THE IMPACT OF GOVERNMENT MONETARY POLICY ACTIVITIES ON SHARE MARKET: THE CASE OF THE SRI LANKA

W.P. Wijewardana
Department of Accountancy and Finance, Faculty of Management Study, Rajarata University of Sri Lanka, Mihintale, Sri Lanka.

Introduction

Using the sample of Colombo Security Exchange traded firms from Sri Lanka. I examine the impact of government selected monetary policy movements (MPM) on the share market operations and identify the determinants of contact. The research questions of this study are to answer the following questions: to what extent are share market exposed to government monetary policies (GMP)? Further, Do firm level differences in experience to money supply (MS), inflation (IN), interest rate(IR), exchange rate(ER), government borrowings(GB) and Gross Domestic Product (GDP)have quantifiable effects on Share market? What are the sources of these experiences? This could be a different dimension than commonly using factors to regulate the share market price movements in Sri Lankan Economy. Below,I discuss the working definition for selected monetary policy and examine the theoretical and empirical evidence on the relationship among the monetary factors and the share market index (SMI).

Money Supply and Exposure

The concept of MS sparks from the notions of risk as uncertainty. If investors identified ahead of time the general price level at some specific future date as well as the inflation rate by definition there would be risk. Central banks of Sri Lanka affect the money supply through their policy actions which employs buying and selling government securities, changing reserve requirements, changing the interest rate at which the central bank provides reserves to financial intermediaries. On the other hand, growth rate of money supply would be equal to the inflation rate. As a result, they favor rules that focus on achieving a rate of money growth consistent with price stability in the long run (Meyer 2001).Unfortunately, it is impossible to make such prediction with any degree of investors' uncertainty. In this perceptiveness, MS refers to unforeseen variations in a commodity purchasing power relative to its initially expected value at some specific future date. In the long-run the relationship between MS and price is very strong and its correlation is almost close one. Lucas (1995) and McCandless and Weber (1995)

emphasized the long-term relationship between money and prices according. For the short-term relationship, empirical evidence of relationship between money growth and inflation is weak and unclear.

Interest floating rate and exposure

The all share price index (ASP) represent the performance of share market operations. If a gap in the bankers lending and borrowing rate and hereafter refers floating interest rate affects a firm's expectations of current and future cash flows, it can directly influence the market value of its equity. It is in this concept to which I refer as interest shock. The complexities of the relationship between interest floating rate and ASP are compounded by whether the firm has assets increased or decreased or both. Therefore, the firm's shocks, or sensitivity of its value to changes in the surplus of bank interest rate, could significantly depending on the magnitude of lending and deposit gap.

Inflation and exposure

Inflation is measured by changes in the Colombo Consumer Price Index (CCPI)The price index refer to the Irving Fisher effect is the one reflecting the actual prices paid byconsumers. The monthly CCPI was computed as the natural logarithm of CCPI at month t (Gjerdeand Sateeem1999).Any increase in expenditure which cannot be met by an increase in output will shock in a rise in general prices and the understanding that an increase in expenditure willlead to a change in price rather than quantity is, identical the interpretation that customerdemand to spend that is long stabilized conclusion in economics.The most

common expression of this is in the equation of exchange: $MSV = PT$ whereMS is the money stock, V the velocity of circulation, Pis the average price of goods and services, T is the number of transactions per period of time. The ultimate results of inflation is to influence whether the stock of investment ether choice as expenses or as investment hence the researcher identified this shock has affect measurable impact on share market movements.

Foreign Exchange Rate and Exposure

The expectation of the local investors those who are involved in share market is foreign investors brings additional gain to the market. This involvement same time plays uncertainty in the market than the value adding role to the local investors. However, the value of the firm equals the present value of all expected future cash flows. If a shock in the foreign exchange rate affects a firm's expectations of both future and current, it could directly impact the share market operations. On the other hand exchange rate may cause to depreciate the domestic currency rate. It is difficult to predict and measures the direction of the impact of foreign exchange shock on share market movements. The economic theory suggest that a depreciation in the domestic currency will increase the competitiveness of the net exporting firms (DeJong et al, 2002).

Government Borrowings and Exposure

The net results of the government borrowings (GB) are similar effect to the money supply. And which mode of

the investment is decided to influence the magnitude of the effect of increasing national product in the overall economy. In sources of GB mainly depend on the local financial instrument and sources may directly affect the leading power of the money market or either deposit rate may cause to increase direction of the surpluses of customer consumption. Conversely, the source and direction of the GB is foreign market is affect the depreciation of domestic currency and negatively shock the exchange gap. Monetary effectsunder the GBfluctuations in commodity prices encourage inflationary and deflationary patterns in international and national business cycles. Because governments have monetary policies available which can possibly help to encourage inflationary and deflationary impacts, they can magnitude levels of GBto induce counter-cyclical effects. However, this behavior often mixes and influence of the share market is unpredictable.

Objectives

The above stated empirical findingsand theoretical conclusions expose relationshipsamongshare market movements and monetary policy related variables. This indications to undertakingthe study of the effects of monetary policy represented variables on all share price index (APS)in the SriLankan context. When considering the above facts, the results and conclusions of a study of thisnature may be an importance to various parties. The findings of thestudy contained practical implications for various parties. In the Sri Lankan

economy at present gear to strengthening economic development path in both private and public sectors investors' contributions. In this challengeable task share market role and stimulating role of the monetary policy tool are remarkable and understandable in the way of theoretical and empirical based. Hence, a study is timely and essential to attain foundation of wider and complex system. The hypotheses of this study are:

Hypothesis 1 : Market capitalization and return response the share market movements.

Hypothesis 2 : Monetary policy does not affect the share market movements.

Hypothesis 3 : Market capitalization and return R^2 response great than monetary policy R^2 on the share market movements.

Hypothesis 4 : Combine effect affect share market movements

Model and Methodology

This study is considered monthly data for building modeling and analysis. To achieve this purpose collect data from Central Bank Monthly bulletin and Colombo Security Exchange data bank. The data series is from January 2013 to December 31, 2013 and length is 132. In following Model, a stock market movement is considered exposed to monetary policy if its share movements are correlated with changes in monetary policy (Dumas, 1978). Combine responseis defined as the value of the δicoefficient resulting fromthe following regressions which is represent model 1, model 2 and model 3:

$$R_t = \alpha + (\beta_i R_{Mt} + \beta_{i1} MC) + \delta MP + \varepsilon_{it} \quad \text{Model 1}$$

Under this definition, the coefficient δ, reflects the changes in ASP that can be explained by movement in the monetary policy after conditioning on the monetary policy.Second step is the objective is to determine whether share market capitalization and return shock is correlated with significant differences in ASP. Share market response is defined as the value of the β coefficient resulting from the following regression:

$$R_t = \alpha + \beta_i R_{Mt} + \beta_{i1} MC + \varepsilon_{it} \quad \text{Model 2}$$

The regression analyses are applied to investigate the effect of monetary and share market movements. The initial regression model is as follows:

$$R_t = \alpha + \beta MP + \varepsilon_{it} \quad \text{Model 3}$$

Under this definition, the coefficient β, reflects the changes in ASP that can be explained by movement in the monetary policy after conditioning on the monetary policy.

Where ,R_t is the all share price index (ASP) on time t, is the market return, is the firm's market beta , MC is the market capitalization and MP is the monetary policy.

Results
Results from the share market movements' regression adjusted R^2 for model 1, model 2 and model 3 appears in table 2. Researcher run three models to most clearly illustrate the effect of monetary policy on share market movements in Sri Lanka. Model 1(Predictors: EXC, PLOR, MR, MC, LnGDP, CCPI, LnGB, LnMS, Dependent Variable: LnASP), Model 2(Predictors: MC, MR, Dependent Variable: LnASP) and Model 3 (Predictors: CCPI, PLOR, EXC, LnGDP, LnGB, LnMS. Dependent Variable: LnASP) have been regress on the eight, two and six independent variables respectively. When compare the adjusted R^2 at the 1 percent level among the three models all three models adjusted R^2 is significantly higher and Model 1 adjusted R^2 higher than among all three models.

Table 2 : Model Summary

Adjusted R Square			Durbin-Watson		
Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
0.946	0.912	0.900	0.164	0.076	0.243

The table 3 provides the ANOVA indicators for all the models. The F- value for all models is significant at the 1 percent level.

Table 3: ANOVA

	Model 1	Model 2	Model 3
F Value	288.904	680.730	197.577.
Sig	0.000	0.000[a]	0.000[a]

The study presents the results of regression for share market movement in table 4. The model 1 appears to fit the data well (F value -0.000), and Market return (MR), Market capitalization (MC), Interest plotting rate (PLOR), Money supply (LnMS)are significantly and positively related to share market movement and inflation (CCPI) significantly and negatively related share market movements. Also It is shows that Gross Domestic Product (LnGDP), Exchange Rate (EXC) positively and Government borrowing (GB) negatively related to share market movement but not significant. As shown table 4, the model 2 appears to fit the data well (F-Value 0.000), and Market return and market capitalization are positively and significantly relate to share market movements. Further, model 3 Inflation (CCPI) positively and Money supply negatively and significantly related to share market movement. The model 3 appears plotting rate (PLOR), Government borrowing (LnGB) and Exchange rate (EXC) are negatively and Money supply (LnMS), Gross Domestic Product (LnGDP) positively and insignificantly related to share market movement.

Table 4 Regression Results

Variables	Coefficients					
	Standardized Coefficients			Sig		
	Model 1-Delta	Model 2-Beta	Model 3-Beta	Model 1	Model 2	Model 3
MR	0.065	0.015	-	0.002	0.170	-
MC	0.695	0.000	-	0.000	0.000	-
CCPI	-0.827	-	-1.296	0.000	-	0.000
PLOR	0.070	-	-0.044	0.017	-	0.224
LnMS	1.009	-	2.313	0.000	-	0.000
LnGDP	0.145	-	0.022	0.226	-	0.890
LnGB	-0.039	-	-0.074	0.794	-	0.718
EXC	0.025	-	-0.100	0.520	-	0.050

Discussionsand Conclusions

This paper analyses the relationship among the monetary policy and share market movements, using and an emerging share market movements settings. It is argued that share market movements may be affected byhighly concentrated monetary policy. According to the market efficiency theories based predictions, such subsequently, result in efficient monetary policy. Conversely, if the market is efficient, policy makers in a government with monetary policy concentration would have incentives to have efficient policy performed to the market share movements towards the economic development. As a markets in the emerging economics do not have strong forms of efficiency, the policy makers are not likely to be motivated by similar respond. From the share market side, it is also argued that if the monetary policy concentration is dominated by the other government priorities, as the case may be in many emerging economics, the share market, if independent, may have the incentive to perform more rigorous share market

movements. Also, if the respond are looking for inside respond, they may opt for a better share marker movements. Similarly, for the firm respond, it is argued that as the presence of such a respond would itself work as a safeguard for the share market, it may respond considerable respond. Our results indicate that the share market movements have a significant positive relationship with inside response and share market movements (Market capitalization and return). The indicates that in Sri Lanka, firms actually pay lower responseGross domestic product, Government Borrowings and Foreign exchange rate when these are not dominated by share marker movements. For the shareholders, it finds a negative (exclude GDP) but statistically insignificant relationship. The results seem to suggest that the overall government monetary policy may not be a major factor in explaining the share market movement in Sri Lanka. Further, the fact that inside responses has significant positive relationships with the share market movement would

suggest that share market movement in Sri Lanka do not have adequate incentives for selected government monetary policy. As most of the Sri Lankan firms believe, our results provide evidence of lower respond for monetary policy, and explain the lower respond of monetary policy in Sri Lanka as suggested by economist. On the other hand, these results suggests that the mechanism through which monetary policy respond affect share market are complex, and points to potential future areas of research.

References

De Jong , A Lingterink, J., and Macrae, V 2002, 'A firm — Specific Analysis of the Exchange Rate Exposure of Dutch Firms', Erasmus Research Institute of Management, Rotterdam School of Management, report series reference NO ERS- 2002-109- F&A.

Dumas, B. 1978. 'The theory of the trading firm revisited', Journal of Finance,33(3),1019-1029.

Gjerde, O., and Saettem, F., 1999.'Causal relations among stock returns and macroeconomic variables in a small open economy', *Journal of International Financial Markets*, Institutions and Money 9, 61-74.

Lucas, R. E., Jr. 1980, 'Two illustrations of the quantity theory of money', *American Economic Review*.

Lucas, R. E., Jr. 1996, 'Nobel Lecture: Monetary Neutrality, *Journal of Political Economy*, 104(4), pp. 661-82.

McCandless Jr., G. T. & Weber W. E. 1995, 'Some Monetary Facts', *Quarterly Review*, Federal Reserve Bank of Minneapolis, vol.19 No. 3.

Meyer L. H. 2001, 'Does Money Matter?' Federal Reserve Bank of St. Louis.