation the macroeconomic determinants of stock market development. Using pooled data from 15 industrial and developing countries from 1980 to 1995, they found that real income level and stock market liquidity are important predictors of market capitalization, while macroeconomic stability does not have any explaining power. They also concluded that banks and markets are complementary instead of being substitutes.

Baltagi *et al.* (2007), using Arellano and Bond Dynamic panel GMM estimations and several data sets over 1980-2003 periods, found that institutions can explain a large part of the variation in financial development across countries and over time. His finding shows that better property rights institutions make financial repression more costly for the elite and tend therefore to increase financial development. Their predictions also show that better contracting institutions lower the costs of financial transactions, which have countervailing effects on equilibrium financial development.
Cherif and Gazdar (2010) studied the determinants of Macroeconomic and institutional determinants of stock market development using data from 14 MENA countries over the period of 1990-2007. Using both panel data and instrumental variable techniques, they found that income level, saving rate, stock market liquidity, and interest rate influence stock market development with the expected theoretical signs. Results also showed that the banking and the stock market sectors are complementary instead of being substitutes, and also that the institutional environment as captured by a composite policy risk index does not appear to be a driving force for the stock market capitalization in the region.

3 Methodology

Generalized Method of Moments (GMM) estimation was adopted in this study as used by Yartey (2008). This is because all the relationships to be studied can be characterized by the joint endogeneity of most variables involved. Some explanatory variables in our model are either simultaneously determined with the dependent variable or have a two-way causal relationship with it. There is also the potential of the presence of unobserved country specific effects. Ignoring them may produce inconsistent estimates given

that country specific effects are likely to be correlated with the explanatory variables. In the presence of any correlation between the explanatory variables and the country specific effect estimation methods such as ordinary least squares will not be consistent. This is because of the violation of the assumption of strict exogeneity of the explanatory variables. In addition, the orthogonality condition between the error term and the regressors is not likely to be met for either the Generalized Least Squares or the Fixed Effects estimator to produce consistent estimates. One can achieve the orthogonality condition through appropriate differencing of the data. However, because the equation contains endogenous regressors as well as the effects of lagged endogenous variables, the error term in the differenced equation is correlated with the lagged dependent variable through contemporaneous error terms. Therefore, neither the fixed effect nor the GLS estimator will produce consistent estimates under these conditions. Hence GMM estimation takes care of all the observed data defects and still produces efficient and consistent estimates. Hansen's J test is the most common diagnosis used in GMM estimation to evaluate the suitability of the model. A rejection of the null hypothesis implies that the instruments do not satisfy the required orthogonality conditions-either because they are not truly exogenous or because they are being incorrectly specified in the model. We assumed that the GMM estimator is asymptotically normal, the estimator is also consistent under relatively weak conditions. There is no second order serial correlation in the first differences of the error term. We also assume that the specification tests for the GMM estimator is based on the moment conditions used in the estimation process and evaluates the validity of the set of instruments and, therefore, determines the validity of the assumptions of predeterminacy, endogeneity and exogeneity.

Indicators of stock market development from 43 emerging economies were the secondary data used for this study. The emerging countries includes 13 from Asia (Bangladesh, China, India, Indonesia, Jordan, Malaysia, Pakistan, Philippines, South Arabia, Sri Lanka, Thailand, Turkey and Vietnam), 8 from Europe (Bulgaria, Czech, Hungary, Poland, Romania, Slovakia, Slovenia and Portugal), 3 from North America (Costa Rica, Jamaica, and Panama), 10 from South America (Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, and Venezuela), and 9 from Africa (Egypt, Ghana, Kenya, Morocco, Nigeria, South Africa, Tunisia, Zimbabwe, and Zambia). The emerging economies selected were comparatively followed from the work of Yartey (2008) with an extra emerging market. Their stock market indicators comprise the macroeconomic and institutional qualities from 1996 to 2011. The macroeconomic indicators are; stock market development (a measure of market capitalization relative to GDP), income, bank development (private credit provided by banks to private sector relative to GDP), square of private credit, savings, Value of stock traded relative to GDP, Inflation, Real interest rate, foreign direct investment and net private credit. The institutional qualities are Political stability, rule of law, regulatory policy, control of corruption and government effectiveness.

3.1 Model Specification

This research is targeted to model the macroeconomic and institutional factors that influence stock market development in emerging markets. The general model specification for the generalized method of moment estimation is given by:

$$Y_{1t} = \alpha_i + \delta Y_{1t-1} + \beta M_{it} + \varpi P_{it} + \epsilon_{1t} \tag{3.0}$$

Where
Y is stock market capitalization relative to GDP
α_i is the unobserved country specific fixed effect
Y_{1t-1} is one lag of the dependent variable
M is a matrix of macroeconomic variables
P is a matrix of institutional factors

ϵ_{1t} is the usual white noise.
Model specification: microeconomic determinants of stock market development in emerging economies

$$Y_{1t} = \beta_0 + \beta_1 Y_{1t-1} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_8 X_8 + e_{1t} \quad (3.1)$$

$$Y_{2t} = \beta_0 + \beta_1 Y_{2t-1} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e_{2t} \quad (3.2)$$

$$Y_{3t} = \beta_0 + \beta_1 Y_{3t-1} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_7 X_7 + \beta_9 X_9 + e_{3t} \quad (3.3)$$

$$Y_{4t} = \beta_0 + \beta_1 Y_{4t-1} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_7 X_7 + \beta_{10} X_{10} + e_{4t} \quad (3.4)$$

$$Y_{5t} = \beta_0 + \beta_1 Y_{5t-1} + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_8 X_8 + \beta_9 X_9 + e_{5t} \quad (3.5)$$

Where: Y_{it}-stock market development (market capitalization/GDP)
Y_{it-1}-lag of market capitalization/GDP
X_2-banking sector development (private credit)
X_3-stock market liquidity (value of stock traded)
X_4-income level (logGDPP)
X_5-square of bank sector development (square of private credit)
X_6-savings (Gross domestic savings)
X_7-macroeconomic stability (real interest rate)
X_8-macroeconomic stability (inflation rate)
X_9-capital flow (foreign direct investment)
X_{10}-capital flow (net private capital flow)
β_{i1}-parameter of estimate
e_{it}-white noise

The models above are used to identify the macroeconomic determinants of stock market development in emerging economies. Equation (3.1) is the baseline model where the lag of dependent variable, banking sector development, stock market liquidity, income level, square of bank sector development, savings and inflation were examined. In equation (3.2) inflation rate was substituted by real interest rate to ascertain its effect on stock market. Real interest rate and foreign direct investment was pair in equation (3.3) to examine their complementary effect. Equation (3.4) investigates the impact of real interest rate and net private capital flow on stock market development while equation (3.5) examines the influence of inflation rate paired with foreign direct investment on stock market development in emerging countries. The test of over identifying restriction was performed on the models to observe their adequacy.

3.2 The method of moments (MM)

The Method of Moments is an estimation technique which suggests that the unknown parameters should be estimated by matching population (or theoretical) moments (which are functions of the unknown parameters) with the appropriate sample moments. Suppose that we have an observed sample $\{x_t : t = 1, \cdots, T\}$ from which we want to estimate an unknown $p \times 1$ parameter vector θ with true value θ_0. Let $f(x_t, \theta)$ be a continuous $q \times 1$ vector function of θ, and let $E(f(x_t, \theta))$ exist and be finite for all t and θ. Then the moment conditions are:

$$E(f(x_t, \theta_0)) = 0 \quad (3.6)$$

Therefore in estimating a parameter vector θ using moment conditions, we firstly consider cases where $q = p$, that is where θ is exactly identified by the moment conditions. Then the moment conditions $E(f(x_t, \theta)) = 0$ represent a set of p equations for p unknowns. Solving these equations would give the value of θ which satisfies the moment conditions, and this would be the true value θ_0. However, we cannot

observe $E(f(\cdot,\cdot))$, only $f(x_t,\theta)$. Sample moments of $f(x_t,\theta)$

$$f_T(\theta) = T^{-1}\sum_{t=1}^{T} f(x_t,\theta) \tag{3.7}$$

Which is the method of moments estimator of $E(f(x_t,\theta))$. If the sample moments provide good estimates of the population moments, then we might expect that the estimator $\hat{\theta_T}$ that solves the sample moment conditions $f_T(\theta) = 0$ would provide a good estimate of the true value θ_0 that solves the population moment condition

$$E(f(x_t,\theta_0)) = 0. \tag{3.8}$$

3.3 The Generalized method of moment (GMM) Estimation

The GMM estimator is used when the θ parameters are over identified by the moment conditions. In this case the equations $E(f(x_t.\theta_0)) = 0$ represents q equations for p unknowns which are solved exactly by θ_0. If we proceed as in the exactly identified case to obtain an estimator, we would have

$$f_T(\theta) = 0 \tag{3.9}$$

which is also q equations for p unknowns. If there are more equations than unknowns, we cannot find a vector $\hat{\theta_T}$ that satisfies $f_T(\theta) = 0$. Instead, we will find the vector $\hat{\theta_T}$ that makes $f_T(\theta)$ as close to zero as possible.

$$\hat{\theta_T} = argmin_\theta Q_T(\theta) \tag{3.10}$$

Where $Q_T(\theta) \geq 0$ and $Q_T(\theta) = 0$ only if $f_T(\theta) = 0$. Thus $Q_T(\theta)$ can be made exactly zero in just identified case but is strictly positive in the over identified case. Suppose we have an observed sample $\{x_t : t = 1,\cdots,T\}$ from which we want to estimate an unknown $p \times 1$ parameter vector θ with true value θ_0. Let $E(f(x_t,\theta_0)) = 0$ be a set of q moment conditions, and $f_T(\theta)$ the corresponding sample moments.

$$Q_T(\theta) = f_T(\theta)' A_T f_T(\theta) \tag{3.11}$$

Where A_T is a stochastic positive definite $O_p(1)$ weighting matrix. Then the GMM estimator of θ is

$$\hat{\theta_T} = argmin_\theta Q_T(\theta) \tag{3.12}$$

3.4 Instrumental Variables (IV) estimator

For the linear regression model with $q > p$ valid instruments, the moment conditions are;

$$E(z_t,u_t) = E\left[z_t(y_t - x_t'\beta_0)\right] = 0 \tag{3.13}$$

And the sample moments are

$$f_T(\beta) = T^{-1}\sum_{t=1}^{T} z_t\left(y_t - x_t'\beta\right) = T^{-1}\left(Z'y - Z'X\beta\right) \tag{3.14}$$

Suppose we choose

$$A_T = \left(T^{-1}\sum_{t=1}^{T} z_t, z_t'\right)^{-1} = T(Z'Z)^{-1} \tag{3.15}$$

Assuming we have a weak law of large numbers for z_t, z_t' so that $T^{-1}(Z'Z)$ converges in probability to a constant matrix A. Then the criterion function is

$$Q_T(\beta) = T^{-1}(Z'y - Z'X\beta)'(Z'Z)^{-1}(Z'y - Z'X\beta) \tag{3.16}$$

Differentiating with respect to β gives the first order conditions

$$\frac{\partial Q_T(\beta)}{\partial}\beta|_{\beta=(\hat{\beta_T})} = T^{-1}2X'Z(Z'Z)^{-1}(Z'y - Z'X\hat{\beta_T}) = 0 \tag{3.17}$$

And solving for β_T gives

$$\beta_T = (X'Z(Z'Z)^{-1}Z'X)^{-1}X'Z(Z'Z)^{-1}Z'y \tag{3.18}$$

This is the standard Instrumental Variables (IV) estimator for the case where there are more instruments than regressors.

3.5 The Hansens' J test of over identifying restriction

Hansen's J test is the diagnosis used in GMM estimation to evaluate the suitability of the model. Testing the validity of statistical independence of the instruments used from the disturbance process directly may not be obtainable, but we can assess its adequacy in an over identified context with a test of over identifying restrictions. Hansen's J test of over identifying restriction is a test which is performed as a standard diagnostic in any over identified model Hansen (1982). The Hansen's J test statistic is merely the value of the GMM objective function, evaluated at the efficient GMM estimator under the null,

$$J(\hat{\beta}_{ET}) = N\bar{g}(\hat{\beta}_T)'\hat{T}^{-1}\bar{g}(\hat{\beta}_T) \sim \chi^2_{q-p} \tag{3.19}$$

The J statistic is asymptotically distributed as χ^2 with degrees of freedom equal to the number of over identifying restrictions $q - p$.

4 Results and Discussion

The results of the study show that the macroeconomic variables; bank credit, income, credit square and inflation rate are significant and have positive effects on stock market development except for private credit that impacted negatively on market capitalization. The implication is that a unit increase in domestic credit provided by the banking system to the private sector will lead to 0.2443 decreases in market capitalization. A unit increase in income will increase stock market development by 10.58 units. Credit square (the square of domestic credit provided by the banking system to the private sector) has a significant effect and also impacted positively on the stock market development. A unit increase in inflation will result to 0.15 increases in the dependent variable. Value traded as a measure of stock market liquidity has a negative and insignificant effect on market capitalization. The implication is that a unit increase in value traded will result to 0.056 units decrease in market capitalization. Gross domestic savings impacted positively but has insignificant effect on the dependent variable. Moreover, a unit increase in gross domestic savings will lead to 0.12 unit increase in market capitalization. The Hansen's J test of over identifying restriction tend to support the model estimated with the GMM procedure (See Table 1, Model 1). Examining the effect of real interest rate on stock market development we use real interest rate instead of inflation. The results show that private credit, income level, credit square, real income rate are all significant and positive except also for private credit that impacted negatively. Lag dependent variable, value traded, and gross domestic saving are not significant even though they have

Table 1: : Macroeconomic Determinants of Stock Market Development Emerging Economies

VARIABLE	Model 1	Model 2	Model 3	Model 4	Model 5
Lagmkcap	0.0249	0.0251	0.3802	0.3164	0.0316
	(0.72)	(0.73)	(1.23)	(1.03)	(1.02)
Private credit	-0.2443	-0.2808	-0.3205	-0.2692	-0.2853
	(-2.10)**	(-2.39)**	(-2.70)***	(-2.31)**	(-2.41)**
Value traded	-0.0563	-0.0234	-0.0513	-0.02071	-0.0855
	(-1.16)	(-0.48)	(-1.03)	(-0.43)	(-1.71)
Income	10.5819	9.5560	8.1064	9.3617	9.1678
	(2.65)***	(2.42)**	(2.02)**	(2.36)**	(2.27)**
Credit square	0.0012	0.0141	0.0017	0.0013	0.0014
	(0.049)**	(2.38)**	(2.78)***	(2.30)**	(2.38)**
Savings	0.0227	0.0850			
	(0.12)	(0.45)			
Interest rate			0.2873	0.2915	0.2870
			(3.37)***	(3.41)***	(3.41)***
Inflation	0.1524				0.1606
	(3.85)***				(4.03)***
FDI			0.7754		0.7505
			(2.21)**		(2.13)**
Capital flow				-0.2553	
				(-0.61)	
Constants	62.825	64.250	58.833	62.071	58.241
	(4.40)***	(4.46)***	(4.13)***	(4.34)***	(4.12)***
Hansens' J test of	13.245	9.1703	5.7254	9.0938	10.0386
over identifying restriction	(0.004)***	(0.027)**	(0.025)**	(0.028)**	(0.018)**

***, **, and * indicate significant at 1, 5 and 10 percent levels respectively

expected positive sign except for value traded (See Table 1, Model 2). Using real interest rate instead of inflation and foreign direct investment instead of net private capital flow to ascertain their impacts, the following were arrived at: private capital, income level, credit square, real interest rate and foreign direct investment were all significant and impacted positively except for private credit that has a negative impact. Lag dependent variable and value traded appeared statistically insignificant but have impacts

on the dependent variable. Value traded impacted negatively as usual while the lag dependent impacted positively. The Hansen's J test of over identifying restriction tends to support the model estimated with the GMM procedure (See Table 1, Model 3). The result of model 4 shows that private capital flows is negative and insignificant. In particular, a unit increase in capital inflows induces a 0.61 unit decrease in stock market development. Again, private credit, income level, credit square, real interest rate and the constant are all positive and statistically significant except for private credit that posited a negative impact, (See Table 1, Model 4). Inflation rate and foreign direct investment were introduced to observe their resultant effect on the stock market development. It was seen that private credit, income level, credit square, inflation rate, foreign direct investment and value traded are all significant. The implication is that inflation and foreign direct investment are good vehicle of change on market capitalization as it causes value traded, which has never been significant for once, to be significant. Again, value traded has a negative impact despite of its significance, (See Table 1, Model 5). To examine the impact of political risk on stock market development, the result from Model 1 posited that private credit, income level, credit square, inflation, foreign direct investment and political stability have a statistically significant effect on market capitalization. Private credit also has a positive effect. The implication is that a unit increase in private credit will result to 0.27 decreases in market capitalization. log $GDPP$ as a measure of income level also have a positive impact on market capitalization. A unit increase in income level will lead to 5.5192 increases in market capitalization. Credit square and inflation were reported positively on the dependent variable as an increase in them result to an increase in the dependent variable. Capital flow (foreign direct investment) also has a positive and significant relationship with stock market development in emerging economies. Political stability has shown its strong economic impact on stock market development. The implication is that political stability is important for stock market development in emerging economies. A unit increase in political stability accounts for 7.8 units increase in market capitalization and it appears statistically significant at 0.01 level of significant. Value traded, savings and lag of dependent variable were insignificant but have impact on the dependent variable, (See Table 2, Model 1). Other components of political risks were also examined on market development as can be seen in other models. rule of law showed a positive effect but insignificant in determining stock market development while private credit, income level, credit square and inflation all were significant with positive impacts except for private credit which impacted negatively. The Hansen's J test of over identifying restriction tends to support the model estimated with the GMM procedure, (See Table 2, Model 2). The effect of regulatory policy on stock market development impacted negatively on market capitalization. Again, bank credit, income, credit square and inflation are all significant in explaining stock market development. Private credit again impacted negatively and significantly in explaining market capitalization. The Hansen's J test of over identifying restriction tends to support the model estimated with the GMM procedure, (See Table 2, Model 3). The impact of corruption control on stock market development showed a positive and statistically insignificant. It implies that a unit increase in control of corruption will increase market capitalization by 1.65 units. Again, bank credit, income, credit square and inflation are all significant and positive except for private credit, (See Table 2, Model 4). Government effectiveness was examined on stock market development. It has a negative impact on stock market development. A unit increase in government effectiveness will result to 1.53 decreases in stock market development in this study. Bank credit, income, credit square and inflation were all statistically significant, (See Table 2, Model 5). The Hansen's J test of over identifying restriction tends to support the model estimated with the GMM procedure. The evidence in this paper suggests that private capital flows, banking sector development, income, inflation and political stability are determinant factors of stock market development in emerging market.

Table 2: :Institutional Quality and Stock Market Development in Emerging Economies.

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
Lagmkcap	0.0515 (1.52)	0.0271 (0.80)	0.0242 (0.70)	0.0265 (0.78)	0.0263 (0.77)
Private credit	-0.2711 (-2.30)**	-0.2884 (-2.46)**	-0.2338 (-1.98)***	-0.2583 (-2.21)**	-0.2248 (-1.88)*
Value traded	-0.1042 (-2.03)	-0.0638 (-1.34)	-0.0567 (-1.20)	-0.0565 (-1.17)	-0.0551 (-1.14)
Income	5.5192 (1.43)*	8.6838 (1.95)**	11.3385 (2.35)**	9.5397 (2.14)**	11.3122 (2.75)***
Credit square	0.0012 (2.09)**	0.0134 (2.27)**	0.0011 (1.86)*	0.0012 (2.30)**	0.0010 (1.81)*
Savings	0.0751 (0.40)	0.0530 (0.28)	0.0173 (0.09)	0.0369 (0.20)	0.0096 (0.05)
Inflation	0.1684 (4.04)***	0.1615 (4.15)***	0.1482 (3.69)***	0.1560 (3.93)***	0.1497 (3.73)***
FDI	0.7304 (2.11)**	0.8004 (2.33)***	0.7334 (2.19)**	0.7499 (2.83)**	0.6902 (2.55)**
Polst	7.8548 (3.60)***				
Rllaw		3.4335 (1.45)			
Regpo			-0.9765 (-0.39)		
Ccrpt				1.6468 (0.73)	
Goveff					-1.5264 (-0.70)
Constants	41.2405 (2.93)***	54.5710 (3.44)***	65.4835 (3.83)***	58.7818 (3.73)***	65.9137 (4.43)***
Hansens' J test of over identifying restriction	10.7801 (0.013)***	12.6336 (0.005)**	13.5315 (0.003)**	13.0135 (0.004)***	13.6273 (0.003)***

***, **, and * indicate significant at 1, 5 an 10 percent levels

5 Conclusion

This research showed that banking sector development, income, inflation, foreign direct investment and political stability are the determinants of stock market development in emerging economies. The higher level of banking sector participation in stock market as measured by credit square show a positive and significant impact while it normal level participation, though significant showed a negative impact on stock market development in emerging economies. The implication of this result is that, for banking sector to be more relevant in stock market development, they need to increase on their participation or involvement on capital market. Political stability is the only institutional quality that appears positively significant in the specified model. This implies that for stock markets in these developing countries to attain its place as a major factor for economic growth, political stability of these countries must be stabilized. This will further encourage capital flows both from internal and external investors. Other institutional qualities like rule of law and control of corruption impacted positively to stock market but its impact seemed insignificant.

This paper recommended that political stability is the key institutional indicator of stock market development and needs to be revisited in emerging economies. Implementation of policies that will encourage political stability of developing countries should be made and properly monitored. This indicator, if adequately achieved will surely encourage the macroeconomic factors of capital market and consequently add significant value to the economies of the emerging countries and the world at large.

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