

IMPACT OF BUYBACKS ON SHARE PRICE PERFORMANCE OF COMPANIES IN INDIAN CONTEXT

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ABSTRACT

This paper aims to investigate the impact of buybacks on the share price performance of a sample of 75 buybacks announced by companies listed in the National Stock Exchange of India Ltd. for the period beginning January 2000 to December 2010. The sample is selected using Random sampling method. The study employs the Market Model-Event Study Methodology with event window of 41 days (20 days prior to announcement and 20 days post announcement) and announcement date (An date, t_0) as the event date, to examine the market reaction. The findings indicate that the market reacts positively with significantly positive Average Abnormal Returns on t_0 and t_{+1} days. The Average Abnormal Return on the announcement day is 1.07 percent and Cumulative Average Abnormal Return is 1.59 percent.

Key words: Buyback, Market Model, Event study, Stock returns

I. INTRODUCTION

Buybacks are popularly known as financial illusions by researchers. Buybacks has two contrasting views. One view holds that buyback is a costly exercise that cannot affect the value of the firm, while the other view advocates that the value of the firm significantly increases upon the announcement of buybacks. There have been numerous research studies in India and abroad on the reasons why companies go in for buyback and the market reaction to buybacks. However, these studies conducted have given mixed results. This provided the primary impetus to conduct this study for the National Stock Exchange of India Ltd. (NSE) listed companies in the more recent period from

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January 2000 to December 2010. The objective of this research is to analyse the impact of announcement of buybacks on the share price of selected sample of 75 companies listed in NSE in the Indian context.

II. THEORETICAL BACKGROUND

There are two ways for a company to buyback its own shares as per Securities and Exchange Board of India (SEBI) which regulates the capital market in India. Firstly, by Open Market Operations through stock exchange in the secondary market. Secondly, through tender offer which is an offer made by the company to purchase shares from shareholders a specified quantity at a specified price. Erwin and Miller(1998) has indicated that 90 per cent of share buybacks are conducted using Open Market operations. It is a flexible option for the company in terms of how many shares to buy back, when to buy back, and whether to buy back at all. Vermaelen (1981) indicates that open market share announcements are associated with a sustained share price increase of around 3 per cent. In tender offers the timing, amount and price range are pre-determined.

Buy backs have been popular with companies all over the world. The reasons for the popularity of buybacks identified from the past research are : Chance to favourably influence investors perception on the performance of the company and its earnings, increase in share price (Chan *et al.*, 2006), correct market undervaluation, increase earnings per share, to deter against hostile takeover attempts by the competitors (Bagwell, 1991) and distribute the excess cash to shareholders thereby reducing agency costs incurred by shareholders (Grullon and Machaely, 2004). Some of the most prominent motives identified are signaling hypothesis, free cash flow or agency cost hypothesis, substitution effect and optimum financing ratio.

A. Signaling Hypothesis or Information Asymmetry

The present study conducted investigates whether signaling hypothesis holds true in the select sample of companies in the Indian scenario. The premise on which the signaling hypothesis works is that the management of a company can estimate the true value of the company better than its shareholders. Vermaelen (1981) in his study argue that the buyback of shares acts as a signal by managers, who possess insider information of the company, to indicate that the current share price of the company is undervalued. In theory the best time to put a share buyback into operation is after a stock market crash (McNally and Smith, 2006). This is the time when the shares can be purchased less than the net asset value. But this is relevant to only open market operations rather than tender offers. Wansley *et al.*, (1989) identifies information signaling of the firm's present and future intentions as the only major motive to buy back shares of a company Rau and Vermaelen (2002) identifies buybacks in the open market as poor signaling technique and information conveyed is ignored by the market because they are not costly signals and carry no obligation for the firm to buy back the shares, and also do not convey a strong signal of under valuation of the firm.

B. Free Cash flow Hypothesis or Agency Cost

Fenn and Liang (1997) support the free cash flow hypothesis i.e. surplus cash to be returned to shareholders to avoid any conflict that may arise when managers may have incentives to use this cash to invest in projects that do not achieve the minimum hurdle rate of the company. Jensen (1986); Lie (2000) believes strongly in 'free cash flow theory' and recommends that mature firms could maximize their value by paying out all the free cash flow to shareholders that cannot be profitably reinvested and thereby reduce agency costs

C. Optimum financing ratio or Leverage Hypothesis

Share buyback increases the proportion of debt in the capital structure and the equity component reduces. If a company wants to move towards desirable capital structure it is motivated to go in for a buyback (Rob Dixon *et al.* 2008). Increased leverage makes equity riskier, resulting in an increase in volatility of share prices and daily return. A study by Tsetsekos *et al.* (1991) identified that the change in the firm's capital structure as the primary motive for undertaking a buyback.

D. Substitution Effect (Dividends vs Share prices)

Buy backs are generally considered as an alternative to cash dividends. The impact of both is not the same in terms of shareholders wealth maximization. Asquith and Mullins (1986) suggest that investors perceive the signals by dividends and buybacks as "credible, persuasive and valuable". Grullon and Michaely (2002) study that since the 1980s; firms have substituted dividends with buybacks in US and Europe. As per their study new firms use buybacks more often than dividends. One of the reasons why firms go for buyback is to reduce the volatility in their stock price. Jagannathan *et al.* (2000) show shareholders of firms with volatile cash flows prefer buyback over dividends.

III. LITERATURE REVIEW

The financial literature explains buybacks and positive abnormal returns accompanying their announcements. Past studies has shown that the market generally react positively to the announcement of a buybacks. A survey was conducted to find out the major reason behind buybacks of US firms (Badrinath and Varaiya, 2000). One of the reasons given by majority of companies is to increase the share price. Hua Zhang (2005) has investigated share price performance of buyback of shares in Hongkong. It is observed that the market responds favorably to repurchases made by firms. On an average, the initial three day market response to buyback is about 0.43 percent. Mohanty P. (2002) noticed an overall CAR of 11.25 percent for 61-day window period and on the announcement day is 3.86 percent. Hyderabad, (2009) confirms the positive reaction around the announcement of buybacks in the form of increasing market price but this reaction of shareholders is short lived as the share price fell after the announcement.

IV. METHODOLOGY

The objective of the study is to investigate the impact of buybacks on the share price performance of sample of 75 buybacks announced by companies listed in the National Stock Exchange of India Ltd. The time period selected for the study is January 2000 to December 2010 during which the global financial crisis has occurred. The impact of this global financial crisis on the price performance of the sample companies is not considered which can be a limitation of the study. The announcement date (An dates), open and close share prices of the selected sample have been taken from www.nseindia.com. The share price data is collected for a total of 41 trading days, 20 days prior to the buyback announcement, the share price on the announcement date and also share prices of 20 trading days post the An date. In this study, the market model event study methodology has been employed to measure the effect of buyback announcements. This model has been chosen because it is powerful in detecting abnormal returns when compared to other elaborate methodologies like index model and also free from criticisms of Capital Asset Pricing Model. Brown and Warner, (1985) have specified that market model is well specified based on simple methodology and relatively powerful under wide variety of conditions. The study undertakes to determine the Abnormal Returns (AR), Average Abnormal Returns (AAR) and Cumulative Average Abnormal Returns (CAAR) associated with the buybacks around the announcement date and the speed with which the information relating to buyback announcements is absorbed into the share prices.

The study is based on the following hypothesis:

Null Hypothesis (H₀): There is a significant positive AAR around the announcement date, or the AAR around the event date (announcement date) is significantly greater than zero i.e., $1/n \cdot \sum AR \geq 0$, where n is the number of companies in the sample selected.

Alternative Hypothesis (H_a): There is a significant negative AAR around the announcement date, or the AAR around the event date (announcement date) is significantly less than zero i.e., $1/n \cdot \sum AR < 0$, where n is the number of companies in the sample selected.

For testing the hypothesis, 't test' is computed on MS Excel to reject or accept the Null Hypothesis.

V. EMPIRICAL RESULTS

Table 1: Firm characteristics (T stat, regression coefficients) using Market Model

Company	α	β	T Statistic
Carborundum Universal Ltd.	0.00615	0.14919	-3.02
Cybertech Systems and Software Ltd.	-0.00854	1.69018	-1.67
Kesoram Industries Ltd.	0.00414	0.67996	4.76
Blue Star Ltd.	0.0041	0.6502	-6.33
Bombay Dyeing Manufacturing Company Ltd.	0.00493	0.6825	-2.45
Britannia Industries Ltd.	-0.00188	0.18217	-1.69
Exide Industries Ltd.	0.00696	0.32654	1.13
Finolex Industries Ltd.	0.00696	0.93233	-4.40
Jay Shree Tea & Inds. Ltd.	-0.0001	-0.1932	1.55
Raymond Ltd.	0.0023	1.27082	-1.13
Siemens Ltd.	-0.00394	0.2909	-4.85
Tata Chemicals Ltd.	0.00429	0.99922	3.33
Ador Welding Ltd.	0.0033	0.16988	5.45
Bombay Dyeing Manufacturing Company Ltd.	-0.00052	0.42598	1.93
Britannia Industries Ltd.	0.00029	0.22574	-1.56
FDC Ltd.	0.00476	0.34455	2.79
Finolex Industries Ltd.	0.00101	0.93098	-1.19
Garden Silks Mills Ltd.	0.00057	0.57425	-7.77
Godrej Consumer Products Ltd.	0.009	1.63356	-2.02
Indian Resort Hotels Ltd.	0.00012	0.98045	-4.22
Indian Hume Pipe Co. Ltd.	0.00988	0.23111	-1.11
Tube Invest of India Ltd.	0.00085	-0.1718	3.06
Venkey's India Ltd	0.00011	0.68377	8.89
Titanor Computer Ltd.	0.00491	-0.0925	-6.15
Godrej Consumer Products Ltd.	5.6E-05	0.30483	-4.09
Godrej Consumer Products Ltd.	-0.00208	0.42498	2.21

Kesoram Industries Ltd	0.0005	0.32436	5.05
Britannia Industries Ltd.	0.00157	0.09362	1.08
Godrej Consumer Products Ltd.	0.00442	-0.0409	5.06
Godrej Consumer Products Ltd.	0.00895	0.38011	1.25
Glaxo Smithkline Consumer Healthcare Ltd.	0.00182	1.32527	5.23
Indian Oil Corp. Ltd.	-0.00031	1.21225	-2.22
Reliance Industries Ltd.	-0.00032	0.78968	-3.03
Berger Paints India Ltd.	0.00457	1.16016	3.66
Carol Info Services Ltd.	-0.00455	2.18725	-6.18
Century Enka Ltd.	0.00733	1.42407	-9.22
Glaxo Smithkline Pharmaceuticals Ltd.	0.00112	0.57101	3.93
India Bulls Financial Services Ltd.	-0.00515	0.76679	1.85
Ind-Swift Ltd.	-0.00078	0.81123	-1.82
Polaris Software Lab Ltd.	0.00215	0.48479	0.00
Blue Dart Express Ltd.	0.00356	0.59758	6.94
ICI India Ltd.	0.00119	0.17491	1.37
Revathi Equipments Ltd.	0.0025	-0.6095	5.87
SB&T International Ltd.	0.00227	0.11941	-1.14
SRF Ltd.	-0.00252	1.61199	1.61
Ace Software Exports Ltd.	0.00339	0.93081	6.10
Gujarat Ambuja Exports Ltd.	-0.00022	0.96891	-1.01
Hindustan Unilever Ltd.	-4.4E-05	0.31562	-8.07
ICI India Ltd.	-0.00038	0.1722	-4.26
MRO-TEK Ltd.	-0.00372	0.60195	1.22
Alembic Ltd.	0.00213	0.51771	8.22
BOSCH Ltd.	-0.00209	0.05583	1.89
DLF Ltd.	0.00283	1.78443	-2.23
E.I.D Parry (India) Ltd.	-0.00088	0.56427	2.67
Gateway Distriparks Ltd.	0.00502	0.77946	-1.19

Great Offshore Ltd.	-0.00442	0.16271	6.00
Gujarat Fluro Chemicals Ltd.	0.00306	0.41681	-9.87
HEG Ltd.	-0.00434	0.64384	-4.44
India Infoline Ltd.	0.00346	1.46413	-8.28
Aegis Logistics Ltd.	0.00424	0.93999	1.06
APCOTEX Industries Ltd.	0.00481	0.13824	-5.45
Apollo Tyres Ltd.	0.00839	0.62005	3.05
Aro Granite Industries Ltd.	0.00516	0.29423	-4.90
Bhagyanagar India Ltd.	-0.00079	0.54876	-1.62
Deccan Chronicle Holding Ltd.	0.00893	1.34997	1.94
GSS America InfoTech Ltd.	0.0046	0.90702	-3.82
HOV Services Ltd.	0.00436	0.27308	3.43
IPCA Laboratories Ltd.	0.00517	-0.1209	-3.03
Jindal Poly Films Ltd.	0.00282	0.28417	6.70
Managalam Cement Ltd.	0.00141	0.30183	1.13
MRO-TEK Ltd.	-0.00079	-0.0202	-4.55
CRISIL Ltd.	-0.00035	0.14393	-3.88
Geodesic Ltd.	-0.00373	0.52517	-7.03
India Infoline Ltd.	-0.00684	0.54248	9.72
Manaksia Ltd.	0.00547	1.01364	-5.20

Table 2: Daily Average Abnormal Returns & T Statistic as per Market Model

Day t	N	AAR%	T Stat	Null Hypothesis	CAR	CAAR
-20	75	0.29%	0.6824	Accept H ₀	21.91%	0.29%
-19	75	-0.45%	-1.3100	Accept H ₀	-34.07%	-0.16%
-18	75	0.51%	1.6928	Accept H ₀	38.40%	0.35%
-17	75	-0.18%	-0.6412	Accept H ₀	-13.81%	0.17%
-16	75	-0.39%	-1.1281	Accept H ₀	-29.31%	-0.23%
-15	75	-0.38%	-1.3139	Accept H ₀	-28.50%	-0.60%

-14	75	-0.50%	-1.6798	Accept H ₀	-37.44%	-1.10%
-13	75	-0.91%	-2.3184	*Accept H ₀	-68.02%	-2.01%
-12	75	-0.55%	-1.9997	Accept H ₀	-41.52%	-2.56%
-11	75	-0.07%	-0.2338	Accept H ₀	-5.55%	-2.64%
-10	75	-0.16%	-0.4611	Accept H ₀	-11.94%	-2.80%
-9	75	0.44%	1.0712	Accept H ₀	33.30%	-2.35%
-8	75	-0.24%	-0.5794	Accept H ₀	-17.76%	-2.59%
-7	75	0.65%	1.4306	Accept H ₀	48.76%	-1.94%
-6	75	0.99%	2.4710	*Accept H ₀	74.41%	-0.95%
-5	75	0.15%	0.3025	Accept H ₀	11.18%	-0.80%
-4	75	0.26%	0.6453	Accept H ₀	19.61%	-0.54%
-3	75	0.63%	1.3736	Accept H ₀	46.99%	0.09%
-2	75	0.28%	0.7062	Accept H ₀	21.23%	0.37%
-1	75	0.14%	0.3750	Accept H ₀	10.78%	0.52%
0	75	1.07%	1.9809	Accept H ₀	80.60%	1.59%
1	75	0.36%	0.8460	Accept H ₀	26.91%	1.95%
2	75	-0.12%	-0.3906	Accept H ₀	-9.09%	1.83%
3	75	-0.40%	-1.2853	Accept H ₀	-30.08%	1.43%
4	75	-0.46%	-1.4405	Accept H ₀	-34.33%	0.97%
5	75	-0.98%	-3.4053	Reject H ₀	-73.20%	-0.01%
6	75	0.22%	0.5963	Accept H ₀	16.70%	0.22%
7	75	-0.38%	-1.6009	Accept H ₀	-28.74%	-0.17%
8	75	-0.61%	-1.8963	Accept H ₀	-45.99%	-0.78%
9	75	0.12%	0.3954	Accept H ₀	9.24%	-0.66%
10	75	-0.02%	-0.0701	Accept H ₀	-1.46%	-0.68%
11	75	-0.19%	-0.7473	Accept H ₀	-13.96%	-0.86%
12	75	0.26%	0.9359	Accept H ₀	19.33%	-0.61%
13	75	-0.19%	-0.7034	Accept H ₀	-13.99%	-0.79%
14	75	0.21%	0.9283	Accept H ₀	15.78%	-0.58%

15	75	-0.18%	-0.7609	Accept H ₀	-13.79%	-0.77%
16	75	0.18%	0.8865	Accept H ₀	13.55%	-0.59%
17	75	-0.33%	-1.3530	Accept H ₀	-24.87%	-0.92%
18	75	0.35%	1.2235	Accept H ₀	26.41%	-0.56%
19	75	0.36%	1.0114	Accept H ₀	26.85%	-0.21%
20	75	0.32%	0.8640	Accept H ₀	23.97%	0.11%

Significance at 0.05 percent

* Significance at 0.02 percent

Table 2 presents results of 41 days for the entire sample of 75 buybacks. It reports the AAR, CAR and CAAR for day's t_{-20} to t_{+20} along with 't test' for testing the Null Hypothesis. There is no consistency in the AAR of companies engaging in buyback. The table indicates that the AARs are negative till t_{-8} and thereafter positive and again negative from t_{+2} . However, it is observed that there are significantly positive AARs from seven days pre-announcement An date (t_0). This might be due to leakage of information about the company's decision to announce buyback and insider trading activities on these respective days very close to the buyback announcements. CAAR is also seen to be significantly positive on the An date, and three days after the buyback. The abnormal return prior to the announcement is because stock prices respond to the information leaked out prior and very near to the announcement date. The CAAR increased from three days prior to the announcement date and remained to be positive four days post the announcement day. In the study conducted, on the announcement day, the AAR on the An date is 1.07 percent and CAAR is 1.59 percent at 5 percent level of significance. It is observed that CAAR is 1.59 percent on t_0 and 1.95 percent on the first trading day following the announcement (t_{+1}). The stock prices respond rapidly as the published information becomes available to the retail investors to whom the prior information had not reached.

Table 3: Average Value of AAR across different Event Windows

Event Window	AAR	T Stat	Null Hypothesis Test
t_{-20} to t_{-1}	-0.01%	0.483	Accept Ho
t_{-1} to t_0	0.46%	1.847	Accept Ho
t_0 to t_{+1}	0.54%	1.846	Accept Ho
t_{-1} to t_{+1}	0.39%	1.868	Accept Ho
t_{+2} to t_{+20}	-0.07%	-1.554	Accept Ho

Significance at 0.05 percent

It is observed from Table 3 that there is a significant positive AAR present in the event window t_0 to t_{+1} which is (0.54%). The similar trend is seen even one day prior to An date i.e. across the event window t_{-1} to t_0 . The AAR in t_{-1} to t_0 is 0.46 percent which is more than t_{-1} to t_{+1} which is 0.36 percent. On the An date (t_0) and post announcement an increase in share price is observed but the share price came back to normalcy two days post buyback announcement. This implies that there is a positive impact on the share prices around the buyback announcement which testifies the signaling hypothesis. Since AAR is found to be significantly positive around the An date explains the fact that the information is reflected in the share price. This implies the importance of the role of positive information regarding the corporate announcement called buybacks. The Null hypothesis (H_0) holds true as the abnormal return very near and prior to An date and also post announcement are found to be positive indicating positive market reactions. The market is found to react positively just after the An date with CAAR of 1.95 percent (0.0195) on the first trading day following the announcement.

V. CONCLUSION AND IMPLICATION

The study conducted reveals that there exists a positive market reaction with buyback announcements in case of the Indian stock market. The study done for a sample of 75 buybacks of NSE listed companies and Abnormal Returns associated with the buybacks is computed for trading days around the event date i.e. the announcement date for the sample stocks during January 2000 to December 2010. The findings of the study are consistent with the findings of the past research done in the Indian stock market and are consistent with the results obtained by Hyderabad (2009). The study finds evidence of positive abnormal returns around the announcement date and confirms that the buyback have a favorable impact on the share price performance of the stocks as shown by positive market reaction post announcements. The study reveals that the information regarding the corporate announcements of buybacks is absorbed quickly into the share prices and has a measurable impact on the stock price performance of the stocks. However, the result holds true for the select sample of companies and during the period considered for the study. It cannot be generalized for other stocks or for the other NSE listed companies in other periods. The other factors which might have an impact on the share price are not considered which can be a limitation of this study. The key to make profits for an investor from this study is to determine which companies are most likely to go with a buyback announcement. In conclusion, it can be stated that buyback announcements does have an impact on the investors generating a positive market reaction.

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