



# EXAMINING SHARE BUYBACK PATTERNS: INSIGHTS FROM LISTED COMPANIES IN INDIA DURING THE COVID-19 PANDEMIC

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**ABSTRACT:** : Share buyback is common corporate financial strategy prevalent in developed nations than in India. However, India experienced a surge in share buyback activities during Covid which leads to the exploration of reasons for such increase and the consequential effect. The present study aims to identify the firm-level factors that define the share buyback or repurchase decision of the listed firms in India and analyse the effect of share repurchase on firm-level indicators during the Covid period. The results indicate a positive effect of independent variables on the dependent variable, thereby making it beneficial for companies to explore share repurchases as a viable method for distributing funds.

**Keywords :** Dividend pay-out ratio, Earnings per share, India, Share buyback Undervaluation

## Background

Share buyback method is typically influenced by the expansion of shareholder value backed by increases in share price and earnings per share (EPS). It also serves as the link between short-term gains and top personnel compensation. Share buybacks are a frequent phenomenon in financial markets all around the world.<sup>1</sup> Through an equity buyback mechanism, the company distributes surplus funds to its existing shareholders by buying back their

unknown, including whether these are used to signal an increase in share prices, EPS growth, or advertising shareholding.<sup>2</sup> In most developed countries, where value buybacks are far more common than in India, these are used to reward shareholders in the same way that profits are. Profit pay-out accounted for less than half of shareholder driving drivers for S&P 500 companies between 2008 and 2013, with stock buybacks accounting for a much larger portion. The value buyback extent of the Euro Stoxx 50 record was about 30 per cent of by and large payment to proprietors. Nonetheless, despite the fact that share buybacks are more tax efficient than profits, the proportion for Indian firms was under five per cent at the same time.

A total of 73 companies applied for the share repurchase between 1<sup>st</sup> April, 2020 to 31<sup>st</sup> March, 2021 but only 49 companies were able to complete the entire process. Out of the 49 companies, 37 went for tender offer and the remaining 12 went for open market through stock exchange as shown in Annexure 1. The buyback size, the premium each company offered per share, the mode through which companies went for buyback were all thoroughly examined in all public releases. During the course of a year from 2020-21, the value of total amount utilized for share repurchase in India amounted to Rs. 3,35,61,14,71,940.63. Open market repurchases accounts for 26.66 per cent of overall buyback value, while tender offer repurchases accounts for the remaining 73.33 per cent. According to the ownership pattern for the open market repurchase sample, 91 per cent of the entities belonged to the private sector, whereas nine per cent of the entities had foreign holdings. Around 25 companies received the required number of shares it had asked from the public, two companies were oversubscribed

and 18 companies received less shares than it had subscribed.

The question remains as to why the Indian companies went for the option of share repurchase during the Covid period when hundreds of companies were suffering from loss and lack of resources. A survey conducted by ILO SCORE Programme showed that out of 1,000 companies surveyed from different parts of the world, 70 per cent had to shut-down, and the remaining had to be closed on a temporary basis due to the high cases of infection, less workforce and strict government regulations while experiencing a reduction in their revenue and demand.<sup>3</sup>

Annexure 2 lists out the NIC code of the companies whereby the firms have been classified into different industries based on the NIC 5-digit classification. The industrial classification helps to identify the sectoral differences in the share repurchase behaviours of firms and its characteristics during the study period. All the 45 companies have been identified and separated according to their respective NIC codes and found that there are many companies with same code. This will help in understanding which sector of companies were most stable during the COVID period and have undergone the share repurchase process.

Share repurchase is the way a corporate buy back its own shares from the existing shareholders.<sup>4</sup> There are voluminous empirical evidences on the impact of share purchase on firm level indicators which mainly focus on developed countries. However, there are few overviews from emerging economies such as India, China and Korea. Share repurchases is not considered a recent phenomenon in the United States, with the first one occurring in 1982.<sup>5</sup> Since 2005, the volume of equity





repurchases in the United States of America has surpassed dividend payments for listed companies except financials.<sup>6</sup> The financial crisis of 2008-2009 triggered a temporary decline in share repurchases, but since 2010, the popularity of share repurchases has risen again, hitting new highs in recent years (2014-2015).

Companies have two main choices when it comes to allocation of funds, firstly they may decide to put the entire money in their own business to grow and expand in the form of capital expenditure, retain money for working capital, mergers and acquisitions<sup>7</sup>. The other choice is to give some part of the extra fund to the shareholders as dividends, repayment of debt or share repurchase. The firms repurchase their shares to boost their earnings per share (EPS). Improvement in EPS is considered as one of the main drivers of buyback. The long-term market performance of 1,060 Canadian firms was examined using three factor model. It was observed from their findings that an excess return of around 0.587 per cent or seven per cent per year were achieved over a period of three years. Moreover, companies that want to increase their earning per share go for tender offer repurchase.<sup>8,9,10</sup>

Companies might go for share repurchase and increase their stake in order to defend themselves from any adverse takeover or when there is any danger from a competitor.<sup>11</sup> An investigation of the share repurchase environment in India envisioned that control companies with similar capitalization have a huge effect on companies that go for this repurchase process.<sup>12</sup> The companies may even go for share buyback instead of dividend distribution to shareholders as capital gain tax is less and more efficient for both the companies and shareholders.<sup>13</sup>

Companies repurchase stock to benefit from the undervaluation and distribute the excess cash flow. Firms sometimes also go for this process to change the leverage ratio, fight takeovers and refute dilution outcomes of stock options.<sup>14</sup> However, the exact impact and effect of buyback of shares cannot be accurately calculated due to lack of proper models for analysis and data constraints like access to reliable execution data.<sup>15</sup> Share buyback is considered more flexible in means of giving out the extra capital since a penalty is incurred if distributions of dividends are reduced in due course.<sup>16,17,18</sup>

A systematic study of various works and literature provided an insight into the numerous firm level factors which determine the repurchase decision of the firms and which factor plays a bigger role in the decision making along with the motives of the companies behind opting for repurchase of shares and the benefits that accrue. Hence, the present study aims to identify the firm-level factors that determine the share buyback or repurchase decision of the listed firms in India and analyse the effect of share repurchase on firm-level indicators during the Covid 19 period.

### Conceptual Framework

A company's income statement is affected and the company's outstanding share from the market also decreases. However, share buybacks do not have any change on the income statement line items, only EPS figure and items under it have effect. The total asset in the balance sheet is reduced because the cash is used by company to repurchase its shares. This has an equal effect on shareholders' equity on the liabilities side. It is also observed that the ROA (Return on Assets)

and ROE (Return on Equity) of the company also improve due to this process. The amount spent by the company needs to be shown in the quarterly earnings statement of the company. This helps a potential investor find all the required details about the company from the cash flow statement in the financing activities segment.

Figure 1 shows the various dependent and independent variables which are the drivers of buyback that have been selected and studied. The total amount utilized for share repurchase has been taken as the dependent variable which is the amount paid by companies to repurchase their shares from the public. Six independent variables have been taken based on the literature reviewed which are the major reasons behind buyback. All the variables have been studied deeply to find out which independent variable has the maximum impact on the dependent variable.

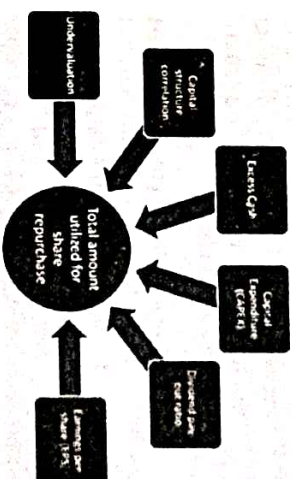


Figure 1: Drivers of Buyback

Total amount utilized for share repurchase

This value is the amount paid by companies to buy back their shares from the public. Out of the 45 companies, 25 companies were able to



recover all the shares subscribed and the rest 20 companies were not able to recover all the required number of shares, thus their total amount utilized is less than annual share repurchase value. The dependent variable taken is a categorical variable, hence the number zero is allotted to all the companies that made their buyback from tender offer and one number to all that did their buyback from open market.

### Undervaluation

The term undervaluation is a financial term used for an asset or any other form of investment which has been selling in the market for a price that is assumed to be lower than the intrinsic value of the investment. It is a very important factor for companies as higher the level of undervaluation, more chances of company to go for buyback. Intrinsic value is an entity's calculated value based on fundamental analysis. The entity may be a company, stock or a product. It takes into account both tangible and intangible aspects. It's also known as true or actual value, and it's not always the same as the present market value. Undervaluation is calculated by dividing the ratio of market price by ratio of the intrinsic value.

This value is computed by applying the formula  $EPS * (1+r) * PE \text{ ratio}$ , where  $r$  stands for expected earnings growth ratio which is calculated from the net sales of the company and  $PE$  ratio stands for Price Earnings ratio.

### Excess Cash

Firms prefer to go for buyback instead of distributing dividends when they have cash. It also acts as a pay-out method to counter agency conflicts. To measure the excess cash variable, the ratio of cash in hand and bank of preceding





year is divided by current liabilities and provisions of previous year.

### Capital structure correlation

As every debt remains constant, companies employ repurchase to lower equity and improve their debt-to-equity ratio. As a result, the smaller the leverage, the greater the capital structure adjustment via buybacks. Capital structure correlation can be easily calculated by debt-to-equity ratio. This ratio is very helpful in calculating leverage of a company and is found by dividing the total liabilities by shareholders' equity. Debt to equity ratio of one to one-half is considered good.

### Dividend pay-out ratio

Share repurchase and dividend pay-out are both substitutes for company to reward their shareholders. The buyback amount would be higher if the dividend distribution amount was smaller. It is computed by dividing dividends per share by EPS.

### CAPEX (Capital Expenditure)

Capital Expenditure are long term investments bearing a useful life of one year or more. It is undertaken by a company to expand existing operations or further growth aspects. It is calculated by adding Total additions to Property, Plant and Equipment (PPE) during the year and depreciation on PPE for the year.

### EPS

This is a decisive factor relating to an organization's portion cost. A high EPS indicates the usefulness of the entity towards its investor. A share repurchase raises EPS by reducing the number of shares outstanding. The market worth of the leftover offers ascends

as the EPS rises. Those shares later are dropped or retained as treasury shares after repurchase, thus they are no longer held publicly and are no longer outstanding.

Based on the variables for the present study, a hypothesis is formulated to draw out the significance of drivers of buyback on share repurchase considering the total amount utilized for share repurchase. The issue in hand was that whether there exists any relative importance of drivers like undervaluation, excess cash, capital structure correlation, dividend pay-out, capex, EPS on share repurchase in India. Accordingly, the following null hypothesis and alternative hypothesis were generated:

$H_0$ : There is no relative importance of drivers like undervaluation, excess cash, capital structure correlation, dividend pay-out, CAPEX, EPS on share repurchase in India.

$H_1$ : There is a relative importance of drivers like undervaluation, excess cash, capital structure correlation, dividend pay-out, CAPEX, EPS on share repurchase in India.

In the current research, regression analysis has been conducted taking total amount utilized, i.e., how much the company has actually spent to repurchase those shares, as the dependent variable and several independent variables like Undervaluation, EPS, CAPEX, Excess cash, Capital structure correlation and dividend pay-out to check its impact and level of significance on the dependent variable. To compute the exact value of the independent variables numerous formulas, factors and data have been used. The software used for analysis is Strata and MS-excel. Secondary data was used in this research. All the information were obtained from the

company's public announcements, which were available in the Securities and Exchange Board of India (SEBI) website. The company's financial data, on the other hand, was seized from the corporation's annual report and other required data from CMIE Prowess database. MIE Prowess database contains the firm level data of listed firms in India. The database is widely used to study the firm-level variables of listed firms in India.

Taking advantage of the panel data and estimated results, the paired t tests of firm-level variables statistical tests have been conducted. The first one is Paired t-test which is used to examine if there is any significant difference between EPS before buyback and EPS after buyback. It helps to identify the changes in the firm -level variables during the pre and post repurchase period. The second test used for this research is regression analysis as it is used to figure out how one variable affects another variable. As a result, to comprehend the impact of the independent variables (Undervaluation, Excess cash, EPS, CAPEX, Dividend pay-out, Capital Structure correlation) on the dependent variable (total amount utilized) this model has been used.

### TEST 1: Paired t-test

Paired t-test helps determine the statistical significance of EPS and buybacks. Companies are the elements in this structure, and they are linked to one another by publishing earnings per share each year and announcing repurchases at the same period. The t-test will determine whether the mean EPS of various companies prior to the buyback differs significantly from the mean EPS of various companies following the buyback. The significance of the sample mean values was assessed at a five per cent level of significance.

The data set satisfied the normality condition and thus the EPS variable is used for t-test. The data has been collected from the company's financial statements and CMIE prowess, Strata software and MS-excel have been used for analysis in the present study.

Table 1 shows the EPS in the year prior to the buyback announcements and EPS in the year after the buyback announcements for all the given companies. The repurchase dates were used to organise the data collection. It is clear that the number of companies with positive earnings per share (EPS) outnumber those with negative earnings per share (EPS). This could be because management is wary of disclosing financial results because investors, financial managers, and other stakeholders are watching. Other than that, the equity reduced as a result of the buyback, which may have benefited the company in increasing their EPS.

Therefore, based on the hypothesis formulated earlier it may be assumed that EPS before buyback is  $H_0$  and EPS after buyback is  $H_1$ . This can be statistically expressed in the following manner:

Null Hypothesis:  $H_0 = H_1$ ,

Alternative Hypothesis:  $H_0 \neq H_1$

The mean EPS after buyback is greater than mean EPS before buyback as reflected in Table 2. The significance value in one-tail t-test is less than five per cent, therefore the null hypothesis is rejected which leads to the acceptance of the alternate hypothesis. The standard deviation of EPS after buyback is higher than EPS before buyback. The t-stat also falls under the acceptable range. As a result, it is clear that buybacks have an earnings management effect in Indian companies. It has been noticed that most companies who have



Table 1: EPS of companies before and after buyback

Date	Company name	EPS & Buyback	
		Before	After
April 1, 2020	Tips Industries Limited	1.1	7.44
April 1, 2020	Coral India Finance & Housing Limited	1.7	1.63
April 7, 2020	Delta Corp Limited	5.82	3.66
April 7, 2020	Dabha Bharat Ltd	4.04	7.1
April 30, 2020	Aditya Vision Limited	0.99	10.63
May 5, 2020	Auropro Solutions Limited	15.29	6.86
May 22, 2020	Pennar Industries	7.07	3.25
May 29, 2020	Tania Platforms Ltd.	0.36	-10.29
June 2, 2020	Granules India Limited	6.09	11.14
June 25, 2020	Amrkt Corp. Limited	24.65	-7.59
June 25, 2020	Baharpur Chini Mills Ltd.	10.36	22.31
June 30, 2020	Just Dial Limited	27.93	41.58
July 24, 2020	eClerx Services Limited	58.33	33.72
July 30, 2020	Finetex Chemical Limited	1.43	0.95
July 31, 2020	Gokul Refoils and Solvent Limited	-2.26	-0.26
August 12, 2020	Triveni Engineering and Industries Ltd.	0.23	12.48
August 14, 2020	FDC Limited	9.68	13.44
August 14, 2020	MPS Limited	36.15	27.59
September 1, 2020	Sterile Technologies Limited	11.17	11.92
September 11, 2020	Chevron Company Limited	72.38	71.46
September 15, 2020	James Warren Tea Limited	1.44	11.25
September 22, 2020	Rites Limited	18.98	27.86
September 29, 2020	Sun Pharmaceutical Industries Limited	5.9	11.36
September 29, 2020	Magma Electro Castings Limited	23.66	14.69
September 30, 2020	Rankrishna Forgings Limited	3.45	9.46
October 21, 2020	KIOCL Limited	1.11	0.63
October 14, 2020	Motilal Oswal Financial Services Limited	11.77	15.23
October 28, 2020	Cosmo Films Limited	29.46	57.56
November 4, 2020	NTPC Ltd.	4.32	12.48
November 5, 2020	Ajanta Pharma Ltd.	48.82	56.12
November 10, 2020	Asahi Songvan Coburns Ltd.	12.99	18.59
November 12, 2020	NMDC Ltd.	14.52	14.62
November 19, 2020	Wipro Ltd.	13.72	15.19
November 21, 2020	Kanchi Karpooram Ltd	69.32	61.09
November 21, 2020	Tata Consultancy Services	76.98	86.16
December 3, 2020	Garware Technical Fibres Ltd	54.16	81.48
December 23, 2020	Engineers India Ltd.	5.44	7.77
December 24, 2020	Industrial and Prudential Investment Company Ltd	61.76	33.38
January 4, 2021	Indian Toners and Developers Limited	9.25	17.54
January 19, 2021	GAIL (India) Ltd.	16.1	11.55
January 19, 2021	Archiply Industries Limited	3.93	0.7
January 23, 2021	Neelamalai Agro Industries Ltd.	27.1	96.77
February 3, 2021	Atul Limited	215.57	219.67
February 8, 2021	National Aluminium Company Limited	0.38	9.65
February 9, 2021	VRL Logistics Limited	10.47	8.54

Source : CMIE prowest database

Table 2: Paired T test analysis from Strata software

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]
EPS before buyback	45	22.44689	5.417024	36.3385	4.5296 33.36418
EPS after buyback	45	26.63644	5.750526	38.57566	15.04703 38.22586
combined	90	24.54167	3.9341	37.32215	16.72469 32.35864
diff		-4.189555	7.900166		-19.88948 11.51036
diff = mean (EPS before buyback) - mean (EPS after buyback)					
Ho: diff = 0					
PT <= ttwo tail 0.033995					
PT <= ttwo tail 0.067991					
diff = mean (EPS before buyback) - mean (EPS after buyback)					
Ho: diff = 0					
PT <= ttwo tail 0.033995					
PT <= ttwo tail 0.067991					

Source : Author's Own Work

expressly stated their goal of increasing EPS have been successful in achieving this goal through buybacks. The majority of companies who had their EPS magnified had also grown their operational profit.

### TEST 2: Regression Analysis

The R and R squared values are listed in the Table-3. The R value (the "R" Column) reflects the simple correlation, indicating the degree of correlation. The R<sup>2</sup> value (the "R Square" column) shows how much the independent variable can describe in terms of total variance in the dependent variable.

Table 3 exhibits results of regression which show the impact of firm level variables on the amount spent by the firms for buyback of shares. The dependent variable is the amount spent by the firms for buyback of shares, independent variables are Debt to equity ratio, Dividend pay-out ratio, Excess Cash, Capex, Undervaluation, and EPS. Moreover, a firm fixed effect to control the firm level variations has been used.

The estimation result shows that the Dividend pay-out ratio has a positive and significant impact on the amount utilized at one per cent level of significance (P value=0.000). Excess cash is positive and significant at one per cent level of significance (P value=0.002) indicates that the amount utilized by the firm is determined by excess cash. The undervaluation is also positive and significant at one per cent level of significance (P value=0.006). However, no significant impact of Debt-to-equity ratio, capex and EPS was found hence it can be interpreted that these do not have an impact on firm's amount spent for buyback.

As seen in the model summary of Table 4, the correlations between the dependent variable Investment outcome and independent variable absolute repurchase ratio is less than 0.1. This means that though there is a positive correlation between the two variables, there is no significant or negligible correlation. Summary Statistics helps to explore the given dataset, identify patterns and helps to refine the search area which is reflected in Table 5. All the 45 companies have been divided into two groups, small cap



**Table 3: Regression Results- Impact of firm variables on Total amount used**

Source SS	SS	Df	MS	No. of observations	45
I Model	1.7836E+22	7	2.548E+21	F(7,37)	6.21
Residual	1.5181E+22	37	4.10E+20	Prob>F	0.0001
Total	3.3017E+22	44	7.50E+20	R-squared	0.5402
				Adj R-squared	0.4532
				Root MSE	20000000000
Total amount utilized	Coef.	Std. Err	T	P>t	[95% Conf Interval]
Variable	4.70E+09	7.16E+09	-0.66	0.515	-1.92E+10 9.80E+09
Debt to equity ratio	1.02E+09	7.58E+09	0.13	0.000	-1.43E+10 1.64E+10
Dividend payout ratio	2.97E+07***	5040348	5.89	0.000	1.95E+07 3.99E+07
Excess cash	1.60E+09***	3.11E+09	-0.51	0.002	-7.89E+09 4.70E+09
Capex	83993.63	51262.23	-1.64	0.11	-187860.8 19873.51
Undervaluation	4.14E+09***	3.11E+09	0.01	0.006	-5.58E+11 5.66E+11
EPS	8.93E+07	9.07E+07	0.98	0.332	-9.46E+07 2.73E+08
-cons	1.00E+09	6.46E+09	-0.16	0.878	-1.41E+10 1.21E+10
Firm effect	fixed Yes				
Observations	45				

*Source: Author's Own Work*

companies and mid-large cap companies. These divisions have been made according to their market capitalization value. Companies with market capitalization less than 5,000 crore falls under the small cap group and the group with market capitalization more than 5,000 crore falls under mid-large cap group. There were 33 companies that fall under the small cap group and the remaining 12 fall under mid-large cap group.

### Table 4: Correlation Matrix

	Total amt utilized	Undervaluation	EPS	CAPEX	Dividend payout ratio	Debt to equity ratio (times)	Excess Cash
Total amt utilized	Pearson Correlation Sig. (2-tailed)	.097 .155	.177 .023	.123 .107	.062 <.001	.060 .067	.028 .129
Undervaluation	Pearson Correlation Sig. (2-tailed)	.097 .049	1 .007	.396 .082	.027 .007	.131* .015	.099 .252
EPS	Pearson Correlation Sig. (2-tailed)	.177 .023	.396** .007	.027 .061	.058 .073	.173 .154	.097 .045
CAPEX	Pearson Correlation Sig. (2-tailed)	.223 .014	.082 .122	.027 .281	.053** <.001	.160* .015	.079 .160
Dividend payout ratio	Pearson Correlation Sig. (2-tailed)	.692 <.001	.054 .025	.058 .173	.253** <.001	.037 .082	.097 .128
Debt to equity ratio (times)	Pearson Correlation Sig. (2-tailed)	-.060 .167	.099 .051	-.173 .025	.131* .015	.037 .181	.122 .095
Excess Cash	Pearson Correlation Sig. (2-tailed)	.028 .185	.283 .060	.109 .045	.079 .006	.097 .158	.252 .095

\*\* . Correlation is significant at the 0.01 level (2-tailed).  
\* . Correlation is significant at the 0.05 level (2-tailed).

*Source: Author's Own Work*

excess cash was found on firm's amount spent for buyback. The R squared value also shows a positive relationship.

Table-7 estimation result shows that the Dividend pay-out ratio has a positive and significant impact on the amount utilized at one



Table 5 : Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Total amount utilized	45	7.46E+09	2.74E+10	0	1.60E+11
Variable	45	0.2666667	0.4472136	0	1
Debt to equity ratio	45	0.3008889	0.473516	0	1.94
Dividend payout ratio	45	317.7634	752.341	0	3701.95
Excess Cash	45	0.5512311	1.094286	0.0026	5.6324
Capex	45	17302.76	79513.14	0	530293.4
Undervaluation	45	0.0128593	0.0128823	0	0.0656975
EPS	45	25.25267	37.77156	0	212.76

Source: Author's Own Work

Table 6: Regression analysis of Small Cap Companies

Source SS	SS		Df	MS		No. of observations
Model	1.1360e	1.90E+01	7	1.6229e	1.80E+01	33
Residual	2.7031e	1.90E+01	25	1.0812e		1.5
Total	3.8391e	1.90E+01	32	1.1997e	1.80E+01	Prob>F
						0.2125

Source: Author's Own Work

Table 7 : Regression analysis of Mid and Large Cap Companies

Source	SS			df	MS		No. of obs	of observall
Model	1.7695e			7	2.5279e	21	F(7,4)	1.05
Residual	9.6288e	21		4	2.4072e	21	Prob>F	0.5119
Total	2.7324e	22		11	2.4840e	21	R-squared	0.6476
							Adj R-squared	0.0309
							Root MSE	4.90E+10
Total amount utilized	Coef.	Std. Err	t	P>t	95% Conf.	Interval]		
Variable	-1.64E+10	5.58E+1	-0.29	0.783	-1.71E+11	1.39E+11	-1.64E+10	
Debt to equity ratio	1.98E+10	1.26E+1	0.16	0.183	-3.31E+11	3.70E+11	1.98E+10	
Dividend payout ratio	3.04E+07	1.55E+0	1.96	0.012	-1.26E+07	7.34E+07	3.04E+07	
Excess cash	4.85E+10	4.80E+1	1.01	0.039	-8.47E+10	1.82E+11	4.85E+10	
Capex	-114755.3	385195.	-0.3	0.271	-1184228	954717.8	-114755.3	
Undervaluation	-2.45E+12	4.84E+1	-0.51	0.639	-1.59E+13	1.10E+13	-2.45E+12	
EPS	1.18E+08	3.44E+0	0.34	0.041	-8.37E+08	1.07E+09	1.18E+08	
const	-6.98E+08	6.47E+1	-0.01	0.992	-1.80E+11	1.79E+11	-6.98E+08	

Source: Author's Own Work

percent level of significance (P value=0.012). EPS and excess cash are positive and significant at one percent level of significance (P value=0.041) and (P value=0.039). However, no significant impact of Undervaluation, debt to equity ratio and capex was found on firm's amount spent for buyback. The R squared value also shows a positive relationship.

### Conclusion

Share repurchase is a well-accepted practise around the world, and the frequency of buybacks is getting stronger in India. If the company does not have any profitable ventures in the future or is unable to meet the investor's opportunity cost, the present study suggests that the company should repurchase its shares





from those shareholders who are prepared to tender them. The tendering shareholders will be able to exit the company at a higher price as a result of this. The firm's capital appreciation will benefit non-tendering shareholders, and they will be awarded for their loyalty. As the study found a positive effect of independent variables on its dependent variables, it would be beneficial for

companies to explore share repurchases as a viable method for distributing funds. The results also imply that pursuing buyback during a pandemic and global crisis can turn out to be a great move for companies as the panicked shareholders are eager to push their shares back to the company, thereby reducing its outstanding shares which boosts the EPS of the company.

Annexure 1: List of companies with their repurchase date and offer mode

Date	Company name	Offer mode
April 1, 2020	Tata Industries Limited	Tender
April 1, 2020	Coral India Finance & Housing Limited	Tender
April 7, 2020	Deba Corp Limited	Open Market
April 7, 2020	Dabur Bharat Ltd	Open Market
April 30, 2020	Aditya Vatsupujan Limited	Tender
May 3, 2020	Audaxpro Software Limited	Open Market
May 22, 2020	Demar Industries	Open Market
May 26, 2020	Tanika Software Limited	Tender
June 2, 2020	Granitel India Limited	Tender
June 23, 2020	Amrit Corp. Limited	Tender
June 23, 2020	Bharatpur Chain Mills Ltd.	Tender
June 30, 2020	Just Deal Limited	Tender
July 24, 2020	eclex Services Limited	Open Market
July 30, 2020	Fraxerox Chemical Limited	Open Market
July 31, 2020	Cookul Refrtek and Sohren Limited	Tender
August 12, 2020	Imvent Engineering and Industries Ltd.	Tender
August 14, 2020	FDCL Limited	Tender
August 14, 2020	MITS Limited	Tender
September 1, 2020	Suetra Technologies Limited	Open Market
September 11, 2020	Chevet Company Limited	Tender
September 15, 2020	James Warren Tea Limited	Tender
September 22, 2020	Race Limited	Tender
September 29, 2020	Sun Pharmaceutical Industries Limited	Open Market
September 30, 2020	Magma Electro Castings Limited	Tender
October 21, 2020	Ramkrishna Forgings Limited	Open Market
October 21, 2020	KIOCL Limited	Tender
October 14, 2020	Motilal Oswal Financial Services Limited	Open Market
October 28, 2020	Corro Film Limited	Tender
November 4, 2020	NTPC Ltd.	Tender
November 5, 2020	Ajanta Pharma Ltd.	Tender
November 10, 2020	Aash Songwan Coburns Ltd.	Tender
November 12, 2020	NMDC Ltd.	Tender
November 19, 2020	Wipro Ltd.	Tender
November 21, 2020	Kanchi Kapooram Ltd	Tender
November 21, 2020	Tata Consultancy Services	Tender
December 3, 2020	Garware Technical Fibres Ltd	Tender
December 23, 2020	Engreens India Ltd.	Tender
December 24, 2020	Industrial and Prudential Investment Company Ltd	Tender
January 4, 2021	Indian Towers and Developers Limited	Tender
January 19, 2021	QAIL (India) Ltd	Tender
January 19, 2021	Archiply Industries Limited	Tender
January 25, 2021	Neeharini Agro Industries Ltd.	Tender
February 3, 2021	Atul Limited	Open Market
February 8, 2021	Natural Aluminium Company Limited	Open Market
February 9, 2021	VRL Logistics Limited	Open Market

Source: Database of SEBI, <https://www.sebi.gov.in/>



Annexure 2: NIC code and its reference

NIC Code of company	Code reference	No. of companies	%
62013	Providing software support and maintenance to its clients	4	8.87%
21812	Manufacture of all plastic pharmaceuticals as preparation	4	8.87%
70210	Management consultancy services	3	6.61%
10721	Manufacture of refined oil (except from sugar and	2	4.44%
20	Manufacture of chemicals and chemical products	2	4.44%
10791	Processing and blending of tea including manufacture of	3	6.61%
7100	Mining of iron ores	2	4.44%
18310	Reproduction of recorded media	1	2.22%
34	Overhead	1	2.22%
93390	Other amusement and recreation activities	1	2.22%
47399	Retail sale of other household appliances	1	2.22%
24105	Manufacture of hot-rolled and cold-rolled products of steel	1	2.22%
10349	Manufacture of dairy products	1	2.22%
63999	Information service activities	1	2.22%
46305	Wholesale of edible oils, fats, sugar and processed/manufactured spices etc.	1	2.22%
82990	Business support service activities	1	2.22%
46999	Other non-specified wholesale trade	1	2.22%
13119	Preparation and spinning of jute, mesta and other natural fibers including blended natural fibers	1	2.22%
24319	Manufacture of other iron and steel casting and products thereof	1	2.22%
25910	Forging, pressing, stamping and roll-forming of metal powder metallurgy	1	2.22%
66120	Security and commodity contracts brokerage	1	2.22%
22201	Manufacture of semi-finished plastic products	1	2.22%
35103	Electric power generation by non-coal based thermal (e.g. diesel, gas)	1	2.22%
20119	Manufacture of organic and inorganic chemical compounds	1	2.22%
13999	Manufacture of other textile/textile products	1	2.22%
42209	Construction of utility project	1	2.22%
64300	Trucks, trucks and other financial vehicles	1	2.22%
20223	Manufacture of printing ink	1	2.22%
52109	Storage and warehousing activities	1	2.22%
20114	Manufacture of dyes and pigments from any source in basic form or as concentrate	1	2.22%
24202	Manufacture of aluminium from alumina and by other methods and products of alumina and alloys	1	2.22%
4923	Freight transport by road	1	2.22%

Source: Database of Ministry of Labour and Employment, <https://www.mca.gov.in/>

## References

- H. Almeida, V. Fos & M. Kronlund: "The real effects of share repurchase." *Journal of Financial Economics*, vol. 119, No. 1, 2016, pp. 168-185. DOI: <https://doi.org/10.1016/j.jfineco.2015.08.008>
- B. Balachandran, K. Chalmers & J. Hamann: "On-market share buybacks, exercisable share options and earnings management." *Accounting & Finance*, vol. 48, No. 1, 2008. Pp. 25-49. DOI: <http://dx.doi.org/10.1111/j.1467-629X.2007.00230.x>
- K. Chan, D. L. Ikenberry, I. Lee & Y. Wang: "Share repurchases as a potential tool to mislead investors." *Journal of Corporate*





- Finance*, vol. 16, No. 2, 2010, pp. 137-158. DOI: <https://doi.org/10.1016/j.jcorpfin.2009.10.003>
4. A. Damodaran : "Damodaran on valuation". *John Wiley & Sons*. 2008. DOI: <https://www.wiley.com/en-ie/exportProduct/pdf/9780471283324>
  5. W. Lazonick : "Profits without prosperity: Stock buybacks manipulate the market and leave most Americans worse off". *Harvard Business Review*. 2014. DOI: <https://hbr.org/2014/09/profits-without-prosperity>
  6. A. Dittmar : "Corporate cash policy and how to manage it with stock repurchases". *Journal of Applied Corporate Finance*, vol. 20, No. 3, 2008, Pp. 22-34. DOI: <https://doi.org/10.1111/j.1745-6622.2008.00191.x>
  7. N. Bhana : "The market reaction to open market share repurchases announcements: The South African experience". *Investment Analysts Journal*, vol. 36, No. 65, 2007, pp. 25-36. DOI: <https://doi.org/10.1080/10293523.2007.11082486>
  8. R. D'mello & P. K. Shroff : "Equity undervaluation and decisions related to repurchase tender offers: An empirical investigation". *The Journal of Finance*, vol. 55, No. 5, 2000, pp. 2399-2424. DOI: <https://doi.org/10.1111/0022-1082.00292>
  9. G. Grullon & D. L. Ikenberry : "What do we know about stock repurchases?". *Journal of applied corporate finance*, vol. 13, No. 1, 2000, pp. 31-51. DOI: <https://doi.org/10.1111/j.1745-6622.2000.tb00040.x>
  10. U. Varma & A. Munjal : "A Study of Motivators of Tender Offer Repurchases in the Indian Environment". *IRA - International Journal of Management & Social Sciences*, vol. 4, No. 2, 2016, pp. 447-454. DOI : [https://www.researchgate.net/publication/307919841\\_A\\_Study\\_of\\_Motivators\\_of\\_Tender\\_Offer\\_Repurchases\\_in\\_the\\_Indian\\_Environment](https://www.researchgate.net/publication/307919841_A_Study_of_Motivators_of_Tender_Offer_Repurchases_in_the_Indian_Environment)
  11. M. S. K. Jena, C. S. Mishra & P. Rajib : "Share Repurchases: A Literature Review". *Asian Journal of Finance & Accounting*, vol. 8, No. 2, 2016, pp. 1-30.
  12. U. Varma & N. Rao : "Share Buyback in the Indian Corporate Sector – An Empirical Analysis". n.d.
  13. G. Grullon & R. Michael : "Dividends, Share Repurchases, and the Substitution". 2000. DOI: <http://dx.doi.org/10.2139/ssrn.222730>
  14. A. K. Dittmar : "Why do firms repurchase stock". *The journal of Business*, vol. 73, No. 3, 2000, pp. 331-355. DOI: <https://doi.org/10.1086/209646>
  15. A. De Ridder : "Share repurchases and firm behavior". *International Journal of Theoretical and Applied Finance*, vol. 12, No. 05, 2009, pp. 605-631. DOI: <https://doi.org/10.1142/S02190249090005427>
  16. M. Bajaj & A. M. Vijh : "Dividend clienteles and the information content of dividend changes". *Journal of Financial Economics*, vol. 26, No. 2, 1990, pp. 193-219. DOI: <https://www.biz.uiowa.edu/faculty/avijh/Bajaj-Vijh-JFE-1990-Dividend-clientele-effects.pdf>
  17. S. Bhattacharya : "Imperfect information, dividend policy, and "the bird in the hand" fallacy". *The bell journal of economics*, 1979, pp. 259-270. DOI: <https://doi.org/10.2307/3003330>
  18. M. H. Miller & K. Rock : "Dividend policy under asymmetric information". *The Journal of Finance*, vol. 40, No. 4, 1985, pp. 1031-1051. DOI: <https://doi.org/10.1111/j.1540-6261.1985.tb02362.x>

