

Does Share Buyback Increase Equity Share Price?**Sai Kiran****PHD Scholar, Osmania University**

Abstract: *The paper is focused on “does share buyback increase share price?” There has been an increasing uptrend of share buyback in the Indian capital markets much to the similar phenomenon in the United States. It is usually undertaken by a company to send positive signals to the market about the stock with an aim to push the current price to its intrinsic value when it is felt undervalued in the market. The present study is conducted with a sample of 26 companies with certain and appropriate statistical tools, it is found that share buyback doesn't result in the increase of the share price in the market place but there gives an opportunity for speculation.*

Key Words: Share buyback, share repurchase, corporate actions, stock prices new information

Introduction:

Companies generate profits through its operations and plan to use profits for future investment, expansion and other uses. Companies face pressure from its stakeholders like shareholders, government, institutional investors to perform better and utilize the profits for good uses. Companies prefer to return the wealth to their shareholders when they have enough cash available to support foreseeable future expenses and they return either in the form of dividends or share buyback.

The price of a stock on secondary market gets impacted in response to many news, actions, events, etc, which may emanate from domestic and global factors with share buyback being one. Buyback of shares is continuing to occupy significant action in the market place ever since it was introduced in India. Buyback of shares is an exercise by which a company invests in itself by buying its own shares from the markets place. It is a program that involves allocation of a significant portion of company's profits and it can also be looked at as a way of returning wealth to its shareholders. Share buyback can be funded through liquid cash and also through debt.

Buyback of shares is also called share repurchase which is carried out by a company when it firmly believes that its share price is undervalued and trading at much below of its intrinsic value with an aim to move its market share price towards its intrinsic value. Buyback of shares results in reduced float in the market to the extent of shares bought back by the company and as a consequence there will be reduced number of shares available to trade. It is expected that this reduced float and company's confidence in investing itself create demand for the stock and increases its market share price. The present study is undertaken with an aim of testing this phenomenon.

Buyback of shares add to the shareholder value by

- i) Increasing earnings per share
- ii) Sending the positive news by the company to the market by possessing the asymmetric information available to them
- iii) Arresting fall and providing stability to the share prices which might have been on declining mode
- iv) Increasing return on assets (ROA)
- v) Increasing return on equity (ROE)

On the other side, repurchase of shares could potentially result in reduced cash holdings and liquidity, reduction in investments in other areas which could be capital expenditures, reducing employment

hiring, etc. The past decade has witnessed very many companies buying back their shares using significant portion of profits to fund share repurchase process which resulted in reduced capital expenditure and reduced investment for the future.

Review of Literature:

Over the years, a wealth of research had been conducted on share buyback. Evidences in this discipline suggest share buyback is a good use of cash. In 2004, Grullon and Michaely shown companies generate abnormal announcements returns when they begin repurchase programs. The earlier research documented there exists a negative correlation between investment and repurchase but in 2004, Grullon and Michaely studied this interpretation is largely driven by the growth opportunities and firms with poor growth prospects tend to prefer share repurchase to investment. William Lazonick, 2014, in his study "Profits Without Prosperity" cited share buyback is a plausible explanation for increase in profitability of companies is not complemented by the economic growth. Share buybacks, historically, reported outperformance with buyback announcements and small market capitalization stocks have recorded the greatest outperformance, Paul Fruin (2014).

Objective of the study:

The objective of the study is to see whether buyback of shares leads to increase in the stock price. To study this objective, a period of half decade i.e. 2009-14 is considered. During these 5 years, a total of 121 companies preferred to buy back their shares. This is a very healthy and encouraging number, an average 2 companies every month preferred to buy back their shares from the market.

A study has been made in this regard seeing the upswing in the market and many companies exhibited interest in buying back their shares from the market place.

Hypothesis:

Basing on the objective of the study, hypotheses for the study are as follow:

Ho: There is no significant increase in the mean prices of stocks post buyback.

H1: There is significant increase in the mean prices of stocks post buyback.

Data Description and Research Methodology:

The study is completely based on the secondary data and the data required for the study is sourced entirely from Securities Exchange Board of India (SEBI) and National Stock Exchange (NSE). The study period is of five years i.e. from 2009-2014.

The analysis is done on the mean prices during the buyback period and the equivalent period post buyback of shares. These periods of comparison may see difference, since the time taken to complete the exercise of buyback of shares is different for each company. To have a uniform method to analyse, the equivalent duration before and after buyback of shares is considered.

Out of 121 companies that chose to buy back their shares, a sample of 26 companies is taken to conduct the study. These companies were picked up as sample for the study basing on the availability of the data and active trading of the stock during and post buy back of the shares. The companies chosen for the study are listed below in the *Table I*.

Table I: Details of the companies used in the study

| Company | Start Date | End Date | No. of Shares Bought | Average Price (Rs) | Amount Used For Buyback Rs in Cr |
|--|------------|------------|----------------------|--------------------|----------------------------------|
| DLF | 17-10-2008 | 06-05-2009 | 7638567 | 184.19 | 140.69 |
| TV Today Network | 16-03-2009 | 25-07-2009 | 244884 | 80.55 | 1.97 |
| Godrej Industries Ltd | 25-05-2009 | 20-07-2009 | 2133710 | 135.28 | 28.87 |
| Aegis Logistics | 14-08-2009 | 26-02-2010 | 1020473 | 137.52 | 14.03 |
| Sasken Communications Technologies Ltd | 02-12-2010 | 23-05-2011 | 2162000 | 159.26 | 34.43 |
| India Infoline | 24-01-2011 | 05-02-2011 | 12998877 | 80 | 104 |
| FDC Ltd | 18-02-2011 | 25-01-2012 | 3358102 | 96.82 | 32.51 |
| Balram Chini Mills Ltd | 10-03-2011 | 05-07-2011 | 15410135 | 71.17 | 109.68 |
| Deccan Chronicles Holdings Ltd | 16-05-2011 | 29-08-2011 | 34500000 | 65.79 | 227.66 |
| PVR | 07-07-2011 | 29-08-2011 | 1388328 | 113.92 | 15.82 |
| Zee Entertainment Ltd | 27-07-2011 | 23-03-2012 | 19372853 | 119.72 | 231.92 |
| Bhagyanagar India Ltd | 25-11-2011 | 09-03-2012 | 4410000 | 18.61 | 8.21 |
| Amtek Auto Ltd | 16-01-2012 | 28-06-2012 | 14550000 | 128.97 | 187.01 |
| JK Lakshmi Cement Ltd | 26-03-2012 | 06-02-2013 | 4688858 | 64.99 | 30.47 |
| ECE Industries | 08-04-2012 | 27-03-2013 | 175385 | 120.48 | 2.11 |
| TIPS Industries | 23-08-2012 | 08-03-2013 | 600060 | 76.83 | 4.61 |
| Kanoria Chemicals Industries Ltd | 04-09-2012 | 28-02-2013 | 12603167 | 39.21 | 49.42 |
| Mastek | 26-11-2012 | 05-02-2013 | 2388000 | 150.73 | 36 |
| KRBL | 04-03-2013 | 11-02-2014 | 7722048 | 23.58 | 18.21 |
| SMS Pharmaceuticals Ltd | 20-05-2013 | 25-07-2013 | 1550000 | 261.82 | 40.58 |
| Crompton Greaves Ltd | 16-07-2013 | 15-01-2014 | 14745394 | 90.37 | 133.57 |
| Aptech Limited | 24-07-2013 | 23-01-2014 | 8897861 | 67.5 | 60.06 |
| JBF | 04-09-2013 | 27-09-2013 | 7500000 | 97.64 | 73.23 |
| Jindal Steel & Power Ltd | 06-09-2013 | 18-02-2014 | 19959584 | 250.91 | 500.8 |
| Cairn India Ltd | 23-01-2014 | 22-07-2014 | 36703839 | 333.88 | 1225.45 |
| DCM Shriram Ltd | 05-03-2014 | 04-09-2014 | 3487183 | 86.03 | 30 |

Source: <http://www.sebi.gov.in/sebiweb/home/list/3/22/0/1/Buybacks>

The data pertaining to the study to check whether there is any significant increase in stock prices after share buyback was analysed using statistical techniques like Mean, Standard Deviation, Correlation and T-test.

Analysis of Mean Prices and Standard Deviation:

The Table II presented below presents information about mean prices and standard deviations of stocks during buyback and post buyback of equivalent periods. Of the 26 companies under the study, 10

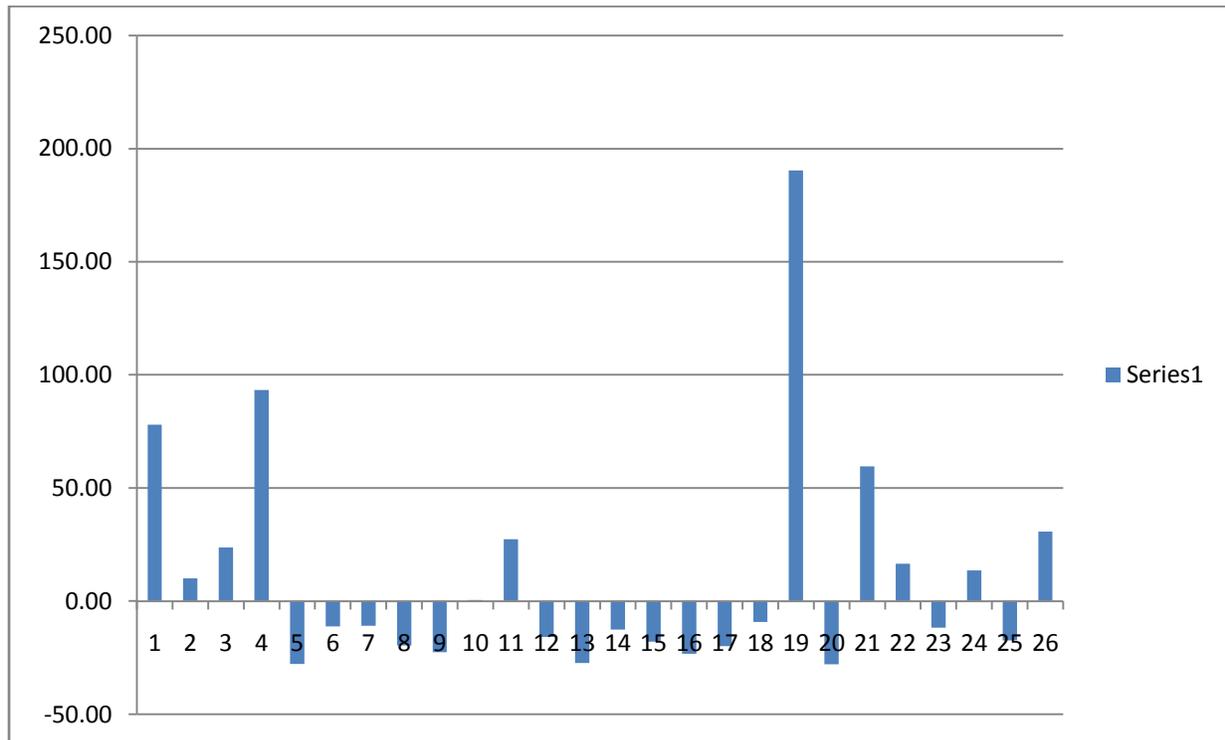
companies have shown increase in the mean prices between the two periods and among them a few stocks have reported huge spurt, 15 companies reported decrease in the mean prices and 1 company shown no change which signify there is an increase in some stock prices post buyback but majority of the sample stock prices have reported decrease in prices which confirms stock buyback doesn't result in increase of the stock prices.

Table II: Mean Prices and Standard Deviation

| Company | Mean Prices | | Standard Deviation | |
|--|-----------------------|---------------------|-----------------------|---------------------|
| | During Buyback Period | Post Buyback Period | During Buyback Period | Post Buyback Period |
| DLF | 211.06 | 375.63 | 50.65 | 53.89 |
| TV Today Network | 86.4 | 95.13 | 12.32 | 4.66 |
| Godrej Industries Ltd | 133.05 | 164.55 | 8.28 | 19.58 |
| Aegis Logistics | 169.66 | 328.1 | 30.93 | 91.48 |
| Sasken Communications Technologies Ltd | 164.14 | 118.44 | 10.31 | 17.03 |
| India Infoline | 78.12 | 69.43 | 2.1 | 3.83 |
| FDC Ltd | 93.47 | 83.28 | 8.44 | 4.94 |
| Balram Chini Mills Ltd | 67.75 | 54.45 | 6.21 | 5.47 |
| Deccan Chronicles Holdings Ltd | 66.7 | 51.61 | 4.03 | 5.49 |
| PVR | 118.39 | 118.93 | 6.36 | 3.99 |
| Zee Entertainment Ltd | 122.06 | 155.43 | 7.26 | 25.98 |
| Bhagyanagar India Ltd | 18.36 | 15.46 | 0.83 | 1.47 |
| Amtek Auto Ltd | 121.86 | 88.59 | 13.87 | 13.15 |
| JK Lakshmi Cement Ltd | 100.53 | 87.82 | 31.77 | 22.36 |
| ECE Industries | 115.44 | 94.74 | 7.99 | 13.12 |
| TIPS Industries | 71.63 | 54.96 | 10.64 | 6.18 |
| Kanoria Chemicals Industries Ltd | 37.36 | 29.9 | 1.31 | 1.77 |
| Mastek | 145.47 | 132.12 | 7.51 | 9.46 |
| KRBL | 27.23 | 79.07 | 6.23 | 20.43 |
| SMS Pharmaceuticals Ltd | 241.51 | 174.15 | 15.62 | 13.93 |
| Crompton Greaves Ltd | 102.54 | 163.61 | 17.51 | 32.57 |
| Aptech Limited | 70.05 | 81.63 | 8.31 | 11.34 |
| JBF | 93.5 | 82.58 | 4.86 | 1.51 |
| Jindal Steel & Power Ltd | 251.3 | 285.52 | 11.11 | 29.54 |
| Cairn India Ltd | 343.35 | 283.68 | 16.43 | 34.93 |
| DCM Shriram Ltd | 135.85 | 177.68 | 42.03 | 40.34 |

Source: http://www.nseindia.com/products/content/equities/equities/eq_security.htm

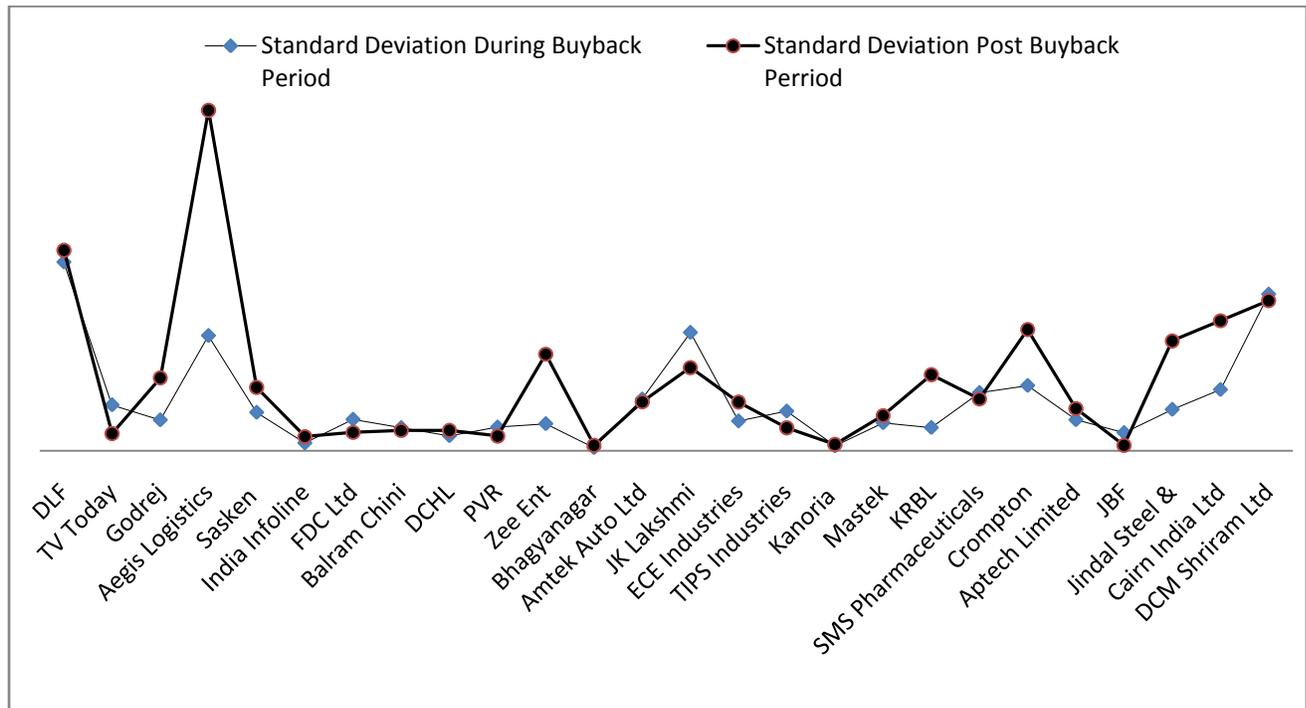
Figure I: Mean Prices Changes in Percentages



Analysis of Standard Deviation:

Standard deviation which signifies volatility and riskiness in the stock, exhibit increase in 16 out of 26 companies during post buyback period compared to before buy back period and 10 companies reported otherwise. The 62% of the companies under the study reported the increased volatility in the stock post buyback period which confirms there is an increased volatility and an opportunity to earn profits through speculation.

Figure II: Standard Deviation Behaviour



Out of the 10 companies that have reported increase in the mean prices post buyback period, 8 companies shown increase in the standard deviation post buyback of shares which reiterates there is an opportunity to earn some profits post buy back while 2 companies out of 10 reported decrease in the standard deviation which signifies the stock has become stable post buyback of shares.

Analysis of Correlation:

Correlation, in the study, is used to gauge the behavior of stock prices post buyback of shares and also suggests riskiness in stocks.

$$r_{xy} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}}$$

The calculated value of correlation comes at 0.808141, which confirms there is high positive correlation between the stock prices before and after buyback of shares. This value is high as a few scrips have reported huge spurt in prices post buyback whereas the trend with the stocks reporting prices downside didn't witness huge drop in the prices compared to stocks on the positive side. The three companies namely DLF, Aegis Logistics and KRBL, whose share prices skyrocketed post buyback cannot completely

be associated to the effect of share buyback and correlation in this study is largely influenced by the huge spurt in the afore mentioned stocks.

Analysis of T- Test:

T-test is conducted on the average monthly pre-buyback prices and post buyback prices of the stocks under the consideration in the study to check whether share buyback resulted in the increase of share prices. With the sample of 26 and 25 at degrees of freedom, one-tailed is performed at 5% level of significance with the decision criteria to accept the null hypothesis if the calculated value is lesser than the t-table value and reject the null hypothesis if the calculated value is more than the t-table value.

$$t = \frac{\bar{x}_1 - \bar{x}_2}{\sqrt{(s_1^2 / n_1 + s_2^2 / n_2)}}$$

With the sample in the study, the calculated paired t-test value comes at **0.292682** which is lesser than table value of **2.787** at 5% level of significance with 25 degrees of freedom and as per the decision criteria considered for the study, the null hypothesis (Ho) should be accepted that there is no significant increase in the share prices post share buyback and as a consequence the alternate hypothesis has to be rejected.

Conclusion:

With the sample considered in the study, it shows share buyback doesn't result in the increase of share prices post buyback of shares. The study shows that 38% of the companies report increase in the mean prices of stocks post buyback and 58% of the companies shown drop in the prices post buy back which hints share buyback will not lead to increase in prices and t-test as well confirms share buyback will not lead to increase in prices post buyback of shares. The result of standard deviation shows there is an opportunity to earn profits through speculation as there is increased volatility in the stock post buyback of shares. However, this study suffers from a major limitation of small sample and in the light of the mentioned limitation, it can be stated that share buyback doesn't result in increase of share prices.

References:

William Lazonick, "Profits Without Prosperity", Harvard Business Review, September 2014 Issue.

Paul Fruin, "Buying Outperformance: Do Share Repurchase Announcements Lead to Higher Returns?," S & P Capital IQ, McGraw Hill Financial, Quantitative Research, January 2014.

Heitor Almeida, Vyacheslav Fos and Mathias Kronlund, "The Real Effects of Share Repurchases", October 2014

E F Fama, L Fisher, M Jensen and R Roll, "The Adjustment of Stock Prices to New Information", International Economic Review (1969)

M Scholes, "The Market for Securities: Substitution vs Price Pressure and the Effects of Information on Share Prices," Journal of Business (1972)

Justin Pettit, "Is a Share Buyback Right for You?" Harvard Business Review, April 2001 Issue.

Maxwell Murphy, "The Pros and Cons of Stock Buybacks", The Wall Street Journal, February 2012.

Richard Dobbs and Werner Rehm, "The Value of Share Buyback", Article, McKinsey, http://www.mckinsey.com/insights/corporate_finance/the_value_of_share_buybacks