

THE BONUS SHARE BOUNTY – REAL OR COSMETIC? A STUDY OF ANNOUNCEMENT PERIOD RETURNS OF BONUS ISSUES IN INDIA

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Abstract

The study is an attempt to study announcement period returns of bonus share issues of Indian companies between the years 2017 and 2021. Bonus shares are a form of stock dividends to existing shareholders of the company. Many studies have shown that dividends of any type usually cause excitement in the stock market and could lead to abnormal returns for the shareholders. The event study methodology using the market and risk-adjusted model was used to study whether the announcement of bonus shares by companies listed on the A group on the BSE lead to abnormal returns. Returns were also tested for statistical significance using the t-statistic. It was found that for the selected sample companies, bonus announcements did lead to abnormal positive returns immediately after the announcement day, but these returns were not statistically significant. However, abnormal negative returns were observed for two days before the announcement of the issue which could indicate information leakage or insider trading.

Keywords: Bonus shares, event studies, dividends, announcement period returns, market, and risk-adjusted model

Introduction

The East India Company was formed in the year 1600 CE. It was one of the most influential companies in history as it remained in operations for almost 270 years until it was liquidated in the year 1874. During these 270 years, the company introduced many innovative corporate practices, most of which are prevalent even today. One such practice was the issue of bonus shares. Probably, one of the earliest records of such an event in the year 1682, was when the East India Company declared the issue by calling up their partly paid-up capital. The company issued bonus shares in the ratio of 1:1 from the profits without taking any money from the shareholders. The company converted partly paid-up shares of £50 each to fully paid-up shares of £100 each (Scott, 1910). Immediately after that, many other prominent corporations such as the Hudson Bay Company and the Royal African Company also issued Bonus shares in the ratio of 2:1 and 3:1 respectively. By the late 1600s, bonus shares became an accepted practice of rewarding shareholders in the corporate world (Basaniwal, n.d.).

Bonus shares are a way of rewarding the shareholders from the free cash flows of the company. But rather than paying cash to the shareholders, they are given new fully paid-up equity shares. Hence, bonus shares are a form of dividends paid to the shareholders in the form of shares of the company and not cash. They can be termed as stock dividends. The shareholders can sell off these shares for cash if they so desire. However, an Indian company cannot issue bonus

shares in lieu of dividends.

As per Section 63 of the Indian Companies Act 2013, a company may issue bonus shares to its shareholders out of (i) free reserves, (ii) securities premium account, or (iii) capital redemption reserve account. However, the bonus issue should be authorized in its articles and the company should not have defaulted in the payment of interest or principal to its debenture holders or fixed deposit holders. There should be no dues remaining to employees either (*Companies Act, 2013, 2013*).

A profitable company on a high-growth path would usually need funds for investments. Bonus shares are a way for a company to be able to invest its liquid cash for the furtherment of its business growth. A bonus issue is also an indication that the dividends of the company will improve in the future. This is possible if the cash invested by the company reaps a return higher than the IRR. In many countries, cash dividends are taxed in the hands of the company as well as the investor. In such situations, bonus shares would reduce the tax liability of the company as well as investors. If and when an investor sold his bonus shares to convert them to cash, he would be charged a capital gain tax which is usually lower than the rate of income tax in most economies. As the company grows and performs, the capital markets usually value it higher than book value at times making the shares of good companies very expensive looking. The issue of bonus shares from time to time would reduce the market price of the shares in the proportion of new shares issued. This would make the shares seem more affordable even though there might not be any economic benefits. As such, when more number of shares are issued, the market span of the company increases thereby increasing the number of shareholders. It is a good way to attract more shareholders (due to the reduced price) without reducing the market capitalization or diluting the stake of existing shareholders. The psychological impact of the issue of bonus shares as a reward is high and usually, shareholders receive bonus shares with much enthusiasm, even though the economic benefits of bonus issues are not very pronounced for shareholders.

The financial implications of a bonus issue on the books of a company are basically nil. The declaration of bonus shares will increase the paid-up share capital and reduce the reserves and surplus (retained earnings) of the company. Hence, the total net worth (paid-up capital plus reserves and surplus) is not affected by the bonus issue. It can be said that a bonus issue represents a recapitalization of the company's reserves and surplus. It is an accounting transfer from reserves and surplus to paid-up capital (Pandey, 2009).

The pertinent question here is whether the issue of bonus shares makes any difference to the wealth of a shareholder. Generally, the earnings per share and market price of the share would fall proportionately with the bonus issue. Thus, theoretically speaking the bonus share issue has no impact on the value of shareholders' wealth. However, in practice, it is noticed that the value of a company's share is affected after the announcement of a bonus issue. This change depends on the expectations of the investors. Hence, it is frequently observed that there is either an increase or decrease in the market price of a company's share after the declaration of bonus shares. At times the increase or decrease could be very sharp. Also considering limitations of bonus shares such as the costs of administering the issue and the problem of adjusting the EPS

and the P/E ratio, the paper has tried to examine if bonus issues in Indian companies lead to gains for the shareholders. Theoretically, the paper had tried to examine if the Indian capital markets are efficient in the semi-strong form for bonus announcements.

Review of Literature

There have been conflicting literature on the relevance of dividends since the time that Modigliani and Miller came up somewhere in the late 1950s claiming that dividends do not add anything to the value of a firm or its shareholders and that dividends are irrelevant in determining the value of a firm (Modigliani & Miller, 1958). This was contradictory to the earlier theories of James Walter and Myron Gordon who both through different models proved that dividends do indeed affect a firm's value when the internal rate of return of the firm 'r' was not equal to the cost of capital 'k'. Gordon went further to explain the relevance of dividends even when the internal rate of return of the firm 'r' was equal to the equity capitalization rate 'k' through his bird in the hand argument. At the theoretical or accounting level, it can be stated that dividends do not add any real value to the shareholders' wealth. However, studies on the market behaviour over time have given conflicting results. The studies conducted by Woolridge (1983), Foster and Vickrey (1978), and Grinblatt et al (1984) through their studies have proved that dividend announcements usually produce positive returns around announcement dates. In the Indian markets, studies conducted by Obaidullah (1992) in the context of 75 bonus issues concluded that the markets were efficient in the semi-strong form and that bonus issue announcements did not cause any abnormal returns around the event period.

Contemporary studies in this field again have given different nuances to the influence that the dividend policy has on the returns of stocks. It has been found that the stock returns do not only depend on dividend announcements but also on the stability of these announcements (Erasmus, 2013). Stock split analysis of Indian companies between the years 2010 and 2014 found that in two out of the five years in the sample period, positive value was created for the shareholders after announcement. A positive and statistically significant relationship was also found between an increase in earnings per share and increase in the event of stock splits (Mistry, 2016). A panel data analysis of 40 companies listed on the Johannesburg Stock Exchange found that dividend yield affected share price volatility. Higher volatility would imply higher risk and higher returns (Pelcher, 2019). Studies on the impact of bonus shares have given similar results. Mishra (2005) conducted an event study to check the semi-strong efficiency of Indian stock markets. His event study of 46 companies that issued bonus shares between the years 1998 to 2004 indicated that there was a positive five-day abnormal return before the announcement of the bonus issue and a -0.10 percent return on the day of the announcement of the issue. In a later study of Indian companies that issued bonus shares or went in for stock splits between the years 1996 to 2008, it was found that stock splits impacted post-event return but no such effect was found in the case of bonus issues (Ray, 2011). Event studies conducted to check the semi-strong form of market efficiency in India in 2008 found that there was a positive abnormal return of 1.8 percent around bonus issues and 0.8 percent around stock split announcements and overall the paper found that the Indian markets exhibited semi-strong form of market efficiency (Dhar & Chhaochharia, 2008).

Anomalies around bonus announcements in emerging economies were examined for companies that issued bonus shares between the years 2010 to 2019 and the findings showed that abnormal returns were detected ten days before the announcement in some countries, which is a sign of information leakage. The presence of the effect continued only in two countries after the announcement was released. The study also examined if the size of the bonus issue made any impact on the returns and the size of the bonus issue was found to be strongly significant in most countries. The paper also tried to analyse if the signalling hypothesis held in case of long-run increase in profitability. No evidence of this was found (Isiker & Tas, 2021). Studies conducted in the Indian stock markets around the same time to analyse the impact of different corporate announcements on returns gave conflicting results wherein bonus, ex-bonus and ex-stock splits caused positive significant abnormal returns on the announcement date whereas rights and stock split announcements failed to make an impact on the returns on the announcement day (D. K. Pandey et al., 2022).

All in all, there has been no conclusive study on the impact of bonus issues on stock returns. Various studies have been conducted in developed economies, but studies focussing only on bonus issues were few in the Indian context. This became one of the motivations behind taking up this study. Besides in many studies in developed economies, it has been found that abnormal negative returns occur before the announcement of bonus shares. This study aims to find whether this trend could be observed in Indian markets too.

Methodology

Research question

The pertinent research question for this study was whether the returns of stocks of Indian companies listed on the Bombay Stock Exchange behave differently after the announcement of bonus shares. Since many studies have dealt with the behaviour of stock returns for different forms of dividends, it was imperative to understand the exclusive effects of bonus dividends on stock returns. There are many international studies on the impact of dividends on stock returns. This study was carried out in the context of Indian companies listed on the Bombay Stock Exchange.

Research Design

Sample

The selection of companies was done on the basis of the issue of bonus shares. All those companies listed on the A group on the BSE, which had issued bonus shares in the period starting January 1st, 2017, and December 31, 2021, were included in the study. The BSE A list is the list of actively traded scrips with a high market capitalization having at least a three-year history of profits. It was found that a total of 39 companies from the A group had issued bonus shares in the aforementioned period. Of the total number of companies, ten had issued bonus shares in the year 2017, eight in the year 2018, ten in the year 2019, three companies in 2020, and 8 companies in 2021. The companies whose event record dates were not clear have not been considered in the study. The detailed list has been given in Appendix 1. The Bombay Stock Exchange is one of the oldest stock exchanges in the world with about 8900 listed companies out of which 3000 are traded on a regular basis. An attempt to examine the effect of

only bonus issues on the stock prices of the companies under study has been made. In examining this effect, all other forms of dividends were excluded from the study. The daily share price data were obtained from the website of the BSE.

Method and measures

Event study methodology was adopted wherein the market and risk-adjusted model was used. This method was first invented by two young Australian academics at the University of Chicago, Ball and Brown (1968) through their breakthrough paper titled, "An empirical evaluation of Accounting income numbers." In those days it was believed that since accounting numbers were not substantive, they lacked meaning and were of doubtful utility therefore accounting or income data had no impact on the value of shares in the stock markets. This was refuted by Ball and Brown as they argued that since capital markets were both efficient and unbiased and that information was useful in determining capital asset prices, then the market would adjust to that information quickly without leaving any opportunity for abnormal gain. They cited the previous works of Samuelson, Cootner, Fama, Blume, and Jensen to take forward the argument. They said that if it were to be found that security prices did adjust to the new information as it became available, then, in fact, those changes would reflect the flow of information to the market. Hence, they felt that an observed change in the prices of stocks in the market as and when the stock-related income statements were released, would indicate that the changes were due to the event of the release of the income report. Their study was widely acclaimed and that was the birth of the event study methodology as we know it today. A meta-analysis of different event study methodologies was done at the University of Chicago and three main methods of event studies used by different researchers over a period of time were studied. Three methods namely the mean adjusted model, the market adjusted model, and the market and risk-adjusted model have evolved from many years of research. Out of these three models, the market and risk-adjusted model is considered very robust in determining the impact of an event on the stock prices (Binder, 1997). Event studies have become an important tool to examine the impact of an event on the share price/return behaviour and pre and post-event studies are usually carried out using the t-statistic (MacKinlay, 1997).

The daily price data for each stock and the corresponding S & P BSE Sensex values were taken from the BSE website. The event window of 31 days was taken for the study. The event date, event period, and event window were determined. The event date ($t = 0$) in this study was taken as the date of bonus announcement by the sample companies. The sample window was set as 31 days and was considered as $t-14$ to $t+15$ relative to the event day $t=0$. The estimation window was taken from $t=-14$ to $t=-3$. For every company that had issued bonus shares, the corresponding BSE Sensex daily data was taken to calculate market return.

The event study started with the calculation of returns from the closing price data of the companies which had issued bonus shares between the years 2017 and 2021. The returns of the stocks, as well as the market, were calculated using natural log. The average daily returns for all the companies S & P BSE Sensex were calculated using the arithmetic mean. The expected returns were calculated using the market and risk-adjusted model based on the CAPM (Brown & Warner, 1980).

$ER_{it} = \alpha_i + \beta_i (R_{mt})$ -----Market Model based on CAPM

ER_{it} is the expected return of the stock

α_i and β_i are the estimated coefficients

R_m is the market return

$AR_{it} = R_{it} - ER_{it}$

R_{it} is the actual average return of stocks issuing bonus shares

This was done for the estimation window which resulted in finding the expected returns. The abnormal returns were generated by subtracting the expected returns from the actual returns of the companies for the event window (Brown & Warner, 1985). The test of significance was carried out to test whether the abnormal returns (AR_{it}) are close to zero or not. If found close to zero, then the impact of the event would be insignificant and if found different from zero, then the impact of the event would be considered insignificant. The t-test was used for this purpose. The t-ratio was calculated using the formula $t\text{-ratio} = AR_{it} / \text{Std-error of } AR_{it}$. Standard error was calculated for the estimation period and t-ratio was calculated for the event window. If the t-ratio was found to be greater than the tabulated value of t of ± 2 , then the null hypothesis would be rejected. It would mean that the returns of companies changed significantly post the event of the bonus issue.

Data Analysis and findings

MS-Excel 365 was used for data analysis. The data of BSE A group companies that had issued bonus shares between the years 2017 to 2021 was analysed. The average returns of the companies issuing bonus shares were calculated for the event window. The expected returns based on the market model were calculated by regressing the day-wise company returns on the day-wise market (S & P BSE Sensex) returns. The equation of the market model thus generated was:

$$ER_{it} = -1.59 + 11.6 R_{mt}$$

The model statistics were found to be significant as the F-value was high, and the p-value was less than 0.05 at a 95 percent confidence level. The summary table has been included in Appendix 2.

Positive abnormal returns were found on the day of the announcement of the bonus issue, i.e. $t=0$. Positive abnormal returns can also be noted on $t=1, t=3, t=4$ and $t=7, t=8, t=9, 10, 11, 13$ and 15. Negative abnormal returns were found on days $t= 2, 5, 6, 12, \text{ and } 14$. It was found that the number of days with positive returns was more than the number of days with negative returns. However, upon examining the significance of these returns using the t-statistic at 95 percent level of confidence, it was found that none of the returns, positive or negative were significant. This could be inferred from their t-ratios. The t-ratio was compared to the tabulated value of the t-statistic which is about ± 2 at 95 percent level of confidence. The t-value of none of the days was found to be more than ± 2 . However, upon closer examination of the data, very high negative abnormal returns were observed for two consecutive days before the announcement of the bonus issues, i.e. on days $t=-1$ and $t=-2$. The t-statistic on day $t=-2$ was -7.14 and on $t=-1$, the t-statistic was -6.4 which was less than the tabulated value of t. This meant that the stock returns showed significantly negative abnormal returns two days prior to the

announcement of the bonus issue. These findings concur with the findings of certain earlier studies by Mishra (2005) and Isiker and Tas (2021). The signalling hypothesis could be at play here as, after the issue of bonus shares, the price of the company’s share always decreases on a pro-rata basis depending on the ratio in which the bonus shares are issued. It could also be an event of information leakage or insider trading. Investors are usually wary of share price declines even though in the case of a bonus issue, the decline in share price would be repudiated by an increase in the number of shares by way of a bonus issue. In this dataset too, it has been found that the value of the shares declined in anticipation of a bonus issue. It would also indicate that the investors might have caught a whiff of the announcement of bonus shares before the announcement date (Mishra, 2005).

Overall, the results indicate that bonus shares which are a kind of stock dividends do not seem to excite the market and the returns post announcement did not make any significant waves.

Table 1

| Day | Average Return of Companies | Expected Returns based on Market Model | Abnormal Returns | Std. Error | T-Ratio |
|-----|-----------------------------|--|------------------|------------|----------|
| -14 | 0.0256017 | -2.05336 | 2.0789595 | | |
| -13 | 0.4192861 | 0.411705 | 0.0075807 | | |
| -12 | 0.3103814 | -1.2038 | 1.5141773 | | |
| -11 | -0.0849549 | 1.116873 | -1.201828 | | |
| -10 | -0.1557611 | -2.7891 | 2.6333425 | | |
| -9 | -0.0586968 | -5.33137 | 5.2726772 | | |
| -8 | 0.6938968 | -0.3245 | 1.0183965 | | |
| -7 | 0.4715215 | -0.10658 | 0.5781009 | | |
| -6 | 0.5103391 | -2.56728 | 3.0776158 | | |
| -5 | -0.0866915 | -1.09368 | 1.0069901 | | |
| -4 | 0.0458668 | -3.46222 | 3.5080866 | | |
| -3 | 0.149649 | 2.630718 | -2.481069 | | |
| -2 | -14.582216 | -0.14916 | -14.43306 | 2.020603 | -7.14294 |
| -1 | -24.262878 | -11.1457 | -13.11715 | 2.020603 | -6.4917 |
| 0 | 0.4998397 | -3.01014 | 3.5099825 | 2.020603 | 1.737096 |
| 1 | 0.5933724 | -0.48522 | 1.0785972 | 2.020603 | 0.5338 |
| 2 | 0.0157243 | 0.621219 | -0.605494 | 2.020603 | -0.29966 |
| 3 | 0.1855311 | -3.80678 | 3.9923114 | 2.020603 | 1.975802 |
| 4 | -0.3131614 | -1.57619 | 1.2630267 | 2.020603 | 0.625074 |
| 5 | -0.1369293 | 1.491487 | -1.628416 | 2.020603 | -0.80591 |
| 6 | -0.0487094 | 1.438788 | -1.487497 | 2.020603 | -0.73616 |
| 7 | -0.1951696 | -4.03774 | 3.8425748 | 2.020603 | 1.901697 |
| 8 | -0.2700762 | -0.90509 | 0.6350106 | 2.020603 | 0.314268 |

| | | | | | |
|----|------------|----------|-----------|----------|----------|
| 9 | 0.2899698 | -1.31433 | 1.6043004 | 2.020603 | 0.793971 |
| 10 | 0.094069 | -1.4926 | 1.5866719 | 2.020603 | 0.785247 |
| 11 | 0.0175569 | 0.004779 | 0.0127783 | 2.020603 | 0.006324 |
| 12 | 0.1991463 | 2.70148 | -2.502334 | 2.020603 | -1.23841 |
| 13 | 0.2565821 | -1.99742 | 2.2540043 | 2.020603 | 1.11551 |
| 14 | -0.2983197 | 3.286151 | -3.584471 | 2.020603 | -1.77396 |
| 15 | -0.4173421 | -0.98407 | 0.5667232 | 2.020603 | 0.280472 |

Implications for further research and limitations of the study

In evaluating bonus issues, only A group companies were considered. This was on account of the fact that the trend of issuing bonus shares is seen mostly in large-scale companies with a good track record of profitability and good reserve positions. However, the study could be extrapolated in the future to include mid-cap or small-cap companies which have issued bonus shares. Hence, the size of the company and the size of the bonus issue could be included as independent variables in determining the impact of bonus issues on share returns.

The paper has used the event study methodology for determining the impact of bonus issues on shareholders' returns. However, the event study methodology itself has several limitations and these limitations could transfer to the results which could be misleading (Chen, 2017). As pointed out by MacKinlay(1997), if the date of the event is not accurate it could affect the results. In this study too, it was found that statistically significant abnormal returns were found before the announcement day. The reason for this could be that the information had somehow reached the market before an official announcement. In this case, the event date would be uncertain. Different methods can be used for conducting event studies and the results emanating from these methods could be different. These could be termed as method-related biases (Blume & Stambaugh, 1983)

Discussion

Historically, dividends in any form have been accepted wholeheartedly by the markets leading to an increase in the market price of the shares issuing dividends. This increase in market price is what is termed as daily returns of the stock. However, in the past several years, more and more studies have found that actually, dividends are no longer the cause for much enthusiasm in stock markets. The underlying reason could be that as the investors mature, they understand that the payment of dividends is just like the transfer of money from one pocket (company) to another pocket (investor); investors being the ultimate owners of the company (Modigliani & Miller, 1958). As this understanding becomes more profound, markets will quickly discount information related to dividend announcements leading to what can be termed as semi-strong form of market efficiency. Another reason that shareholders might not react to dividend announcements could be that they perceive that the issuing company would have run out of growth opportunities, leading to a high payout. It could signal that the company is approaching maturity. This could lead to a decrease in returns post announcement. As far as the reaction to bonus share announcements is concerned, certain classes of investors would expect cash dividends instead of stock dividends as per the bird in the hand theory of Myron Gordon. This

could dampen their enthusiasm toward stock dividends. In some instances, investors might be ill-equipped to understand that bonus shares are also a type of dividend. In the case of ill-informed investors, they might grapple with the understanding of the concept of a bonus issue, and this might make their reactions uncertain.

Declaration of Interests

The author declares that she has no competing interests.

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Availability of data and materials

Secondary data collected and the software used for the study are available with the author and will be submitted as and when required.

References

- Ball, R., & Brown, P. (1968). An Empirical Evaluation of Accounting Income Numbers. *Journal of Accounting Research*, 6(2), 159–178. JSTOR. <https://doi.org/10.2307/2490232>
- Basaniwal, E. (n.d.). The First Bonus Shares Issue: East India Company, 1682 CE – Origin and Rationale for this practice. *CimplyFive*. Retrieved July 14, 2022, from <https://www.cimplyfive.com/the-first-bonus-shares-issue-east-india-company-1682-ce-%e2%88%92-origin-and-rationale-for-this-practice/>
- Binder, J. J. (1997). *The Event Study Methodology Since 1969* (SSRN Scholarly Paper No. 41180). <https://papers.ssrn.com/abstract=41180>
- Blume, M. E., & Stambaugh, R. F. (1983). BIASES IN COMPUTED RETURNS An Application to the Size Effect. *Journal of Financial Economics*, 12(3), 387–404. [https://doi.org/10.1016/0304-405x\(83\)90056-9](https://doi.org/10.1016/0304-405x(83)90056-9)
- Brown, S. J., & Warner, J. B. (1980). Measuring security price performance. *Journal of Financial Economics*, 8(3), 205–258. [https://doi.org/10.1016/0304-405X\(80\)90002-1](https://doi.org/10.1016/0304-405X(80)90002-1)
- Brown, S. J., & Warner, J. B. (1985). Using daily stock returns: The case of event studies. *Journal of Financial Economics*, 14(1), 3–31. [https://doi.org/10.1016/0304-405X\(85\)90042-X](https://doi.org/10.1016/0304-405X(85)90042-X)
- Chen, C. (2017). *Limitations to Event Studies and How They Apply*. <https://doi.org/10.2139/ssrn.2982219>
- *Companies Act, 2013*. (2013). <https://www.mca.gov.in/content/mca/global/en/acts-rules/companies-act/companies-act-2013.html>
- Dhar, S., & Chhaochharia, S. (2008). Market Reaction Around the Stock Splits and Bonus Issues: Some Indian Evidence. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1087200>
- Erasmus, P. (2013). The influence of dividend yield and dividend stability on share returns: Implications for dividend policy formulation. *Journal of Economic and Financial Sciences*, 6(1), 13–31. <https://doi.org/10.10520/EJC135925>

- Foster, T. W., & Vickrey, D. (1978). The Information Content of Stock Dividend Announcements. *The Accounting Review*, 53(2), 360–370. JSTOR.
- Isiker, M., & Tas, O. (2021). Motives behind the return anomaly around bonus issue announcements: The case of emerging markets. *Review of Behavioral Finance, ahead-of-print*(ahead-of-print). <https://doi.org/10.1108/RBF-05-2020-0092>
- MacKinlay, A. C. (1997). Event Studies in Economics and Finance. *Journal of Economic Literature*, 35(1), 13–39.
- Mishra, A. (2005). *An Empirical Analysis of Market Reaction Around the Bonus Issues in India* (SSRN Scholarly Paper No. 733043). <https://doi.org/10.2139/ssrn.733043>
- Mistry, J. (2016). *Stock Splits: A Futile Exercise or Positive Economics?*
- Modigliani, F., & Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. *The American Economic Review*, 48(3), 261–297. JSTOR.
- Obaidullah, M. (1992). How Do Stock Prices React to Bonus Issues? *Vikalpa*, 17(1), 17–22. <https://doi.org/10.1177/0256090919920102>
- Pandey, D. K., Kumari, V., & Tiwari, B. K. (2022). Impacts of corporate announcements on stock returns during the global pandemic: Evidence from the Indian stock market. *Asian Journal of Accounting Research*, 7(2), 208–226. <https://doi.org/10.1108/AJAR-06-2021-0097>
- Pandey, I. M. (2009). *Financial Management*. Vikas Publishing House Pvt Limited. <https://books.google.co.in/books?id=vdYVBV11Ex8C>
- Pelcher, L. (2019). The role of dividend policy in share price volatility. *Journal of Economic and Financial Sciences*, 12(1), 1–10. <https://doi.org/10.4102/jef.v12i1.221>
- Ray, K. K. (2011, January). *Market Reaction to Bonus Issues and Stock Splits in India: An Empirical Study* - ProQuest. <https://www.proquest.com/openview/8fa0605a14f8209eb263413eaba10fc0/1?cbl=54442&pq-origsite=gscholar>
- Scott, W. R. (1910). *The constitution and finance of English, Scottish and Irish joint-stock companies to 1720*. Cambridge: University Press Press. <http://archive.org/details/constitutionfina03scotuoft>
- Woolridge, J. R. (1983). Dividend Changes and Security Prices. *The Journal of Finance*, 38(5), 1607–1615. JSTOR. <https://doi.org/10.2307/2327590>

Appendix 1: BSE A group Companies that issued bonus shares in the period 2017 to 2021

| Year | Name of the company |
|------|-------------------------------------|
| 2017 | WIPRO LTD. |
| | CONTAINER CORPORATION OF INDIA LTD. |
| | POLY MEDICURE LTD. |
| | GAIL (INDIA) LTD. |
| | CITY UNION BANK LTD. |

| | |
|------|--|
| | GODREJ CONSUMER PRODUCTS LTD. |
| | PETRONET LNG LTD. |
| | BIOCON LTD. |
| | V-GUARD INDUSTRIES LTD. |
| | MAHINDRA HOLIDAYS & RESORTS INDIA LTD. |
| | |
| 2018 | MMTC LTD. |
| | MOTHERSON SUMI SYSTEMS LTD. |
| | HIKAL LTD. |
| | LA OPALA RG LTD. |
| | EMAMI LTD.-\$ |
| | GAIL (INDIA) LTD. |
| | CITY UNION BANK LTD. |
| | GODREJ CONSUMER PRODUCTS LTD. |
| | |
| 2019 | WIPRO LTD. |
| | UPL Limited |
| | TTK PRESTIGE LTD. |
| | AARTI INDUSTRIES LTD. |
| | RELAXO FOOTWEARS LTD.-\$ |
| | CONTAINER CORPORATION OF INDIA LTD. |
| | GAIL (INDIA) LTD. |
| | NTPC LTD. |
| | Astral Ltd |
| | BRIGADE ENTERPRISES LTD. |
| | |
| 2020 | AARTI DRUGS LTD. |
| | HATSUN AGRO PRODUCT LTD. |
| | KARNATAKA BANK LTD. |
| | |
| 2021 | AARTI INDUSTRIES LTD. |
| | MAHINDRA LIFESPACE DEVELOPERS LTD. |
| | GODAWARI POWER & ISPAT LTD. |
| | REDINGTON (INDIA) LTD. |
| | Astral Ltd |
| | POWER GRID CORPORATION OF INDIA LTD. |
| | KNR CONSTRUCTIONS LTD. |
| | MAHINDRA HOLIDAYS & RESORTS INDIA LTD. |

Appendix 2:

| | | | | | | | | |
|------------------------------|---------------------|-----------------------|---------------|----------------|-----------------------|------------------|--------------------|--------------------|
| SUMMARY OUTPUT | | | | | | | | |
| <i>Regression Statistics</i> | | | | | | | | |
| Multiple R | 0.545078 | | | | | | | |
| R Square | 0.297117 | | | | | | | |
| Adjusted R Square | 0.272007 | | | | | | | |
| Standard Error | 4.369158 | | | | | | | |
| Observations | 30 | | | | | | | |
| ANOVA | | | | | | | | |
| | <i>df</i> | <i>SS</i> | <i>MS</i> | <i>F</i> | <i>Significance F</i> | | | |
| Regression | 1 | 225.9350261 | 225.9350261 | 11.83554 | 0.001840647 | | | |
| Residual | 28 | 534.5072262 | 19.08954 | | | | | |
| Total | 29 | 760.4422523 | | | | | | |
| | <i>Coefficients</i> | <i>Standard Error</i> | <i>t Stat</i> | <i>P-value</i> | <i>Lower 95%</i> | <i>Upper 95%</i> | <i>Lower 95.0%</i> | <i>Upper 95.0%</i> |
| Intercept | -1.58667 | 0.80539659 | -1.97005 | 0.058796 | -3.236450583 | 0.06310967 | -3.2364506 | 0.06310967 |
| X Variable 1 | 11.59961 | 3.371703507 | 3.440282 | 0.001841 | 4.692988376 | 18.5062315 | 4.69298838 | 18.5062315 |