



## STOCK EXCHANGE PERFORMANCE AND ECONOMIC GROWTH IN GHANA: IS THERE A CAUSAL LINK?

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### ABSTRACT

*This study empirically examined the causal link between stock exchange performance and economic growth in Ghana, using annual time series data over the period 1990-2012. Secondary data on the performance of the stock exchange: GSE-All Shares/composite Index was obtained from the Ghana stock exchange fact book, while that of economic growth was obtained from the Bank of Ghana Quarterly digest. The Granger causality test was employed to determine the causal link between GSE-All-shares/composite index and economic growth in Ghana. The study revealed that GSE-All shares/composite index grew by an average of 20.3 percent over the period. The result of Granger causality test shows that at 5 and 10 percent level of significance, there is a unidirectional causality between the Ghana stock exchange performance indicator and economic growth in Ghana. This suggests that changes in stock market performance precede that of economic growth. Therefore, in order to ensure rapid economic growth, policies which would ensure steady and sustainable growth in GSE-All shares/composite index should be encouraged.*

**Keywords:** GSE-All shares index, Gross domestic product, Causality test, Ghana

### INTRODUCTION

Over the past two decades, a primary focus of developing economies across the world has been ways to accelerate economic growth (Todaro and Smith, 2003). According to Godwin (2007), economic growth is an increase in the real Gross Domestic Product (GDP) of a country over a specified period of time usually a year. In the early 1980s, African economies initiated and pursued growth-oriented policies and programs such as the Economic Recovery Program (ERP) and Structural Adjustment programs (SAP) to promote sustained economic growth. Investment in these

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growth-oriented projects and programs however requires medium and long term funding which is far longer than the duration for which most savers are willing to commit their funds. This resulted in the development of the financial systems in most developing economies to help mobilize fund for investments. Financial systems among others assist to mobilize and pool savings, provide payments services that facilitate the exchange of goods and services as well as efficient allocation of capital to enhance economic growth (Demirguc-Kunt, 2006). According to Garcia and Liu (1999), financial systems comprise financial intermediaries such as the banks and securities markets. Traditionally, emphasis had been placed on banks to mobilize funds to finance economic development projects. However, the banking sector which is a key player in the financial sector has not been able to raise the needed long term funds for investment projects (Ihendinihu and Onwuchekwa, 2012). This has necessitated the need for a better and more efficient financial market that can serve as a channel through which long term capital can be mobilized to finance development projects. Indeed, a country's productive projects may remain redundant if an efficient set of financial institutions that aid in mobilizing medium to long term capital do not exist (Ihendinihu and Onwuchekwa, 2012). Emphasis has therefore been shifted from banks to the development of stock markets in recent years among the academia and policy makers in developing countries to help raise the needed medium to long term capital for investments to accelerate economic growth of developing economies.

The development of Ghana's stock market began in the late 1980s when the Financial Sector Adjustment Program (FINSAP I) was initiated and implemented as a means of achieving real interest rates and improved efficiency in the sector. During this period, Ghana's economy was characterized by high inflation rate, exchange rate volatility and negative real interest rates. The financial sector reform led to the establishment of the Ghana stock exchange (GSE) in 1989 as a private company limited by guarantee under the country's Companies' Code of 1963 (Act 179). The major objective of the GSE was to facilitate the mobilization of long term capital by corporate bodies, businesses and government through the issuance of securities (shares, bonds) to accelerate the country's development. Since it started operation in 1990, the GSE, in addition to contributing significantly to the mobilization of long term capital, has also facilitated tremendously the divestiture and privatization of some state-owned enterprises (Kyereboah-Coleman and Agyire-Tetteh, 2008). With an increase in the number of listed companies from 11 in 1990 to 34 by May 2013, the total market capitalization of the exchange has also increased from GH¢3.05 million to GH¢57,780.67 million over the same period (GSE Report, 2013). Besides, listed companies have helped to raise an amount of GH¢2,213.22 million for expansion, to improve technology and meet the capital requirements of regulators in the country. In 2008, the GSE recorded a performance of 154.7 percent and was adjudged the best performing stock market in the world, despite the global economic meltdown. The GSE has therefore contributed significantly to the economic development of Ghana over the past 23 years of its existence.

Although the role of stock markets in economic development has been well acknowledged across the world in recent years (Ezeoha *et al.*, 2009), its link with economic growth has not received the needed much attention. Moreover, divergent views have been expressed on the nature and direction of causality between stock market performance and economic growth (Ezeoha *et al.* 2009, Hondroyannis *et al.*, 2004). Whiles some studies have found that economic activities in a country constitute the key driver of stock market development (El-Wassal, 2005, Demirguc-Kunt and Levine, 1996), others have found that stock market growth rather leads to economic growth (Chinwuba and Amos, 2011, Yartey, 2008). Besides, some have found bi-directional (feedback) causality between the stock market development and economic growth (Sudharshan and Rakesh, 2011, Souniya and Jaydeep, 2008). In Ghana, apart from the existence of limited studies on the link between stock market performance and economic growth (Quaidoo, 2011, Osei, 2008) results of these studies are mixed. Quaidoo (2011) used quarterly data from 1991 to 2006 and found that economic growth leads to stock market capitalization without any feedback, whiles Osei (2008) used quarterly data from 1991 to 2003 but found that stock market development Granger-causes economic growth. Moreover, these two studies in Ghana used market capitalization as a proxy for stock market performance. Rousseau and Wachtel, (2000) have however argued that since nominal market capitalization is affected by price on the stock markets the use of nominal stock market capitalization and market capitalization ratio may not be an appropriate indicator because it may lead to spurious relationship. Therefore, the most appropriate indicator used to assess the overall performance of the stock exchange is the GSE-All shares/composite index. The main question that arises is: Is there a causal link between the performance of the Ghana stock exchange and economic growth? The main objective of this study is to determine the causal link between stock exchange performance, proxies by GSE-All shares/composite index and economic growth in Ghana, using annual data from 1990 to 2012. This study will contribute to the existing debate on the causal link between these two variables.

The remaining part of this paper is presented as follows: section two reviews empirical literature and section three describes the methodology employed. Section four presents the results and discussions and section five presents conclusion and recommendations based on the findings.

## LITERATURE REVIEW

The causal link between stock market development and economic growth has been a debate among economist and finance experts across the world. Azarmi *et al.* (2005) examined the relationship between stock market development and economic growth in India during the pre- and post-liberalization periods from 1981 to 2001. The authors reported that there is no causal link between Indian stock market development (measured by stock index comprising market capitalization ratio, total value traded ratio and turnover ratio) and economic growth (proxies by real per capita GDP) for the entire twenty-year period. The authors also found a significant negative relationship

between stock market development and economic growth for the post-liberalization period covering 1991 to 2001. The results, however, found evidence of positive relationship between stock market development and economic growth during the pre-liberalization sub-period between 1981 and 1990. The authors concluded that the results are consistent with the suggestion that, the Indian Stock Market is a “casino” for the post liberalization sub-period and for the entire twenty-year study period. Shahbaz *et al.* (2008) also investigated whether there is a relationship between stock market development and economic growth in Pakistan, using annual time series data from 1971-2006. The authors applied Juselius-Johansen co-integration testing techniques to estimate the long-run relationship between the two variables. The results reveal a very strong, positive long-run relationship between stock market development measured by market capitalization ratio and economic growth proxies by real per capita income significant at 1 % level.

Enisan and Olufisayo (2009) examined causal link between stock market development and economic growth for seven countries in sub-Saharan Africa. The result of the authors on the Granger causality test based on the vector error correction model (VECM) showed that stock market development Granger causes economic growth in Egypt and South Africa. However, Granger causality in the context of VAR showed evidence of bi-directional relationship between stock market development and economic growth for Cote D’Ivoire, Kenya, Morocco and Zimbabwe. In Nigeria, the authors found a weak evidence of growth-led finance using market size as indicator of stock market development. The authors concluded that stock markets could help promote growth in Africa. However, according to them, to achieve this goal, African stock markets need to be further developed through appropriate regulatory and macroeconomic policies. Vazakidis and Adamopoulos (2009) also examined the causal relationship between stock market development and economic growth for France for the period 1965 to 2007, using Granger-causality tests based on vector error correction model (VECM). The results indicated that economic growth brings about stock market development in France. This suggests that economic growth has a positive effect on stock market development and that stock market growth is driven by economic growth.

Aboudou (2009) investigated the causal relationship between stock market development and economic growth for the West African Monetary Union economy by applying Granger non-causality test proposed by Toda and Yamamoto (1995). The author found that both real market capitalization ratio and total value traded ratio Granger-causes economic growth, which is significant at 5% and 1%, respectively. The results suggest that stock market development leads to economic growth in the West African Monetary Union. In contrast, Bahadur and Neupane (2006), and Deb and Mukherjee (2008) found bi-directional relationship between stock market development and economic growth. Bahadur and Neupane (2006), for instance, examined the causal relationship between the stock market development and economic growth in Nepal from 1988 to 2005, using Granger causality tests. The authors measured stock market development by

market capitalization ratio and a conglomerate index of market capitalization, total value traded and turnover ratios while economic growth was proxied by real GDP. The results showed bi-directional causality between the market capitalization ratio and real GDP at 5% level of significance. Deb and Mukherjee (2008) on their part investigated the causal relationship between stock market development and economic growth for Indian economy, using quarterly data for the period 1996 to 2007. The authors used real GDP growth rate as a proxy for economic growth and real market capitalization ratio, real total value traded ratio and stock market volatility as stock market indicators. Applying Granger non-causality test proposed by Toda and Yamamoto (1995), the results suggest bi-directional causation between real stock market capitalization ratio and economic growth at 1% significance level. The implication of both studies is that economic growth and stock market development are mutually dependent. Moreover, both Deb and Mukherjee (2008) and Bahadur and Neupane (2006) found that economic growth leads to stock market development measured by stock index and value traded ratio at 5% level of significance in Pakistan and India, respectively.

Osei (2005) employed a vector autoregressive (VAR) technique developed by Sims (1972) based on Granger's (1969) definition of causality to investigate the relationship between stock market development and economic growth in Ghana, using quarterly data for the period 1991 to 2003. The purpose was to establish the direction of causality between stock market development and economic growth in Ghana. The author used nominal market capitalization and market capitalization ratio as measures of stock market development and real GDP as a proxy for economic growth. The results of the Granger-causality test indicate that stock market development Granger causes economic growth in Ghana at 5% level of significance. Quaidoo (2011) examined the relationship between stock market capitalization and economic growth in Ghana, using quarterly time series data from 1991 to 2006. The study employed Johansen multivariate cointegration technique and vector error correction model to investigate the long-run relationship and the short-run dynamics among the variables. The Granger-causality test was also conducted to determine the causal relationship between the variables. The author found that real economic growth, real stock market liquidity and real gross domestic investment have significant positive impact on the development of the Ghana stock exchange. Economic growth according to the author is the most important factor explaining the development of the Ghana stock exchange. The results of the Granger-causality test indicate that economic growth leads to stock market capitalization (stock market development) without any feedback. The author concluded that although the Ghana stock exchange is new, illiquid and highly concentrated, it has a great potential to mobilize both domestic savings and foreign capital for financing future investments. Therefore, there is the need for government to initiate policies to promote economic growth, stock market.

Kolapo and Adaramola (2012) examined the impact of the Nigerian capital market on its economic growth from the period of 1990-2010. Economic growth was proxied by Gross Domestic Product

(GDP) while capital market variables considered include; market capitalization, total new issues (TNI), value of transactions (VT), and total listed equities and government stocks (LEGS). Applying Johansen co-integration and Granger causality tests, results show that the Nigerian capital market and economic growth are co-integrated. This implies that a long run relationship exists between capital market and economic growth in Nigeria. The causality test results suggest a bi-directional causation between the GDP and the value of transactions and a unidirectional causality from market capitalization to the GDP and not vice versa. On other hand, there is no “reverse causation” from GDP to market capitalization. Furthermore, there is independence “no causation” between the GDP and total new issues as well as GDP and LEGS. This is a clear indication of the relative positive impact the capital market plays on the economic growth of the country. The evidence from this study reveals that the activities in the capital market tend to impact positively on the economy. The authors recommended that the regulatory authority should initiate policies that would encourage more companies to access the market and also be more proactive in their surveillance role in order to check sharp practices which undermine market integrity and erode investors’ confidence.

The review of literature shows that most studies used market capitalization as a measure for stock market performance. In addition, the link between stock market performance and economic growth is inconclusive. Whiles some studies found that economic growth leads to stock market development, others found the opposite. Some have also found a bi-directional causality between economic growth and stock market performance.

## **METHODOLOGY**

The study employed annual time series data from 1990 to 2012 to determine the causal link between stock exchange performance and economic growth in Ghana. Annual data on stock exchange performance indicator, GSE-All shares/composite index was obtained from the Ghana stock exchange fact sheet and real GDP growth from the Ghana statistical service (GSS) and the Bank of Ghana quarterly digest. The techniques employed to analyze the data include descriptive statistic, the unit root Augmented Dickey-Fuller (ADF) test and the Granger causality test and are presented below. Time series data are generally assumed to be non-stationary at level forms and so running a regression without controlling for the problem of non-stationarity will yield spurious regression results. Spurious regression results exist when the test statistics show a significant relationship between variables under study in the regression model, even though no such relationship exists between the variables (Patterson, 2000). This means the results may appear good but may not make economic sense. To address this problem, the study undertook a preliminary examination of the annual data by using the unit root test. Failure to properly account for the dynamics in the time series data set may harm the estimation results. As a result, the ADF test, developed by Dickey and Fuller (1979) was employed to examine the presence of unit root.

This is because the ADF is simple and offer more convenient procedure for examining properties of time series data set. The ADF approach controls for higher-order correlation by adding lagged difference terms of the dependent variable to the right-hand side of the regression. The ADF test is specified as follows:

$$\Delta Y_t = b_0 + \beta Y_{t-1} + \mu_1 Y_{t-1} + \mu_2 Y_{t-2} + \dots + \mu_p Y_{t-p} + \varepsilon_t \quad (1)$$

where,  $Y_t$  represents time series data on stock exchange performance indicator and real GDP growth to be tested,  $b_0$  is the intercept term,  $\beta$  is the coefficient of interest in the unit root test,  $\mu_i$  is the parameter of the augmented lagged first difference of  $Y_t$  to represent the  $p^{\text{th}}$ -order autoregressive process, and  $\varepsilon_t$  is the error term. In carrying out the unit root test, the study seeks to test the hypothesis that:

$$\begin{aligned} H_0: \beta &= 0, & \text{Non stationary (there is unit root)} \\ H_1: \beta &\neq 0, & \text{Stationary (no unit root)} \end{aligned}$$

The decision rule involves comparing the computed ADF value with the MacKinnon critical values for the rejection of a hypothesis for a unit root. If the computed tau (ADF) statistic is less negative (that is, lies to the right of the MacKinnon critical values) relative to the critical values, the null hypothesis of non-stationarity in time series variables is not rejected. If the null hypothesis is rejected, then the time series data is stationary, hence no unit root. Finally, the Granger causality statistic, developed by Granger (1969), was applied to test the statistical causality between stock exchange performance indicator and economic growth (GDP) in Ghana. According to Granger (1969) in causality approach, a variable Y, is caused by another variable X if Y can be predicted better from past values of variables Y and X than from past values of variable Y alone. The causality test helps to ascertain whether a uni-directional or bi-directional (feedback) relationship exists between the two variables. The choice for the granger procedure is based on the fact that it is the more powerful and simpler way of testing causal relationship (Olweny and Kimani, 2011).

**Granger causality test**

Following Olweny and Kimani (2011), the study used the Granger causality approach to determine and test for the causal link between stock exchange performance indicator and economic growth in Ghana over the period 1990-2012. The bi-variate model is specified as:

$$LGDPGRTH_t = \alpha_0 + \sum_{i=1}^n \alpha_{1i} LGDPGRTH_{t-1} + \sum_{i=1}^n \alpha_{2i} LGSEIDX_{t-1} + \varepsilon_{1i} \quad (2)$$

$$LGSEIDX_t = \beta_0 + \sum_{k=1}^m \beta_{1i} LGSEIDX_{t-K} + \sum_{k=1}^m \beta_{2i} LGDPGRTH_{t-K} + u_{2i} \quad (3)$$

Where  $LGDPGRTH_t$  and  $LGSEIDX_t$  are the natural logarithm of real Gross domestic Product growth and Ghana stock exchange performance index: GSE-All-shares/composite index at a time.  $\alpha_o$  and  $\beta_o$  are intercepts,  $\alpha_{1i}$  and  $\beta_{1i}$  are slope coefficients of own lagged values,  $\alpha_{2i}$  and  $\beta_{2i}$  are slope coefficients of lagged values of other variables in equation (2) and (3) respectively, whilst  $\varepsilon_t$  and  $u_t$  are mutually uncorrelated error terms.  $i$  and  $k$  are the number of lags. Equation (2) means that economic growth at a particular time is influenced by its past values and past values of GSE-All shares/composite index series; whilst equation (3) means that GSE-All shares/composite index at any time is influenced by its past values and past values of real GDP growth rate series. In a regression of the variables on their own lagged values, the inclusion of lagged values of the other variable significantly improves the prediction of that variable. In determining the causal link between stock exchange performance and economic growth series of Ghana, the null hypothesis of no Granger causality is tested against the alternative of Granger causality:

$$H_0: \alpha_{21} = 0, \text{ for all } i\text{'s and } H_0: \beta_{1i} = 0 \text{ for all } k\text{'s}$$

$$H_1: \alpha_{21} \neq 0 \quad \text{and} \quad H_1: \beta_{1i} \neq 0, \text{ for at least some of the } i\text{'s and } k\text{'s.}$$

If the coefficients  $\alpha_{2i}$ 's are statistically significant but  $\beta_{2i}$ 's are not, then stock exchange performance indicators granger causes real GDP growth. That is, if  $\sum \alpha_{2i}$  and  $\sum \beta_{2i}$  are statistically equal to zero simultaneously, the null hypothesis is not rejected. However, if  $\alpha_{2i}$ 's are not statistically significant but  $\beta_{2i}$ 's are significant, then real GDP growth Granger causes stock market performance. Causality runs both ways if both  $\alpha_{2i}$ 's and  $\beta_{2i}$ 's are significant.

## RESULTS AND DISCUSSION

### Descriptive statistics

Table 1 presents the descriptive statistics of the Ghana stock exchange (GSE) performance indicator (GSE-All shares/composite index) and economic growth variables used in the study. From Table 1, all variables exhibit a positive mean returns. Real Gross Domestic Product (GDP) growth has a mean value of 5.55 percent, with a standard deviation of 2.42 percent. This suggests that over the past 23 years of the existence of the GSE, the economy of Ghana has grown by an average of 5.5 percent. This suggests a relatively slow pace of economic growth of the economy. Much effort needs to be made by government to accelerate the pace of economic growth of the country by at least 8 percent per annum to propel the country into an upper middle income status. The GSE-All shares index has a mean value of 2539.86 point, with a standard deviation of 29992.51 point. The maximum index of 10,431.64 point was recorded in 2008, while the minimum of 62.17 point was in 1992. The GSE-All shares index grew by an average of 20.3 percent per annum over the 23 years of the existence of the GSE. Efforts directed at the development of the stock exchange will be appropriate at enhancing its performance and growth.



The descriptive statistic further shows that all variables have return distribution that are positively skewed. The sum squared deviation which represents the net change over the sample period, shows that whiles GDP growth rate declined by about 128 percent, GSE-All Shares/composite index decline by a value of about 1.97 points. The  $p$  values of the Jarque-Bera statistic are relatively normally distributed.

**Table 1: Descriptive statistics of stock market performance and economic growth variables**

Statistics	GDP GrowthRate (%)	GSE All-shares/composite Index
Mean	5.55	2539.86
Median	4.69	955.95
Maximum	14.4	10431.64
Minimum	3.27	62.17
Standard Deviation	2.42	2992.51
Skewness	2.28	1.12
Kurtosis	8.89	3.12
Jarque-Bera	52.12***	4.82*
Probability	0.00	0.09
Sum Sq. Deviation	128.79	1.97
Observation	23	23

Source: Survey Data, 2013. NB: \*significant at 10%, \*\*\* significant at 1%

### Result of the unit root augmented dickey-fuller test

It is important that the presence or absence of unit root is established in empirical analysis involving time series data. This is because regression analysis involving time series data variables with unit root produces spurious results (Townsend, 2001). The Augmented Dickey-Fuller (ADF) test was used to test for unit root or stationarity of the natural logarithm of the stock exchange performance and economic growth variables. Table 2 and 3 present the results of the ADF unit root test at levels and difference respectively. The results from the ADF test indicate that almost all variables are non-stationary at levels. The ADF test statistic for all the variables, with the exception of real GDP growth with trend and intercept, are greater than their respective critical values at 10%, 5% and 1% confidence levels. Since the series are non stationary at levels, each of the real GDP growth and stock exchange performance indicators is tested by differencing. The result is presented in Table 3.

Table 3 shows that after first difference, all variables become stationary. The ADF test statistics of all the variables are less (more negative) than the critical negative value. The variables are significant at 1% and 5% confidence level. This indicates that all the variables: real GDP growth rate and GSE-All Shares/Composite Index are stationary. It can therefore be concluded that the GSE performance indicator and real GDP growth variables are all integrated of order 1. That is,  $I(1)$ . Since all regression variables are integrated of the same order, there is the possibility of them co-integrating.

**Table 2: Levels of the augmented dickey-fuller (ADF) unit root test results**

Variables	Levels		
	Intercept	Trend and Intercept	No Trend & Intercept
Real GDP Growth rate	-2.640	-4.419**	0.052
GSE-All Shares/Composite Index	-1.716	-0.491	0.602

\*significant at 10%

\*\* significant at 5%

\*\*\* significant at 1%

**Table 3: Difference of the augmented dickey-fuller (ADF) unit root test results**

Variables	Difference		
	Intercept	Trend and Intercept	No Trend & Intercept
Real GDP Growth rate	-7.225***	-7.259***	-7.279***
GSE-All shares/composite index	-4.339***	-5.113***	-4.229***

\*significant at 10%

\*\* significant at 5%

\*\*\* significant at 1%

### Causality between stock exchange performance and economic growth

The Granger Causality test was used to test the hypothesis of no causal relationship between stock exchange performance indicator (GSE-All shares/composite index) and real GDP growth. Table 4 presents the results of the Granger Causality test. The null hypothesis that economic growth (LGDPGRTH) does not Granger cause stock exchange performance (LGSEASI) is not significant at lags 1 and 2. Base on the probability value, the hypothesis cannot be rejected. Therefore, it can be concluded that economic growth does not Granger cause GSE-All shares/composite index. On the other hand, the null hypothesis that stock exchange performance (LGSEASI) does not Granger cause economic growth (LGDPGRTH) is significant at 5% at lag 1 and at 10% at lag 2. Therefore, the null hypothesis is rejected. It appears that Granger causality runs one way from stock exchange performance measured as GSE-All shares index Granger to economic growth. The result therefore suggests that there is a unidirectional causality between stock exchange performance indicators and real GDP growth. That is to say, stock exchange performance granger causes economic growth.

**Table 4: Results of the granger causality test**

Lags	Null Hypothesis	Obs.	F-Statistic	Probability
1.	LGDPGRTH does not Granger cause LGSEASI	22	0.61482	0.4426
1.	LGSEASI does not Granger cause LGDPGRTH	22	4.49064	0.0475**
2	LGDPGRTH does not Granger cause LGSEASI	21	2.20271	0.1429
2.	LGSEASI does not Granger cause LGDPGRTH	21	3.41716	0.0581*

**Source:** Survey Data, 2013. **NB:** \*\* significant at 5%, \* significant at 10%

The results of the Granger causality show that improvement in stock market performance leads to economic growth but economic growth does not lead to improvement in stock market performance. There is therefore a unidirectional causality between stock market performance (GSE-All shares index) and economic growth. This result confirms the findings of Olweny and Kimani (2011), Aboudou (2009) who all found a unidirectional causality.

## CONCLUSION AND POLICY IMPLICATION

The study primarily investigated the causal link between stock exchange performance and economic growth in Ghana, using the Granger causality test. Annual time series data on GSE-All shares/composite index and GDP growth rate were collected from the Ghana stock exchange and the Bank of Ghana and Ghana statistical service quarterly bulletins over the period 1990-2012. Assessment of the performance of the GSE indicates shows that the GSE-All shares/composite index grew by 20.3 over the period of the study. The result of the Granger causality test shows that at 5% and 10% levels of significance, stock market performance Granger causes economic growth, but economic growth does not granger cause stock exchange performance. There is therefore a unidirectional causality between stock exchange performance and economic growth: from stock market performance indicator to economic growth. It is recommended that efforts will first promote the development of the stock exchange should be encouraged. Laws and regulations governing the operations of the stock exchange should be strengthened to protect the interest of buyers and sellers on the stock market. This will increase the confidence of investors as well as boost domestic investor participation and enlarge stock ownership base in the economy. There is also the need for government to encourage private companies to list on the stock exchange through the provision of tax incentives so as to improve upon the liquidity of the market.

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