

How Indian Stocks React to Buybacks: An NSE Event Study 2024

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Abstract: *This study examines the short-term stock market reaction to share buyback announcements by companies listed on the National Stock Exchange (NSE) of India during the year 2024. Using event study methodology, the research analyzes abnormal returns surrounding buyback announcements over a five-day event window (-2 to +2), with the estimation window spanning 250 trading days prior to the announcement. The sample consists of 34 buyback events after filtering for data availability and NSE listing. The findings indicate that share buyback announcements are associated with statistically significant positive abnormal returns, suggesting that such announcements are interpreted by the market as signals of undervaluation or efficient capital allocation. These results support theories such as signaling, undervaluation, and agency cost mitigation. The study contributes to the growing body of literature on corporate buybacks in emerging markets and provides practical insights for investors and corporate managers on the implications of buyback decisions in the Indian context.*

Keywords: Share Buybacks, Event Study, Abnormal Returns, National Stock Exchange of India, Corporate Finance, Signaling Theory, Emerging Markets

1. Introduction

Share buybacks have become an increasingly common corporate action in capital markets worldwide, including India. When a company announces a buyback, it signals to the market that the firm believes its stock is undervalued, has surplus cash, or seeks to improve financial ratios such as earnings per share. These announcements can influence investor perception and, in turn, stock prices.

In developed markets, the relationship between buyback announcements and abnormal returns has been extensively studied, with many findings suggesting a positive short-term market reaction. However, in emerging markets like India—where corporate governance norms, investor behavior, and market efficiency differ—this relationship remains less clear.

This study examines the impact of buyback announcements on stock prices in the Indian capital market, focusing specifically on the presence and magnitude of abnormal returns around the event date. By analyzing a sample of Indian firms over a defined period, this research aims to identify whether buyback announcements consistently generate abnormal returns and how the market reacts immediately before and after the announcement.

2. Theoretical Foundations

The link between share buyback announcements and abnormal returns has been a subject of extensive research in financial economics. This relationship is grounded in several theoretical explanations, including signaling theory, undervaluation hypothesis, agency theory, and market efficiency perspectives.

a. Signaling Theory

Share buyback announcements are often interpreted as a signal by management that the firm is undervalued. Managers, who typically have better information about the company's future cash flows and growth prospects (asymmetric information), use buybacks to convey confidence about the intrinsic value of the firm. If investors believe the buyback announcement is a credible signal of undervaluation, the stock price tends to rise upon the announcement, leading to abnormal positive returns. It has been found that firms announcing share buybacks experienced significant positive abnormal returns around the announcement date, supporting the idea that buybacks serve as a signal of undervaluation (Vermaelen, 1981). Ikenberry, Lakonishok, and Vermaelen (1995) documented long-term abnormal returns following buyback announcements, especially for firms categorized as value stocks (low market-to-book ratios), reinforcing the signaling hypothesis.

b. Undervaluation Hypothesis

According to this hypothesis, firms repurchase shares because management believes the company's stock is trading below its intrinsic value. By reducing the number of outstanding shares, buybacks also improve key metrics like earnings per share (EPS), which can lead to a revaluation of the stock. Investors view buybacks as a corrective action for undervaluation, causing immediate and sustained positive abnormal returns. Stephens and Weisbach (1998) showed that firms repurchasing shares had higher earnings-to-price ratios than non-repurchasing firms, consistent with the undervaluation hypothesis. Also, share repurchases lead to significant improvements in operating performance, which is later reflected in stock prices (Grullon and Michaely, 2004).

c. Agency Theory

Share buybacks can mitigate agency problems by reducing excess cash on the firm's balance sheet. Excess cash can incentivize managers to engage in unprofitable projects or empire-building. By returning cash to shareholders through buybacks, management aligns their interests with shareholders and reduces the risk of agency conflicts. Investors reward this efficient allocation of capital by bidding up the stock price, resulting in abnormal returns around buyback announcements. The free cash flow hypothesis suggests that returning cash to shareholders via buybacks reduces managerial discretion over excess funds and signals efficient capital management (Jensen, 1986). Firms conducting buybacks often experience restructuring, increased focus on profitability, and better alignment of managerial incentives, all of which contribute to abnormal returns (Nohel and Tarhan, 1998).

d. Market Efficiency and Behavioral Theories

Under the efficient market hypothesis, stock prices should reflect all available information. However, behavioral biases (e.g., overreaction or underreaction to corporate events) may cause prices to deviate temporarily, and buyback announcements help correct these inefficiencies. If markets underreact to good news, buyback announcements could lead to temporary or sustained abnormal returns. Conversely, if markets overreact, the returns may normalize over time. In a semi-strong efficient market, abnormal returns following buyback announcements would primarily reflect new information (Fama, 1970). It has been found that abnormal returns following buybacks were larger for firms with higher levels of information asymmetry, indicating that market inefficiencies are a factor (Chan, Ikenberry, and Lee (2004).

e. Reduction in Supply (Liquidity Hypothesis)

Share buybacks reduce the number of outstanding shares, leading to a supply-demand imbalance in the short term, which can drive up stock prices and create abnormal returns. This price increase, while possibly temporary, can result in significant short-term abnormal returns (Mitchell and Stafford, 2000).

3. Empirical Studies on Share Buyback Announcements

Studies in Developed Markets

Empirical research on share buyback announcements in developed markets has been extensive, driven by the widespread use of this corporate strategy in regions like the United States, Europe, and other advanced economies. In the United States, seminal studies have consistently shown positive abnormal returns around share buyback announcements. Vermaelen (1981) demonstrated that firms announcing buybacks through open market repurchase programs experienced significant positive abnormal returns, supporting the signaling hypothesis that such announcements convey undervaluation to the market. Similarly, Ikenberry, Lakonishok, and Vermaelen (1995)

analyzed over 1,200 U.S. firms and found an average of 3.5% abnormal returns in the short term. They also observed sustained long-term outperformance, particularly among value firms with low market-to-book ratios. This evidence aligns with the undervaluation hypothesis, which suggests that buybacks signal management's belief in the firm's intrinsic value exceeding its market valuation.

European markets exhibit similar trends, though with notable differences due to variations in corporate governance structures and regulatory environments. For instance, Rau and Vermaelen (2002) studied U.K. firms and found positive abnormal returns around buyback announcements, although the magnitude was somewhat lower than in the U.S., reflecting differences in market dynamics and investor behavior. In Germany, Hackethal and Zhdanchouk (2006) reported significant positive abnormal returns, with buybacks often associated with undervaluation and improving operational performance. Overall, these studies suggest that in developed markets, buybacks are effective tools for signaling undervaluation, mitigating agency problems, and improving shareholder wealth. However, the regulatory environment and the prevalence of alternative payout mechanisms, such as dividends, can influence the degree of abnormal returns.

Studies in Developing Economies

In contrast to developed markets, research on share buyback announcements in developing economies is more limited but growing, as firms in these regions increasingly adopt buyback strategies. The findings in these markets highlight distinctive challenges and dynamics, including weaker investor protections, higher information asymmetry, and regulatory restrictions. In India, a key emerging market, empirical studies suggest that buyback announcements are associated with significant short-term abnormal returns, often exceeding those observed in developed markets. Mishra (2005) examined buybacks in the Indian context and found that announcements resulted in an average abnormal return of 4-5% over a short window, supporting the signaling hypothesis in a market characterized by higher information asymmetry. Further, Mishra and Narender (2006) documented that buybacks in India are primarily driven by undervaluation concerns and often lead to sustained improvements in operating performance.

In China, where share buybacks were historically restricted, studies following regulatory reforms show a similar pattern of positive abnormal returns around announcements. Chen et al. (2010) found that firms engaging in buybacks experienced significant abnormal returns, particularly in cases where state-owned enterprises were involved, reflecting investor confidence in such actions as credible signals of value. In Brazil, a market known for its high ownership concentration, buybacks are often viewed as a tool to realign shareholder value. Silva and Augusto (2021) reported positive abnormal returns around announcements, driven largely by the market's perception of improved cash flow management and a reduction in agency costs.

Overall, while the fundamental drivers of buyback-related abnormal returns—such as undervaluation signaling and agency cost mitigation—are consistent across developed and developing markets, the magnitude and persistence of these returns often differ due to variations in market efficiency, regulatory frameworks, and investor behavior. Developing markets, with their higher levels of information asymmetry and lower market efficiency, tend to exhibit stronger short-term market reactions, reflecting the greater informational impact of such announcements.

4. Objective of the Study

The present study is undertaken to study the stock market reactions to share buyback announcements of the companies listed in National Stock Exchange of India in the year 2024. The significance of this study lies in its ability to provide fresh and contemporary insights into the effect of share buyback announcements on abnormal returns in India, specifically in 2024. With evolving regulatory frameworks, increasing adoption of buyback strategies by Indian firms, and growing sophistication of Indian capital markets, this research is timely and relevant. It not only contributes to the understanding of how the market reacts to buyback announcements in an emerging economy characterized by higher information asymmetry and unique investor behavior but also sheds light on whether the signaling hypothesis, undervaluation concerns, or agency cost mitigation remain key drivers of market response.

Practical Implications

- **Investors:** Positive abnormal returns around buyback announcements indicate potential opportunities for investors to capitalize on perceived undervaluation.
- **Corporate Managers:** Understanding the signaling and agency benefits of buybacks can help firms manage investor perceptions and optimize shareholder value.

5. Methodology

To assess whether the announcement of bank mergers has influenced the wealth of shareholders in both acquiring and acquired banks, the standard event study methodology proposed by Fama, Fisher, Jensen, and Roll (1969) and Brown and Warner (1985) has been utilized. Event studies primarily aim to evaluate the cumulative average abnormal return surrounding an event (Kothari and Warner, 2007). The abnormal return is calculated as the actual return of the security during the event window minus the normal return of the firm over the same period.

$$AR_{it} = R_{it} - r_{it} \quad (1)$$

Where R_{it} is the actual return of security i on day t and r_{it} is the normal return of the security i on the same day.

The normal return represents the return on the firm's stocks that would be anticipated if the event had not occurred. The market model is a statistical framework that connects the return of a specific security to the return of the market portfolio.

Since buyback events are often anticipated, abnormal returns associated with the buyback announcements may become apparent even before the official announcement date. Therefore, it is prudent to include a few days prior to the event date within the test period. Additionally, abnormal returns observed in the days following the event date provide insights into the speed at which the market absorbs information. Persistent abnormal returns after the event indicate market inefficiency. This study focuses on short-term returns, defining the test window as the period from -2 to +2, during which abnormal returns are calculated. The expected return is determined over the estimation window from -252 to -3. The event date is identified as the day the buyback is first announced by the company. For instances where announcements were made on Saturdays or Sundays, the subsequent Monday is considered the event date. The study's timeline is illustrated in Figure 1.

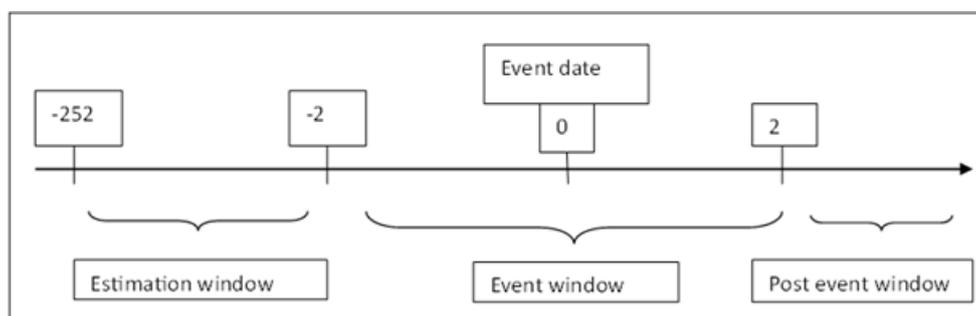


Figure 1: Timeline of the study

This particular study has taken into account the share buyback recorded during the year 2024 for the companies listed in National Stock Exchange of India. 47 share buyback issues were recorded. Of these the shares that were not listed at NSE are not taken into consideration. Few

shares did not have the data for the estimation period; these are also omitted from the study. Finally, 34 companies are included in the analysis of the abnormal returns. These 34 companies along with the record date and the buyback announcement date are listed in Table 1.

Table I: Share buybacks considered in the study

Sl. No.	Company	Record date	Announcement date
1	Matrimony.com Ltd	Oct 25, 2024	Sep 5, 2024
2	Insecticides (India) Ltd.	Sep 11, 2024	Aug 30, 2024
3	Jai Corp Ltd.	Sep 10, 2024	Aug 29, 2024
4	Aarti Drugs Ltd.	Sep 05, 2024	Aug 26, 2024
5	Transport Corporation of India Ltd.	Sep 04, 2024	Aug 24, 2024
6	KDDL Ltd	Aug 27, 2024	Jul 09, 2024
7	Technocraft Industries (India) Ltd.	Aug 27, 2024	Aug 13, 2024
8	Suprajit Engineering Ltd.	Aug 27, 2024	Aug 14, 2024
9	Vls Finance Ltd.	Aug 26, 2024	Aug 09, 2024
10	Mayur Uniquoters Ltd.	Aug 23, 2024	Aug 08, 2024
11	Symphony Limited	Aug 21, 2024	Aug 06, 2024
12	Aia Engineering Ltd.	Aug 20, 2024	Aug 07, 2024
13	Chaman Lal Setia Exports Ltd.	Aug 19, 2024	Aug 06, 2024
14	Dhanuka Agritech Limited	Aug 16, 2024	Aug 02, 2024
15	Savita Oil Technologies Limited	Aug 16, 2024	Aug 03, 2024
16	CERA Sanitaryware Limited	Aug 16, 2024	Aug 05, 2024
17	TTK Prestige Ltd.	Aug 14, 2024	Aug 02, 2024
18	Navneet Education Limited	Aug 13, 2024	Aug 01, 2024
19	Indus Towers Limited	Aug 09, 2024	Jul 30, 2024
20	Welspun Living Limited	Aug 05, 2024	Jul 24, 2024
21	Aurobindo Pharma Limited	Jul 30, 2024	Jul 18, 2024
22	eClerx Services Limited	Jul 04, 2024	May 16, 2024
23	Bajaj Consumer Care Limited	Jul 02, 2024	May 08, 2024
24	Cheviot Company Limited	Jun 14, 2024	May 24, 2024
25	Sharda Motor Industries Ltd	Jun 05, 2024	Apr 18, 2024
26	Anand Rathi Wealth Limited	Jun 03, 2024	Apr 12, 2024
27	Ajanta Pharma Limited	May 30, 2024	May 02, 2024
28	Dwarikesh Sugar Industries Limited	Mar 20, 2024	Mar 08, 2024
29	Bajaj Auto Limited	Feb 29, 2024	Jan 08, 2024
30	Kaveri Seed Company Ltd	Feb 23, 2024	Jan 05, 2024
31	Zydus Lifesciences Limited	Feb 23, 2024	Feb 09, 2024
32	Orbit Exports Limited	Feb 13, 2024	Feb 01, 2024
33	Chambal Fertilisers and Chemicals Limited	Jan 18, 2024	Jan 08, 2024
34	Dhampur Sugar Mills Ltd	Jan 17, 2024	Jan 03, 2024

The log returns or continuously compounded returns of the shares as well as index are calculated as

$$\log P_t - \log P_{t-1} \tag{3}$$

where P_t and P_{t-1} are the close prices of the security or Nifty 50 index for successive periods ($t-1$) and t . The data for the close price of the securities and the index are derived from the NSE website.

Having derived the actual return and the normal return of all the companies, the abnormal returns are calculated for each of the 34 securities. Thereafter, the daily average abnormal returns are calculated as follows.

$$AAR_t = \sum \frac{AR_{it}}{N} \tag{4}$$

where AAR_t is the average abnormal returns on day t and N is the number of companies in consideration.

Cumulative average abnormal returns (CAARs) are calculated over the time intervals (-2 to 2), (-2 to 1), (-2 to 0) and (-2 to 1).

$$CAAR_t = \sum_{j=1}^t AAR_{T1+j} \tag{5}$$

where $CAAR_t$ is the sum of the average abnormal returns from the beginning of the event window $T1$ until a particular day t in the event window.

In order to evaluate the statistical significance of the average abnormal returns as well as cumulative average abnormal returns Crude Dependence Adjustment (CDA) test (Brown and Warner, 1980, 1985) has been applied. The test statistic of average abnormal return for day t is given by

$$AAR_t / sd_{aar} \tag{6}$$

where AAR_t is the average abnormal return on day t and sd_{aar} is the standard deviation of average abnormal returns over the estimation period (here $t = -252$ to $t = -3$). Likewise, the test statistic for cumulative average abnormal returns is given by

$$CAAR_t / (sd_{aar} \times \sqrt{N}) \tag{7}$$

where sd_{aar} is the standard deviation of the average abnormal returns of the banks during the estimation window period and N is the number of days in the event window for which CAAR is calculated.

6. Findings

The average abnormal returns earned by the shareholders during the event window along with the test statistics are presented in Table 2.

Table II: Average abnormal returns to the shareholders during the event window

Event window day	Average abnormal return	Crude dependence adjustment test statistic
-2	2.05%	5.025*
-1	0.45%	1.113
0	1.44%	3.527*
1	0.22%	0.537
2	0.85%	2.079**

*statistically significant at 1% level

**statistically significant at 5% level

The average abnormal return on the event date (day 0) is positive at 1.44% which is statistically significant at 1% level. Besides, the positive average abnormal returns are also statistically significant on day (-2) which implies some information leakage prior to the announcement dates. The positive average abnormal return is also statistically significant at 5% level on day 2.

Table III: Cumulative Average Abnormal Returns to the shareholders measuring share buyback announcements

Days	Cumulative Average Abnormal Returns	Test Statistic
-2 to 2	5.02%	5.493*
-2 to 1	4.17%	5.101*
-2 to 0	3.95%	5.580*
-2 to -1	2.51%	4.340*

*statistically significant at 1% level

The cumulative average abnormal returns are calculated for 5 days (-2 to 2), 4 days (-2 to 1), 3 days (-2 to 0) and 2 days (-2 to -1). Significant positive cumulative average abnormal returns are witnessed in the event period. This signifies enough avenues to make some gains for the shareholders during buy-back announcements.

7. Conclusion

The results of this study provide clear evidence that buyback announcements in the Indian capital market are associated with statistically significant positive abnormal returns, particularly in the short-term event window surrounding the announcement date. The average abnormal return on the event day (1.44%) and the day prior to the announcement (-2), both statistically significant, suggest that the market reacts quickly-and possibly anticipates-the announcement. The significant abnormal return two days before the event hints at potential information leakage or early investor expectations, which is consistent with semi-strong form market inefficiency.

Moreover, the positive and statistically significant cumulative average abnormal returns across all four event windows examined further reinforce the presence of

abnormal gains around buyback events. The highest CAAR of 5.02% over the (-2 to +2) window indicates that investors can earn noticeable short-term returns if they are able to time their trades around these corporate actions.

These findings are aligned with prior literature from both developed and emerging markets, where buyback announcements often signal undervaluation and result in a positive market response. In the Indian context, this study adds updated empirical evidence using 2024 data, highlighting that the signaling effect of buybacks remains strong and that the market continues to price in this information rapidly, though not instantaneously.

From a practical standpoint, the study implies that buyback announcements can serve as a trading signal for short-term investors. For policymakers and regulators, the results underline the importance of monitoring information flow in the market, especially in light of abnormal returns appearing prior to public announcements.

Future research could extend this study by examining long-term stock performance post-buyback, sector-specific effects, or comparing market responses to different types of buybacks (open market vs. tender offer). Additionally, exploring investor behavior and trading volumes during these periods could provide deeper insights into the market dynamics at play.

Declaration: I hereby declare that this study is an original work of the author and has not been submitted for publication anywhere else.

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