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Union Budget Anomaly and Stock Market Reactions: A Study of Financial Services Sector Patterns

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ABSTRACT

Stock market anomalies occur when certain securities behave in ways inconsistent with the efficient market hypothesis, which suggests asset prices should reflect all available information. However, anomalies such as seasonal variations have been observed, contradicting this theory. Seasonal trends manifest as recurring stock price patterns within short time frames, often influenced by investor behavior, macroeconomic conditions, or major financial events. These trends are particularly visible in time series data, with fluctuations following consistent patterns during specific periods like month-ends, year-ends, or budget days. This paper investigates the 'Union Budget Effect,' a seasonal anomaly within the financial services sector. By analyzing Nifty Financial Services index data from 2016 to 2024, the study aims to determine if stock returns on budget days significantly differ from non-budget days. The findings offer insights into how budget announcements affect market performance, providing valuable knowledge for investors, fund managers, and policymakers. Understanding these effects can help stakeholders develop informed strategies, leveraging temporal variations to optimize returns and manage risks. Recognizing such patterns may improve portfolio management and enhance market timing strategies. This study highlights the significance of seasonal anomalies in financial analysis and investment planning.

Keywords: *Union Budget, Stock Market Anomalies, Seasonal Variations, Nifty, Financial Services Sector*

1. INTRODUCTION

The term ‘anomaly’ generally refers to a deviation from what is considered normal or expected. In the context of finance, anomalies describe recurring patterns in returns that tend to appear at specific times, seemingly contradicting the efficient market hypothesis. One such phenomenon is the 'Union Budget Anomaly,' which refers to the tendency of financial asset returns to demonstrate systematic patterns during the announcement of the Union Budget. On budget days, market participants often react with heightened trading activity, which can lead to unusual price fluctuations. This behaviour is largely driven by investor sentiment, policy announcements, and broader economic expectations linked to the budget. Consequently, returns may exhibit sharp increases or decreases, depending on market interpretation. Such anomalies are crucial for traders and analysts, as understanding these deviations can offer strategic insights into trading decisions. By recognizing these patterns, investors may potentially identify opportunities to optimize their portfolios and mitigate potential risks tied to market volatility.

This study focuses on market anomalies by examining the seasonality effect, specifically observing how budget days influence stock price behavior. The seasonality effect suggests that stock prices do not move uniformly throughout the year; instead, certain periods experience more pronounced price movements. Budget days, in particular, have been found to exert a greater influence on financial markets than regular trading days. This heightened effect arises from the significance of budget announcements, which often reveal key economic policies, government spending priorities, and taxation changes. Investors and traders actively respond to this new information, causing spikes in buying or selling activity. As a result, stock returns during budget days may show considerable volatility, often displaying noticeable upward or downward trends. This pattern highlights the importance of understanding the budget effect when developing investment strategies, as it emphasizes the need for heightened vigilance and adaptability during these periods of increased market sensitivity.

2. REVIEW OF LITERATURE

Research on the impact of the Union Budget on the Indian stock market has evolved over time, with earlier studies providing foundational insights. Saraswat and Banga (2012) analyzed NIFTY's response to budgets from 1995 to 2010, concluding that short-term effects were significant, but long-term impacts were negligible. Singhvi (2014) examined 21 budgets from 1996 to 2013, finding no lasting effect on NIFTY. Deepak and Bhavya (2014) conducted over 600 event studies from 1993 to 2014, concluding that budget announcements do not significantly influence market behavior over time. Gakhar et al. (2015) studied five budget periods (2011–2015) and found that budget effects are strongest in the short term and fade in the long term. Sireesha (2016) analyzed 12 NSE industry indices and found that sectoral responses varied, with some industries experiencing budget-induced fluctuations while others remained stable. Sathyanarayana and Gargesha (2016) explored Brexit's influence on Indian markets, highlighting global events' role alongside budgetary factors.

More recent studies have continued to refine these findings. Ahmad and Khan (2017) analyzed NIFTY and SENSEX from 2010 to 2016, concluding that budget announcements cause temporary market volatility. Kumara (2017) found that major policy changes in banking and real estate had a significant market impact in 2016, but other years showed minimal influence. Gahlot (2017) reported that budget effects are strongest within 15 days of the announcement. Joshi and Mehta (2018) confirmed short-term stock market volatility following budget announcements. Dey and Pathy (2019) found that NIFTY and banking indices respond significantly to budgets, while FMCG and IT sectors remain largely unaffected. Sardana et al. (2019) and Das and Das (2022) employed event study methodologies to assess budget efficiency, with findings supporting the efficient market hypothesis. Finally, Srinivasa (2022) found that budget effects are most pronounced in the short term, gradually diminishing over time.

3. OBJECTIVES OF THE STUDY

The main objective of the present study is to examine the Union Budget effect on the stocks of the Indian financial services sector.

4. HYPOTHESIS OF THE STUDY

To meet the objective of the present study, the following hypothesis is formulated:

H0 (**Null Hypothesis)**: There is no effect of the union budget on the stock prices of companies in the Indian financial services sector.

H1 (Alternative Hypothesis): The union budget effect is there on the stock prices of companies in the Indian financial services sector.

5. RESEARCH METHODOLOGY

Keeping in view the objectives of the study, closing stock prices from the selected index of National Stock Exchange 500 of the financial service sector listed in NSE was collected using Prowess Software from January 1, 2015 to April 15, 2024. For the proposed study, all companies within the financial services sector that were listed on the NSE during this timeframe were considered and to GARCH Test was adopted to model and analyze time-varying volatility in financial time series data.

6. DATA ANALYSIS AND INTERPRETATION

Table 1: Budget Effect on Nifty 500

The following table shows the effect of union budget on the stocks of companies in the Indian financial services sector

Table: Budget Effect on Nifty 500				
Coefficients	Estimate	Std. Error	t-value	Pr(>|t|)
Non-Budget	0.083	0.018	4.714	0.000***
Budget	0.553	0.429	1.289	0.197
Omega	0.063	0.044	1.441	0.149
alpha1	0.151	0.057	2.644	0.008***
beta1	0.783	0.096	8.124	0.000***
Log Likelihood	-3060.618			
Akaike Information Criteria	2.688			

Residuals Diagnostics	Statistic	p-value
Ljung-Box Q-Test	1.316	0.251
Ljung-Box Q-Square	0.008	0.931
ARCH-LM Test	0.000	0.985
Notes:- *,**,*** represent significant p-values at 10%,5% and 1% levels, respectively.		

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The above table examines the impact of the Union Budget announcement on the Nifty 500 index, presenting coefficients, standard errors, t-values, and p-values for budget and non-budget periods, along with parameters from a GARCH model to capture the volatility in the data. The analysis distinguishes between days categorized as "Non-Budget" and "Budget," providing insights into how these periods affect the index.

Looking at the coefficient for non-budget days, it has an estimate of 0.083 with a highly significant p-value (0.000), indicating that on average, the Nifty 500 index experiences a positive return of 0.083 units on non-budget days. In contrast, the coefficient for budget days is 0.553, which is substantially higher than that for non-budget days. However, this effect is not statistically significant, as evidenced by its p-value of 0.197. This suggests that while the return is higher on budget days, the variability is also high, and the effect is not reliably different from zero.

The parameters of the GARCH (1,1) model included in the table, such as omega (0.063), alpha1 (0.151), and beta1 (0.783), provide further understanding of the volatility dynamics. The alpha1 (0.151) and beta1 (0.783) are both statistically significant at the 1% level. These significant values of alpha1 and beta1 indicate that the volatility of the Nifty 500 index is persistent, with past shocks influencing current volatility, a common feature in financial time series data.

The residual diagnostics confirm the robustness of the model. The Ljung-Box Q-Test and Q-Square statistics, with p-values of 0.251 and 0.931 respectively, indicate no significant autocorrelation in the residuals. Additionally, the ARCH-LM test yields a p-value of 0.985, suggesting that there are no remaining ARCH effects, meaning the GARCH (1,1) model adequately captures the volatility clustering in the data.

The News Impact Curve at the bottom of the table visually represents a symmetric curve, indicating that both positive and negative shocks have similar effects on increasing volatility. This is typical in financial markets where both good and bad news can lead to increased market volatility.

7. CONCLUSION

In summary, the analysis suggests that non-budget days generally have a small but statistically significant positive effect on the Nifty 500 index. In contrast, budget days, while showing a higher average return, do not have a statistically significant effect, likely due to the high uncertainty and variability associated with budget announcements. Overall, the Union Budget does not appear to create a significant anomaly in terms of average returns, but it does contribute to the volatility in the market.

REFERENCES

[1] Ahmad, S., & Khan, M. A. A. (2017). Impact of Union Budgets on Indian Stock Markets: A study. *SUMEDHA Journal of Management, 6*(3), 75-85.

[2] Das, M., & Das, K. (2022). Stock market reaction to the Union Budget announcement in India: An event study approach. *EPRA International Journal of Multidisciplinary Research (IJMR), 8*(10), 215-222.

[3] Dey, S. K., & Pathy, M. (2019). Immediate impact of Union Budget announcement on stock market sectorial indices: Evidence from NSE, India. *Siddhant - A Journal of Decision Making, 19*(2), 87-97.

[4] Gahlot, R. (2017). Effect of Union Budget presentation on Indian stock market. *International Journal of Marketing and Technology, 7*(1), 95-121.

[5] Gakhar, D. V., et al. (2015). Impact of Union Budget on Indian Stock Market. *International Journal of Management & Development, 2*(11), 21-36.

[6] Ghosh, P. (2020). Does Union Budget have any effect on the Indian share market? An analytical study with reference to various indexes in the share market. *International E-Conference on Adapting to the New Business Normal – The Way Ahead*, Mysuru, India, 1-11.

[7] Golwala, S. A., & Soni, K. (2021). A study of the impact of Union Budget on selected commodities of MCX Market. *Project Report Submitted to SDJ International College, Vesu*, Affiliated to Veer Narmad South Gujarat University, Surat.

[8] Joshi, M. C., & Mehta, R. D. (2018). Impact of Union Budget on stock market. *Contemporary Issues in Marketing and Finance*, 29-45.

[9] Kumara, N. R. (2017). Impact of Union Budget on market & sectoral indices. *International Journal of Research Culture Society, 1*(9), 49-57.

[10] Kutchu, V. (2012). Testing semi-strong efficiency of Indian stock market - A study on the effect of Union Budget 2012 on six select sectoral stocks. *Journal of Arts, Science & Commerce, 3*(3), 74-81.

[11] Saraswat, P., & Banga, J. (2012). Volatility of SENSEX with respect to Union Budget of India: A pragmatic study. *International Journal of Accounting and Financial Management Research (IJAFMR), 2*(1), 19-31.

[12] Sardana, S., et al. (2019). A study on stock market reaction to the Union Budget announcement, 2018. *JK International Journal of Management and Social Science, 2*(2), 23-30.

[13] Sathyanarayana, S., & Gargesha, S. (2016). Impact of BREXIT referendum on Indian stock market. *IRA-International Journal of Management & Social Sciences, 5*(1), 104-121.

[14] Singhvi, A. (2014). Impact of Union Budget on NIFTY. *Pacific Business Review International, 6*(12), 23-28.

[15] Sireesha, P. B. (2016). Impact of Union Budget on sectoral indices of NSE. *The Indian Management Researcher, 3*(1), 21-37.

[16] Soni, A. (2010). Reaction of the stock market to Union Budget and monetary policy announcements. *Sri Krishna International Research & Educational Consortium, 1*(2), 155-175.

[17] Srinivasa, A. T. (2022). Budget analysis: Impact of Union Budget on Indian stock market – A statistical study. *International Journal of Multidisciplinary Education Research, 11*(3), 42-49.

[18] Thomas, S., & Shah, A. (2002). The stock market response to the Union Budget. *Economic and Political Weekly, 37*(5), 455-458.

[19] Verma Gakhar, D., et al. (2015). Impact of Union Budget on Indian stock market. *International Journal of Management & Development, 2*(11), 21-36.