

# **SOUTH ASIAN JOURNAL OF MANAGEMENT RESEARCH (SAJMR)**

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**Chh. Shahu Institute of Business  
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# **SOUTH ASIAN JOURNAL OF MANAGEMENT RESEARCH (SAJMR)**



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## Editorial Note

*Giving birth to a journal is a painful journey. It starts with a specific vision followed by lots of ambiguity at the implementation level that gives way to clarity. Finally we have arrived at it. The first issue of the first volume is now ready.*

*I wish to emphasize on the vision with which we have started the journal. This vision is closely linked with the academic background of SIBER; the Institute that brings out this journal. SIBER is a unique Institute of its kind in the entire Indian Subcontinent imparting Post Graduate Professional Education in the field of Business Management, Social Work Administration, Environmental Studies and Computer Application. Management thoughts and managerial research are the common factors that link these otherwise diverse fields. Having completed three decades, the Institute now desires to cater the international community, by creating a platform for sharing the outputs of managerial research in these as well as other areas of human activities.*

*We perceive that the socio-economic and political environments in South Asian Countries are more or less similar that we will be able to share the same media for this purpose.*

*Scarcity of good articles was the main hurdle experienced in bringing out the first edition of the journal. Copycat culture is frequently reflected in the research articles. Usually the reputed researchers will be reluctant to spare research for an upcoming journal.*

*Research requires imagination and creativity. Most research lack rigorous methodological constraints. The aim of our journal is to provide a quality article to the readers and to create a platform for the academicians to publish their articles.*

*It is our editorial policy to review every paper by two experts. We followed this method religiously and continue to follow in the future too. The accepted papers have gone through dual reviews.*

*This issue contains four papers. The first paper is of a joint article of Dr. Francisco Diniz and Teresa Sequeira on 'A Social and Economic Development Index NUTS Ranking in Portugal'. In this paper the authors have calculated Social and Economic Development Index (SEDI). By using multivariate statistical analysis, the authors have studied demography, education, employment, entrepreneurial structure, health and housing conditions etc. in Portugal and made a comparisons between different regions.*

*The second paper is from Dr. Nandakumar Mekhoth, Faculty, Department of Management Studies, Goa University, Goa and Nattuvathuckal Barnabas from Goa Institute of Management, Goa. The paper is related to Development of a scale, a Scale to Measure Organization Autonomy. By using psychometric techniques, the authors have developed scale in an appropriate manner and its reliability has been established through factor analysis.*

*The next paper is from Dr. R.L. Hyderabad and M.N. Bhajantri from Department of Commerce, Karnataka University, Dharwad. They have discussed Share Buy Back Procedure in detail. The authors have discussed Open Market Repurchases (OMRs) and Fixed Price Tender Offers (FPTs), which are common and popular methods of accomplishing share buyback decisions. They have concluded that OMRs yield greater returns in first buybacks and FPTs in subsequent buyback.*

*The last paper is related to job satisfaction among the nursing professionals by Dr. Madhu T.P. Nair and Dr. Shobha A. Menon, Cosmopolitan's Valia College of Commerce, Mumbai. This paper is related to health sector.*

*The first issue of the journal has review of two books. The book on 'Service Marketing' authored by Valarie a Zeithaml, Dwayne D Gremler, Mary Jo Bitner and Ajay Pandit has been reviewed by Dr. N.M. Makandar, Department of Commerce, Anjuman Arts, Science and Commerce College, Dharwad. The second book is related to New Mantras in Corporate Corridors: From Ancient Roots to Global Routes, authored by Subhash Sharma has been reviewed by Dr. Pratima Verma, Indian Business Academy, Bangalore.*

*We welcome research papers from the field of Computer Science, Environmental Studies, Social Work, Administration, etc.*

*I am grateful to all the authors, reviewers and editorial members of the journal for their contribution and support in bringing out the first volume of the journal successfully.*

**Dr. Babu Thomas**

*Editor, SAJMR*

*SIBER, Kolhapur*



# Share Buyback Methods and Market Performance in India

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## Abstract

Open market repurchases (OMRs) and fixed price tender offers (FPTs) are two popular methods of accomplishing share buyback decisions. The empirical evidence available in US shows that OMRs constitute almost 90% to 95% of total buyback announcements. Though OMRs dominate in numbers, they are poor in generating announcement returns to shareholders. Comment and Jarrell (1991) found a three-day CAR of 11% for FPTs and 2.3% for OMRs in US. We find from evidence available in India that OMR is a predominant method of announcing repurchase decision by firms in India. Employing a sample of 70 buyback announcements we find similar evidence in the US i.e. FPTs generate a CAR higher than the OMRs. The 41-day CAR was found to be 9.14% for FPTs and 6.59% for OMRs. The results are not consistent when announcement are classified into first and subsequent buybacks. OMRs yield greater returns in first buybacks and FPTs in subsequent buybacks. We attribute this contradiction to a few number of subsequent buybacks in India.

**Keywords:** Share Buyback; Open Market Repurchases (OMR); Fixed Price Tender Offers (FPT)

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## 1. Introduction

A firm can employ dividend and share buyback approaches to distribute cash flows amongst the shareholders. In recent decades, share buybacks are emerging as preferred method of returning cash flows for obvious advantages involved in them. Dividends carry expectations. An increase in dividend in one year would generally lead to similar expectations even in future years also. Failure to pay would signal negatively to the market. On the other hand, the share buybacks do not carry such expectations. Above all, buybacks are flexible forms of returning excess money. There are few restrictions on timing and quantum of distribution. In the US, a clear preference for buybacks is observed in recent decades. The available data indicates that share repurchases in the US are substituting dividends. Buybacks have grown from \$ 2 billion in 1981 to \$232 billion in 2004 (Rau and Stouraitis, 2006). According to Fama and French (2001) the percent of firms paying cash has fallen from 66.5 in 1978 to 20.8 in 1999. Grullon and Ikenberry (2000), Grullon and Michaely (2004) and Skinner (2008) document a massive increase in the number (and total value) of the U.S. industrial firms repurchasing their own shares since 1982, when a key SEC ruling first provided a legal safe harbour for managers

implementing open-market repurchases. Most strikingly, Skinner (2008) shows that the total annual value of share repurchases now usually exceeds that of cash dividends in the United States, and documents that repurchases have become the preferred method of distributing cash to investors.

The approximate correspondence in the timing of the shifts in dividend policy and repurchases suggests that repurchases substitute for dividends although there are other explanations for repurchases, including undervaluation/signalling, the funding of corporate acquisitions, management of the dilutive effects of employee stock options, and the management of reported EPS (Allen and Michaely, 2003; Brave *et al.*, 2005). A high-priced buyback is a signal to the market the manager's strong conviction that the market value is low and needs to be corrected. Further, by announcing share buybacks, a manager conveys to the market his confidence relating to the fundamentals of the firm and expects market to revise upwards the market valuation. It has generally been observed that market greets favourably the announcement of share buybacks. In addition to signalling explanation, Jensen, (1986) extends free cash flow hypothesis for the use of buybacks. There is generally a conflict between managers and shareholders regarding



the use of free cash flows. Shareholders expect firms to distribute as much as possible while the managers regard cash flows as 'source of power' and intend to use such cash flows to further their clout over the firm by investing in mergers and acquisitions. The share buybacks by reducing the extent of cash available in the hands of managers subjects them to be under the market control through the floatation of public issue of securities. The issue of debt commits the use of cash flows to pay interest and return principal amounts while equity issue regulates managers' behaviour through reporting and governance norms.

Share buybacks may be used to achieve a desired capital structure or to finance impending exercise of employees' stock options (Kahle, 2002) or to thwart the hostile takeover attempts. Companies may use buybacks to provide exit options to the shareholders if shares are unlisted or listed but not traded regularly. Further, buyback reduces the quantum of public holding and improves promoters' stake holding. Some consider buyback to be an excellent tool to improve firm's fundamentals or to reduce the servicing cost of equity.

## 2. Methods of buyback

How do firms accomplish share buyback decisions? What are the methods available and which method is more usually employed? Do announcement returns differ from method to method? How do firms select the method of distribution? etc., are some of the questions that have eluded exact answers. Several methods of announcing and completing buybacks are available for a firm. Even the Companies Act, 1956 and SEBI's regulations in India permit companies to use six methods. They are:

- Open offer
- Tender offer
- Dutch auction method
- Reverse rights issue method
- Purchase of odd-lot shares
- Purchase of employees stock options

### 2.1. Open offer

Open offers are known as 'open market repurchases (OMRs)' in US. They represent general offers made to the shareholders at current market price. The method fixes no upper limit on

return a particular amount of cash flow and buyback continues till the amount is exhausted. Further, the firm enjoys the liberty of withdrawing this offer at its own will. In view of these reasons, the method has remained the most popular method of buyback of shares. On an average, 90% of buyback announcements in the US are carried through this method (Grullon and Ikenberry, 2000). Further, US firms take, on an average, three years to complete the buyback process under this method (Stephens and Weisbach, 1998). It is employed when a small percent of shares is to be purchased by the firm. Comment and Jarrell (1991) regard the method as a non-serious way of returning of free cash flow and found lower announcement returns. They found an announcement day return of only 2.3% as against higher returns for other methods. The method is not advisable if a firm has specific objectives in mind like preventing hostile takeovers or correcting market undervaluation.

Chan *et al.* (2006) opined that compared to fixed-price buyback methods, open market buyback programmes are simply authorizations, not commitments, which permit management to repurchase stock at their whim, if at all. They find evidence in their work that firms use OMRs to mislead investors as long-run price movement does not justify the reason for employing buyback method. Vermaelen (1981) also views that the method carries greater credibility if manager's wealth is at stake.

### 2.2. Tender offers

Under tender offers, also known as fixed price tender offers (FPTs) in the US, a firm offers to buy a specified percent of shares within a given time period at a specific price. The price offered is at premium to market price. If the offer is oversubscribed, the firm may decide to buy the shares on pro-rata basis or may elect to buy all the shares offered by the shareholders. On the other hand, the offer date will be extended if the offer is undersubscribed or the firm can cancel the offer if it includes a minimum acceptance clause, or the firm can simply buyback whatever number or percentage of shares was tendered.

Tender offers are used to achieve specific objectives and are time-bound. The firm may use the method to signal undervaluation or to fend-off a hostile bid on the company. Further, the percent of shares bought under the method is relatively higher than OMRs. Dann (1981) found for his



sample of FPT share repurchases totalling 143 observations over the period 1962 to 1976 that the fraction of shares repurchased averaged 20% and the premium offered averaged 23%. Similarly, Vermaelen (1981) found an initial average premium of 23% and the fraction of shares bought as 15%. Dann (1981) and

found an announcement effect of 15% and 16% respectively while Comment and Jarrell (1991) covering the period 1984 to 1989 found an average event return of 11% for a three-day window. These figures are higher than what has been generally observed for OMRs.

**Summary of major differences between OMRs and FPTs**

Sl. No.	Points of difference	Open market repurchases	Fixed price tender offers
1	Popularity among companies	Very popular	Used to a limited extent
2	Price offered	Generally announced at current market price	Announced at premium to current market price
3	Quantity bought	Small quantities	Bought in larger quantities
4	Time taken to complete the process	A very long time; in US almost three years	Completed in a specific period of time
5	Motives behind the use	Used to distribute the free cash flow	Used to achieve a specific objective like improving market valuation, preventing hostile takeovers, etc.
6	Extent of market reaction	Very low	Market reacts favourably
7	Credibility of the offer	The market views with circumspection, unless the managers' wealth is at stake	The announcement sends strong signals about undervaluation or intention of buyback

### 2.3. Dutch Auctions (DAs)

These are also called as reverse book building methods. Under this method, the firm offers to repurchase a specific quantity within a specified time period and at price agreed by shareholders. The firm indicates price-band at which it is willing to repurchase and repurchase only if it gets bids at lower range. Therefore, the Dutch auction is a price discovery method. The firm specifies only the range and expects shareholders to make bids for sale. The Dutch auctions are least popular method of repurchasing shares. Comment and Jarrell (1991) concluded that Dutch auctions are favoured by relatively large firms that are widely followed by security analysts and other informed investors. These are companies in which management owns a relatively low percentage of stock. Because of their stock is widely followed and management stakes are relatively low, these firms are 'ill-suited' to send strongly credible signals in premium repurchase offers. For such firms, Dutch auctions are likely to be substitutes for open-market repurchases. In terms of announcement returns, Comment and Jarrell (1991) found a return higher than OMR but lower

than tender offers. The three-day announcement return was estimated by them at 8%.

### 2.4. Reverse Rights Method

It is also known as proportionate method. Under this method a firm buys shares from every shareholder. It is inverse to rights offer. There are no evidences of its use in US and India.

### 2.5. Other methods

The buyback provisions of Companies Act, 1956 permit companies in India to repurchases shares in odd-lot category and employees stock options. Since market dealings are in even lots only, the method is rarely used and can be employed to eliminate such odd lot shares. There is no empirical evidence of these methods in Indian context.

## 3. Review of earlier literature

Empirical research on buybacks has been



reaction to announcements, operating performance in post-buyback period, impact on promoters shareholding, methods used and method-wise market reaction, multiple buybacks, crowding effects of buybacks, credibility of offers, etc., have been studied by several authors both in the US and other nations. The available empirical evidence shows that FPTs have greater signalling power followed by DAs and OMRs. Comment and Jarrell (1991) report an abnormal return of 11% for FPTs, 8% for DAs, and only 2.3% for OMRs. They believe that the open market stock repurchase provide weak signals. Vermaelen (1981) also believed in strong signalling ability of fixed-price agreements and the Dutch auctions than open market repurchases. Later studies have reached similar conclusions, including Vermaelen (1984), Ofer and Thakor (1987), Stephens and Weisbach (1998), and McNally (1999). Hua Zhang (2002) finds a contradictory result for Japanese announcements. The author finds significant timing skills among Japanese firms in executing open market repurchases.

Share buybacks were introduced in India in October, 1998 through an amendment to Companies Act, 1956. Pitibash Mohanty (2002), Mishra (2005), Amitabh Gupta (2006), Kaur and Singh (2003) etc., have analysed the announcement effects for share buybacks of Indian companies for different periods and number of announcements. Mohanty (2002) employing a sample of 12 buybacks estimates a CAR of 11.25% for 61-day window period. The announcement day CAR was found by him at 3.86%. He concludes that buybacks in India have not been able to increase the shareholders' wealth perceptibly as argued by the financial economists in the US. Kaur and Singh (2003) using 'comparison period return approach', used by Masulis (1980) in analysing the stock-price behaviour around repurchase, recorded a mean daily return of 1.5% for 77 buy backs for 21-day window period. Mishra (2005) analyses 25 buybacks and finds a favourable reaction around the announcement date. However, he also concludes that this euphoria is only temporary and market price falls to the pre-offer level. Gupta (2006) finds a CAR of 12.69% for 61-day window period, significant at 5% level, for 46 buybacks announced between January 1, 1999 and March 15, 2004. The announcement day AAR and CAR were 1.67% and 11.82% respectively. The study

finds that five out of seven companies which announced another buyback programme witnessed a decline in their AARs on days -1, 0 +1 in the second programme. Thirumalvalavan and Sunitha (2006) find a CAR of 2.35% over a five-day period for a sample of 22 companies announcing buybacks between 2002-2004 periods.

A company may accomplish its buyback process employing different methods. The signalling ability varies from method to method. Though literature in the US clearly demonstrates greater signalling ability of FPTs over OMRs, such an analysis in Indian context is a missing line. The present study fills this academic gap. We intend here to study how price behaves under different methods and which method is beneficial from shareholders point of view. Whether the signalling power varies over first and subsequent buybacks and over different window periods? Such an analysis will help corporate managers in making right selection of announcement method. The selection of a suitable method is a strategic decision and needs careful evaluation by corporate managers. Our analysis would provide some additional insights on aspects not covered by other studies.

#### 4. Research Methodology

The announcement returns for buybacks have been studied in the present work using the standardised event returns approach, i.e., market model. The model takes explicit account of the risk associated with the market and mean returns, hence it is the most widely used method of predicting abnormal returns (J. F. Weston et al 2007). According to market model, the abnormal returns on a given trading day,  $t$ , are calculated as:

$$AR_{i,t} = R_{i,t} - \hat{\alpha}_i - \hat{\beta}_i R_{m,t}$$

Where  $AR_{i,t}$  is the abnormal return on security  $i$  for day  $t$ ,  $R_{i,t}$  is the return on security  $i$  for day  $t$  and  $R_{m,t}$  is the return a market index for day  $t$ , and are intercept and slope respectively and are estimated using the following equation:

$$R_{i,t} = \hat{\alpha}_i + \hat{\beta}_i R_{m,t} + \hat{\epsilon}_{i,t}$$

For estimating the values of parameters of the model, a broad based market index or portfolio of securities is required. We employ BSE 500 Index

as a proxy for broad based market index or portfolio of securities as there are no broad based market indices. The values are predicted over the period on which no information related to the event is released. This period should be generally large and may be before or after the event period (Weston J F *et al.*, 2007). We employ 200 days before the event as estimation or clean period. In addition, the event studies involve use of window or event period over which the effect of announcement is evaluated. The study employs 3-day, 5-day, 7-day, 11-day and 41-day as event windows. In other words, if the event period is 41-days, this includes 20 days before, event day and 20 days after (-20, 0, +20) and the estimation period for this event period will be -220 days to -21 days.

The sample buyback announcements were considered on the basis of the following two criteria:

- Availability of media and /or public announcement date/s
- Availability of continuous price data both in event and estimation periods.

As against 140 announcements till March 2007, only 70 announcements fulfill both these conditions and hence the sample size is restricted to 70 announcements. Appendix 1 gives the details of these announcements. The media and/or public announcement dates were collected from CMIE sources, press reports and websites of equity analysts. The earlier of media or public announcement dates is taken as the announcement date. The adjusted daily closing prices are used for computing the event returns, which were accessed from CMIE Prowess database.

The average abnormal return on day  $t$  for all firms is ascertained as shown below:

$$AAR_t = \frac{\sum_{i=1}^n AR_{i,t}}{N},$$

where  $N$  is the number of announcements in the sample.

The daily average abnormal returns are cumulated over the window period for computing the CAR as shown below:

$$CAR = \sum_{t=-d}^d AAR_{i,t}$$

Where  $d$ ;  $d$  represent the event or window period.

The study computes t-test and p-values (non-parametric) to test the null hypothesis that event returns are equal to zero using the following formulae:

$$t = \frac{CAR}{\hat{S}(CAR_t)} = \frac{\overline{CAR_t}}{\sqrt{N} \sum_{t=-1}^n \hat{S}(CAR_t)}$$

Where

$$\overline{CAR_t} = \frac{\sum_{t=-d}^d CAR_t}{N} \text{ and } \hat{S}(CAR_t) = \sqrt{\sum_{t=-d}^d (CAR_t - \overline{CAR})^2}$$

In addition to testing the significance of CAR, the study employs t-test or z-test values for testing the significance of daily average returns in 41-day window period. For this purpose, the study employs the approach used by Gupta (2006; 2008). The standard deviation of abnormal returns for the estimation period (200 days) has been computed. The Standardised Abnormal Returns (SAR) for each company is estimated by dividing abnormal returns of the event period, i.e., -20 to +20 by the standard deviation obtained. For the event day  $t$ , the Z-statistic for the AARs on  $N$  securities is calculated as:

$$Z_t = \sum_{i=1}^N SAR_{i,t} / \sqrt{N}$$

The remainder of the paper proceeds as follows. In the next few pages an analysis of the progress of the buybacks in India has been done followed by analysis of abnormal returns for all sample announcements. The analysis of average and cumulative abnormal returns method-wise, first and subsequent buybacks and year-wise is done in the next part. The last part of the article gives the conclusion.

#### 4.1. Year-wise and method-wise classification of buybacks

Table 1 shows year-wise and method-wise classification of total and sample buyback announcements in India. Table 1 indicates wide fluctuations both in total and sample buyback announcements in India. There are 140 announcements till March 31, 2007 (SEBI's Status Report on Buybacks, 2007). 78.57% of



**Table 1**  
**Year-wise and method-wise classification of total and sample buybacks**

Year	Total buybacks announced in India			Sample selected for the study		
	OMRs	FPTs	Total	OMRs	FPTs	Total
1998-99	01	--	01	--	--	--
1999-00	10	--	10	--	--	--
2000-01	16	--	16	02	--	02
2001-02	18	02	20	14	02	16
2002-03	20	13	33	12	11	23
2003-04	19	09	28	08	01	09
2004-05	08	02	10	08	03	11
2005-06	11	03	14	04	--	04
2006-07	07	01	08	04	01	05
(till 31.3.2007)						
<b>Total</b>	<b>110</b>	<b>30</b>	<b>140</b>	<b>52</b>	<b>18</b>	<b>70</b>

Source: SEBI's status report

these announcements are OMRs and the rest are FPTs. The study has selected 70 sample announcements; out of which 75% are OMRs and the remaining are FPTs. OMRs outnumber FPTs in all the years in both total and sample. In fact, FPTs were employed by Indian companies only in 2001-02, after a gap of 3 years from the date of introduction of buyback. Grullon and Ikenberry (2000) found in their study such similar dominance by OMRs, which constituted nearly 95% to 98% of repurchase activity in US.

#### 4.2. Method-wise classification of quantum of buybacks

Does quantum of repurchase announced by a firm vary with the methods? The research evidence available in the US shows that companies announce smaller quantities in OMRs and larger quantities in FPTs (Murali Jagnathan, *et al.*, 2003). What is the evidence of India? Table 2 gives details relating to method-wise classification of quantum of buybacks:

**Table 2**  
**Method-wise classification of quantum of buybacks**

Year	Less than 10%		≥ 10% but <15%		≥ 15% but <20%		≥ 20% but <25%		Total	
	OMRs	FPTs	OMRs	FPTs	OMRs	FPTs	OMRs	FPTs	OMRs	FPTs
2000-01	01	--	--	--	01	--	--	--	02	--
2001-02	08	01	03	--	02	01	01	--	14	02
2002-03	10	05	01	04	--	--	01	02	12	11
2003-04	05	--	02	01	--	--	01	--	08	01
2004-05	08	02	--	--	--	--	--	01	08	03
2005-06	04	--	--	--	--	--	--	--	04	--
2006-07	03	01	01	--	--	--	--	--	04	01
<b>Total</b>	<b>39</b>	<b>09</b>	<b>07</b>	<b>05</b>	<b>03</b>	<b>01</b>	<b>03</b>	<b>03</b>	<b>52</b>	<b>18</b>

Source: SEBI's Status Report on Buybacks

A perusal of Table-2 reveals that 50% of FPT announcements buy in excess of 10% where as in OMRs 75% of announcements repurchase less than 10%. This demonstrates that FPTs are used to mop up bigger quantities of floating stock from the market than OMRs. Though sample includes 18 FPTs and 52 OMR announcements, there are equal number of announcements in both the methods buying in excess of 20% but less than

25%, i.e., 16.67% announcements in FPTs bought in excess of 20% but less than 25%. This percentage for OMRs is only 5.8%.

## 5. Results and Analysis

### 5.1. Announcement returns and companies with positive AAR

As described in methodology, we compute

announcement effects of buyback by computing excess returns to the shareholders by using the 'time-tested' event returns measurement method, namely, the market model. The results are compiled for 41-day event window. We later on analyse for other events windows. Table 3

AAR and CAR for 70 announcements along with the distribution of companies with positive AAR:

The average abnormal return (AAR) on the announcement day for 70 sample announcements in India is 2.77%, which is

**Table 3**  
**Announcement returns and companies with positive AAR**

Days	70 Announcements			
	AAR (%)	Z-test	Companies with +AAR	CAR (%)
-20	0.3221	1.1318	39(55.71)	0.3221
-19	0.0388	0.3573	34(48.57)	0.3609
-18	-0.3756	-0.3027	28(40.00)	-0.0147
-17	0.4893	1.1556	37(52.86)	0.4747
-16	0.0053	0.2617	35(50.00)	0.4799
-15	-0.1581	0.1012	33(47.14)	0.3219
-14	-0.0230	0.0880	31(44.29)	0.2989
-13	0.2889	0.1202	30(42.86)	0.5879
-12	0.1295	0.7439	32(45.71)	0.7174
-11	-0.4019	-0.5558	27(38.57)	0.3155
-10	0.5717	1.0692	31(44.29)	0.8872
-9	0.5797	1.4987	34(48.57)	1.4670
-8	0.8010	0.6098	31(44.29)	2.2770
-7	0.4494	1.1099	33(47.14)	2.7263
-6	0.2819	0.2341	33(47.14)	3.0082
-5	1.3631	2.4467**	40(57.14)	4.3713
-4	-0.3567	0.0694	37(52.86)	4.0147
-3	0.2623	0.4179	34(48.57)	4.2770
-2	0.4795	0.4800	31(44.29)	4.7564
-1	0.3849	0.2950	32(45.71)	5.1413
0	<b>2.7652</b>	<b>-5.6073*</b>	<b>50(71.43)</b>	<b>7.9066</b>
1	-0.0998	-0.5320	37(52.86)	7.8068
2	-0.8052	-0.8571	33(47.14)	7.0016
3	0.3474	0.8478	32(45.71)	7.3489
4	0.7575	1.2434	41(58.57)	8.1064
5	-0.1686	-0.0302	33(47.14)	7.9378
6	0.8545	1.1392	37(52.86)	8.7923
7	-0.9585	-0.9437	23(32.86)	7.8338
8	-0.0486	-0.0514	34(48.57)	7.7852
9	-0.9463	-0.8739	27(38.57)	6.8389
10	0.6926	1.0755	43(61.43)	7.5315
11	-0.4143	-0.1125	34(48.57)	7.1172
12	0.0840	-0.4106	31(44.29)	7.2012
13	0.3574	0.0483	29(41.43)	7.5587
14	-0.4310	-0.7212	27(38.57)	7.1276
15	-0.0875	-0.1271	34(48.57)	7.0402
16	-0.5879	-0.8750	31(44.29)	6.4523
17	-0.0628	-0.1856	33(47.14)	6.3894
18	0.8093	1.8246	40(57.14)	7.1987
19	-0.6660	-1.3952	29(41.43)	6.5326
20	0.7081	1.2648	36(51.43)	7.2408
Average	<b>0.1766</b>			<b>4.6717</b>
S.D	0.6714			3.0887
Sq. Root	0.1049			0.4824
Median	0.1295			6.3894
t-test	<b>1.6843</b>			<b>9.6850*</b>

\*\*& \*indicates significance at 5% and 1% levels respectively.

Figures in parenthesis are percentages of companies with +AAR.



window. The announcement day return is marginally lower than 3% found for the US announcements (Vermaelen, 1981; Dann, 1981; Comment and Jarrell, 1991; Laknoshiok, *et al.*, 1995). Schremper (2002) reports an announcement day abnormal return of 2.63% for 112 German share repurchases. The announcement day CAR is 7.91% while the overall CAR is 7.24%. Though the announcement day return is 2.77%, only 71% sample companies had positive AAR on the announcement day and the remaining announcements had negative returns, indicating that the positive announcement returns are not widely spread in India.

A close observation of the table shows that the movement of AAR and CAR are not in accordance with the signalling or undervaluation hypothesis. According to this hypothesis, buyback is announced to arrest negative trend in market prices in pre-buyback announcement period and market prices move positively in the post announcement period. For Indian buyback announcements, the market prices move positively in the pre-announcement period itself. The overall CAR shows an increasing trend from -10<sup>th</sup> day itself and is 5.14% on -1 day. The overall CAR on +1 day decreases to 7.81% and to 7% on +2 day. After showing some improvements in subsequent days, the overall CAR decreases to 7.24%, a fall of 0.67% in post-announcement period. The fall in overall CAR in post-announcement period indicates that buyback benefits only in the short-run and not on long-term basis. The returns are only temporary. Even Mohanty (2002) and Mishra (2005) find similar movements in their study.

Why are announcement returns positive in India in pre-announcement period? This could possibly be attributed to listing requirements. The listing requirements of stock exchanges in India insist on companies to intimate the date and agenda of the proposed board meeting one week in advance. This requirement could be influencing the movement in abnormal returns. In the US and other countries, no such mandatory disclosures exist and the announcement of buyback is a surprise element and market reacts favourably. The existence of

this norm could work to the disadvantage of small and innocent investors who would not be privy to this price sensitive information. An investor who has an idea of this impending decision could enjoy all the gains arising out of the announcement than others. An investor who buys on -10<sup>th</sup> day and sells on +6<sup>th</sup> day, realises an annualised return of 182%  $[(8.7923 \times 0.3155)/17 \text{ days} \times 365]$  for 17 days. On the other hand, an innocent investor buying after announcement and holding it till the last day loses 12.23%  $(-0.67/20 \text{ days} \times 365)$  annually.

A comparison of our results with similar studies on repurchases in India shows that the AAR on the announcement date of our study is little higher while the overall CAR is relatively lower. Gupta (2006) found an announcement day AAR of 1.66%, significant at 1% level and an overall CAR of 12.69% for 61-day window period. Mohanty (2002) finds an AAR of .56% and a CAR of 3.86% for 12 buybacks on the announcement day while his overall CAR was 11.25% for 61-day window. We use 41-day window period and find an overall CAR of 7.24%. The lower CAR estimated in our study may be due to lower window-period assumed or might be due to a larger sample of less attractive announcements. In another related study on Indian buybacks by Thirumalavalvan and Sunitha (2006) using a different approach of estimation a CAR, a CAR of 2.35% for a 5-day window period was found for a sample of 22 buybacks.

## 5.2. Method-wise announcement returns

The empirical evidence establishes that the OMRs are weak in signalling than FPTs and hence announcement returns are higher in FPTs than OMRs (Comment and Jarrell, 1991; Lakonishok, *et al.*, 1995). Hua Zhang (2002) finds a contrasting evidence for Japanese announcements. What is the Indian evidence? Do Indian FPTs generate announcement returns greater than OMRs? Table 4 provides information relating to this aspect.

The AAR on the announcement day for OMRs is 2.69% and for FPTs 2.98%, both significant at 1% level. The CAR on the announcement day for OMRs is 7.43% and for FPTs it is 9.28%. These two measures of returns

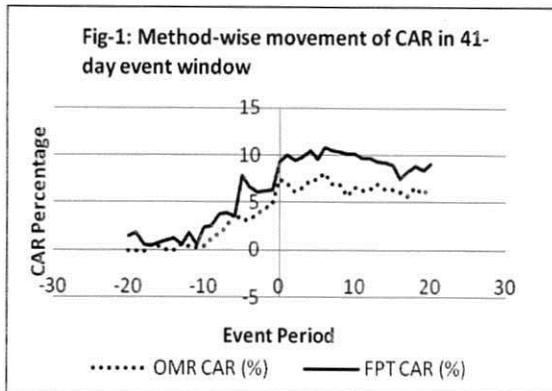
**Table 4**  
**Method-wise Announcement returns**

Days	Open Market Repurchases 52				Fixed Price Tender Offers 18			
	AAR (%)	t-test	No. of +AARs	CAR (%)	AAR (%)	t-test	No. of +AARs	CAR (%)
-20	-0.0766	0.4795	26(50.00)	-0.0766	1.4738	1.4099	13(72.22)	1.4738
-19	-0.0612	-0.0984	23(44.23)	-0.1378	0.3278	0.8922	11(61.11)	1.8017
-18	-0.0694	0.3592	23(44.23)	-0.2072	-1.2601	-1.2272	5(27.78)	0.5415
-17	0.6876	1.2979	28(53.85)	0.4804	-0.0834	0.0827	9(50.00)	0.4582
-16	-0.0929	0.0548	24(46.15)	0.3874	0.2891	0.4278	11(61.11)	0.7473
-15	-0.3071	-0.3940	21(40.38)	0.0803	0.2726	0.8517	12(66.67)	1.0198
-14	-0.1166	-0.2928	21(40.38)	-0.0363	0.2475	0.6389	10(55.56)	1.2674
-13	0.6148	0.4591	26(50.00)	0.5785	-0.6523	-0.5510	4(22.22)	0.6149
-12	-0.2651	-0.0369	21(40.38)	0.3135	1.2694	1.5500	11(61.11)	1.8843
-11	-0.0673	-0.3029	22(42.31)	0.2462	-1.3684	-0.5507	5(27.78)	0.5159
-10	0.0957	0.1090	22(42.31)	0.3419	1.9468	1.8936	9(50.00)	2.4627
-9	0.7516	1.5190	25(48.08)	1.0935	0.0834	0.3638	9(50.00)	2.5461
-8	0.6575	0.4736	21(40.38)	1.7510	1.2504	0.4520	10(55.56)	3.7964
-7	0.5568	0.8530	26(50.00)	2.3078	0.1390	0.7349	7(38.89)	3.9354
-6	0.5160	0.4179	27(51.92)	3.8237	-0.3942	-0.2717	6(33.33)	3.5412
-5	0.3389	-0.1338	25(48.08)	3.1626	4.3220	5.1017	15(83.33)	7.8632
-4	-0.0755	0.5203	30(57.69)	3.0871	-1.1690	-0.7981	7(38.89)	6.6943
-3	0.5785	0.8274	29(55.78)	3.6657	-0.6514	-0.6280	5(27.78)	6.0429
-2	0.5865	0.4213	22(42.31)	4.2522	0.1701	0.2772	9(50.00)	6.2130
-1	0.4909	0.5301	26(50.00)	4.7431	0.0788	-0.3233	6(33.33)	6.2918
0	<b>2.6897</b>	<b>4.3778*</b>	<b>38(73.08)</b>	<b>7.4328</b>	<b>2.9836</b>	<b>3.5873*</b>	<b>12(66.67)</b>	<b>9.2753</b>
1	-0.3910	-1.1164	25(48.08)	7.0418	0.7414	0.8421	12(66.67)	10.0168
2	-0.8933	-0.5257	23(44.23)	6.1485	-0.5509	-0.7758	10(55.56)	9.4659
3	0.3581	0.7931	24(46.15)	6.5066	0.3163	0.3818	8(44.44)	9.7822
4	0.7953	1.0615	30(57.69)	7.3020	0.6483	0.6296	11(61.11)	10.4305
5	0.0770	-0.0097	23(44.23)	7.3790	-0.8783	-0.0897	10(55.56)	9.5522
6	0.7161	0.7024	28(53.85)	8.0951	1.2542	1.0798	9(50.00)	10.8064
7	-1.1865	-1.0247	17(32.69)	6.9086	-0.2998	-0.1120	6(33.33)	10.5065
8	-0.0182	-0.1144	25(48.08)	6.8904	-0.1364	0.0948	9(50.00)	10.3701
9	-1.1903	-0.8813	17(32.69)	5.7001	-0.2415	-0.1938	10(55.56)	10.1286
10	0.9254	1.3505	34(65.38)	6.6255	0.0202	-0.2179	9(50.00)	10.1487
11	-0.3875	0.0999	28(53.85)	6.2380	-0.4916	-0.3489	6(33.33)	9.6571
12	0.1298	-0.7349	24(46.15)	6.3678	-0.0481	0.4068	7(38.89)	9.6090
13	0.6026	0.4627	23(44.23)	6.9704	-0.3509	-0.6616	6(33.33)	9.2581
14	-0.5485	-0.8268	19(36.54)	6.4219	-0.0917	-0.0269	8(44.44)	9.1664
15	-0.0543	0.0599	26(50.00)	6.3677	-0.1834	-0.3271	8(44.44)	8.9831
16	-0.2674	-0.4866	25(48.08)	6.1002	-1.5138	-0.9123	6(33.33)	7.4693
17	-0.3778	-0.3065	23(44.23)	5.7224	0.8471	0.1763	10(55.56)	8.3164
18	0.9014	1.7730	30(57.69)	6.6238	0.5431	0.6095	10(55.56)	8.8594
19	-0.7467	-1.3811	21(40.38)	5.8771	-0.4328	-0.4107	8(44.44)	8.4266
20	<b>0.7079</b>	<b>0.7986</b>	<b>26(50.00)</b>	<b>6.5850</b>	<b>0.7088</b>	<b>1.1470</b>	<b>10(55.56)</b>	<b>9.1354</b>
Average	<b>0.1606</b>			<b>4.1015</b>	<b>0.2228</b>			<b>6.3189</b>
S.D	0.6835			2.8892	1.1090			3.7366
Sq. Root	0.1067			0.4512	0.1732			0.5836
Median	0.07703			5.7001	0.0788			7.8632
t-test	<b>1.5046</b>			<b>9.0899*</b>	<b>1.2864</b>			<b>10.8282*</b>

\* indicates significance at 1% level. Figures in parenthesis are percentages of companies with +AAR.



on the announcement day indicate that FPTs in India, like in the US, signal better than OMRs. The overall CAR for 41-day window period decreases to 6.59% for OMRs and for FPTs 9.14%. Figure -1 depicts the pictorial movement of CAR for OMRs and FPTs.



We observe a negative trend in AAR and CAR for OMRs in -20 days, which is arrested from -13<sup>th</sup> day onwards. The CAR from -5.785% on -13<sup>th</sup> day shows a continuous increasing trend till the announcement period. A positive movement in -20 day period is a surprising element as signalling theory predicts that OMRs are used to arrest negative trend in pre-announcement period. A positive movement is a pointer at the fact that the market has an understanding of impending buyback announcement even prior to announcement itself. In the post-announcement period, the CAR falls from 7.43% to 6.58%. The decrease is due to negative AAR in post-announcement period. AAR is negative for 11 days out of 20 days. The investors who buy in pre-announcement period pocket greater benefits than those who buy in post-announcement period. The annualised return for an investor who buys on -13<sup>th</sup> day and sells on +20<sup>th</sup> day is 71% for 34 days. The investor would earn a return of 148% for 20 day period if he sells on +6<sup>th</sup> day.

The movement of CAR has been positive for all days under the FPT method though AAR shows negative trend sporadically. The CAR moves appreciably in post-announcement period reaching a peak of 10.81% on 6<sup>th</sup> day. The fall in overall CAR from its peak level to closing day of the event window is by 1.67%. Like OMRs, FPTs benefit the investor who buys in pre-announcement period than in post-announcement. The annualised return for 41-day period is 81% while it is 146% for 27 days, i.e.,

buying on -20<sup>th</sup> day and selling on +6<sup>th</sup> day.

Though event returns are higher in FPTs, the gains are not widely spread. We find from Table 3 that 70% of total announcements had positive AAR on the announcement day. OMRs generate positive returns across 73% of announcements while FPTs, 67%. OMRs continue to be spreading the positive effects in both pre and post announcements across more companies than FPTs.

### 5.3. Announcement returns for first and subsequent buybacks

We further investigate into announcement returns method-wise by classifying buybacks into first and subsequent buybacks. There are 42 first and 28 subsequent buybacks in the sample of 70 announcements. Table -5 shows the classification of multiple buybacks in India, method-wise:

**Table 5**  
**Multiple buybacks in sample**

	OMRs	FPTs	Total
First	30	12	42
Second	13	04	17
Third	05	02	07
Fourth	02	--	02
Fifth	01	--	01
Sixth	01	--	01
<b>Total</b>	<b>52</b>	<b>18</b>	<b>70</b>

Source: SEBI's Status Report

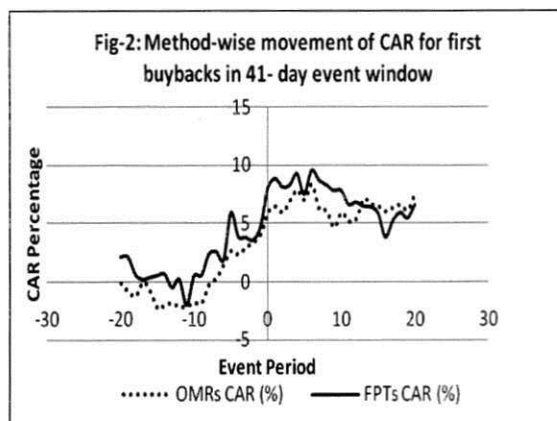
Out of a sample of 70 buyback announcements, 52 announcements pertain to OMRs and 18 are FPTs. 60% of sample announcements are first buybacks and 25% are second buybacks. India has seen very few third and subsequent buybacks. OMRs are nearly 75% of total buybacks and 58% of such OMRs are first buybacks. There are very few subsequent buybacks under FPT method.

Table 6 shows the announcement returns for first buybacks method-wise:

The sample includes 30 first buybacks of OMRs and 12 FPTs. The AAR for OMRs is 1.88% while for FPTs it is 3.34% on the announcement day. The CAR on the announcement day for OMRs is 5.94% which increases to 7.57% by the end of window period. The CAR for FPTs decreases to 6.59% from 8.01% on the announcement day. As far as distribution of

companies with positive AARs is concerned 70% sample announcements in OMR report positive AAR while for FPTs it is 66.67%. These percentages for both the methods are highest on the announcement day as compared to all other days. Figure -2 shows the pictorial movement of CAR for first buybacks for both the methods.

A comparison of the results of Tables 4 and 6 shows a contradiction. For total FPT announcements, the method yields returns higher than OMRs. But when analysis is carried on the basis of first buybacks, OMRs yield 7.57% overall CAR for the same window period as against 6.59% for FPTs, a difference of almost 1%. What could explain this difference in results? These are difficult questions to answer. We may attribute this to market imperfections or the inability to read the managerial actions properly. US markets are well developed and the provision of information is also highly standardised. Indian investors suffer from limited information and fail to identify properly between OMRs and FPTs.

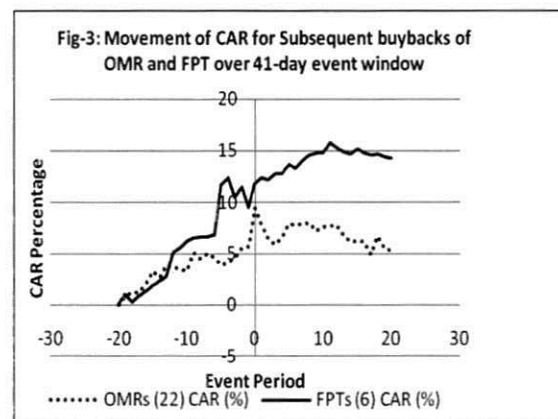


We also investigate whether first-time buyers indulge in any kind of insider trading by observing the price movement in pre-announcement period. Under OMRs, CAR is negative till -8<sup>th</sup> day and is positive for subsequent days. It shows an increasing trend from -7<sup>th</sup> day onwards. In case of FPTs, CAR has been positive for all days even in pre-announcement period. Overall conclusion is that the particular listing rule of informing stock exchanges in advance is playing a crucial role in determining the extent of announcement returns in India. This calls for change in the rule to prevent its abuse by interested persons.

The number of subsequent buybacks is less than first buybacks for both the methods. There

are 22 subsequent OMRs and 6 FPTs. The research evidence in the US shows that CAR is lower in subsequent buybacks than first buybacks. In other words, subsequent buybacks have lower signalling ability than first buybacks (Murali Jagannathan and Clifford Stephens, 2003). They also conclude in the same study that infrequent repurchases are greeted more favourably than frequent repurchases. The announcement of infrequent or first repurchase is accompanied by abnormal returns averaging about 2.5%; the subsequent buybacks or frequent repurchases, result in significantly lower abnormal returns, averaging 1.37% for second and 0.86% for third buybacks.

Table 7 gives details relating to announcement returns for subsequent buybacks method wise. A perusal of Table 7 shows an announcement day AAR of 3.8% for OMRs and 2.27% for FPTs. However, the announcement day CAR and overall CAR are higher under FPT method than under OMRs. The overall CAR for subsequent OMRs is 7.24% while for FPTs it is 14.22%. A comparison of Table 6 and 7 yield contradictory results for multiple buybacks under different methods. Shareholders gain more when firms use FPTs for subsequent buybacks than for first buybacks. The overall CAR for OMRs in first buybacks is 7.57% and for subsequent buybacks it is 5.24%. For FPTs, the results are 6.59% and 14.22% for first and subsequent buybacks respectively. Fig.3 gives the pictorial movement of CAR for subsequent buybacks under OMR and FPT methods.



Due to limited number of subsequent buybacks, we are constrained in concluding that FPT method is good for subsequent buybacks and OMR for first buybacks. The higher returns in subsequent buybacks under FPT method may be



**Table 6**  
**Announcement returns for first buybacks under OMRs and FPTs**

Window Period	First Buyback Open Market Repurchases (30)				First Buyback Fixed Price Tender Offers (12)			
	AAR (%)	t-test	CAR (%)	% of Cos with +ve AAR	AAR (%)	t-test	CAR (%)	% of Cos with +ve AAR
Days								
-20	-0.1165	0.5722	-0.1165	50.00	2.1580	1.5987	2.1580	66.67
-19	-0.7285	-0.2244	-0.8451	40.00	-0.0149	0.4191	2.1431	50.00
-18	-0.3827	-0.5837	-1.2278	43.33	-1.4955	-0.8630	0.6476	33.33
-17	1.2156	1.5191	-0.0122	53.33	-0.4222	-0.3017	0.2255	33.33
-16	-0.8530	-0.5476	-0.8652	46.67	0.1835	0.2523	0.4090	58.33
-15	-1.4215	-1.2452	-2.2867	36.67	0.1618	0.7664	0.5708	58.33
-14	0.2947	0.9937	-1.9920	46.67	0.1190	0.3722	0.6898	66.67
-13	0.1612	0.3774	-1.8308	56.67	-1.1753	-1.2485	-0.4854	8.33
-12	-0.3349	-0.4231	-2.1657	40.00	0.7285	0.2299	0.2431	66.67
-11	0.0813	0.1423	-2.0844	43.33	-2.2213	-1.0659	-1.9782	25.00
-10	0.2789	0.0960	-1.8055	36.67	2.5309	1.9067	0.5528	58.33
-9	-0.0080	0.2381	-1.8135	43.33	0.0112	0.2103	0.5640	41.67
-8	1.5816	1.8513	-0.2318	50.00	1.8022	0.3140	2.3662	58.33
-7	0.5682	0.4673	0.3364	50.00	0.2263	0.8128	2.5925	41.67
-6	1.1806	0.8655	1.5169	56.67	-0.6983	-0.4497	1.8943	25.00
-5	1.1583	1.0544	2.6752	63.33	4.0370	2.8741*	5.9312	75.00
-4	-0.3258	0.7066	2.3495	56.67	-2.0575	-1.6117	3.8737	41.67
-3	0.6206	0.2746	2.9700	50.00	-0.0689	0.2003	3.8048	25.00
-2	0.3900	-0.4048	3.3601	40.00	-0.2373	-0.3266	3.5675	33.33
-1	0.7065	0.3005	4.0666	53.33	1.1061	1.1406	4.6736	33.33
0	1.8781	1.9305	5.9447	70.00	3.3367	3.4401*	8.0102	66.67
1	0.5132	0.5508	6.4579	53.33	0.8473	0.7378	8.8575	66.67
2	-0.5047	-0.0401	5.9532	50.00	-0.7383	-1.0289	8.1192	41.67
3	1.0332	1.7797	6.9864	53.33	0.1711	0.1588	8.2904	41.67
4	0.8636	0.5841	7.8499	60.00	0.9795	0.7625	9.2698	58.33
5	-0.8547	-1.3376	6.9952	33.33	-1.7728	-0.6595	7.4970	50.00
6	1.3378	1.0425	8.3330	53.33	2.0600	1.5920	9.5570	50.00
7	-2.1308	-2.1449**	6.2022	16.67	-0.8392	-0.7435	8.7178	16.67
8	-0.1299	-0.4912	6.0724	43.33	-0.4338	-0.3858	8.2840	33.33
9	-1.4329	-0.8690	4.6395	26.67	-0.4793	-0.4334	7.8048	50.00
10	1.2698	0.9916	5.9093	63.33	0.0202	-0.1864	7.8250	50.00
11	-0.7463	-0.1253	5.1631	56.67	-1.2111	-0.6780	6.6139	25.00
12	0.2086	-1.1415	5.3716	46.67	0.1904	0.7062	6.8043	41.67
13	1.7130	1.9197	7.0846	63.33	-0.3301	-0.5613	6.4742	33.33
14	-0.4449	-0.3997	6.6397	33.33	-0.0695	0.0986	6.4047	33.33
15	-0.1562	-0.0205	6.4835	46.67	-0.5205	-0.5143	5.8841	33.33
16	-0.4670	-0.6022	6.0165	46.67	-2.0702	-0.6623	3.8139	41.67
17	0.3389	0.8812	6.3554	53.33	1.3997	0.4635	5.2137	58.33
18	0.2179	-0.2755	6.5733	53.33	0.7322	0.4722	5.9458	50.00
19	-0.4231	-0.1288	6.1502	43.33	-0.4854	-0.1235	5.4604	58.33
20	1.4178	1.7396	7.5679	63.33	1.1316	1.3977	6.5919	58.33
Avg	0.1846	0.2408	3.2865		0.1608		4.5337	
Std dev	0.9146	0.9572	3.6051		1.3876		3.2534	
Sqrt	0.1428	0.1495	0.5630		0.2167		0.5081	
t-test	1.2923	1.6109	5.8373*		0.7419		8.9231*	

\* and \*\* indicates significance at 1% and 5% level respectively.

on account of limited number of announcements or better timing of the announcement. Hua Zhang (2002) concludes in his study on Japanese announcements that the Japanese companies time their announcements better and are able to report greater returns for OMRs than FPTs. A further research in this aspect is very much desired in the

Indian context.

#### 5.4. Announcement returns for different window periods

We employ several window periods for measuring announcement returns. There are

**Table 7**  
**Method-wise announcement returns for subsequent buybacks**

Window Period	Subsequent Buyback Open Market Repurchases (22)				Subsequent Buyback Fixed Price Tender Offers (06)			
	AAR (%)	t-test	CAR (%)	% of Co with +ve AAR	AAR (%)	t-test	CAR (%)	% of Co with +ve AAR
Days								
-20	-0.0221	0.0690	-0.0221	50.00	0.1055	0.1704	0.1055	83.33
-19	0.8488	0.1108	0.8267	50.00	1.0133	0.9517	1.1188	83.33
-18	0.3578	1.2340	1.1846	45.45	-0.7894	-0.8622	0.3294	16.67
-17	-0.0324	0.2215	1.1521	54.55	0.5942	0.5523	0.9235	83.33
-16	0.9435	0.7237	2.0956	45.45	0.5004	0.3846	1.4239	66.67
-15	1.2125	0.8484	3.3081	45.45	0.4940	0.4117	1.9179	83.33
-14	-0.6775	-1.6105	2.6306	31.82	0.5046	0.5914	2.4225	33.33
-13	1.2334	0.2652	3.8640	40.91	0.3931	0.7743	2.8156	50.00
-12	-0.1699	0.4373	3.6941	40.91	2.3511	2.3403**	5.1667	50.00
-11	-0.2699	-0.6319	3.4242	40.91	0.3374	0.5643	5.5041	33.33
-10	-0.1541	0.0555	3.2701	50.00	0.7785	0.6169	6.2826	33.33
-9	1.7873	2.0572**	5.0574	54.51	0.2276	0.3424	6.5102	66.67
-8	-0.6026	-1.4338	4.4548	27.27	0.1467	0.2409	6.6569	50.00
-7	0.5412	0.7657	4.9961	50.00	-0.0357	0.1232	6.6212	33.33
-6	-0.3903	-0.3682	4.6058	45.45	0.2139	0.1614	6.8352	50.00
-5	-0.7785	-1.4369	3.8272	27.27	4.8921	4.7604*	11.7273	100.00
-4	0.2658	-0.0253	4.0931	59.09	0.6082	0.9140	12.3354	33.33
-3	0.5212	0.9513	4.6142	63.64	-1.8163	-1.3590	10.5191	33.33
-2	0.8545	1.1204	5.4688	45.45	0.9849	0.9343	11.5041	83.33
-1	0.1970	0.4641	5.6657	45.45	-1.9759	-2.1784**	9.5282	33.33
0	3.7963	4.4761*	9.4620	77.27	2.2775	1.4163	11.8056	66.67
1	-1.6241	-2.3596*	7.8380	40.91	0.5296	0.4348	12.3352	66.67
2	-1.4231	-0.7614	6.4148	36.36	-0.1761	0.1180	12.1592	83.33
3	-0.5629	-0.8589	5.8525	36.36	0.6066	0.4125	12.7658	50.00
4	0.7023	0.9499	6.5547	54.55	-0.0140	0.0028	12.7518	66.67
5	1.3476	1.5471	7.9023	59.09	0.9106	0.7837	13.6625	66.67
6	-0.1316	-0.1375	7.7707	54.55	-0.3575	-0.3551	13.3050	50.00
7	0.1013	0.9293	7.8720	54.55	0.7789	0.8432	14.0839	66.67
8	0.1340	0.3977	8.0060	54.55	0.4584	0.7067	14.5422	83.33
9	-0.8594	-0.3401	7.1465	40.91	0.2339	0.2537	14.7762	66.67
10	0.4557	0.9183	7.6022	68.18	0.0201	-0.1066	14.7963	50.00
11	0.1017	0.2998	7.7039	50.00	0.9473	0.3427	15.7436	50.00
12	0.0223	0.2032	7.7262	45.45	-0.5251	-0.2889	15.2185	33.33
13	-0.9116	-1.5304	6.8146	18.18	-0.3926	-0.3701	14.8259	33.33
14	-0.6896	-0.8044	6.1249	40.91	-0.1360	-0.1687	14.6810	66.67
15	0.0847	0.1161	6.2097	54.55	0.4910	0.1601	15.1810	66.67
16	0.0046	-0.0449	6.2143	50.00	-0.4010	-0.6421	14.7799	16.67
17	-1.3552	-1.5003	4.8592	31.82	-0.2581	-0.3598	14.5219	50.00
18	1.8335	3.0476*	6.6926	63.64	0.1648	0.3941	14.6867	66.67
19	-1.1880	-1.9729**	5.5046	36.36	-0.3277	-0.5299	14.3590	16.67
20	-0.2601	-0.8037	5.2445	31.82	-0.1367	0.0132	14.2223	50.00
Avg	0.1279	0.1363	5.2129		0.3469	0.3292	9.8893	
Std dev	1.0131	1.3058	2.2489		1.0781	1.0239	5.2057	
Sqrt	0.1582	0.2039	0.3512		0.1684	0.1599	0.8130	
t test	0.8084	0.6684	14.8422*		2.0603	2.0584	12.1641*	

\* and \*\* indicates significance at 1% and 5% level, respectively.



varied views on type of window-period to be used for event studies. Gregory *et al.* (2001) recommend a shorter period of only 3 days for better understanding event effects. Such an event period captures the full effect of announcement of specific events. However, such a short period does not indicate the market behaviour in pre and post announcement periods. We recognise the merits of both the methods and employ short and long event windows. In addition to 41-day event

window, we have computed the announcement returns for 3-day, 5-day, 7-day, 11-day and 21-day windows. Table 8 reports announcement returns on these lines:

It can be discerned from Table 8 that, by and large, FPTs generate greater CAR than OMRs for various windows considered here. Even the announcement day AAR and CAR are higher for tender offers than for open offers in both first and subsequent buybacks. Further, the announcement

**Table 8**  
**Method-wise announcement returns for different window periods**

<b>First buyback of open market repurchases (30)</b>						
	<b>-1;+1</b>	<b>-2;+2</b>	<b>-3;+3</b>	<b>-5;+5</b>	<b>-10;+10</b>	<b>-20;+20</b>
<b>AAR% on AD</b>	1.8412	1.8319	1.6552	1.8390	1.8628	1.8781
<b>CAR% on AD</b>	2.5305	2.9679	3.2768	4.2964	7.7876	5.9446
<b>Overall CAR%</b>	3.0208	2.8231	4.3892	4.8408	7.3280	7.5680
<b>t-test</b>	2.9310*	3.7073*	5.2479*	6.0264*	8.9011*	5.8373*

<b>First buyback of fixed price tender offer (12)</b>						
<b>AAR% on AD</b>	3.3140	3.2991	3.2987	3.3169	3.3273	3.3366
<b>CAR% on AD</b>	4.3781	4.0616	3.9865	5.9790	9.8763	8.0101
<b>Overall CAR%</b>	5.2059	4.1172	4.1905	5.3927	9.6639	6.5919
<b>t-test</b>	2.8050*	2.6267**	2.8803*	6.9348*	11.7578*	8.9231*

<b>Subsequent buyback of Open market repurchases (22)</b>						
<b>AAR% on AD</b>	9.3388	12.6755	9.2618	3.1658	3.2384	3.7963
<b>CAR% on AD</b>	9.2536	-15.4276	4.7219	4.0989	4.9187	9.4620
<b>Overall CAR%</b>	-0.5493	-22.8673	-11.5527	2.9319	3.2667	5.2445
<b>t-test</b>	0.8998	-8.5611*	-1.3550	2.6575**	6.5292*	14.8422*

<b>Subsequent buyback of fixed price tender offer (6)</b>						
<b>AAR% on AD</b>	2.2431	2.2442	2.2379	2.2707	2.2638	2.2775
<b>CAR% on AD</b>	0.2382	1.1795	-0.7069	4.9014	6.1476	11.8056
<b>Overall CAR%</b>	0.7054	1.4113	0.0595	6.6141	8.9607	14.2223
<b>t-test</b>	-0.4229	1.6923	-2.5654**	15.2207*	8.8567*	12.1641*

\* and \*\* indicates significance at 1% and 5% level respectively.

Figures in parenthesis are percentages of companies with +AAR.

returns are higher for longer windows than for shorter windows for both the methods. It is very difficult to conclude that longer-windows are better reflectors of event returns than shorter-windows on the basis of these results. In India, the listing norms require companies to inform the concerned stock exchanges the date of proposed board meeting with agenda one week in advance. This particular norm could be playing a major role and a longer window reflects these days than a

shorter window.

#### 5.5. Year-wise announcement results for OMRs and FPTs

Do announcement returns vary across the years? The announcement year, per se, cannot determine the announcement returns. However, crowding effect cannot be ruled out. In years of higher number of repurchases, the announcement

returns could be depressed than the years of fewer repurchases. Therefore, the number of buybacks announced may be a determining factor in announcement returns. This logic could be extended to methods also. In years of higher OMRs, the returns could be depressed than in the years of fewer OMRs. The same is true for FPTs. Year-wise break-up has been revealed in earlier tables. The year 2002-03 has higher number of announcements followed by 2001-02 and 2004-

05 in the sample. In all these years, OMRs exceed FPTs. Table 9 shows details relating to year-wise announcement returns:

It cannot be said from the results obtained in Table 9 that there is a crowding effect. The year 2002-03 with greater OMRs saw higher announcement returns in all window periods except in 21-day period. The same is true even for 2004-05. Only in the year 2003-04, the announcement returns for FPT exceed OMRs and

**Table 9**  
**Year-wise announcement return for different window periods**

Year	2000 - 01 CAR (%)	2001 - 02 CAR (%)	2002 - 03 CAR (%)	2003 - 04 CAR (%)	2004 - 05 CAR (%)	2005 - 06 CAR (%)	2006-07 CAR (%)
No. of BB	2 BB	16 BB	23BB	9BB	11BB	4 BB	5BB
Method of BB	OMR (2)	OMR (14) FPT (2)	OMR (12) FPT (11)	OMR (8) FPT (1)	OMR (8) FPT (3)	OMR (4) FPT (4)	OMR (4) FPT (1)
-1 ; +1	-1.3678	0.7824 -7.2419	5.5764 3.7944	-2.2980 14.0952	4.7671 6.5463	-3.5245 -0.5624	5.7152
-2 ; +2	-1.3655	-0.0268 -5.7891	-26.7823 1.8191	-16.7367 13.7696	6.6044 9.5205	-1.8557 -1.3538	7.1112
-3 ; +3	-1.5143	-1.2619 -7.2946	10.1158 4.3650	-31.0863 11.9309	6.7317 -0.9027	-6.2923 -0.7926	7.9952
-5 ; +5	0.3823	1.0795 3.3993	4.5224 4.3591	9.7379 19.5564	9.2489 3.9616	-5.4781 2.3998	7.6680
-10 ; +10	8.2246	-0.6505 13.0064	7.2378 8.0206	14.6962 18.7647	8.4233 9.6241	0.8213 2.3175	7.8537
20 ; +20	18.7830	0.9770 18.6305	7.5774 7.1946	8.2165 32.4259	13.3911 5.0176	5.1497 1.6967	0.5564

for all the years and for majority of windows, the OMRs yield greater returns. This year-wise result is contradictory to what has been generally argued for tender offers.

## 6. Conclusion

It is a well documented truth in the US that OMRs yield lower announcement returns than FPTs. We get a mixed bag of results for the Indian buybacks. When announcement returns are computed for all sample announcements method-wise, the CAR for FPTs is appearing to be greater than OMRs. The subdivision of announcements into first and subsequent buybacks shows that the returns are high for OMRs in first buybacks while FPTs generate greater returns for subsequent buybacks. In short and long windows, the FPTs yield higher benefits to shareholders than the OMRs. The year-wise analysis again yields contradictory result. The standard method of analysis is to compute returns for all buybacks method-wise and using this approach we can conclude that OMRs are poor in signalling than FPTs, a conclusion similar to that obtaining in the US.

The gains to shareholders are greater if firms employ FPTs than OMRs. We find an annualised return of 81% for FPTs and 48.22% for OMR in 41-day period. When OMRs are really less

profitable than FPTs, why do firms prefer OMRs to FPTs? In India and in the USA, OMRs average 90% of total announcements. What makes firms prefer OMRs over FPTs? What should guide a firm in selecting suitable methods of buyback - the shareholders welfare or flexibility involved in the method? The answer lies in the fact that OMR is more practicable, flexible and hassle-free method of returning cash flows amongst the shareholders. Factors which normally influence the selection process include the extent of cash available for distribution, quantity intended to be bought back, ratio of market value to book value, promoters' shareholding percentage, etc. Therefore, OMRs are preferred if firms want to distribute free cash flows over an extended period, fairly valued, faces no threat of takeovers, promoters' holding is high, etc. Corporate managers must weigh all these factors in selecting suitable method for the announcement of buyback of shares. The selection of wrong method can cost shareholders dearly.

Though the study finds announcement effects method-wise and yields results similar to the US, we conclude that buyback is still not a serious proposition for Corporate India. Even after a decade, buybacks are yet to emerge in a big way and are not employed as substitute for dividends. In the US context, share repurchase is an



free cash flows among shareholders. Therefore, further research into substitution of share buybacks for dividends needs to be investigated. A clear research is warranted into the effect of listing norm on market prices. Intra-day and inter-period analysis of movement of prices remains an untouched area in share repurchases in India. Such an analysis will help further in

whether an investor can position to benefit from intra-day fluctuation of market prices.

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