



# MANAGEMENT TODAY

-for a better tomorrow

An International Journal of Management Studies

home page: [www.mgmt2day.griet.ac.in](http://www.mgmt2day.griet.ac.in)

Vol.8, No.1, January-March 2018



## The Effect of Budget Announcement on Sri Lankan Stock Prices

**Koperunthey Kalainathan**

Dept. of Finance and Accountancy, Vavuniya Campus of the University of Jaffna, Vavuniya, Sri Lanka, Email: [gobi\\_7003@yahoo.co.uk](mailto:gobi_7003@yahoo.co.uk), TP: 0094 777 350 514

### ARTICLE INFO

#### Article history:

Received 12.03.2018

Accepted 20.03.2018

#### Keywords:

*budget announcement, AAR, CAAR, all share price index, CSE*

### ABSTRACT

The stock prices of a stock market reflect all pertinent information available to investors and other participants. If a stock market is efficient, the stock prices will reflect according to the available information of economic, political and social events. So, in an efficient market stock prices reflect all available information. Therefore, the aim of the study is to find out the effect of budget announcement on Sri Lankan stock prices. The study examines the behavior of Sri Lankan stock price indices in respect of pre and post period of budget announcement. The data were collected from Colombo Stock Exchange (CSE) data base. The collected data includes All Share Price Index (ASPI) and all 20 sectors' stock price indices to examine the pre and post budget announcement effect in the year 2017. The event study method was adopted to examine the market efficiency and pre and post period of 15 day-event window was considered on the first budget speech date at Parliament. The Average Abnormal Return (AAR), the Cumulative Abnormal Return (CAAR) and t-statistic were used to test the market efficiency to budget announcement. CAARs are statistically significant from -1 day to +15 day except +5 day. Further, a negative downward trend is observed on the stock price indices. Therefore, the study concludes that the stock market efficiency level is high and investors can not earn abnormal return in the stock exchange without taking additional risk.

### Introduction

The stock price and its volatility is determined by available information to the investors. The Efficient Market Hypothesis (EMH) explains that in information-efficient market, the stock prices reflect all available information about stock and it is impossible to beat the market. Fama (1970) introduced this theory and explained that stock prices instantly reflect all available information, therefore, the stock prices are unpredictable and react according to the new information. As a result, investors can not earn more than average return without

taking additional risk. The theory implies, in an efficient market, new information regulatory enters such as bonus issue, dividend announcement, stock split, major and acquisition, disasters, major economic events, and political issues and this information also affect stock prices. Government budget announcement is one of the major economic events and if the market is efficient the stock prices also adjusted according to the budget announcement and its information. In this situation, the stock return follows random walk and difficult to predict stock prices by investors to beat the market.

Dolley (1933) tested the EMH in his pioneered study of "Characteristics and procedure of common stock split-ups" by using event study methodology. From this study, the event study methodology has been applying by financial analysts to test the EMH in a stock market for the special event which affect the stock market activities. In Sri Lanka, budget announcement day is a most expected day by all people because

-----  
*Responsibility of Contents of this paper rests upon the authors and not upon GRIET publications*

ISSN: 2348-3989 (Online)

ISSN: 2230-9764 (Print)

Doi: <http://dx.doi.org/10.11127/gmt.2018.03.05>

pp. 20-23

Copyright@GRIET Publications. All rights reserved.

it informs financial and economical road map for subsequent year of the country. Few studies (Ranjani, Sujeewa & Rathnasiri 2009; Edirisinghe 2017) concentrated on budget announcement and stock price reaction on Colombo Stock Exchange (CSE), but those studies focused before the internal war period and resettlement period after war. This study focusses good governance government budget announcement and its impact on stock prices. Therefore, the main objective of the study is to identify whether all stock price indices in CSE react due to the budget announcement or not.

### Review of Literature

Effect of budget announcement on stock price has been discussed worldwide as well as in Sri Lanka. The investors' reaction differs from country to country. Most of the studies used event study methodology to prove the pre and post budget announcement period stock market reaction. In Sri Lanka, the effect of budget announcement on stock price reaction differ from sector to sector (Edirisinghe 2017). ASPI and Milanka Price Index (MPI) show a downward trend in pre and post budget announcement periods because of the continuous tax imposition and show an upward trend because of the tax concession and exemption (Ranjani, Sujeewa & Rathnasiri 2009). In addition to the budget announcement, stock split announcement, civil war and dividend announcement also positively and negatively affect the stock price in Sri Lanka (Hua & Ramesh 2013; Jayakody 2017; Dharmarathne 2013).

Compare to other events, such as dividend announcement, stock split and civil war, budget announcement has some different features. It provides macroeconomic policies of the government and based on that policies the stock market price indices may react. Patel, Dave & Shah (2016) identify the efficiency of Indian stock market based on pre and post budget announcement period and proved that investors have not been able to earn abnormal return during the event window period.

Some unexpected monetary policy also has a significant impact on stock prices (Leiderman & Offenbacher 1986). Different period of time, short, medium and long, is also observed and found that short-term post budget has maximum impact on stock price compare to medium and long-term (Gupta & Kundu 2006; Khanna & Gogia 2014)

### Methodology

In order to find out the effect of budget announcement of stock price in Colombo Stock Exchange (CSE), the event study methodology was used. The first budget speech date at Parliament was considered as event day ( $t = 0$ ) and event window was set as  $t-15$  to  $t+15$  days to capture the pre-budget announcement and post-budget announcement reaction on stock price. The estimation window was focused from  $t-250$  to  $t-15$ .

There are 295 listed companies in CSE as at 30<sup>th</sup> September 2017 representing 20 business sectors. All sectors price indices and ASPI have been considered for the study.

The following steps were followed to test the effect of budget announcement on stock price.

The daily stock return of each sector was calculated by using the following equation.

$$R_{ij} = \frac{P_{ij} - P_{it-1}}{P_{it-1}}$$

Where:

$R_{ij}$  = Return of stock  $i$  on period  $t$

$P_{ij}$  = Price of the stock  $i$  on period  $t$

$P_{i,t-1}$  = Price of the stock at period  $t-1$

Individual sector abnormal return is calculated by using the following risk adjusted return model.

$$AR_{it} = R_{it} - E(R_{it})$$

Where:

$AR_{it}$  = the abnormal return for the stock  $i$  in period  $t$

$E(R_{it})$  = the expected return for stock  $i$  in period  $t$

$$E(R_{it}) = \alpha_i + \beta_i R_{mt}$$

Where:

$\alpha_i$  = The intercept term

$\beta_i$  = Beta coefficient of stock

Average abnormal return was measured as:

$$ARR = \frac{1}{n} \sum_{i=1}^n AR_{it}$$

$ARR$  = The average abnormal return for the time  $t$

$n$  = Sample size

To measure the significant of AAR for each event day  $t$ -statistic is calculated by using the following equation:

$$t_{AAR} = \frac{AAR_t}{\sigma_{AR}/\sqrt{n}}$$

Where:

$T_{AAR}$  = The t-statistic

$\sigma_{AR}$  = The standard deviation of abnormal return at time  $t$

To ascertain the magnitude of AAR of entire event window period, CAAR is calculated as follows:

$$CAAR_t = CAAR_{t-1} + AAR_t$$

The significant value of overall CAAR was calculated via the t-statistic, as follows:

$$t_{CAR} = \frac{CAAR_t}{\sigma_{CAR}/\sqrt{n}}$$

Where:

$t_{CAR}$  = The CAR t-statistic

$\sigma_{CAR}$  = The cross sectional standard deviation of the abnormal return for the sample of n firms at time t

**Hypothesis of the Study**

H<sub>1</sub>: Budget announcement has significant effect on stock prices of the stocks traded on CSE.

**Empirical Results**

The following Table. 1 presents the findings of AARs, t-statistic of AARs, CAARs and t- statistic of CAARs for 20 sectors’ budget announcement for each of the 31-days event window. Finally, significant levels of 1%, 5% and 10% were analyzed.

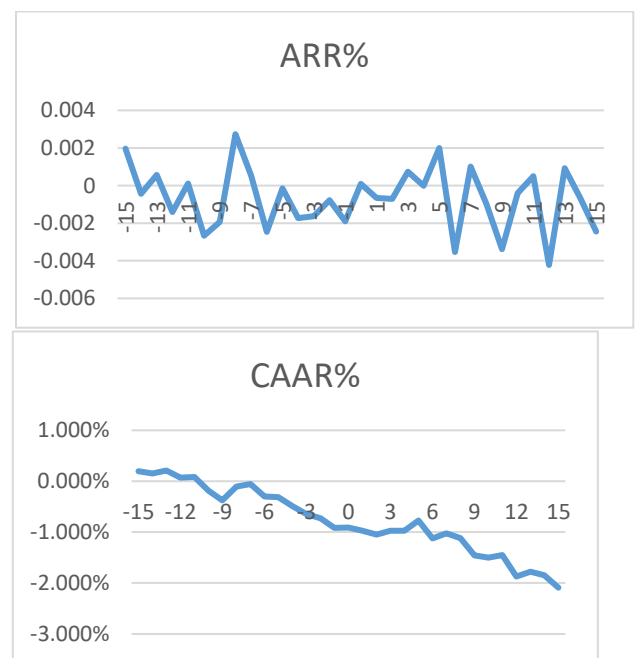
**Table-1: Details Results of AAR, CAAR and t Statistics**

Event Day	AAR%	t	CAAR%	t	Event Day	AAR%	t	CAAR%	t
-15	0.1970	0.541	0.1970	0.393	+1	-0.0655	-0.180	-0.9744	-1.946*
-14	-0.0430	-0.118	0.154	0.308	+2	-0.0708	-0.195	-1.045	-2.088**
-13	0.0571	0.157	0.2111	0.422	+3	0.0730	0.201	-0.9722	-1.942*
-12	-0.1406	-0.386	0.0705	0.141	+4	-0.0006	-0.002	-0.9728	-1.943*
-11	0.0106	0.029	0.0811	0.162	+5	0.1996	0.549	-0.7732	-1.544
-10	-0.2661	-0.731	-0.185	-0.370	+6	-0.3531	-0.970	-1.1263	-2.250**
-9	-0.1934	-0.531	-0.3784	-0.756	+7	0.1016	0.279	-1.0247	-2.046**
-8	0.2734	0.751	-0.105	-0.210	+8	-0.0957	-0.263	-1.1204	-2.238**
-7	0.0528	0.145	-0.0522	-0.104	+9	-0.3380	-0.928	-1.4584	-2.913***
-6	-0.2461	-0.676	-0.2983	-0.596	+10	-0.0404	-0.111	-1.4988	-2.993***
-5	-0.0145	-0.040	-0.3128	-0.625	+11	0.0503	0.138	-1.4485	-2.893***
-4	-0.1729	-0.475	-0.4857	-0.970	+12	-0.4223	-1.160	-1.8708	-3.737***
-3	-0.1630	-0.448	-0.6487	-1.296	+13	0.0917	0.252	-1.7791	-3.553***
-2	-0.0785	-0.216	-0.7272	-1.453	+14	-0.0676	-0.186	-1.8467	-3.688***
-1	-0.1899	-0.522	-0.9171	-1.832*	+15	-0.2438	-0.670	-2.0905	-4.175***
<b>0</b>	<b>0.0082</b>	<b>0.0226</b>	<b>-0.9089</b>	<b>-1.816*</b>					

\* Significant at 10% level, \*\* Significant at 5% level, \*\*\* Significant at 1% level

According to the Table.1, the AARs value reveal that it fluctuates positively and negatively during the event window period. It is 0.27% positive on eight days before (t-8) and 0.35% positive on six days after (t+6) the event day. During the event day (t=0) the AAR value is 0.008% indicates the investors observe the available information on the event day for the decision making. Most of the days the AARs values are negative both pre and post event day which indicates that the budget announcement provides some negative impact on stock price reaction. Therefore, most the event periods the investors able to earn negative return. The AARs values are insignificant during the pre-event window periods indicates the budget information does not leak before the budget reading and post-budget reading days also the information does not make significant influence on return.

The CAAR from -15 to +15 indicates the behavior of the stock prices during the event window period. CAAR of the stock price of the CSE turn negatively from -10 to the event day and this is the day the stock prices start to react to anticipate the budget announcement effect, especially investors expect some monetary policy changes after the budget announcement. CAAR changes move more severely from +6 day and it continue up to +15 day due to negative signal to investors from budget announcement.



**Figure 1: AARs and CAARs**

Figure.1 indicates the fluctuation of AARs and CAARs during the event window. AARs fluctuate positively in the

event day of -15, -13, -11, -8, -7, +3, +5, +7, +11 and +13. It is again confirmed that the CSE perceives budget announcement as good and bad information to earn return from stock market. But, most of the days it shows a negative AARs which indicates bad information is more than good information. This clearly reveals from the trend of CAAR. As mentioned by Ranjani, Sujeewa and Rathnasiri (2009) and Edirisinghe (2017) CAAR results indicate a downward trend in stock prices in CSE.

### Conclusion

The study attempts to identify the effect of budget announcement on stock price in CSE, Sri Lanka in the year of 2017. Therefore, the main objective of the study is to identify whether all stock price indices in CSE react due to the budget announcement or not. The relevant stock price indices of all sectors and ASPI were collected from CSE data base. By applying event study methodology, the stock price reaction for budget announcement was identified. Further, the study analyzes the abnormality of stock return on pre and post period of budget announcement in the Parliament of Sri Lanka. According to the risk adjusted return model, AARs show insignificant effect on stock price and CAARs indicate a significant negative trend from -10 day of the event window. In addition to this, the results indicate that the market efficient level is high. Finally, the study concludes that the investors can not earn an abnormal return pre and post period of budget announcement in Sri Lanka.

The main limitation of this study is that it does not consider other exogenous effects which affect the stock market indices. Hence, further research can extend the analysis by using other exogenous effects other than budget announcement. In addition to that, different sectors may react differently because of the tax imposition or tax concessions and exemption. Therefore, sector wise comparison also will provide more depth knowledge.

### References

- Dharmarathne, D. G. (2013). Stock price reaction to dividend announcements and information efficiency in Sri Lankan Stock Market. *International Journal of Research in Social Sciences*, Vol. 3, No. 2, pp. 100-111.
- Dolley, J. (1933). Characteristics and procedure of common stock split-ups. *Harvard Business Review*, Vol. 37, No. 5, pp. 316-326.
- Edirisinghe, U. C. (2017). Impact of government budget announcement on stock market sector indices: Evidence from Colombo Stock Exchange. *Journal of Finance and Accounting*, Vol. 5, No. 6, pp. 214-218.
- Fama, E. F. (1970). Efficient capital markets: A review of theory and empirical work. *The Journal of Finance*, Vol. 25, No. 2, pp. 383-417.
- Gupta, A. & Kundu, D. (2006). A study on the impact of Union Budgets on stock prices in India. *The ICFAI Journal of Applied Finance*, Vol. 12, No. 10, pp. 65-76.
- Hua, L. & Ramesh, S. (2013). A Study on stock split announcements and its impact on stock prices in Colombo Stock Exchange (CSE) of Sri Lanka. *Global Journal of Management and Research Finance*, Vol. 13, No. 6, pp. 24-34.
- Jayakody, S. G. (2017). The impact of the Sri Lankan civil war on the stock market performances. *International Journal of Economics and Financial Issues*, Vol. 7, No.1, pp. 394-402.
- Khanna, K. & Gogia, N. (2014). A pragmatic study of budget announcement and stock market performance: India, US & UK panorama. *VSRD International Journal of Business and Management Research*. Vol.4.
- Leiderman, L. & Offenbacher, E. K. (1986). Monetary announcements and stock prices in Israel, *Economic Letters*. Vol. 20, No. 4, pp. 377-381.
- Patel, M., Dave, M. & Shah, M. (2016). Market efficiency of Indian Stock Market: A study of Budget Announcement in Bombay Stock Exchange. *International Journal of Management & Business Studies*, 6 (2), pp. 20-24.
- Ranjani, R. P. C., Sujeewa, G. M. M. & Rathnasiri, UAHA. (2009). The impact of government budget announcement on Colombo Stock Exchange. *Proceedings of the Annual Research Symposium 2009*, Faculty of Graduate Studies, University of Kelaniya.