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great by
deeds, not by
birth"

-Chanakya

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Share Buybacks in India: An Empirical Analysis

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ABSTRACT

Share buybacks have become a common event in the financial markets across the globe. Existing literature on academicians and practitioners view on distribution decisions is inimical. Dividends and share buyback are popular ways of rewarding shareholders. The fiscal year 2017 has seen a record number of share buyback offers from cash-rich Indian corporates. First time in the history of Indian Capital markets, the number of share buyback offers has exceeded the initial public offers. The present study examines the impact of share buyback on market performance of the firms based on earnings per share and abnormal returns. It is posited that share buyback contributes to shareholders returns. Empirical results indicate that the short-term market returns are higher than the long-term market performance. It implies that share buyback has a positive and significant impact on short-term returns as compared to long-term returns. The results are useful to investors, managers and regulators.

Key words:

Share Buyback; Dividends; Shareholders returns; Distribution decisions, India

1. Introduction:

Share buybacks have become a common event in the financial markets worldwide. In a share buyback programme, the company distributes the excess cash flow among the shareholders by way of repurchasing its own shares, generally at a premium. Among the various reasons for doing so the company wants to indicate to its shareholders that it has huge confidence in itself. In India the practice of share buyback started off in 1998 with Securities and Exchange Board of India (SEBI) clearance, bringing benefits to all stake holders i.e. both the company and the public (shareholders). Since then there has been a spate of announcement of share buybacks.

In general, the reasons for share buybacks are not clear that is whether it is for signalling that is an increase in share prices, accretion of EPS and increase in promoter shareholding. However in most of the developed countries where the prevalence of share buyback is much more than in India, it is seen as a way of rewarding shareholders similar to giving out dividends. Between 2008 and 2013, for S&P 500 companies, dividend pay-out represented less than half of the shareholder rewards, with a much larger proportion attributable to share buyback offers. For Euro Stoxx 50 index, the proportion of share buybacks in overall rewards to shareholders was around 30%. However, for Indian companies, the ratio was less than 5% during the same period, even though share buybacks are more tax efficient than dividends.

A company may buyback its shares under the following routes:

- i. **Fixed price tender offer:** A company may present its shareholders with a formal tender offer whereby they have the option to tender/submit their shares at a fixed price (mostly at a premium) within a certain period. Tender offers are resorted to when the buyback is slightly large.
- ii. **Open-market proposal:** A company may buyback its shares from the market through brokers. While the company may specify the maximum and minimum buyback price, the actual price is market-determined. Open market route is used when the buyback is relatively smaller.

2. Indian Context:

Share buyback relates to the company buying back its own shares which it has issued earlier in the market. In theory buyback of its share by a company is guided by the principal that the intrinsic worth of the share is substantially higher than the market price and the management believes that the share is undervalued. Under normal market conditions a company's announcement of buyback boosts the share price by sending signals that the underlying shares are quoted below the intrinsic value. Since the buyback is generally at a premium, investors who tender the shares for buyback exit at a premium and those who hold on benefit from higher EPS.

The procedure for share buyback in India involves compliance of the provisions of Company Law and SEBI Regulations. The buyback process starts with the company executing an MOU with SEBI. The Due Diligence exercise is carried out in accordance with the relevant SEBI Rules/Regulations/Guidelines. Then, the Public Announcement and offer document are

prepared. The provisions regulating buyback of shares are contained in Section 77A, 77AA and 77B of the Companies Act, 1956. These were inserted by the Companies Act, 1999. The Securities and Exchange Board of India (SEBI) framed the SEBI (Buy Back of Securities) Regulations, 1999 and the Department of Company Affairs framed the Private Limited Company and Unlisted Public company (Buy Back of Securities) rules, 1999 pursuant to Section 77A(2)(f) and (g) respectively. In India the practice of share buybacks started off in 1998 with Securities and Exchange Board of India (SEBI)'s clearance, to bring benefits to all stake holders i.e. both the company and the public (shareholders).

Section 68 of the Companies Act, 2013 presents Share buyback related provisions. As per this, it permits a company, both private and public, to buy back its shares or other specified securities in accordance with the conditions prescribed under Section 68 and the Companies (Share Capital and Debentures) Rules, 2014. In addition to this, the companies should also comply with share buyback regulations prescribed by SEBI under (SEBI) (Buy-back of Securities) Regulations, 1998 and the relevant sections of the Companies Act. In the year 2018, SEBI (Buyback of securities) regulations 1998 are replaced with modified new SEBI regulations 2018¹.

The remainder of the paper is presented as follows. Section 3 presents the extant literature pertinent to India and its impact on market performance. Section 4 deals with sample selection, data source, data collection and research methodology. Section 5 discusses the results and analysis. Lastly, section 6 presents the conclusions.

3. Review of Literature:

Mishra (2005) analyses the impact of buyback announcement period price reaction. He also assesses if the management is acting in the interest of non-tendering shareholders when such buybacks are announced. According to the author, buybacks are initiated to serve a dual purpose that is distribute a company's excessive cash flows amongst its targeted shareholders and instating a firm's belief in its own growth prospects. He gives the following reasons for initiating share buybacks:

- Increasing the underlying share value
- Improving financial parameters of EPS, P/E ratio
- Rationalizing the company's capital structure
- Tax benefits (capital gain tax on share buyback may be lower than tax that needs to be paid on dividend distribution)
- To replenish the ownership dilution that results from ESOPs
- Prevent hostile takeovers

However, share buybacks do not always guarantee upside results. Sometimes, stock markets view the buyback as a negative signal for growth prospects as the surplus cash reserves of the company that could have been invested are wiped out. Furthermore, this strategy is not suitable for high debt companies. It has also been argued that sometimes buyback makes managers adopt share market tactics which may not be appropriate. Furthermore, share buybacks tend to favour those that do not accept the tender offer. This is because share buybacks make share prices rise and those that continue to hold shares make capital gains.

¹ See https://www.sebi.gov.in/sebi_data/meetingfiles/jul-2018/1530875335234_1.pdf - accessed on 24 March 2019

He also analyses the intent of the management in going for share buybacks that is whether it may be to simply increase shareholder gains or sometimes to increase the holding of promoters. The intent might result in differential results. The empirical analysis is conducted for 25 companies, those which offered share buybacks from 1999 to 2001. The financial parameters of these companies pre and post buyback were analysed. It was seen that the success of the buyback program was inversely proportional to the number of shares bought. But the most surprising part of the research was that it suggested that share buybacks have more negative than positive effect on the wealth of shareholders that choose to stay with the company, which is quite contrary to the theoretical discussions (Mishra, 2005).

It was seen that the shareholders who remain with the company lose more wealth instead of gaining. The argument that was proposed was that even though initial euphoria makes share prices rise on the announcement of share buybacks, it does not take long for share prices to come back to their earlier levels. It was also discovered that for most of the companies analysed, a huge amount of market capitalization got wiped out post share buyback. Mishra (2005) concluded that just share buyback announcements or as a matter of fact share buybacks do not always result in benefitting to shareholders (Mishra, 2005).

Kim. J (2007) analyse changes that occur in the daily return volatility associated with open market share buybacks. He finds the evidence that as firms go for open market share repurchase, the return volatility is reduced when the purchase happens at the time of falling share prices. He also found sufficient evidence for the subsequent actual buyback and not the announcements' negative association with daily return volatility. The CAPM beta decreases when the firm actually buybacks its shares.

Guffey and Douglas (2004) examines whether there are tax incentives for firms to engage in share repurchases. They found that firms with higher tax rates are highly likely to announce share repurchases than firms with lower tax rates. They also find evidence for firms that announce share repurchases have lower debt-equity ratios than firms that do not announce repurchases. Tax considerations are found to be the least important factor in the acquisition technique used, whether it is open market offer or tender offer. However, evidences for tax motive and limited investment alternatives to be the major explanatory variables in the stock buyback decision are strong.

Dittmar (2000) observes that shares are repurchased by the firms to take advantage of the undervaluation. In addition to that another finding is that firms also have the motive to distribute excess cash accumulated over the years give back to the shareholders. Sufficient evidences advocate that, firms engage in share buyback in certain periods to alter their leverage ratio, to counter the dilution effects of share offers and to fend off takeovers. Ikenberry et. al (1995) examines the long-run performance of stock prices post open market share buyback announcements and found that for value stocks which were undervalued the average abnormal returns were 45.3% which is very high as compared to Glamour stocks where no positive drift in abnormal returns are observed. Thus they conclude that at least for 'glamour' stocks, the market ignores the information conveyed through repurchase announcements by the firms. Given the mixed results, it is interesting to examine the impact of share buyback announcements on stock performance in general and in particular to India.

4. Research Methodology:

Though the share buyback way of distribution decision is on rise, it is pertinent to see whether shareholders have welcomed share buybacks given their inherent discomfort with the option that results into disbursement of cash which otherwise would have been reinvested in the business. The matter of concern is that when they get a share buyback offer, whether or not they should stay or should they go for accepting the offer. There is also need to explore whether Securities and Exchange Board of India (SEBI) regulations are adequate to regulate share buyback offers in India.

Thus, the main objective of the present study to investigate the validity of short-term and long-term effects of share buyback programme on a company's share price and to assess which companies benefit more from these programmes. Further, whether shareholders are better off in tendering their shares in a share buyback offer or in the post repurchase phase? Is the intention of the management to genuinely promote shareholder's returns or is it a route to increase promoter's percentage shareholding?

We make an attempt to examine these questions in two stages. First, we examine 47 share buyback offers made during the financial year 2016-17. This is one of the second best years of share buyback offers in India. The list of share buyback data is collected from the filing made to SEBI like 'Draft Letter of Offer' and 'Post Buyback public announcement'. Since the date is not radially downloadable, the data for each variable is handpicked from the above mentioned two documents filed to SEBI. The market response to share buyback is measured based on the acceptance percentage. The same is computed based on number of shares offered and number of shares bought. The short-term impact is measured based on the return from announcement date to closing date and opening date to closing date. The long-term impact is measured based on return after three months from share buyback price to announcement date, opening date and closing date respectively.

5. Results and Analysis:

The present study indicates that the number of share buybacks is increasing in India since its inception that it from 1998-99 to 16-2017. The capital market regulator, Securities Exchange of Board of India (SEBI), has introduced share buyback related regulations in the year 1998-99. It is observed that in the initial year, the number of share buyback offers is less and subsequently increased over the years.

Figure 1 and **Table 1** present number of share repurchases offered since its inception in India that is from 1998-99 to 31st November 2017. It is found that the year 2009-10 has highest number (56) of share buyback offers. Next, the year 2008-09 and 2016-17 account for 47 share buyback offers during both the years followed by the year 2002-03 witnessed 42 share buybacks offers. It is observed that post financial crisis period that is after 2008-09 onwards have witnessed higher share buyback offers.

Table 2 and **Figure 2** show the industry wise number of companies gone for share buybacks. Out of the total 304 share buybacks during the period 1998 to 2017, 158 offers come from manufacturing sector which accounts for 51% of the total. It is followed by Information and Technology sector with 39 share buybacks and 29 share buybacks belonging to Financial and Insurance Activities. It is observed that other industry sectors like Education, Human Health, Administrative and Professional, scientific, technical activities account for lower share buyback offers.

Table 3 presents the market response to share buyback offers by the shareholders. For the purpose of analysis, both, share buyback through tender offer and open market offer are considered. **Column 6 of Table 3**, indicates the acceptance percentage. It is observed that during the year 2016-17, most of them show positive response with 100 percent acceptance rate. Unlike developed capital markets, these results are unique to Indian capital markets. The results are differing from the prior research conducted in India (Mishra, 2005). This could be mainly because of increase in awareness of the investors and improved share buyback regulations in India. It is also observed that amount of share buyback also increased significantly over the period of time. The lowest response rate was observed in case of Sasken Technologies Ltd. The reasons for such response need to be investigated. Interestingly, the 100% response to share buyback offer is observed particularly in case of all the public sector undertakings (PSU) or Government owned companies in India. It implies that major shareholder that is Government of India subscribe to share buyback to get additional cash flows to fill the fiscal deficit.

Table 4 presents the impact of share buyback on short-term and long-term market performance during the year 2016-17. The market performance is measured based on the returns computed from buyback price to announcement date price, opening date price, closing date price and three months market price. **Column 8 and 9 of Table 4** shows the median return of on announcement date and opening data as 6 and 7 percent respectively. The median return from announcement date to closing date and opening date to closing date is not significant. **Column 12 and 13 of Table 4** shows the median return on announcement data. The long-term market return across the share buyback announcements, opening and closing date are not significantly different that is 5 to 7 percent. The results indicate that share buyback offer higher market performance during the short-term as compared to long-term.

6. Conclusions:

In case of Indian context, Mr Ajay Tyagi, Chairman of capital market regulator SEBI stated that

“The debate that is going on in the US for the last two years has reached Indian shores. The matter of concern is the high amount of share buybacks being issued in India as compared to the amount raised through initial public offerings (IPO)..... that is over the last two years money given back to investors through buyback of shares by companies is more than the amount raised via fresh share issues”

In this paper, we made an attempt to explore one of the important questions related to pay-out policies of the companies such as impact of share buyback on market performance. It is examined using a sample of 47 share buybacks made during the financial year 2016-17. The impact of share buyback announcement effect on abnormal returns is measured. The pertinent data is handpicked from the filings made to SEBI. It is observed that in India the number of share buybacks is on rise. Unlike in the past, it is found that the percentage of acceptance is 100 percent in most of the share buyback offers. This observation is unique to Indian context. It is found that number of state-owned enterprises actively participates in share buyback. It implies that share buyback may be the source of income to the Government which in turn may be used to fill the fiscal deficit. Further, by examining the share buyback transactions, one can able to investigate various issues relating to share buybacks in India. However, we examine the impact of share buyback on short-term and long-term stock performance and returns to shareholders. It is found that short-term market returns are higher than the long-term market

performance. It implies that share buyback has a positive and significant impact on short-term returns as compared to long-term returns. Given the short history of share buybacks in India, the present study contributes to the existing limited literature on the topic of share buyback and its impact on market performance. The findings are useful to investors, corporate managers, analysts and regulators. Future research can focus on large sample of share buyback offers to validate these research observations.

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**Figure 1: Number of Share Buybacks offered since inception in India
During 1998-99 to 2017**

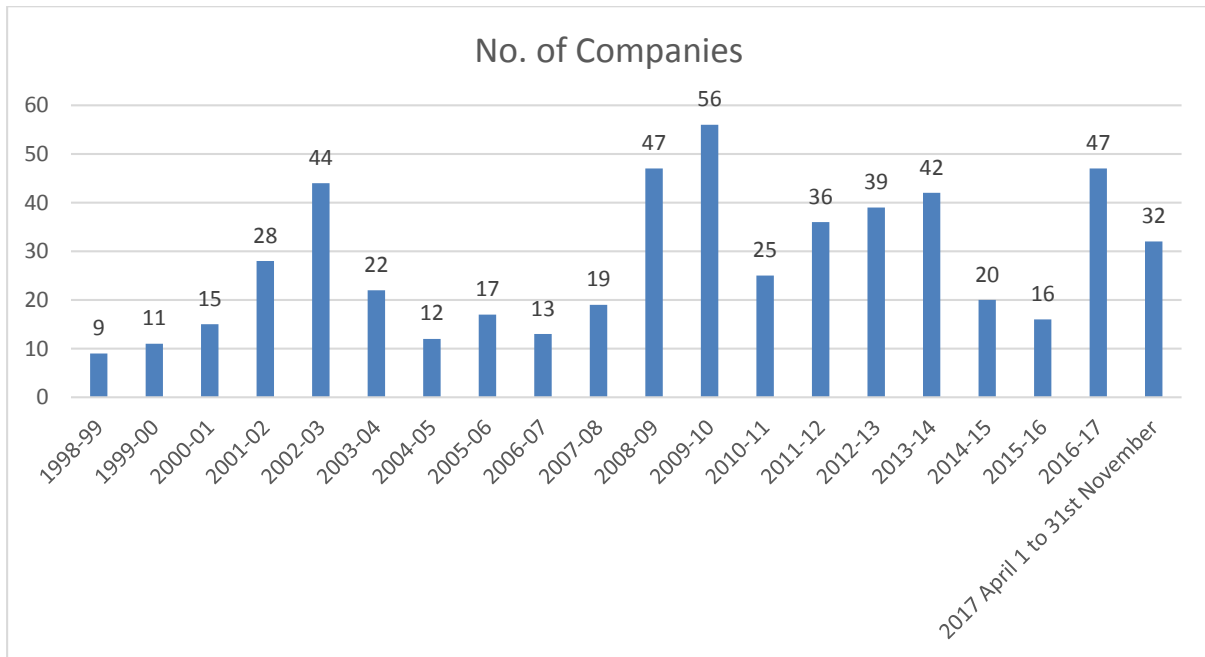


Table 1: Number of Share Buybacks offered in India

Year	No. of Companies
1998-99	9
1999-00	11
2000-01	15
2001-02	28
2002-03	44
2003-04	22
2004-05	12
2005-06	17
2006-07	13
2007-08	19
2008-09	47
2009-10	56
2010-11	25
2011-12	36
2012-13	39
2013-14	42
2014-15	20
2015-16	16
2016-17	47
2017 April 1 to 31st November	32

**Table 2: Number of Share Buybacks offered across the industries in India
During 1998-99 to 2017**

NIC Broad Name	NIC Code	No.
Agriculture, forestry and fishing	A	7
Mining and quarrying	B	6
Manufacturing	C	158
Electricity, gas, steam and air conditioning supply	D	5
Construction	F	14
Wholesale and retail trade; repair of motor vehicles and motorcycles	G	14
Transportation and storage	H	7
Accommodation and Food service activities	I	3
Information and communication	J	39
Financial and insurance activities	K	29
Professional, scientific and technical activities	M	4
Administrative and support service activities	N	3
Education	P	1
Human health and social work activities	Q	2
Diversified	DIVERSIFIED	12
	Total	304

NIC = National Industrial Classification 2008, Government of India

Figure 2: Number of Share Buybacks offered across the industries in India

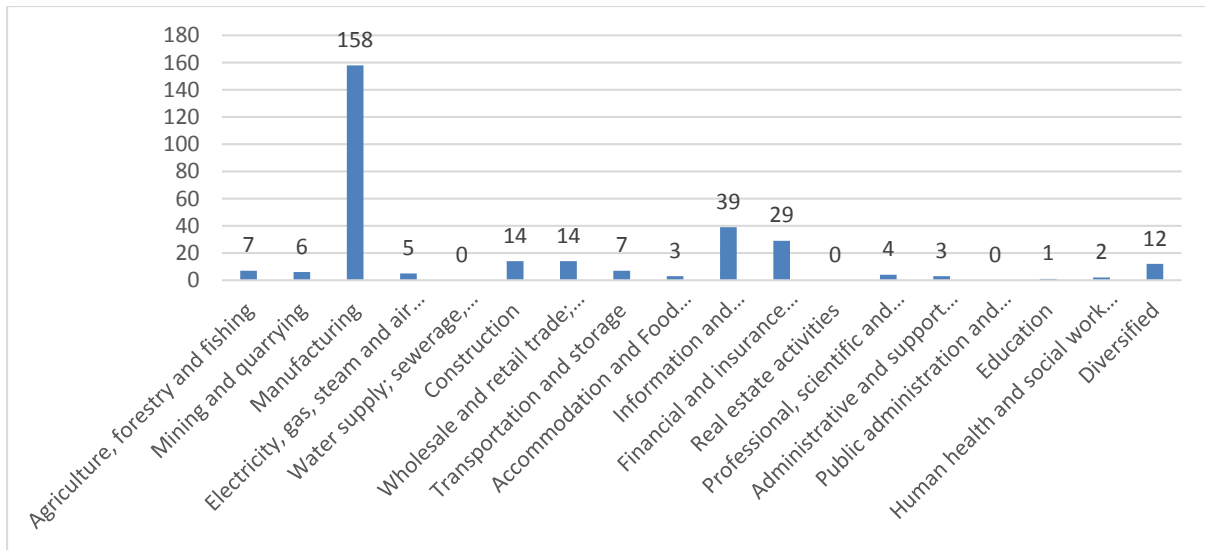


Table 3: Market response to Share Buyback Offers during the year 2016-17

Sl. No	Issuer Name	Offer Price	No of Shares Offered	No of shares bought	Acceptance %	Total Consideration paid
1	Aarti Drugs Ltd.	750	360000	360000	100.00	270000000
2	Aarti Industries Ltd.	800	1200000	1200000	100.00	960000000
3	Allcargo Logistics Ltd.	195	6400000	6400000	100.00	1248000000
4	Ambika Cotton Mills Ltd.	1048.81	NA	150000	NA	157321500
5	Apar Industries Ltd.	660	450000	228150	50.70	150579000
6	Baba Arts Ltd.	3	25800000	25800000	100.00	77400000
7	Balrampur Chini Mills Ltd.	175	10000000	10000000	100.00	1750000000
8	Bharat Electronics Ltd.	1305	16637207	16637207	100.00	21711555135
9	Bharti Infratel Ltd.	425	47058823	47058823	100.00	19999999775
10	Bosch Ltd.	23000	878160	878160	100.00	20197680000
11	Coal India Ltd.	335	108955223	108955223	100.00	36499999705
12	Dhanuka Agritech Ltd.	850	941176	941176	100.00	799999600
13	Disa India Ltd.	4800	56000	56000	100.00	268800000
14	Dr. Reddy'S Laboratories Ltd.	3090.92	NA	5077504	NA	15694158664
15	E C E Industries Ltd.	170	700000	437280	62.47	74337600
16	Eclerx Services Ltd.	2000	1170000	1170000	100.00	2340000000
17	Excel Industries Ltd.	275	1150000	334938	29.13	92107950
18	Fineotex Chemical Ltd.		1362980	998110	73.23	0
19	Gujarat Ambuja Exports Ltd.	95	23684210	23684210	100.00	2249999950
20	Hexaware Technologies Ltd.	240	5694835	5694835	100.00	1366760400
21	I C R A Ltd.	4135	96720	96720	100.00	399937200
22	Indiabulls Real Estate Ltd.	79.91	60000000	34046000	56.74	2720615860

23	Infinite Computer Solutions (India) Ltd.	265	5660000	5660000	100.00	1499900000
24	K P R Mill Ltd.	660	1470000	1470000	100.00	970200000
25	Lakshmi Machine Works Ltd.	4450	311000	311000	100.00	1383950000
26	M O I L Ltd.	248	34812196	34812196	100.00	8633424608
27	Mayur Uniquoters Ltd.	500	500000	500000	100.00	250000000
28	N H P C Ltd.	32.25	811347977	811347977	100.00	26165972258
29	N L C India Ltd.	99	149141173	149141173	100.00	14764976127
30	N M D C Ltd.	94	800825526	800825526	100.00	75277599444
31	National Aluminium Co. Ltd.	44	644309628	644309628	100.00	28349623632
32	Navneet Education Ltd.	125	4657000	4657000	100.00	582125000
33	Novartis India Ltd.	760	3820000	3820000	100.00	2903200000
34	Onmobile Global Ltd.	150	5600000	5600000	100.00	840000000
35	R Systems International Ltd.	65	3000000	3000000	100.00	195000000
36	Sasken Technologies Ltd.	410	2869098	609699	21.25	249976590
37	Smartlink Network Systems Ltd.	110	7454850	7454850	100.00	820033500
38	Sobha Ltd.	330	2275000	1759192	77.33	580533360
39	Sun Pharmaceutical Inds. Ltd.	900	7500000	7500000	100.00	6750000000
40	Tips Industries Ltd.	62.79	NA	1039981	NA	65300406.99
41	Transpek Industry Ltd.	475	325000	286471	88.14	136073725
42	Vardhman Acrylics Ltd.	50	13800000	12644090	91.62	632204500
43	Vardhman Textiles Ltd.	1150	6260869	6260869	100.00	7199999350
44	Welspun Enterprises Ltd.	62	43510133	26987479	62.03	1673223698
45	Wipro Ltd.	625	40000000	40000000	100.00	25000000000

Source: Calculations made by the authors.

Table 4: Impact of Share Buyback offers on stock price during the year 2016-17

No.	Company/Issuer Name	Repurchase Price	Price on AD	Price on OD	Price on CD	Price 3 months later	Return from AD	Return from OD	Short-term Returns		Long-term returns		
									From AD to CD	From OD to CD	3 month post BB to AD	3 month post BB to OD	3 month post BB to CD
1	Aarti Drugs	750.00	646.40	645.40	655.50	583.90	0.16	0.16	0.01	0.02	-0.10	-0.10	-0.11
2	Aarti Industries	800.00	740.40	707.45	693.50	744.35	0.08	0.13	-0.06	-0.02	0.01	0.05	0.07
3	Allcargo Logistics	195.00	185.50	170.90	184.05	170.40	0.05	0.14	-0.01	0.08	-0.08	0.00	-0.07
4	Ambika Cotton Mills	1048.80	963.40	1021.80	1101.10	1316.45	0.09	0.03	0.14	0.08	0.37	0.29	0.20
5	Apar Industries	660.00	619.40	723.95	740.85	847.90	0.07	-0.09	0.20	0.02	0.37	0.17	0.14
6	Baba Arts	3.00	2.86	2.81	2.98	3.00	0.05	0.07	0.04	0.06	0.05	0.07	0.01
7	Balrampur Chini Mills	175.00	131.00	158.15	158.10	159.85	0.34	0.11	0.21	0.00	0.22	0.01	0.01
8	Bharat Electronics	1305.00	108.40	115.65	114.92	134.08	11.04	10.28	0.06	-0.01	0.24	0.16	0.17
9	Bharti Infratel	425.00	378.30	350.30	366.00	379.35	0.12	0.21	-0.03	0.05	0.00	0.08	0.04
10	Bosch	23000.00	25442.00	23098.40	22633.60	21266.25	-0.10	0.00	-0.11	-0.02	-0.16	-0.08	-0.06
11	Coal India	335.00	334.70	327.90	312.55	308.70	0.00	0.02	-0.07	-0.05	-0.08	-0.06	-0.01
12	Dhanuka Agritech	850.00	759.70	782.15	795.35	897.70	0.12	0.09	0.05	0.02	0.18	0.15	0.13
13	Disa India	4800.00	5533.00	4599.50	4015.00	4900.00	-0.13	0.04	-0.27	-0.13	-0.11	0.07	0.22
14	Dr. Reddy'S Laboratories	3090.90	3029.00	3091.05	3273.05	3200.35	0.02	0.00	0.08	0.06	0.06	0.04	-0.02
15	E C E Industries	170.00	165.80	172.55	319.05	316.50	0.03	-0.01	0.92	0.85	0.91	0.83	-0.01
16	Eclerx Services	2000.00	1517.00	1496.25	1488.30	1387.25	0.32	0.34	-0.02	-0.01	-0.09	-0.07	-0.07
17	Excel Industries	275.00	269.90	265.55	279.90	321.00	0.02	0.04	0.04	0.05	0.19	0.21	0.15

18	Fineotex Chemical		28.15	31.75	30.55	37.80	-1.00	-1.00	0.09	-0.04	0.34	0.19	0.24
19	Gujarat Ambuja Exports	95.00	94.65	107.30	110.60	135.15	0.00	-0.11	0.17	0.03	0.43	0.26	0.22
20	Hexaware Technologies	240.00	203.10	192.75	210.20	255.35	0.18	0.25	0.04	0.09	0.26	0.32	0.21
21	I C R A	4135.00	4051.00	4161.80	4140.35	4039.15	0.02	-0.01	0.02	-0.01	0.00	-0.03	-0.02
22	Indiabulls Real Estate	79.91	69.25	70.50	89.75	211.65	0.15	0.13	0.30	0.27	2.06	2.00	1.36
23	Infinite Computer Solutions (India)	265.00	237.00	226.06	239.45	216.63	0.12	0.17	0.01	0.06	-0.09	-0.04	-0.10
24	K P R Mill	660.00	609.00	569.30	609.50	734.15	0.08	0.16	0.00	0.07	0.21	0.29	0.20
25	Lakshmi Machine Works	4450.00	4505.00	3908.20	3863.40	4105.90	-0.01	0.14	-0.14	-0.01	-0.09	0.05	0.06
26	M O I L	248.00	123.90	125.48	123.23	180.03	1.00	0.98	-0.01	-0.02	0.45	0.43	0.46
27	Mayur Uniquoters	500.00	450.60	430.65	441.20	357.60	0.11	0.16	-0.02	0.02	-0.21	-0.17	-0.19
28	N H P C	32.25	30.65	29.60	30.65	33.30	0.05	0.09	0.00	0.04	0.09	0.13	0.09
29	N L C India	99.00	93.65	95.00	97.05	109.95	0.06	0.04	0.04	0.02	0.17	0.16	0.13
30	N M D C	94.00	102.10	103.30	105.80	123.40	-0.08	-0.09	0.04	0.02	0.21	0.19	0.17
31	National Aluminium Co.	44.00	48.20	48.65	46.20	66.15	-0.09	-0.10	-0.04	-0.05	0.37	0.36	0.43
32	Navneet Education	125.00	106.00	109.80	112.40	166.85	0.18	0.14	0.06	0.02	0.57	0.52	0.48
33	Novartis India	760.00	731.10	711.95	727.80	692.85	0.04	0.07	0.00	0.02	-0.05	-0.03	-0.05
34	Onmobile Global	150.00	109.70	107.20	97.20	103.80	0.37	0.40	-0.11	-0.09	-0.05	-0.03	0.07
35	R Systems International	65.00	60.65	56.10	54.40	58.85	0.07	0.16	-0.10	-0.03	-0.03	0.05	0.08
36	Sasken Technologies	410.00	414.10	390.10	400.25	415.05	-0.01	0.05	-0.03	0.03	0.00	0.06	0.04
37	Smartlink Network Systems	110.00	102.90	96.65	99.05	90.50	0.07	0.14	-0.04	0.03	-0.12	-0.06	-0.09
38	Sobha	330.00	297.00	318.20	333.95	299.15	0.11	0.04	0.12	0.05	0.01	-0.06	-0.10

39	Sun Pharmaceutical Inds.	900.00	754.80	786.75	759.45	643.45	0.19	0.14	0.01	-0.04	-0.15	-0.18	-0.15
40	Tips Industries	62.79	61.25	60.50	56.20	62.60	0.03	0.04	-0.08	-0.07	0.02	0.03	0.11
41	Transpek Industry	475.00	503.50	493.00	465.00	556.35	-0.06	-0.04	-0.08	-0.06	0.11	0.13	0.20
42	Vardhman Acrylics	50.00	47.30	47.55	47.50	47.25	0.06	0.05	0.00	0.00	0.00	-0.01	-0.01
43	Vardhman Textiles	1150.00	1095.00	1121.30	1128.00	1317.30	0.05	0.03	0.03	0.01	0.20	0.17	0.17
44	Welspun Enterprises	62.00	62.10	65.15	69.55	105.40	0.00	-0.05	0.12	0.07	0.70	0.62	0.52
45	Wipro	625.00	279.40	276.03	278.98	239.48	1.24	1.26	0.00	0.01	-0.14	-0.13	-0.14
	Descriptive Statistics												
	Average					1163.16	0.34	0.33	0.04	0.03	0.16	0.16	0.12
	Median					299.15	0.06	0.07	0.01	0.02	0.05	0.07	0.07
	Standard Deviation					3266.99	1.66	1.55	0.17	0.14	0.38	0.35	0.25
	Minimum					3.00	-1.00	-1.00	-0.27	-0.13	-0.21	-0.18	-0.19
	Maximum					21266.2	11.04	10.28	0.92	0.85	2.06	2.00	1.36

Source: Calculations made by the author

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