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Impact of Major Macro Economics Variables on Stock Prices in Sri Lanka

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ABSTRACT

A vibrant capital market shall provide the necessary big push for a growing economy to reach a high growth trajectory. The Sri Lankan Security market performance has often been taken as indicators of economic as well as business health of the country. Volatility in stock prices is a key yardstick to assess stock market performance. This paper intends to investigate the casual effects of short and long run relationship between stock prices and macroeconomic variables and examine the effects of macroeconomics variables on the dynamics of stock price movements in the Sri Lankan stock market. The paper builds its analysis on the available literature on theoretical and empirical determinants of stock prices forecasting and applies on Sri Lanka stock market. The study uses monthly statistical data on four major macroeconomic variables inflation rate (IR), money supply (MS), exchange rate(ER), average weighted prime lending rate *(AWPLR) and all share price index (ASPI) for the period of 28 years starting from January 1986 to December 2014, collected from CBSL [Central bank of Sri Lanka], Department of Census and Statistics and Colombo Stock Exchange annual reports. The multiple regression has been run using major macroeconomic variables for each individual stock. This study employed empirical econometrics time series analysis using ADF unit root test, Johansen Co-integration test, Vector Error Correction Modeling and granger Casualty test. The time series analysis result of the co-integration tests reveals that macroeconomics variables such as inflation rate, money supply, exchange rate,* average weighted prime lending rate *have significant long run and short run effects in determining stock prices in Sri Lanka. However average weighted prime lending rate and exchange rate showed a positive relationship with all share price index while narrow money supply and Colombo Consumer price inflation rate showed a negative relationship. The results are therefore, providing a justification for the use of inflationary policy instruments to control stock prices in Sri Lanka. Finally the result of Co-Integration test also confirmed that there is a long run stable stock price function for Sri Lanka. The above results have practical implications for investors -both domestic and international, policy makers, stock market regulators, and stock market analysts.*

Keywords: Colombo Stock Exchange, Granger Casualty Test, Johansen Co- Integration Test, Macro Economic Variables, Multivariable Regression Model

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1 Introduction

The Security market is an essential market playing a vital role in achieving economic prosperity by fostering capital formation and sustaining economic growth (Omoniyi, 2013). In the present context researchers, academicians and policy makers have identified the great influence of the stock market as an efficient channel of financial intermediation which is a major determinant of economic growth of a country. According to the evidence surfaces from cross country analyses, an efficient and vibrant financial system is sine qua non for economic growth and sustainable development. ((Schumpeter, Redverse, (1949), Fama, (1990) and Caporale, G.M., Howells, P.G.A.,Soliman, (2004))

Modern economic growth and development are entirely contingent on an efficient financial sector that amalgamates domestic savings and mobilizes foreign capital for productive investments. Underdeveloped or inefficiently functioning stock markets are generally illiquid and costly, which dissuade foreign investors. Furthermore, illiquid and high transaction costs also retard the capital raising efforts of larger domestic enterprises and may divert them to foreign stock markets. If the stock markets are not efficient, the public investment on stocks largely disappears as a result of high transaction costs or the uncertainty of getting a fair price in the stock market. Thus, inefficient stock markets may discourage the undertaking of a risky decision over investing in financial assets and reduce overall long-term productivity of the economy. On the other hand, an efficient stock market reduces the transaction costs of trading the ownership of the financial assets.

The public investment on stock market assets largely disappears as a result of high transaction cost, uncertainty, and adverse selection due to the existence of inefficient stock markets in the economy (Mishra, 2010). Furthermore, inefficient stock markets act as a constraint of incentive with respect to entering new corporate bodies to the market, hence inefficient stock markets damage the overall long term productivity of the economy. Thus, efficient and highly liquid stock markets supply funds for the effective utilization of funds for long-term investment purposes by mobilizing them from the surplus spending economic units to the deficit spending economic units (Oke, 2013). According to Rostow's Growth model, any economy requires a substantial amount of local and foreign investments to attain sustainable economic growth and development. (Rostow 1960)

The aim of this paper is to investigate the impact of macroeconomic variables on share market indices during the past three decades. Since the share market is seen as a yardstick of gauging whether the economy of a country is in good shape or not. The macroeconomic variables that affect stock market performances are money supply, inflation rate as per consumer price indexes, nominal exchange rate and interest rate. The study focuses on how these variables make changes in stock prices and thus the overall performance of the Share market. At present, Sri Lanka's share market is closely monitored by local and international investors. However,the many points out that improvement of share market will contribute to reach the economy to its highest level but investor confidence on future policy related matters will determine the sustainability of growth of the stock market. Hence, information on share market in Sri Lanka will be extremely useful for prospective investors. The outcome of this paper could be used as a tool to predict the future performance of the share market.

The Colombo Stock Exchange reflects a higher level of activities and is considered as the best way of creating the most suitable investor friendly atmosphere that encourages the foreign investors to invest in our Stock Market. Furthermore, the Stock Exchange functions as a basic force to operate as a Capitalist Financial system and as a place where the share stocks can be bought and sold.

1.1 Colombo Stock Exchange: A Brief Introduction

The Colombo Stock Exchange (CSE) is the only share market in Sri Lanka which is responsible for providing a transparent and regulated environment where companies and investors can join together (CSE, 2014). The CSE is a company that is limited by guarantee, established under the Laws of Sri Lanka. The CSE is licensed by the Securities and Exchange Commission of Sri Lanka (SEC) and is a mutual exchange consisting of 15 Members and 14 Trading Members. All Members and Trading Members are licensed by the SEC to operate as Stockbrokers.

The Colombo Stock Exchange initially came to the light in the 19th century. The establishment of the Colombo Share Brokers Association (CSBA) in 1896 initiated the stock trading process with respect to limited liability companies. In 1904, CSBA underwent a structural change, which also resulted in the change of its reputed name as Colombo Brokers Association (CBA). In 1984, the Colombo Brokers

Association identified the significance of publishing the share market since the fast growing corporate sector largely required the local savings to meet the capital requirements in order to expand the horizons of their production process. Thus in 1984, a public trading floor was established with an 'Open Outcry' system of trading stocks, instead of the 'Closed Door' trading mechanism they practiced earlier.

In 1985, the CBA again revised its share trading structure as a formal stock exchange and it was named as Colombo Securities Exchange Limited. However, in 1990, it was renamed as the Colombo Stock Exchange (CSE). Importantly, the CSE was one of the initial stock exchanges in the South Asian region to maintain a depository for listed securities empowered by the implementation of its clearing and settlement place. In 1991, an automated electronic clearing and settlement system (CDS- Central Depository System) was established by the CSE. In 1997, CSE's trading mechanism was upgraded to the Automated Trading System (ATS) in order to enhance the transparency and efficiency of the equity market in Sri Lanka. Thereby, CSE was recognized by the World Federation of Exchanges (WFE) in 1998 due to the modern technology and regulation methods adopted by CSE identifying as WFE's first South Asian Member.

In 2012, the CSE adopted a new trading mechanism which was known as the Automated Trading System 7.10. It's a new trading system that encourages a large range of share trading effectively and efficiently. ATS 7.10 is considered as a multi asset trading mechanism that facilitates trading of equities, derivatives and fixed income. In 2012, the CSE partnered with Standers and poor's (S&P) to derive the S&P Sri Lanka 20 stock price index comprise the 20 largest and most liquid stocks of CSE. The S&P SL 20 is based on S&P global index methodology, acknowledging the global consistency and transparency. This index aimed to build the foundation for the introduction of tradable financial

Instruments such as Exchange Traded Funds (ETFs) incorporated with CSE. Establishment of S&P SL 20 attracted foreign investment on Sri Lankan equity stocks broadening the investment levels within the country.

"Presently the CSE functions as a market operator, and through its fully owned subsidiary, Central Depository Systems (Pvt.) Limited (CDS) acts as a clearing and settlement system facilitator. The CSE also supervises compliance through regulations promoting standards of corporate governance among listed companies and is actively involved in educating investors. In the course of its operations, the CSE interacts with many customers and stakeholders including issuers (such as companies, corporations and unit trusts), commercial banks, investment banks, fund managers, stockbrokers, financial advisors, market data vendors and investors" (CSE, 2014).

2 Statement of the Problem:

There was no significant growth in the share market due to the internal instability of the economy due to the civil war. After the ethnic problem in 2009, the stock market has witnessed a sudden upsurge in its activities and often regarded as one of the best performing stock markets in the region. However, the activities of the stock market plunged to its previous levels in the subsequent period. The question remains as to why Sri Lankan stock market could not sustain its performance during the post-civil war period despite unfolding opportunities in Sri Lanka after the war. This paper focuses this question by examining the effects of macroeconomics variables on the dynamics of stock price movements in the Sri Lankan stock market.

3 Objectives of the paper

The main objective of this paper is to examine the relationship between stock prices and major macroeconomics variables in Sri Lanka during 1986-2014. To achieve the main objective, the paper sets out the following specific objectives:

- To identify the relationship between the major macroeconomics variables and stock prices.
- To identify short run and long run relationships of major macroeconomics variables on stock prices in Sri Lanka
- To identify the major determinants of stock prices that affects the economy of Sri Lanka.
- To determine the recent trends, developments and obstacles in stock prices in Sri Lanka.

4 Literature Review:

4.1 Theoretical view

Pricing Theory (APT) The Present Value Model focuses on the long run relationship between the stock market movement and the macroeconomic fundamentals, According to these models, and new information about the fundamental macroeconomic factors such as real output, exchange rate, interest rate, foreign investment and so on may influence the stock price/returns through the impact of expected dividends, the discount rate or both (Chen et al, 1986, Naik & Padhi, 2012). A simple discount model shows that the fundamental value of corporate stock equals the present value of expected future dividends. The discount rate or both value of corporate stock equals the present value of expected future dividends. The future dividends must ultimately reflect real economic activity. If all currently available information is taken into account, there could be a close relationship between stock prices and expected future economic activity. As pointed out by Ahmed (2008, quoted in Naik & Padhi, 2012), these relationships can be viewed in two alternative ways; (i) the stock market as the leading indicator of economic activity or stock market leads economic activity; and (ii) the possible impact the stock market has on the aggregate demand through the aggregate consumption and investment suggesting stock market lags economic activity

4.2 Empirical View

The literature on the effects of macroeconomic variables on stock returns dates back to the late 1970s. Studies were focused on developed, emerging and both developed and emerging capital markets context and the extant literature reveals strong relationships between the above macroeconomic variables and stock returns.

Nelson (1976) examined the relationship between monthly stock returns and inflation in the post 2009 period from 1953 to 1974 using US data, and found a negative relationship between stock returns, in both expected and unexpected inflation. The paper presented by Bodie (1976) defines the effectiveness of common stocks as an inflation hedge to the extent of which they can be used to reduce the risk of an investor's real return which stems from uncertainty about the future level of the price of consumption goods.

The relationship between stock returns and interest rates in Sri Lanka studied by Premawardane (1997) found a negative relationship while in contrast Hasan et al. (2000) found a positive relationship. Bilson et al. (2001) tested whether local macroeconomic variables (money supply, goods prices and real activity) have explanatory power over stock returns in 20 exchange emerging markets for the period 1985-1997. The results indicate that the exchange rate variable is clearly the most influential macroeconomic variable, and money supply has greater importance. Panayotis et al. (1996) examined the impact of inflation uncertainty on stock prices in developed as well as in emerging capital markets for 20 countries and find a negative association between inflation uncertainty and stock prices. All the studies cited above represent various strong relationships between macroeconomic variables and stock returns in numerous countries. In this study the researcher is interested in documenting the effects of macroeconomic variables on stock prices in the Colombo Stock Exchange.

Ahmed (2008) employed the Johansen`s approach of co-integration and Toda – Yamamoto Granger causality test to investigate the relationship between stock prices and the macroeconomic variables using quarterly data for the period of March, 1995 to March 2007. The results indicated that there was an existence of a long – run relationship between stock price and FDI, money supply, & index of industrial production. Causality was found running from stock price movement in industrial production.

Islam (2003) replicated the above studies to examine the short – run dynamic adjustment and the long – run equilibrium relationships between four macroeconomic variables (interest rate, inflation rate, exchange rate and the industrial productivity) and the Kuala Lumpur Stock Exchange (KLSE) Composite Index. His conclusions were similar: there existed statistically significant short – run (dynamic) and long – run (equilibrium) relationships among the macroeconomic variables and the KLSE stock returns.

Hassan (2003) employed Johansen`s (1988, 1991, 1992b) and Johansen and Juselius` (1990) multivariate co-integration techniques to test for the existence of long – term relationships between share prices in the Persian Gulf region. Using a vector – error – correction model, he also investigated

the short – term dynamics of prices by testing for the existence and direction of intertemporal Granger –causality.

Vuyyuri (2005) investigated the co-integrating relationship and causality between the financial and the real sectors of the Indian economy using monthly observations from 1992 through December 2002. The financial variables used were interest rates, exchange rate, stock return and real sector was proxies by industrial productivity. Johansen (1988) multivariate co-integration test supported the long – run equilibrium relationship between the financial sector, and the Granger test showed the economy.

5 Research Methodology

The study uses monthly statistical data on four major macroeconomic variables inflation rate (INF), money supply (MS), exchange rate (EXR), average weighted prime lending rate (AWPLR) and all share price index (ASPI) for the period of 28 years starting from January 1986 to December 2014, collected from [Central bank of Sri Lanka] CBSL, Department of Census and Statistics (DCS) and Colombo Stock Exchange annual reports. All values are expressed in rupees millions, unless otherwise percentage. Further, in this study, the macroeconomic variables such as inflation rate, money supply, and exchange rate; average weighted prime lending rate ` can be specified as follows.1

$$ASPI_t = \beta_0 + \beta_1 AWPLR_t + \beta_2 MS_t + \beta_3 EXR_t + \beta_4 INF_t + \mu_t \quad (1)$$

Where dependent variable is all share price index (ASPI) and the independent variables are average weighted prime lending rate (AWPLR), money supply (MS), exchange rate (ER) and inflation rate (INF), utisthe error term. For the purpose of estimation, the above equation could be rewritten as follows by taking the log on both sides and econometric results were determined via using the programme "Eviews 7.1"

$$LASPI_t = \beta_0 + \beta_1 LAWPLR_t + \beta_2 LMS_t + \beta_3 LEXR_t + \beta_4 LINF_t + \mu_t \quad (2)$$

This study employed empirical econometrics time series analysis using ADF unit root test, Johansen Co-integration test, Vector Error Correction (VEC) modeling and Granger casualty test to identify short run and long run relationships major macroeconomics variables on stock prices in Sri Lanka.

5.1 Augmented Dickey-Fuller (ADF) unit root test

It is necessary to test the stationary of the data prior to estimating the model. To determine whether the time-series under consideration are stationary, unit roots of the data should be tested. Since the original work by Dickey and Fuller (1976), several unit root tests have become available. In this study, researcher looks at the Augmented Dickey-Fuller (ADF) test in which a regression for each of the series is estimated with the first difference as the dependent variable and the first lagged level and the first two or four lagged first-difference terms as the independent variables. The ADF is expressed as follows:

$$\Delta Y_t = \beta_1 + \beta_2 t + \delta Y_{t-1} + \sum_{i=1}^{m} \alpha_i \Delta Y_{t-1} + \varepsilon_t \quad (3)$$

Where $\varepsilon_t$is a pure white noise error term and where $\Delta Y_{t-1} = (\Delta Y_{t-1} - \Delta Y_{t-2})$, $\Delta Y_{t-2} = (\Delta Y_{t-2} - \Delta Y_{t-3})$ etc. The number of lagged differences terms to include is often determined empirically, the idea being to include enough terms so that the error term is serially correlated. In ADF it is tested whether δ=0 and the ADF test follows the same asymptotic distribution as the Dickey Fuller statistic, so the same critical values can be used.

Once the presence of a unit root in the levels of each variable is established, one can proceed to examine whether the variables are co integrated, i.e., possess a long-run equilibrium relationship.

5.2 Johansen Co - integration Test

The long run appearance of the selective stationary variables estimated from the Johansen Co-integration test, the objective of this test is to examine the long run co – integration of the stationary

variables. In this estimate there are two main methods used to investigate the long run relationship of these variables, there are Trace Test and maximum Eigen Value test. With this explain that if,

Trace Test or Maximum Eigen value test >Critical value (0.05) Then, reject the null hypothesis and accept the alternative hypothesis.

5.3 Error Correction Mechanism (ECM)

The co-integrating regression so far considers only the long-run property of the model, and does not deal with the short-run dynamics explicitly. Clearly, a good time series modeling should describe both short-run dynamics and the long-run equilibrium simultaneously. The ECM developed in order to fill that gap. This mechanism first used by Sargan (1984) and later popularized by Engle and Granger corrects for disequilibrium.

$$\varepsilon t = y_t - \beta x_t , \tag{4}$$

where β is a co integrating coefficient. In fact εt is the error from a regression of y_t on x_t. Then an ECM is simply defined as:

$$\Delta y_t = \lambda + \alpha\varepsilon_{t-1} + \gamma\Delta x_t + u_t \tag{5}$$

Where u_t is *iid.* The ECM equation (1.3) simply says that Δy_t can be explained by the lagged $\varepsilon_{t-1}$and Δx_t .Notice that ε_{t-1} can be thought of as an equilibrium error (or disequilibrium term) occurred in the previous period. If it is non-zero, the model is out of equilibrium and *vice versa.*

Notice that β is called the long-run parameter, and α and γ are called short-run parameters. Thus the ECM has both long-run and short-run properties built in it. The former property is embedded in the error correction term $\varepsilon_{t-1}$and the short-run behaviour is partially but crucially captured by the error correction coefficient, α. All the variables in the ECM are stationary, and therefore, the ECM has no spurious regression problem.

5.4 Granger Causality Test

Finally, the Granger causality test is employed as a supplementary tool to verify the key finding of the study. The Granger causality test assumes that the information relevant to the prediction of the respective variables, stock prices inflation rate, money supply, exchange rate and average weighted prime lending rate log terms, is contained solely in the time series data of the variables. The test involves the following pair of regressions:

$$Y_t = \sum_{i=1}^{n} \alpha_i X_{t-1} + \sum_{j=1}^{n} \beta_j Y_{t-j} + u_{1t} \tag{6}$$

$$X_t = \sum_{i=1}^{n} \lambda_i X_{t-i} + \sum_{j=1}^{n} \delta_j Y_{t-j} + u_{2j} \tag{7}$$

More generally, since the future cannot predict the past, if variable X (Granger) causes variable *Y*, then changes in *X* should *precede* changes in *Y*. Therefore in a regression of *Y* on other variables (including its own past values) if we include past or lagged values of *X* and it significantly improves the prediction of *Y*.

6 Results and Discussion

6.1 Test for Stationary (unit root test)

To have a meaningful understanding of the relationship between two or more economic variables using regression technique, the time series data should satisfy some stationary properties. Therefore, standard econometric tests like stationary test and co-integration test were conducted in order to avoid the generation of spurious regression results in the study. Augmented Dickey Fuller test was used to determine the level of integration of the variables in the model. The results of unit root test is presented in Table 1.

Table 1: Augmented Dickey-Fuller test of unit root (Period: 1985-2014)

(Variables)	(Level)				(1st Differences)			
	Intercept		Trend & Intercept		Intercept		Trend & Intercept	
	τ-statistic	P-value	τ-statistic	P-value	τ-statistic	P-value	τ-statistic	P-value
LASPI	-0.7823	0.8223	-1.8358	0.6850	-14.6649***	0.0000	-14.6265***	0.0000
LAWPLR	-1.6103	0.1428	-2.0764	0.1922	-16.5133***	0.0000	-16.4381***	0.0000
LMS	-1.0442	0.7508	-2.0032	0.7957	-16.0307***	0.0034	-16.0291***	0.0151
LEXR	-1.8550	0.3534	-0.9222	0.9511	-16.72932***	0.0000	-16.8552***	0.0000
LINF	-2.3416	0.4511	-2.4411	0.6722	-16.5155***	0.0000	-16.5057***	0.0000

Note. Significant levels- at 1%- * 5% - ** 10%-***respectively.

The estimated results show that, the null hypothesis of unit roots cannot be rejected for all the variables. Further, the results of the unit root test indicate that, all the variables are stationary in level forms. However, all the variables were identified as stationary in the first difference. After observing the difference in unit root test (results of ADF) statistics, these variables were included in the co-integration analysis.

6.2 Johansen Test for Co- integration

The results of the Johansen maximum likelihood test confirmed the rejection of the null hypothesis of no co-integration among the variables in Table 2

Table 2: Johansen Co- integration Trade Statistic and Max-Eigen Value Results

No of co-integrating equation	Trade statistic	0.05 Critical value	P value	No of co-integration equation	Max-Eigen Value	0.05 Critical Value	Probability value
None*	696.2571	69.8188	0.0001	None*	42.89133	40.07757	0.0235
At most 1*	509.3966	47.8561	0.0001	At most 1*	33.90649	33.87687	0.0496
At most 2*	343.0608	29.7970	0.0001	At most 2*	33.00939	27.58434	0.0091
At most 3*	202.8345	15.4947	0.0001	At most 3*	22.94787	21.13162	0.0275
At most 4*	79.9273	3.8414	0.0000	At most 4*	4.557848	3.841466	0.0328

Note. Significant levels- at 1%- * 5% - ** 10%-***respectively

In particular, the computed trace the maximum Eigen value statistic and there corresponding critical values indicate that the null hypothesis of no co-integration (r=0) can be rejected at 5 percent level of significance. Both maximum Eigen value and Trace test indicate one co integrating equation at 5 percent level of significance. This implies that there is a long run relationship among the variables.

6.3 Estimation of Long Run Regression Results

The results of long run regression that measure the impact of major macroeconomic variables on stock prices in Sri Lanka is presented in Table 3

In Macroeconomics, four variables have been considered in the analysis. The estimated results show that there is a long run relationship among the variables; Significance of the regression parameters is tested by the usual t statistic. As evidenced from the estimation it shows thataverage weighted prime lending rate, inflation rate variable are highly significant at the 5 percent critical level, respecting having coefficients 0.0679, -0.0312 on stock prices. The result also reflects that the increase in macroeconomic variables on average weighted prime lending rate in Sri Lanka, strongly contributes to the long run stock prices. It implies that when the average weighted prime lending rate in the economy increases by one percent, the stock prices will also increase by 0.0679 percent.

Table 3: Estimation of Long Run Regression Results

Variable	**Coefficient**	**Std. Error**	**t- statistics**	**P- Value**
C	-10.3127	0.4839	-21.3088	0.0000
LNAWPLR	0.0679	0.0817	0.8305	0.02069
LNM1	-2.3636	0.1548	-15.2676	0.0000
LNEXRATE	2.3225	0.0827	28.0646	0.0000
LNINFRATE	-0.0312	0.0226	-1.1730	0.02416

R-Squared	**0.92032**	Mean dependent variable	6.75884
Adjusted R-Squared	0.01932	S.D. dependent variable	1.05794
S.E. of Regression	0.30049	Akaike info criterion	0.44853
Sum Squared reside	28.80463	Schwarz criterion	0.50687
Log likelihood	-67.66248	F-Statistic	**921.1654**
Durbin-Watson stat	1.71039	Prob (F- Statistic)	**0.00000**

Output for use E-views7.1

On the other hand, a one percent increase in the inflation rate leads to a decline in stock pricesby 0.0312 percent. In the case of money supply leads to a decline in stock prices rate by 2.3636 percent. Further, regression results show, an increase in the Exchange rate by 1 percent would increase stock prices by 2.3325 percent. The explanatory power of the regression is 0.92, which indicates that independent variables are explaining about 9.2 percent of the variation in the dependent variable of stock prices.

6.3.1 Long Run Regression Equation

$$LASPI_t = \beta_0 + \beta_1 LAWPLR_t + \beta_2 LMS_t + \beta_3 LEXR_t + \beta_4 LINF_t + \mu_t \quad (8)$$

$$LASPI_t = -10.3127 + 0.0679 LAWPLR_t - 2.3636 LMS_t + 2.3225 LEXR_t - 0.0312 LINF_t + \mu_t \quad (9)$$

SE	**(0.4839)**	**(0.0817)**	**(0.1548)**	**(0.0827)**	**(0.0226)**
t	**-21.3088**	**0.8305**	**-15.2676**	**28.0646**	**-1.1730**
Prob	**(0.0000)**	**(0.02069)**	**(0.0000)**	**(0.0000)**	**(0.02416)**

6.4 Granger Causality Test

We now turn to conduct the Granger causality test to examine the possibility that stock prices have some non-contemporaneous effect on major macroeconomics variables. Results are depicted in the table 6.4

Table 4 : Tests of Granger Causality between Stock prices and major macroeconomics variables in log terms

Direction of the causality	**Probability**	**Outcome**
AWPLR → ASPI	0.1899	AWPLR does not cause ASPI
ASPI → AWPLR	0.1887	ASPI does not cause AWPLR
EXRATE →ASPI	**0.0503**	**EXRATE causes ASPI**
ASPI → EXRATE	**0.0090**	**ASPI causes EXRATE**
INRATE → ASPI	0.5352	INRATE does not cause ASPI
ASPI → INRATE	0.5135	ASPI does not cause INRATE
M1 →ASPI	0.3050	M1 does not cause ASPI
ASPI → M1	**0.0481**	**ASPI causes M1**
EXRATE → AWPLR	**0.0505**	**EXRATE causes AWPLR**
AWPLR → EXRATE	**0.0147**	**AWPLR causes EXRATE**
INRATE → AWPLR	0.1068	INRATE does not cause AWPLR
AWPLR → INRATE	0.8875	AWPLR does not cause INRATE
M1 → AWPLR	0.7523	M1 does not cause AWPLR
AWPLR → M1	0.4117	AWPLR does not cause M1
INRATE → EXRATE	**0.0759**	**INRATE causes EXRATE**
EXRATE → INRATE	0.2419	EXRATE does not cause INRATE
M1 → EXRATE	0.7762	M1 does not cause EXRATE
EXRATE → M1	**0.0277**	**EXRATE causes M1**
M1 → INRATE	0.3567	M1 does not cause INRATE
INRATE →M1	0.6424	INRATE does not cause M1

Output for use E-views7.1

According to this table ASPI does not Granger cause to AWPLR and INRATE. But ASPI Granger causes to M1 and EXRATE. Because the p value of that causality is less than the 0.05. This is the significant result display the main objective of the study.

7 Conclusion and Recommendations:

The time series analysis result of the co-integration tests reveals that macroeconomic variables such as inflation rate, money supply, exchange rate, average weighted prime lending rate havesignificant long run and short run effects in determining stock prices in Sri Lanka. However average weighted prime lending rate and exchange rate showed a positive relationship with all share price index while narrow money supply and Colombo Consumer price inflation rate showed a negative relationship. The results are therefore, providing a justification for the use of inflationary policy instruments to control stock prices in Sri Lanka. Finally the result of Co-Integration test also confirmed that there is a long run stable stock price function for Sri Lanka. The Granger Causality table identified that ASPI does not Granger cause to AWPLR and INRATE. But ASPI Granger causes to M1 and EXRATE.The above results have practical implications for investors -both domestic and international, policy makers, stock market regulators, andstock market analysts.Finally, with these results, it can be concluded that long term stock market price fluctuations could be controlled by the involvement of the policy makers' decisions and FDIs. It can also be seen that Sri Lankan stock market is booming among the other sock markets in Asia. To sum up the below SWOT analysis can also be used to identify the overall image of the Sri Lanka stock market

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