Price And Volume Effects Of Voluntary Delisting In India

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SECTION I : INTRODUCTION

This article examines the impact on stock prices and trading volume of the announcement of proposed delisting. Delisting occurs when the security of a listed company is removed permanently from the stock exchange where it is listed. India has seen a spree of delistings post 2000. Since January 2001, 1511 companies have been delisted from the BSE alone. Majority of these companies were delisted compulsorily - due to non compliance to listing agreement or regulatory guidelines - or due to winding up, merger or amalgamation. Voluntary delistings are less frequent - out of 1511 firms delisted from BSE, only 83 were delisted voluntarily. Previous studies on listing have shown an increase in stock prices and liquidity when the announcement of listing is made (Sanger and McConnell ,1986). Moreover, there is a managerial signaling effect associated with listing. The management's decision of listing and the consequent approval by exchange can be deciphered as a signal of a firm's future growth (Grammatikos and Papaioannou ,1986b).

Delisting, whether involuntary (compulsory) or by the company itself, has received very little attention in the academic literature. Existing literature has shown delisting to have two impacts - the first one on the wealth of the shareholders, and the second on liquidity.

Since compulsory delisting is more common, previous research on delisting has focused primarily on it. Almost all of the existing work on involuntary delisting has shown a decline in value around the announcement of delisting and decrease in liquidity. Chandy et al. (2004) showed a significant increase in bid-ask spreads, decrease in trading volume and negative abnormal returns around the announcement for 23 companies, which were delisted from the National Market System in US. Their conclusion was : delisting would result in decrease in liquidity, thereby raising the firm's cost of capital and hence will produce negative price effects. McConnell et al. (1996) had shown that involuntary delisting leads to decline in firm value, and this decline is partially attributable to decrease in liquidity.

Sanger and Peterson (1990) did a comprehensive study of 520 firms, which were involuntarily delisted and found a negative abnormal return of 8.5% on the day of the announcement, with a further decline in the period subsequent to the announcement.

In case of voluntary delisting, the effect on firm value is not so obvious. If the signal hypothesis is considered, then voluntary delisting is likely to signal that the management's expectation about the firm's future profits are not very rosy. However, it is also possible that the voluntary delisting might be a subtle move by the company, if trading volumes of shares on a particular exchange are very low. Similarly, a firm may want to save its financial and human resources by delisting from small exchanges or a firm can exit from a depressed foreign market through delisting. Marosi and Massoud (2007) studied the impact of the Sarbanes-Oxley Act and other economic factors in influencing the firm's decision to delist in United States. They found evidence of managerial signaling. The probability of deregistration decreases with positive cash flow, positive price momentum, and degree of insider ownership. They also analyzed the impact of delisting on stockholders' wealth and found an average cumulative abnormal return of -12.04% one day after the deregistering announcement and of -8.79% five days after the announcement. They considered two-sub samples namely, delisting from a major exchange and firms deregistering from the OTC market. Abnormal returns - 15.81% for the first group and -10.84% for the second group are observed in the event window [0,+1].

Das et al. (2004) in their study of 45 US firms which voluntarily delisted from Tokyo Stock Exchange found negative abnormal returns of -6.0 % around the announcement date, on an average, a 30.6% increase in trading volume and an increase in bid-ask spreads on the domestic exchange. Their paper establishes that a negative price effect around

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delisting reflects a permanent valuation effect, which is not accompanied by decrease in liquidity.
Clyde, Schultz and Zaman (1997) studied 47 firms, which voluntarily got themselves delisted from AMEX and switched to Nasdaq. The paper establishes that despite a large increase in effective and quoted spreads, positive average abnormal returns are observed when delisting is announced. Cowan et al. (1992) examined securities, which were delisted from Nasdaq and concluded that securities which choose to move out from Nasdaq tend to have characteristics that ensure that they will benefit from a switch, and they do so in search of a more liquid market for their stock.
Thus, from the previous studies, it can be construed that voluntary delisting is not always considered a negative event by the market. It is possible that certain exchange specific characteristics such as high trading costs, low turnover, lack of nationwide terminals, etc. may make delisting a desirable event.
This study examines the price and volume impact of voluntary delisting using the event study methodology. The study uses data of 41 companies, which were voluntarily delisted between 2003 and 2010 from National Stock Exchange (NSE), Bombay Stock Exchange (BSE) and Calcutta Stock Exchange (CSE). Voluntary delisting is a corporate decision which may have ramifications on the firm value and shareholders' wealth; such a study could provide a better understanding of impact of such decisions.
The remainder of the paper is organized as follows. Section II describes the data and methodology. Section III examines the impact of delisting announcement on trading volume. Section IV evaluates the price effect of announcement and Section V concludes the paper.

SECTION II : DATA AND METHODOLOGY

❁ **Data :** This paper examines a total of 41 firms, which were voluntarily delisted from NSE, BSE or CSE between 2003 to 2010. BSE is the oldest exchange in India, and as of June 2011, there were over 5085 companies listed on the BSE, which makes it the largest exchange in the world in terms of listing. NSE is the largest exchange in India in terms of daily turnover (SEBI Annual Report, 2010-2011). CSE is a regional stock exchange. As per the SEBI Annual Report, 2010-2011, after NSE and BSE, CSE is the third largest stock exchange in terms of turnover. However, its turnover is abysmally small when compared to the other two.
In order to be included in the sample, companies must have an identifiable announcement date. Daily price and trading volume data must be available, from at least 140 days before the announcement to 10 days after the announcement. In addition to this, only those companies are included, which had dual (or multiple) domestic listing before the announcement and the impact of the announcement of delisting from one exchange is examined by the price and volume effects it generates on the other exchange. For instance, a stock delisted from NSE is included if it is listed on BSE at the time of announcement and the required data is available. It is necessary to distinguish between the status of NSE, BSE and CSE. The price and volume data is available only for those securities which are either listed on both NSE and BSE, because security wise data on price and volumes is publicly available only for these two exchanges. The price and volume data from regional stock exchanges are not available. Thus, a security delisted from NSE is included only if it is already listed on the BSE and has the required data, (i.e. the price and volume data from BSE is used for a company delisted from NSE). For the companies delisted from CSE, only those companies were included, which are either listed on NSE or BSE or both (provided required data exists). In case a company delisted from CSE is listed on both NSE and BSE, then data from NSE is used. Companies which were shifted to *"permitted to trade category"* after delisting were also excluded, and data was adjusted for any corporate announcements in the event window. After applying these filters, we get 6 companies delisted from NSE, 12 delisted from BSE and 23 companies delisted from CSE.
Daily closing price is used to calculate daily returns and daily volume data is used to capture volume effects; this data is taken from NSE or BSE website. Nifty or Sensex is used for calculating market return. The date on which the stock exchange officially publishes the notice of delisting on its website is taken as the announcement date.

❁ **Methodology :** Event study methodology suggested by Brown and Warner (1985) is used in this paper. The estimation window begins 140 days prior to announcement and ends 11 days prior to announcement [-140,-11]. Event window ranges from 10 days prior to an announcement to 10 days after the announcement. Day of the announcement (day 0) is the day of the event, so the event window ([-10,10]) has 21 trading days. Market model is used to calculate expected returns of the stocks; abnormal returns for a stock are calculated using the expected return of the stock

conditioned on the information of the normal model. Equation (1) gives the return on security *i* as per the market model.

$$R_{i,t} = \alpha_i + \beta_i R_{m,t} + \varepsilon_{i,t} \quad (1)$$

The parameters in equation (1) are calculated (using OLS regression) for the estimation window. Using these estimators, abnormal returns in the event window are calculated. Abnormal returns for security *i* in period *t* is calculated by the following equation:

$$AR_{i,t} = R_{i,t} - (\hat{\alpha}_i + \hat{\beta}_i R_{mi,,t}) \quad (2)$$

Where $\hat{\alpha}_i$ and $\hat{\beta}_i$ are OLS estimators for the estimation window.

Average Abnormal Returns (AAR) for time *t* are calculated by averaging abnormal returns of individual firms. AAR's are then summed over pre-specified intervals to get Cumulative Average Abnormal Returns (CAR).

In order to capture abnormal volumes, the technique suggested by Ajinkya and Jain (1989) is used. The distribution of trading volume is positively skewed, and in order to get a more symmetric distribution, log transformation of the daily

Table 1 : Volume Effects : Announcement of Delisting - Full Sample

Average Abnormal Volumes					
Day	**AAV**	**t - statistic**	**Significance**	**Rank Test**	**Significance**
-10	-0.22	-0.84		-0.96	
-9	-0.24	-0.89		-0.32	
-8	0.38	1.45		0.73	
-7	0.26	1.00		0.16	
-6	-0.15	-0.55		-1.77	*
-5	-0.02	-0.08		-0.39	
-4	-0.15	-0.56		-1.49	
-3	-0.20	-0.75		-1.75	*
-2	-0.01	-0.02		-1.20	
-1	0.19	0.71		0.43	
0	0.17	0.62		-0.17	
1	0.26	0.99		0.95	
2	0.54	2.03	**	1.42	
3	0.65	2.46	**	2.17	**
4	0.46	1.72	*	1.51	
5	0.27	1.01		0.54	
6	0.16	0.61		-0.71	
7	-0.07	-0.26		-2.01	**
8	0.23	0.87		0.09	
9	-0.15	-0.57		-1.52	
10	-0.02	-0.09		-0.23	
Cumulative Average Abnormal Volumes : Announcement of Delisting - Full Sample					
Period	**CAV**	**t - statistic**	**Significance**	**Rank Test**	**Significance**
CAV[-10,10]	2.35	1.98	**	-0.99	
CAV[-10,-1]	-0.14	-0.18		-2.08	**
CAV[1,10]	2.33	2.93	***	0.70	
CAV[-1,1]	0.62	1.64		0.70	
CAV[-5,-1]	-0.19	-0.36		-1.97	**
CAV[1,5]	2.18	4.11	***	2.95	***
***/**/* denotes significance at 1%/5%/10% level					

trading volume is taken .To ensure that a defined value is obtained, even when a security is not traded on a particular day, a constant is added to original daily volumes (given high trading volumes, a small constant should not affect distributional properties (Ajinkya and Jain ,1989)). Then OLS parameters for trading volume are calculated. Here, dependent variable is log (plus a small constant) of *ith* firm trading volume in *t th* period and independent variable is log of market trading volume for *t th* period. Rest of the analysis is similar to the analysis for abnormal returns. Non parametric Corrado (1989) Rank Test is used as an additional test for significance.

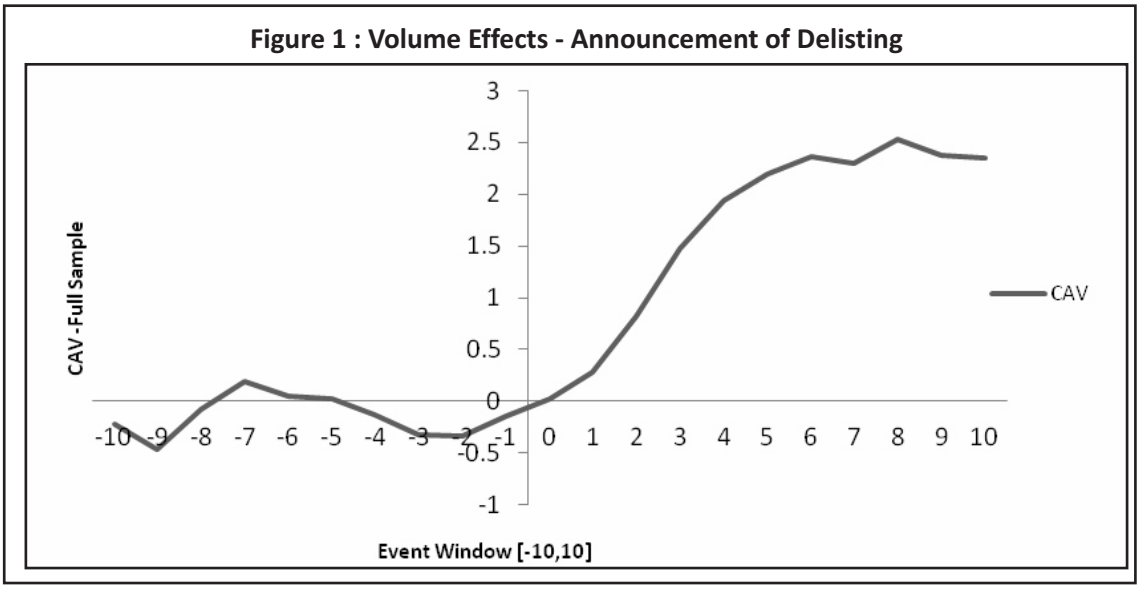
SECTION III : VOLUME EFFECTS OF ANNOUNCEMENT

Investors may have diverse opinions regarding delisting, and their reaction to delisting will reflect their perceptions. If delisting increases uncertainty regarding future growth prospects and financial stability of the company, then it will have a positive impact on the traded quantity, as investors would like to liquidate their holdings in such shares.

Table 1 shows the volume effects of the delisting announcement. Column 2 of the Table 1 shows the average abnormal volumes (AAVs) around the announcement. Prior to the announcement, AAVs are by and large negative, but none of them is significant (Rank test shows significant negative AAVs on 6 days and 3 days prior to the announcement). AAVs turn positive one day prior to the announcement and continue to remain positive until six days after the announcement. Significant AAVs are observed on the second, third and fourth day after the announcement. However, on the day of the announcement, AAV is 0.17, which is not statistically significant.

The Table 1 also captures the development of Cumulative Average Abnormal Volumes (CAV) around the announcement of delisting, if a pre-event period is considered. The researcher found that CAV is -0.18, which is insignificant. However, for all the sub periods after the announcement, CAV is positive and significant at the 1% level of significance. Figure 1 shows how CAV evolves in the event window, since AAVs after the announcement are predominantly positive, we get an upward sloping CAV curve after the announcement. Over the entire event window, AAVs cumulate to 2.35, which is significant at the 5% level. To check for autocorrelation, Durbin-Watson test was done for the full sample, and no evidence of autocorrelation was found for the complete sample.

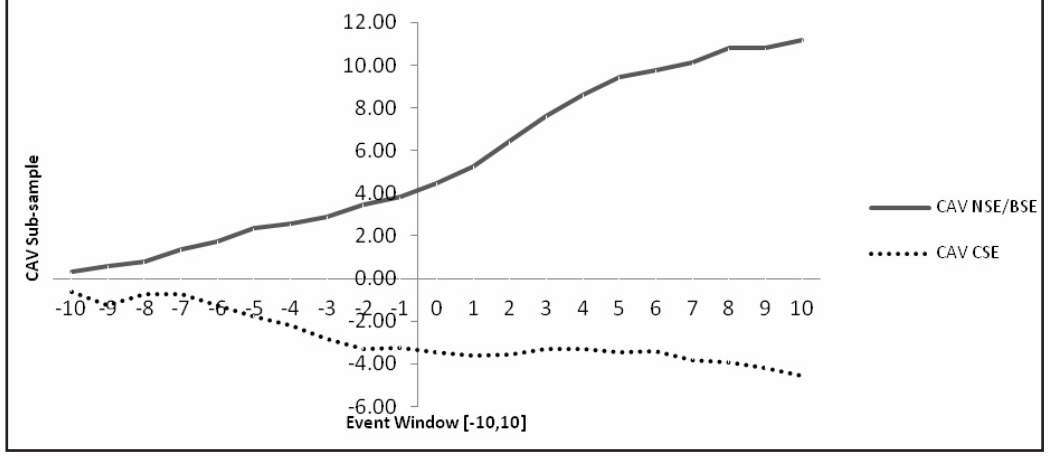
Figure 1 : Volume Effects - Announcement of Delisting



Next, data is divided into two sub samples - sub sample 1 of companies delisted from the stock exchanges having nationwide terminals (i.e NSE or BSE) and sub sample 2 consists of companies delisted from the Calcutta Stock Exchange (CSE) . As stated earlier, CSE is a regional stock exchange, the purpose of this analysis is to see whether investors perceive delisting from a regional stock exchange differently from delisting from NSE or BSE. Sub sample NSE/BSE consists of 18 firms, and sub sample CSE consists of 23 firms. Table 2 panel (A) shows the average abnormal volumes for sub sample NSE/BSE ; it can be seen that in the entire event window, we have positive AAVs.

Unlike the full sample, AAVs are positive in the pre- event window as well, but none of them is statistically significant. On the day of the event, AAV is 0.64 (not significant). Significant AAVs are observed from the first day to five days

Figure 2 : Volume Effects (Sub-sample) - Announcement of Delisting



after the announcement, both on the basis of event study methodology and rank test.

When CAV's for the sub s ample NSE/BSE are considered , all pre-event and post event sub-periods display positive CAVs, which are significant at the 1% significance level. The AAVs cumulate to 3.83 in the pre-event period. These abnormal volumes are further magnified by the announcement and CAV in the post event window surges to 6.72 . All in all, CAV increases considerably to 11.20 over the entire event window.

Table 2 : Volume Effects : Announcement of Delisting (Day 0)

	A: Sub sample NSE/BSE				B: Sub sample CSE					
	Average Abnormal Volumes				Average Abnormal Volumes					
Day	AAV	t - statistic	Sign	Rank Test	Sign	AAV	t - statistic	Sign	Rank Test	Sign
-10	0.29	0.64		-0.09		-0.63	-1.80	*	-1.20	
-9	0.30	0.65		0.75		-0.65	-1.88	*	-1.09	
-8	0.21	0.45		-0.49		0.52	1.51		1.40	
-7	0.58	1.26		0.93		0.02	0.05		-0.60	
-6	0.37	0.80		-0.35		-0.55	-1.57		-2.05	**
-5	0.61	1.33		1.15		-0.52	-1.49		-1.53	
-4	0.20	0.45		-0.65		-0.42	-1.22		-1.42	
-3	0.34	0.75		-0.38		-0.62	-1.80	*	-2.01	**
-2	0.58	1.27		0.51		-0.47	-1.35		-2.06	**
-1	0.35	0.76		0.75		0.06	0.18		-0.09	
0	0.64	1.41		0.42		-0.21	-0.60		-0.59	
1	0.80	1.74	*	2.81	***	-0.16	-0.45		-1.22	
2	1.17	2.55	**	2.62	***	0.05	0.14		-0.42	
3	1.17	2.56	**	2.20	**	0.24	0.70		0.96	
4	1.01	2.20	**	2.41	**	0.03	0.08		-0.11	
5	0.83	1.82	*	1.71	*	-0.17	-0.50		-0.78	
6	0.32	0.69		-0.15		0.04	0.12		-0.82	
7	0.35	0.76		-0.37		-0.39	-1.13		-2.36	**
8	0.67	1.46		1.06		-0.11	-0.32		-0.82	
9	0.01	0.03		-0.95		-0.28	-0.81		-1.19	
10	0.39	0.86		0.28		-0.35	-1.01		-0.55	

Cumulative Average Abnormal Volumes : Announcement of Delisting										
A: Sub sample NSE/BSE						B: Sub sample CSE				
Period	CAV	t - statistic	Sign	Rank Test	Sign	CAV	t - statistic	Sign	Rank Test	Sign
CAV[-10,10]	11.20	5.46	***	3.09	***	-4.57	-2.94	***	-4.05	***
CAV[-10,-1]	3.83	2.78	***	0.67		-3.25	-3.12	***	-3.37	***
CAV[1,10]	6.72	4.89	***	3.67	***	-0.75	-0.72		-2.31	***
CAV[-1,1]	1.79	2.76	***	2.29	***	-0.30	-0.62		-1.10	
CAV[-5,-1]	2.09	2.28	***	0.61		-1.97	-2.83	***	-3.18	***
CAV[1,5]	4.98	5.43	***	5.25	***	-0.01	-0.02		-0.70	
***/**/* denotes significance at 1%/5%/10% level										

Table 2 Panel (b) shows results of abnormal volumes for the CSE sub sample, there is a stark difference in the CSE sub-sample results when compared to results of the total sample. The AAVs around the announcement are primarily negative in the entire event window, out of 21 days in the event window, AAVs are negative for 14 days. Even on the day of the announcement and the very next day, AAVs are negative, though not significant. Significant negative AAVs are observed on the 10th, 9th and 3rd day prior to the announcement, on the basis of rank test. AAVs on day -6 , -3,-2 and 7 are all significant and negative. However, if pre event and post event period CAVs are compared, decline in trading volume in the pre-event window of -3.25 (significant) is much more severe than the decline in the post-event window of -0.75 (insignificant). The development of CAV over the entire event window around the announcement is -4.57, which is significant at 1% level of significance.

SECTION IV : PRICE EFFECTS ON THE ANNOUNCEMENT OF DELISTING

Previous studies such as Sanger and Peterson (1990) have shown, in case of domestic delisting, generally, we have negative effect on shareholders' wealth but as mentioned in the Section I for voluntary de-listing, wealth effects of de-listing are not so obvious. Decision to voluntarily delist its shares can be interpreted as net benefits of listing not being realized by the company, and stock price response to delisting announcement depends on cognizance among investors regarding this information (Das et al., 2004).

The Table 3 shows the average abnormal returns (AAR) around the announcement; price effect on the announcement day is -1.14%, which is significant. After the announcement, negative AARs are observed almost in the entire post event window, though none of them is significant either on the basis of t – test or rank test. Over the entire event window price, effects were primarily negative, but they failed to achieve statistical significance. If CARs are analyzed, there is an insignificant negative CAR in the pre event period. However, there is a gradual decline in firms' valuation beginning one day prior to the announcement . CAR after announcement is negative by 3.56%, significant at 10%

Figure 3 : Price Effects - Announcement of Delisting

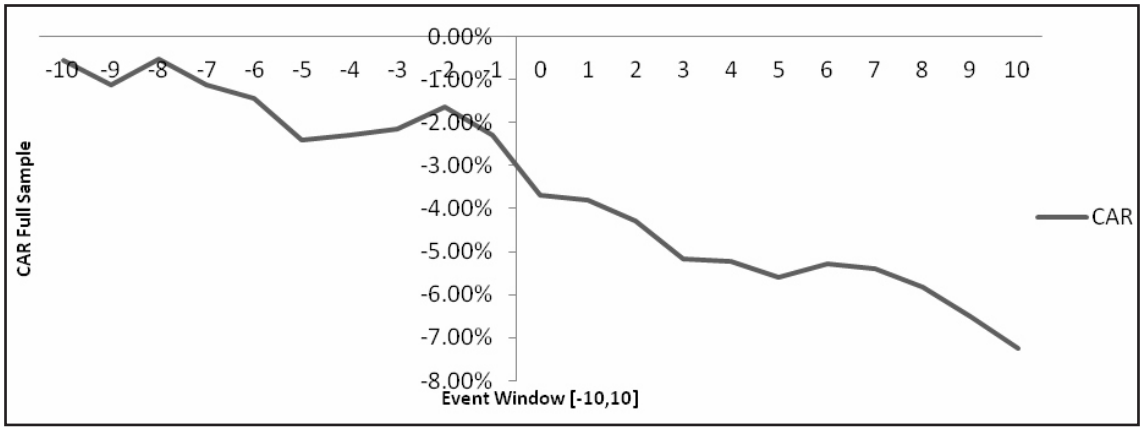
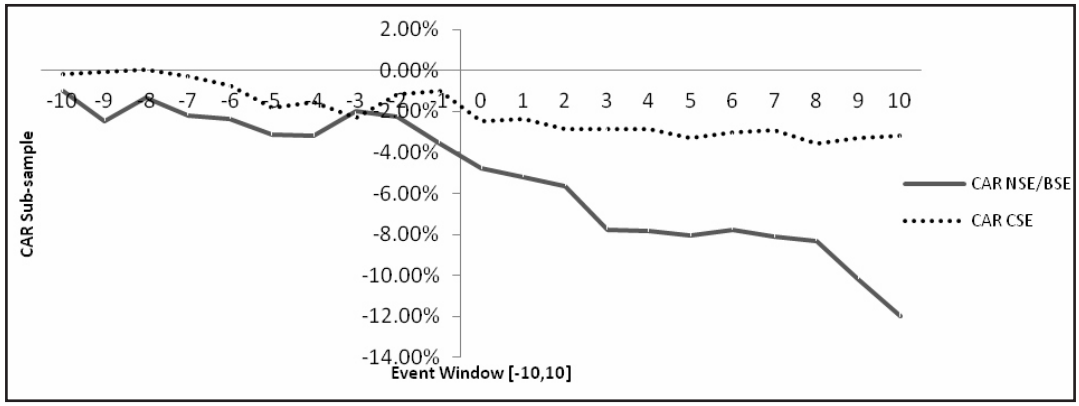


Table 3 : Price Effects : Announcement of Delisting (Day 0) - Full Sample					
Average Abnormal Returns					
Day	**AAR**	**t - statistic**	**Significance**	**Rank Test**	**Significance**
-10	-0.54%	-0.78		-0.70	
-9	-0.58%	-0.83		-0.87	
-8	0.59%	0.84		1.20	
-7	-0.58%	-0.82		-0.51	
-6	-0.32%	-0.46		-0.43	
-5	-0.96%	-1.37		-0.65	
-4	0.12%	0.17		-0.16	
-3	0.13%	0.18		-0.25	
-2	0.51%	0.73		1.05	
-1	-0.65%	-0.93		-0.95	
0	-1.38%	-1.97	*	-0.97	
1	-0.12%	-0.18		-0.36	
2	-0.47%	-0.67		-0.28	
3	-0.91%	-1.29		-0.41	
4	-0.05%	-0.07		0.36	
5	-0.35%	-0.50		0.30	
6	0.29%	0.41		0.64	
7	-0.10%	-0.14		-0.32	
8	-0.44%	-0.63		0.47	
9	-0.67%	-0.96		-0.89	
10	-0.73%	-1.04		-0.96	
Cumulative Average Abnormal Returns : Announcement of Delisting - Full Sample					
Period	**CAR**	**t - statistic**	**Significance**	**Rank Test**	**Significance**
CAR[-10,10]	-7.24%	-2.31	**	-1.03	
CAR[-10,-1]	-2.30%	-1.09		-0.72	
CAR[1,10]	-3.56%	-1.69	*	-0.46	
CAR[-1,1]	-2.16%	-2.18	**	-1.31	
CAR[-5,-1]	-0.86%	-0.61		-0.43	
CAR[1,5]	-1.90%	-1.35		-0.17	
***/**/* denotes significance at 1%/5%/10% level					

Figure 4 : Price Effects (Sub-sample) - Announcement of Delisting



level, CAR immediately surrounding the announcement that is CAR [-1,1] is -2.16%. Figure 3 plots the CAR around the announcement, it can be seen that there is a gradual decline in CAR, which gives a -7.24% price effect (significant) over the 21- day event window.

Table 4 shows the result when data is partitioned into two sub samples, as done in the previous section ,when sub sample NSE/BSE is considered, the AARs are predominantly negative. On the announcement day, statistical significance is not seen, through the price effect is -1.24%, only significant price effect is three days after the announcement. Sub sample CSE shows a pattern of positive and negative AARs in the event window. On the day of the announcement, AAR is -1.49% (significant). If CARs are considered for the sub sample NSE/BSE, a negative price effect of -12.01% is observable over the 21-day event window (solid line in figure 4) , so a considerable negative effect on shareholders' wealth after the announcement is observable, and this effect is significant too. When pre-event and

Table 4 : Price Effects : Announcement of Delisting (Day 0)

	A: Subsample NSE/BSE					B: Subsample CSE				
	Average Abnormal Returns					Average Abnormal Returns				
Day	AAR	t - statistic	Sign	Rank Test	Sign	AAR	t - statistic	Sign	Rank Test	Sign
-10	-1.02%	-0.89		-1.15		-0.17%	-0.23		0.08	
-9	-1.44%	-1.25		-1.39		0.08%	0.11		0.07	
-8	1.15%	1.00		1.21		0.15%	0.20		0.52	
-7	-0.88%	-0.76		-0.35		-0.34%	-0.46		-0.38	
-6	-0.17%	-0.15		-0.21		-0.44%	-0.60		-0.39	
-5	-0.78%	-0.68		-0.29		-1.10%	-1.48		-0.62	
-4	-0.07%	-0.06		0.37		0.26%	0.35		-0.55	
-3	1.22%	1.06		0.59		-0.73%	-0.98		-0.88	
-2	-0.26%	-0.22		0.09		1.11%	1.50		1.31	
-1	-1.30%	-1.13		-1.05		0.18%	0.25		-0.07	
0	-1.24%	-1.08		-0.16		-1.49%	-2.01	*	-0.70	
1	-0.42%	-0.36		-0.17		0.10%	0.14		-0.24	
2	-0.44%	-0.38		0.11		-0.49%	-0.66		-0.43	
3	-2.12%	-1.84	*	-1.41		0.04%	0.06		0.70	
4	-0.10%	-0.09		-0.01		-0.02%	-0.02		0.49	
5	-0.20%	-0.18		0.18		-0.46%	-0.62		0.23	
6	0.29%	0.26		0.61		0.28%	0.38		0.31	
7	-0.35%	-0.31		-0.02		0.10%	0.13		-0.41	
8	-0.20%	-0.18		0.52		-0.63%	-0.85		0.16	
9	-1.86%	-1.62		-1.94	*	0.26%	0.35		0.52	
10	-1.84%	-1.60		-1.55		0.14%	0.18		0.09	

Cumulative Average Abnormal Returns : Announcement of Delisting

	A: Subsample NSE/BSE					B: Subsample CSE				
Period	CAR	t - statistic	Sign	Rank Test	Sign	CAR	t - statistic	Sign	Rank Test	Sign
CAR[-10,10]	-12.01%	-2.34	**	-1.31		-3.17%	-0.95		-0.04	
CAR[-10,-1]	-3.54%	-1.03		-0.68		-1.00%	-0.45		-0.29	
CAR[1,10]	-7.24%	-2.10	**	-1.16		-0.68%	-0.30		0.45	
CAR[-1,1]	-2.95%	-1.82	*	-0.80		-1.20%	-1.14		-0.59	
CAR[-5,-1]	-1.18%	-0.51		-0.13		-0.28%	-0.19		-0.36	
CAR[1,5]	-3.28%	-1.43		-0.58		-0.82%	-0.55		0.34	

***/**/* denotes significance at 1%/5%/10% level

post-event windows are compared, loss in valuation of firm is much more substantial in the post-event window, with a significant CAR of -7.24% over period [1,10], compared to an insignificant CAR of -3.54% in the pre event window. For sub sample CSE, the CAR is negative, though insignificant in all the sub-periods considered. AARs in the pre event window aggregate to -1.00%, and in the post-event window, they sum to -0.68% ,thus after the announcement relative to the pre-event period, the magnitude of price effect is less severe. All in all, the CAR cumulates to be negative -3.17% in the entire event window, and this effect is insignificant. The above results demonstrate that announcement of delisting from a major exchange elicits a greater fall in firm valuation. Mean cumulative abnormal returns for CSE sample though negative diminish firm valuation to a comparatively lesser extent. What is noticeable is that we do not see a sporadic decrease in firm valuation immediately around announcement (-1,1) as seen by Sanger and Peterson (-8.5% on the announcement day) or by Chandy et al. (-6.23% on (-1,0)). But these results pertain to involuntary delisting, which is generally done due to breach of regulatory procedures or listing agreements. Such delisting is generally independent of a firm's financial conditions; it is possible that if voluntary delisting is due to dim future prospects of a company, then delisting might not come as a surprise to investors as they are expected to be aware, at least to some extent, about a firm's current cash flows and profit levels.

SECTION V : CONCLUSION

This paper presents empirical evaluation of impact of delisting announcement on a firm's trading volume and a firm's price. The paper demonstrates that the trading volume increases sharply on the announcement of delisting, and all CAVs in the post announcement period are significant. When data is divided into two sub samples, starkly opposite results were obtained. Over the 21-day event window, trading volumes for NSE/BSE sample increased by 11.20, and it is important to note that such an increase in volume could be due to trading migration. Since NSE and BSE are major exchanges, so delisting from any of these is expected to generate a larger migration effect, but migration is expected to increase trading volume after trading is seized on a particular exchange that is after actual delisting, so it is unlikely that migration effect is a major contributor to the increase in trading volume. This implies that the increase in trading volume after the announcement is due to an increase in uncertainty about the firm's future prospects.

In CSE sub-sample, a decline in trading volume is noticed after announcement, but for none of the post announcement sub-periods, CAVs are significant, rather CAVs are negative and significant in the pre announcement period. On the whole, there is a significant -4.57 decline in trading volumes. When the wealth effects of delisting are considered for the full sample, a fall in firm value of -7.24% is observed, the effects in the post-event window are stronger than in the pre-event window. This decline has been gradual, rather than a momentary decline. When data is divided in sub-samples, the fall in value is greater for NSE/BSE sub sample, and such a fall is significant too. For CSE sub sample, though negative CARs are visible for all sub periods, but these effects are weak and fail to achieve statistical significance.

Results of this paper are consistent with those established by Das et al. (2004) , there is evidence of fall in firm value and erosion of shareholders' wealth after the announcement of proposed delisting. However, what is more important is the fact that delisting from a regional exchange, having a lower turnover, does not have a negative effect on firm valuation as the CARs fail to achieve significance, especially when we take into account insignificant negative CAVs after the announcement .

For BSE/NSE sub sample, the decline in prices are substantial, especially in the post-event window, combining this with high uncertainty as represented by a very high and significant abnormal trading volumes suggests that investors perceive delisting from a major exchange as a negative event. Such negative perception could be because delisting raises concerns about future cash flows of the company. The results of this paper have potential applicability in corporate decision-making, as it shows that while deciding on delisting from regional exchanges, firms need not worry about the impact on firm value, however, delisting from a major exchange should be done after considering its possible impact on firm value and perceptions of shareholders about such an event. Reason for such a delisting must be properly communicated to the investors so as to avoid any uncertainty about financial health of the firm.

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