CONTAGION EFFECTS OF SHARE REPURCHASE ANNOUNCEMENTS WITHIN BUSINESS GROUPS

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Abstract: This study investigates whether share repurchase announcements made by business group-affiliated firms in India generate spillover effects on the stock prices of their peer firms within the same group. Drawing on a sample of publicly listed Indian firms, we construct portfolios of non-announcing (non-event) group firms to assess their cumulative abnormal returns (CARs) following a repurchase announcement by a group-affiliated firm (event firm). We document significant positive spillover effects, indicating that the market reacts not only to the repurchasing firm but also to its affiliated peers, suggesting shared investor sentiment and perceived reallocation of value within the group. These results contribute to the literature on intra-group dynamics, signaling theory, and investor interpretation of corporate actions in emerging markets.

Keywords**:** *S*pillover, Business Group, Repurchases, Cognitive, Investor biases.

INTRODUCTION

Do announcements of share repurchase decisions by group-affiliated firms generate spillover effects on the market value of their peer firms within the same business group? If so, what factors determine the strength and direction of these effects? We explore these questions by examining repurchase announcements made by group-affiliated firms in India, a country characterized by a high prevalence of business groups[1]. Although repurchase decisions are relatively rare, they are financially significant and often interpreted as credible signals of undervaluation (Grullon & Ikenberry, 2000; Ikenberry et al., 1995), leading to a prolonged impact on the announcing firm's stock prices (Busch & Obernberger, 2017). If these announcements influence the market valuation of other affiliated firms, it becomes critical to understand the underlying mechanism of this spillover. Specifically, we seek to determine
whether the spillover reflects genuine information transmission that enhances valuation or merely mechanical price adjustment driven by intra-group correlations.

As an anecdotal example, Mangalam Cement Ltd, a firm affiliated with the B.K. Birla Group announced a share repurchase. The market responded positively to the announcement, with the event firm recording a three-day cumulative abnormal return (CAR) of approximately 4%. Notably, a portfolio of other listed firms within the B.K. Birla Group experienced a positive spillover too, with CAR of up to 2.3%. This suggests that the repurchase announcement by the group-affiliated firm was interpreted as a favourable signal by the market, not only enhancing the valuation of the announcing firm but also benefiting its peer firms within the same business group.

Although share repurchases are commonly interpreted as signals of undervaluation, they can also be strategically used by managers to serve self-interested objectives, such as artificially inflating stock prices (Kahle, 2002). In this context, it becomes particularly relevant to examine how such announcements

[1] https://www.oecd.org/content/dam/oecd/en/publications/reports/2022/01/company-groups-in-india_34dbca20/e9568d3c-en.pdf

function within BGs, where internal dynamics and investor perception may amplify or weaken the market reaction. This study first investigates whether repurchase announcements by group-affiliated firms trigger any spillover effects in the Indian financial markets. If such spillovers exist, a second key question arises: do stronger undervaluation signals generate different contagion effects than weaker ones? Specifically, we assess whether the information content embedded in the repurchase decision of the announcing firm (henceforth referred to as the Event Firm) influences the abnormal returns of other listed firms within the same business group that did not make any announcement (referred to as Non-Event Firms).

This study contributes by conducting an event study that treats repurchase announcements by firms within BGs as the event firm and examines their impact on the share prices of non-event firms within the same group. The findings reveal an overall positive market reaction to these announcements. The study further explores whether the abnormal returns of announcing (event) firms can explain the abnormal returns of non-announcing (non-event) firms during the announcement window. The results confirm a significant positive spillover, indicating that investors revise their valuations of related firms based on the actions of the announcing firm.
The study also examines strong signals for undervaluation on repurchase spillover. It finds that when the announcing firm appears more undervalued, the spillover effect is stronger. Various robustness checks and a placebo test have been conducted to validate the reliability of the results.

These spillovers are supported by the idea of cognitive perception spillover, which occurs when an event in an organization alters how stakeholders appraise an event organization in BG by reshaping their perceived reputation and legitimacy (Shi et al., 2022). Since repurchase announcements are driven by perceived undervaluation of the firm's stock, tax advantages, capital structure optimization, and the distribution of excess cash to shareholders (Ikenberry et al., 2000; Vermaelen, 1981, 1984; Voss, 2012). Therefore, repurchase announcements serve as credible signals about the announcing firm and influence stakeholder perceptions of affiliated firms within the same BG.

METHODOLOGY AND FINDINGS

The investors' reaction to the repurchase announcement of firms and non-event firms is measured through an event study (Brown & Warner, 1985). Considering the newspaper publishing date of the repurchase-announcing firm as the event day. We have calculated the Cumulative Abnormal Returns (CAR) for each firm by adding their respective Abnormal returns (AR) at a particular time period, as shown in equation (1). These AR are market adjusted, by using the CAPM model[2].

$$AR_{i,t} = R_{i,t} - \left(\alpha_i + \beta_i\left(R_{m,t} - R_{f,t}\right)\right) = R_{i,t} - E_{i,t} \quad (1)$$

Where α_i is the stock-specific intercept, β_i is the stock's sensitivity to market returns. $R_{i,t}$is the actual return of stock *i* at time *t*, $R_{m,t}$ and $R_{f,t}$ are the market return and risk-free rate at time *t* and $E_{i,t}$ Is the expected return calculated using the NSE500 index.

Finally, the CARs are calculated by summing up ARs within the event windows estimated over 252 trading days, ending 28 days prior to the event. It is estimated as:

$$CAR_{r1,r2} = \sum_{t=r1}^{r2} AR_{i,t} \quad (2)$$

In Table 1, we calculated CAR for every firm announcing a repurchase event and those firms in the same BGs). The results from the analysis demonstrate that repurchase announcements follow a positive market reaction from shareholders for event firms, supporting previous literature (Ikenberry et al., 1995). Further, we have also calculated for non-event firms for the same event with the same estimation model.
Table 1 shows that share repurchase announcements are associated with significantly positive abnormal returns for the announcing firms. Furthermore, Column 2 indicates that these announcements generate positive returns for non-announcing peer firms within the same business groups, suggesting a spillover effect. The muted response on the exact event day may reflect inefficiencies in the Indian market, where the diffusion of information and subsequent price adjustment occurs with a delay (Shleifer, 2000).

[2] Risk-free rate of return is been taken up from https://faculty.iima.ac.in/iffm/Indian-Fama-French-Momentum/

Table 1 Repurchase Announcements and Non-Event Firms' Returns

Event Window	**Event Firms CAAR Value**	**Non-Event Firms CAAR Value**
	(1)	**(2)**
(-1, 1)	0.0045 (1.1778)	0.0012 (-0.7246)
(-3, 3)	0.0185*** (3.7472)	0.011*** (2.7113)
(-5, 5)	0.0286*** (4.996)	0.0089* (1.8825)

*Note: Table 1 presents cumulative returns for different time windows around repurchase announcements for the repurchase announcing (Event firms) and their respective affiliated firm (Non-Event Firms) in BG in columns (1) and (2). The skewness-corrected t-value is in parentheses. *** Denotes a significance level of 1%, ** for 5%, and * for 10%.*

To estimate the spillover effect of a repurchase announcement by a group-affiliated firm on other non-event firms within the same business group, we calculate an equal-weighted cumulative abnormal return (CAR) for a portfolio comprising all non-announcing group firms. This portfolio-level approach is econometrically superior as it mitigates concerns related to cross-sectional correlation among individual firm returns (Firth, 1996; Szewczyk, 1992) using about mentioned methodology (for CAR_Event_firms and CAR_Non_Event_firms). Our methodology aligns with prior research that examines intra-group spillovers arising from corporate announcements (Joe & Oh, 2018; Bae et al., 2008), and is particularly well-suited to capturing group-level investor reactions in the context of share repurchases. Therefore, we propose the following specification (1)

CAR_Non_Event_firms = CAR_Event_firms + Firm Controls + Group Controls + €

Table 2 shows the results for specification (1). Model 1 includes only the key explanatory variable. Model 2 adds firm-level controls and includes industry-time fixed effects (FE). Model 3 incorporates the variable of interest along with group-level controls and FE. Finally, Model 4 includes both firm- and group-level controls, along with FE.

We find a positive and statistically significant coefficient on the CAR_Event_firms, indicating a positive association between the market reaction to the repurchase announcement by the event firm and the abnormal returns of an equal-weighted portfolio of non-event firms within the same business group. Specifically, in Model (4), the coefficient on Event CAR is +0.114, suggesting that for every 1 percentage point increase (decrease) in the announcement return of the event firm, the average return for non-event group firms increases (decreases) by 11.4 basis points. This finding is both statistically and economically meaningful, pointing toward a positive spillover or contagion effect of the repurchase signal across affiliated firms.

Table 2: Multivariate results on contagion effects of repurchase announcements within BG

	Dependent Variable: CAR_Non_Event_firms			
VARIABLES	(1)	(2)	(3)	(4)
CAR_Event_firms	0.109***	0.126***	0.0912***	0.114***
	(0.0258)	(0.0366)	(0.0347)	(0.0379)
Constant	0.0114***	0.00456	-0.111***	-0.0843**
	(0.00153)	(0.0247)	(0.0317)	(0.0381)
Observations	383	289	382	289
R-squared	0.045	0.308	0.401	0.436
Year FE	No	Yes	Yes	Yes
Industry FE	No	Yes	Yes	Yes
Firms Controls	No	Yes	No	Yes

Group Controls	No	No	Yes	Yes

*Note: Table 2 presents the results of specification (1), only the variable of interest in column (1). Columns (2) and (3) contain only firm and group controls, respectively. Finally, in column (4), firm, group, and fixed effects controls are applied. Standard errors are given in parentheses. * Denotes a significance level of 1%, ** for 5%, and * for 10%.*

For testing the effect of undervaluation signal on spillovers, the following specifications (2) and (3) are used

CAR_Non_Event_firms =Valuation_of_Event_firms + CAR_Event_firms + Firm Controls + Group Controls + €

CAR_Non_Event_firms = Poor Past performance+ CAR_Event_firms + Firm Controls + Group Controls + €

Table 3 examines how the degree of undervaluation moderates the spillover effects of share repurchase announcements. Our sub-sample analysis reveals a significantly stronger spillover to non-event firms when the announcing firm signals higher undervaluation. Specifically, we observe that non-event firms experience greater abnormal returns when repurchase announcements originate from firms perceived as undervalued. These findings provide strong support for the importance of signal credibility. Investors appear to respond more positively when undervaluation signals are more convincing, amplifying the spillover impact across business group affiliates.

Table 3 Sub-Sample Analysis of Repurchase Announcement Returns and Undervaluation

	Dependent Variable: CAR_Non_Event_firms	
VARIABLES	(1) Undervalued Firms	(2) Overvalued Firms
CAR_Event_firms	0.261**	-0.0538
	(0.108)	(0.109)
Constant	0.376**	-0.0763
	(0.158)	(0.0565)
Observations	151	120
R-squared	0.623	0.729
Firm Controls	Yes	Yes
Group Controls	Yes	Yes
Industry FE	Yes	Yes
Year FE	Yes	Yes

*Note: Table 3 presents the results of specification (6) in columns (1) and (2), Column (1) includes the firms that are undervalued with firm-group and fixed effects controls. Column (2) includes overvalued firms with firm-group and fixed effects controls. Standard errors are given in parentheses. * Denotes a significance level of 1%, ** for 5%, and * for 10%.*

CONCLUSIONS

This study investigates whether share repurchase announcements by group-affiliated firms generate spillover effects on the market valuation of their peer firms within the same business group in India. Anchored in signaling theory and the information spillover hypothesis, our findings reveal that repurchase announcements not only impact the announcing firm but also positively influence the abnormal returns of other affiliated firms, particularly when the repurchase signal is perceived to indicate undervaluation credibly. These results underscore the informational role of financial policy decisions within interlinked corporate structures and highlight how capital market participants may interpret such announcements as group-level signals. However, results are only limited to a single country; further testing is required for different economies.

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