STOCK MARKET PERFORMANCE AND ECONOMIC GROWTH: THE CASE OF SRI LANKA

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ABSTRACT

The stock market is a common feature of a modern economy and is expected to promote economic growth and development of an economy. This study attempts to examine whether the stock market promotes economic growth in Sri Lanka. The study empirically examines the causal relationship between stock market performance and economic growth in Sri Lanka based on time series data between the period of 1997 and 2008. Econometric methods such as co-integration analysis, error correction mechanism and Granger causality tests are employed to investigate the relationship between GDP growth rate and three stock market performance proxies A unidirectional causal relationship is observed between stock market performance indicators and GDP growth of Sri Lanka. The results are in line with supply leading and demand following hypothesis. Whilst stock market appears to be causing economic growth, there is also limited evidence of economic activity influencing stock market performance. Thus the empirical results show endogenous characteristics of the theme discussed.

Key Words: Stock market; Economic growth; Granger causality; Co integration; Error correction models

1. INTRODUCTION

The stock market is widely recognised as a means for domestic resources mobilization, facilitating the supply of long term financing for investments with growth potential. In a long term perspective, stock markets are expected to play several key roles. First, spreading the risks of long-term investment projects is one of the crucial functions of the stock market. The growth of stock markets can lead to a lower cost of equity capital and thereby help investments to take place and accelerate growth. Second, by imposing a degree of control over the investment behavior of companies through continuous monitoring of their share prices can contribute to more efficient investment. Thirdly, by attracting foreign portfolio flows, the expansion of stock market can serve to enhance the supply of invest able funds.

Gurley and Shaw (1955) are among the first to study the relationship between financial markets and real sector activity. They explain that one of the difference between developed and developing countries is that the financial system is more developed in the former. McKinnon (1973) and Shaw (1973) found that the development of financial markets has been significantly correlated with the growth of national income/output. Focusing on Sri Lanka, Hemachandra (2005) concludes that banking sector financial deepening has had positive implications on the growth of the Sri Lankan economy.

Traditionally the emphasis had been on bank funds on economic development. More recently, the emphasis has increasingly shifted to the capital market instruments and the effect of stock markets on economic development. It is thought that a well-developed stock market should help increase savings and efficiently allocate capital to productive investments, which leads to an increase in the rate of economic growth. Stock markets contribute to the mobilisation of domestic savings by enhancing the set of financial instruments available to savers to diversify their portfolios. Levine and Zervos (1996) examine whether there is a strong empirical association between stock market development and long-run economic growth.

The main objective of this study is to examine whether there is a long-run relationship between stock market performance and economic growth in Sri Lanka. As a secondary objective we also look into the direction of causality of this relationship. The study is highly warranted as, to the best of the authors' knowledge, there is not even a single publication that examine the relationship in question in the Sri Lankan context.

The structure of this paper is as follows. In the following section we will describe the GDP - stock market relationship in the Sri Lankan context. Section 3 outlines the theoretical background together with a brief review of literature. Econometric methodology is elaborated in Section 4. Section 5 contains the sources and description of data. Empirical findings are reported in the Section 6. Finally, we conclude presenting the summary of the research findings in Section 7.

2. GDP-STOCK MARKET RELATIONSHIP IN SRI LANKA

Extensive government involvement has been a feature of the post independence economic policies of successive governments after independence. Government led economic development schemes made investments in vital sectors of the economy. The scale of investments required substantial long term funding at moderate or concessionary rates of interest to make the development projects financially feasible. The scenario required government to adopt monitory policy aimed at keeping interest rates in the economy low. These types of economic policies were more like the McKinnon-Show style financial repression (Aluthge, 2000) that prevailed during the period. As expected in theory, the economic environment was not favorable for private savings and investments. Consequently, the country did not witness the level of growth that was required for it to achieve the status of a developed economy.

A paradigm change of the hitherto adopted economic policies took place in 1977. A newly elected government following capitalist style economic policies took steps to liberalise the economy changing from a closed economic policy. Financial liberalization measures that started to be applied since 1978 were a consequence of open economic policy regime. Mckinnon-Show type of policy reforms were aimed at redeeming the then Sri Lanka's economy from conditions of financial repression to improve resource allocation and speed up output growth. Changes to the financial system included new institutions, instruments and better monitoring role by the regulators. The activation of the capital market activity, more specifically the stock market operation as seen by growth in the number of public listed companies, development of the ASPI, growth in overseas portfolio investments etc., in Sri Lanka has seen a significant development in the financial market activity in the post 1978 era after the liberalization of economy.

The establishment of the Colombo Stock Exchange (CSE) in 1985 and the Securities Exchange Council (SEC) in 1987 has helped the capital market especially the stock market development in the country. The SEC's role has been to protect the interests of investors, to promote professional standards and to help develop policies for the government to develop the capital markets. Later the establishment of the Central Depository System (CDS) to facilitate script less trading appeared to have encouraged activity in the market. Tax incentives during various years by the government and relaxing of restrictions on foreign ownership in Sri Lankan companies have also helped the market to grow.

The development of Sri Lanka's financial markets over the last three decades has made the stock market a key financial institution in the economy. Although the stock market would not be an alternative to banking sector in Sri Lanka, it could well complement the banking services. Thus the importance of a market for quoted stocks is established; however it needs to be understood with empirical evidence. This study aims to fulfill this requirement by establishing causal links among stock market and economic variables.

3. THEORETICAL BACKGROUND AND A BRIEF REVIEW OF LITERATURE

According to classical school of economics, the income that is not spent for consumption purpose is savings. Savings would then go to form capital accumulation since savings are equal to investments (capital accumulation is represented by investments) in a closed economy. Hence, savings in the economy feeds into investment and net capital accumulation or the change in capital that will contribute to output growth. In neo-classical growth models, the long-run rate of growth is exogenously determined by either assuming a savings rate (Harrod-Domar model) or a rate of technical progress (Solow model).

Liberalization of financial markets allows financial deepening that causes increased financial intermediation among savers and investors resulting in efficient allocation of resources among growth sectors of the economy (McKinnon and Shaw, 1973). The resultant financial environment promotes savings and facilitates investments by transferring capital from less productive to more productive sectors of the economy. Thus the development of the financial sector would help in the growth of the economy.

Ever since the empirical work of Gurley and Shaw (1960) and McKinnon and Shaw (1973), the relationship between the financial sector development and Economic growth has been subject to review and further research among financial economists. Most empirical studies on the subject appear to have followed theoretical approaches proposed by different schools of thought. Financial deepening hypothesis and Endogenous growth theory are often referred by many other researches. Endogenous growth theory appears to have gained prominence in the recent past. The concept can be used to investigate whether economic growth can be facilitated by financial market development (stock market in the present study) taking into account the movement of periodic GDP values and stock market indicators.

Patric (1966) suggests that there is a possible interrelationship between supply leading and demand following phenomena. As industries develop the shift from one basis to the other happens, the timing and the sequence most often being determined by government policy and private demand forces.

Gurley and Show (1967) in their pioneering work on financial structure and economic development identifies the experience of countries subject to development. Higher economic growth leads to rapid growth of financial assets more than GDP. Demirguc-Kunt and Levine (1996) studied several aspects of stock market development that contributed towards economic growth. Risk diversification through internationally diversified stock markets can promote higher return projects. The better functioning and more integrated stock markets boost economic growth by channeling savings to more productive projects.

Levine and Zervos (1996) examine whether there is a strong empirical association between stock market development and long run economic growth. They have defined and used some key stock market development indicators; market capitalization ratio, liquidity ratio (traded stock value/GDP) and turnover ratio (traded stock value/market capitalization) on the assumption that theses variables positively correlate with the ability to mobilize capital and diversify risk. An overall stock market development "index" has also been used in their study. An average of the stock market development indicators referred above has been subsequently employed by several other researches in their studies. The regression results indicate that there is a significant positive correlation between predetermined components of stock market developments and economic growth irrespective of the control variables

Ranjan and Zingales (1998) examine the impact on economic growth at an industry level. They inquired into whether industries that are more

external finance dependent prospered more in countries having more developed financial systems/markets than others. The panel regression results of 42 countries/36 industries suggest that industries that are more dependent on external finance show more growth in countries where the level of financial development is relatively higher.

Several others have done studies elsewhere to see the stock market impact on economic growth. Many studies have proved positive relationships between stock market performance and economic growth. The situations in the developed markets have been easy to test, the markets being adequately large to make an impact on the economies. However the situation in Sri Lanka may be different, the relatively smaller size of the stock market may only have a limited impact on the country's economic activity. Therefore, if possible practical inferences have to be done by taking sectors and segments of the economy that has impacts from changes in the stock market.

4. METHODOLOGY

The methodology adopted in the study can be described in four steps. The first task is to check whether the data series involved are stationary. Augmented Dickey-Fuller (ADF) and Phillips Perron (PP) tests are employed to perform this task. If a certain series is I(0) or does not possess unit roots, then it can be used for regressions straightaway. Since the use of non-stationary series for regressions will lead to spurious correlation problem, all non-stationary series can be converted into their stationary counterparts through differencing. However, a consequence of this is that the relationship might lose its long-run effects reducing the model to carry only short term effects.

Second, each pair of non-stationary variables that represent the economic growth and stock market performance are tested for cointegration. Johansen cointegration test is used for this purpose. If $X_t \sim I(d)$ and $Y_t \sim I(d)$, then $Z_t = (X_t + Y_t) = I(d^*)$; d^* is generally equal to d, however in some cases $d^*<d$. Therefore when d = 1, there is a possibility that $d^* = 0$, that is a linear combination of two non stationary time series could be stationary. If that is the case, two variables in question are said to have a meaningful long-run relationship and this phenomenon is known as cointegration. If a certain pair is not cointegrated, it indicates the absence of any long-run relationship between the two variables. As such, the analysis is limited to a simple model that allows for the regression of the I(0) counterparts of the economic growth and stock market performance variables.

Third, if a certain pair of variables is cointegrated, then the long-run relationship between such variables can be modeled using the error correction mechanism. Given the nature of the variables involved in the study, there is a possibility that the causality can run in both directions. As such, we use Vector Error Correction Modeling (VECM) in a two equation set up rather than a simple univariate error correction model. More specifically, the following VECM is employed:

$$\Delta GDP_t = \rho(GDP_{t-1} - \gamma Stock_{t-1} - c) + \beta_{11}\Delta Stock_{t-1} + \beta_{12}\Delta GDP_{t-1} + \varepsilon_{1t} \quad (1)$$

$$\Delta Stock_t = \rho(GDP_{t-1} - \gamma Stock_{t-1} - c) + \beta_{21}\Delta Stock_{t-1} + \beta_{22}\Delta GDP_{t-1} + \varepsilon_{2t} \quad (2)$$

where ΔGDP represents the economic growth, "stock" represents the stock market performance indicators (market capitalization, ASPI and the computed "index") and $\acute{\varepsilon}$ being the error term. Though VECM is in the reduced form, it is assumed that it does not influence the results as our main focus is on the cointegrating coefficient (γ) and the adjustment factor (ρ).

Finally, Granger causality test is adopted to check the direction of causality between the economic growth variable and stock performance variable. To test whether the stock market Granger causes GDP, the study adopts the causality test developed by Granger (1969). The model for testing can be expressed as below;

$$\Delta GDP_t = \beta_1 + \sum_{i=1}^{k} a_i(\Delta GDP)_{t-i} + \sum_{i=1}^{k} b_i(\Delta Stock)_{t-i} \quad (3)$$

$$\Delta Stock_t = \beta_2 + \sum_{i=1}^{k} c_i(\Delta Stock)_{t-i} + \sum_{i=1}^{k} d_i(\Delta GDP)_{t-i} \quad (4)$$

5. DATA

The current study focuses on Sri Lankan economy spanning over a period of twelve years (1997-2008). A study on stock market development should preferably be based on daily (or monthly) frequency, given the dynamic nature of the market. However, given the fact that monthly GDP figures in Sri Lanka are not available in such frequency and only since 1997 that the Central Bank of Sri Lanka has started computing the data quarterly, the study is primarily based on quarterly data during the twelve year period up to end of 2008.

The growth of the economy is indicated by changes in nominal and real GDP over the duration of the study.

Following Levine and Zervos (1995), three stock market variables were selected to represent the stock market size and liquidity. Size is represented in the study by market capitalization value and ASPI (All Share Price Index) and liquidity is

represented by an "index" which is the average of market capitalization ratio (mkt cap/GDP), turnover ratio (value traded/mkt cap) and liquidity ratio (value traded/GDP).

The data on market capitalization, ASPI and trading values are collected from the CSE Data Library; while that of GDP and other macro economic factor information has been compiled from the CBSL annual reports and publications.

6. EMPIRICAL ANALYSIS

6.1. TIME SERIES PROPERTIES

The time series characteristics of the variables are presented in Tables 1 and 2 below. All variables, economic and stock market variable have a unit root problem at 5% confidence level, therefore non stationary. Since the series are non stationary each pair of economic growth variable and stock market performance is tested for cointegration.

Table 1: GDP growth indicators

Time Series	ADF Test		Phillips Perron Test	Result	I(d)
	RWD	RWDT			
GDPn Level	0.05(3.57)	0.01(0.41)	0.01(0.41)	NS	I(1)
GDPn 1st Dif	-0.81(-5.52*)	-1.12(-6.96*)	-1.12(-6.96*)	ST	I(0)
GDPr Level	0.01(0.18)	-0.14(-1.52)	-0.19(-2.10)	NS	I(1)
GDPr 1st Dif	-0.80(-2.20)	-1.10(-2.52)	-1.17(-7.70*)	ST	I(0)

Note : GDPn = Nominal GDP, GDPr = Real GDP, GrGDPn = Nominal GDP growth, GrGDPr = Real GDP growth

Table 2: Stock market indicators

Time Series	ADF Test		Phillips Perron Test	Result	I(d)
	RWD	RWDT			
ASPI Level	-0.03(-1.10)	-0.10(-1.26)	-0.10(-1.26)	NS	I(1)
ASPI 1st Diff	-1.08(-6.39*)	-1.08(-6.30*)	-1.08(-6.30*)	ST	I(0)
"Index" Level	-0.40(-3.09**)	-0.41(-3.15)	-0.41(-3.15)	NS	I(1)
"Index" 1st Diff	-1.11(7.73*)	-1.11(-7.66*)	-1.11(-7.66*)	ST	I(0)
MC Level	-0.16(-4.07*)	-0.18(-2.17)	-0.10(-1.35)	NS	I(1)
MC 1st Diff	-1.01(-6.36*)	1.20(2.08)	-1.09(-6.25*)	ST	I(0)

Notes : MC = Market Capitalization, ASPI = All Share Price Index, "index" = Average of MC/GDP, VT/GDP(liquidity ratio) & VT/MC(turnover ratio) (Levine & Zervos, 1996)

ADF Test critical values

Random walk with Drift *1% = -3.77, **5% = -3.19, 10% = -2.89

Random walk with Drift and trend *1% = -4.46, **5% = -3.64, 10% = -3.26

6.2 TEST FOR COINTEGRATION

Since some of the variables are I(1), cointegration technique is used to model the long-run relations. Engle and Granger (1987) demonstrate that a linear combination of two or more non stationary series could be stationary and thus are said to be cointegrated. A long run relationship between economic growth and financial development variable was first established using the Johansen multivariate cointegration approach by Johansen (1988, 1992); and Johansen and Juselius (1990). The results of the Johansen multivariate cointegration test are shown in tables 3, 4 and 5 below.

Table 3: J-J Cointegration test results

GDPn & ASPI	Trace Test		Maximal	Eigenvalue	Cointegration
Null	Test stat	5% C V	Test stat	5% C V	Result
r = 0	25.90	15.41	20.92	14.07	Yes
r < = 1	4.98	3.76	4.98	3.76	Yes
GDPr & ASPI	Trace Test		Maximal	Eigenvalue	Cointegration
Null	Test stat	5% C V	Test stat	5% C V	Result
r = 0	17.12	15.41	14.67	14.07	Yes
r < = 1	2.45	3.76	2.45	3.76	No

Note: r indicates the number of cointegrating vectors.

Table 4: J-J Cointegration test results

GDPn & MC	Trace Test		Maximal	Eigenvalue	Cointegration
Null	Test stat	5% C V	Test stat	5% C V	Result
r = 0	29.88	15.41	22.95	14.07	Yes
r < = 1	6.92	3.76	6.92	3.76	Yes
GDPr & MC	Trace Test		Maximal	Eigenvalue	Cointegration
Null	Test stat	5% C V	Test stat	5% C V	Result
r = 0	21.06	15.41	18.78	14.07	Yes
r < = 1	2.27	3.76	2.27	3.76	No

Note: r indicates the number of cointegrating vectors.

Table 5: J-J Cointegration test results

GDPn & index	Trace Test		Maximal	Eigenvalue	Cointegration
Null	Test stat	5% C V	Test stat	5% C V	Result
r = 0	19.63	15.41	10.58	14.07	Yes
r < = 1	9.05	3.76	9.05	3.76	Yes
GDPr & index	Trace Test		Maximal	Eigenvalue	Cointegration
Null	Test stat	5% C V	Test stat	5% C V	Result
r = 0	8.90	15.41	8.84	14.07	No
r < = 1	0.05	3.76	0.05	3.76	No

Note: r indicates the number of cointegrating vectors.

The Trace test and Max Eigen test results as shown in the tables above suggests that there is at least one cointegrating equation at the 0.05 level of significance in all but the GDPr and "index" relationship. Thus a linear combination of the economic and stock market performance time series confirms the rejection of the null hypothesis of no cointegrating relationships. The test result for GDPr and "index" could not reject the null hypothesis of no cointegrating vectors, however that could be an exception since the "index" is a calculated value averaging several economic and stock market indicators.

Table 6: VECM Estimation for GDP and ASPI

Co integration Eq	GDPn & ASPI		GDPr & ASPI	
γ	-1.09(-6.29*)		-0.07(-8.65*)	
VECM	$\Delta GDPn_t$	$\Delta ASPI_t$	$\Delta GDPr_t$	$\Delta ASPI_t$
ρ_i	-0.03(-4.59*)	-0.08(-1.58)	-0.26(-2.56**)	-3.07(-2.91**)
$D(GDP_{t-1})$ β_{12}/β_{22}	-0.20(-1.34)	-3.67(-3.28)	-0.06(-0.45)	-1.73(-1.19)
$D(ASPI_{t-1})$ β_{11}/β_{21}	-0.00(-0.01)	-0.23(-1.42)	0.00(0.22)	-0.38(-2.05)
Adjust R^2	0.34	0.15	0.16	0.18

* and ** respectively indicate statistical significance at 1% and 5% levels

The coefficient γ on ASPI with GDPn in the co integrating vector is -1.09 which is significant based on ADF critical values. The VECM results indicate the changes in the "economic" variable

(first column) and changes in "stock market indicators" (second column). The adjustment coefficient in VECM equation for the GDPn is negative as expected, 3% a quarter and significant. The adjustment coefficient for "stock market indicators" is -8% and not significant. Therefore the adjustment is done through ASPI. The lagged variables are not significant.

The long term relationship between GDPr and ASPI is significant. The VECM statistics of real GDP and with "stock market indicators" shows that the adjustment coefficient is 26% which is significant. The lagged variables are not significant.

Table 7: VECM Estimation for GDP and MC

Co integration Eq	GDPn & MC		GDPr & MC	
γ	-1.86(-8.35*)		-0.21(-11.61*)	
VECM	$\Delta GDPn_t$	ΔMC_t	$\Delta GDPr_t$	ΔMC_t
ρ_i	-0.07(-4.69*)	-0.07(-2.06**)	-0.34(-2.94**)	-1.29(-3.41**)
$D(GDP_{t-1})$ β_{12}/β_{22}	-0.17(-1.23)	-1.15(-3.37)	-0.03(-0.23)	-0.24(-0.53)
$D(MC_{t-1})$ β_{11}/β_{21}	-0.02(-0.34)	-0.28(-1.62)	-0.00(-0.12)	-0.45(-2.39)
Adjust R^2	0.35	0.16	0.19	0.21

* and ** respectively indicate statistical significance at 1% and 5% levels

The long term relationship between GDP (nominal) and MC is -1.86 and significant. The adjustment coefficient of nominal economic variable is -0.07 and significant. A similar characteristic can be observed with real GDP and MC relationship with higher (-0.34) adjustment coefficient, which is significant. The long term relationship (γ = -0.21) is also significant. The lagged variables are not significant.

Table 8: VECM Estimation for GDP and "index"

Co integration Eq	GDPn & "index"		GDPr & "index"	
γ	-501.6(-0.47)		2,334.2(2.99**)	
VECM	$\Delta GDPn_t$	Δ"index$_t$"	$\Delta GDPr_t$	Δ"index$_t$"
ρ_i	0.06(2.91**)	3.73(0.83)	0.02(0.83)	-0.00(-2.89**)
$D(GDP_{t-1})$ β_{12}/β_{22}	-0.03(-0.21)	-0.00(-1.82)	-0.09(-0.66)	-0.00(-0.98)
$D(index_{t-1})$ β_{11}/β_{21}	191.8(2.71)	-0.21(-1.40)	131.05(2.54)	0.04(0.25)
Adjust R^2	0.27	0.03	0.19	0.19

* and ** respectively indicate statistical significance at 1% and 5% levels

The coefficient on "index" in the long term relationship is approx -501.6, however is not significant. The adjustment coefficient for GDP is slow (6% and 2% respectively) and significant with nominal GDP. The stock market variable adjustment coefficient is high (3.73) for nominal GDP but not significant. The error correction term for GDPr is -0.00, yet significant. The results for lagged variables are not significant.

It can be seen from all the above co integrating relationships studied that the adjustment coefficient ρ is significant in the GDP equations but not in the stock market models. This indicates that GDP responds to deviations in the long term relationship between economic growth and stock market performance. However stock market variables do not appear to respond to deviations as much as the GDP growth. Therefore it suggests that the stock market does not tend to react to short run changes in GDP.

The long run relationship between stock market performance and GDP growth and short run changes in the stock market performance influencing GDP growth together explain a substantial part of the relationship examined. The adjusted R^2 of the error correction equations ranges mostly between 35% - 15%.

6.3. TEST OF CAUSALITY

Test of cointegration among economic and stock market variables and results of VECM conveys that there is statistical evidence to show that stock market performance cause changes in the economic growth. "Granger causality test" is employed for testing the causality between stock market performance and economic growth.

Table 9: Nominal GDP growth/stock market indicators

Direction of causality	F – value	Causality	No of lags
"Index" → Nominal GDP	4.15**	Yes	2
Nominal GDP → "Index"	0.95	No	2
MC → Nominal GDP	2.93	No	2
Nominal GDP → MC	4.89**	Yes	2
ASPI → Nominal GDP	3.04	No	2
Nominal GDP → ASPI	4.95**	Yes	2

* 1% and ** 5% significance level

Table 10: Real GDP growth/stock market indicators

Direction of causality	F - value	Causality	No of lags
"Index" → Real GDP	4.15**	Yes	2
Real GDP → "Index"	1.92	No	2
MC → Real GDP	4.95**	Yes	2
Real GDP → MC	2.79	No	2
ASPI → Real GDP	5.07**	Yes	2
Real GDP → ASPI	2.72	No	2

* 1% and ** 5% significance level

The results suggest that the direction of causality is from stock market performance to GDP growth. Nominal GDP growth series with stock market performance (index, MC, ASPI) show "index" to GDP growth causation. The other market indicators (MC and ASPI) do not show causation of GDP growth (nominal terms). Real GDP growth series with stock market performance ("index", MC, ASPI) show that all stock market indicators tend to cause GDP growth.

Nominal GDP growth appears to cause growth of Market Capitalisation and ASPI. This is in line with the stock valuation theory (dividends, free cash flow and capital gains) Growth in economic activities should positively affect the stock market since growth in corporate results would represent higher stock values. Consequently higher market capitalization and ASPI.

The results are a positive indication that stock market activity does "Granger cause" real economic growth. Nevertheless, the results should be interpreted more suggestive than conclusive considering the controversy associated with the Granger causality method (Comincioli, 1996). Irrational movements of stock market due to extreme positive/negative sentiments may not have much impact on economic activity (market adjustments in response to war/peace situations in the country).

7. CONCLUSION

Initially the article briefly established the theoretical background relating to positive linkage between stock market performance and economic development. The literature review provided evidence of existing knowledge and experiences of other researches on the subject. Country specific and cross sectional and panel data studies proved existence of positive causal relationship between financial/stock market performance and economic growth of markets studied.

The paper empirically examined the determinants of stock market development with reference to ASPI, market capitalization and a computed "index" to capture the activity level. The economic growth was considered in terms of nominal and real growth rates over the period of study 1997 – 2008.

Using the above stock market development criteria, the study found that the stock market development is an influential factor for economic growth in Sri Lanka. The statistical evidence is based on co integration analysis adopting Johansen's methodology. The tests proved a long term equilibrium relationship between the variables considered. The VECM approach showed the long run dynamics of the variables taken together adjusting over the duration to each others variations to maintain an equilibrium level. The economic growth adjustments to stock market

deviations were significant providing evidence of error corrections to maintain a stable relationship over the period of study. The Granger test also provided evidence of causality from stock market performance to economic growth.

The results are consistent with the findings of Levine and Zervos (1996) and the empirical results of Demiguc – Kunt & Levine (1996) that stock markets could impact economic growth. In addition Sri Lanka's experience appears to be consistent with many similar studies done in the region; India, Pakistan, Nepal, Philipines, some Europian, African & Middle Eastern countries.

The study established that the direction of the causal relationship is primarily from stock market performance to economic growth. There had also been limited evidence of bidirectional causality indicating economic growth impacting the stock market performance. This means that sustainable economic growth would lead to stock market development. Therefore, the study suggests that the performance of stock market influences real sector development generating real economic activity.

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